MEAT ME IN ST. LOUIS: AN ANALYSIS OF 19TH CENTURY HISTORIC FAUNAL REMAINS FROM COCHRAN GARDENS (23SL2229), ST. LOUIS, MISSOURI

By

DIANE E. WALLMAN

A thesis submitted in partial fulfillment of
the requirements for the degree of

MASTER OF ARTS IN ANTHROPOLOGY

WASHINGTON STATE UNIVERSITY
Department of Anthropology

MAY 2009

To the Faculty of Washington State University:

The members of the Committee appointed to examine the thesis of DIANE WALLMAN find it satisfactory and recommend that it be accepted.

_____
Karen D. Lupo, Ph.D., Chair

_____
Mark Warner, Ph.D.

_____
Mary Collins, Ph.D.

ACKNOWLEDGEMENT

I could not have written this thesis without the help and support of many. I would like to thank the Archaeological Research Center of St. Louis, Inc., and especially Joseph Harl for providing me with the collection for my research. Additionally, I would like to thank the Graduate School at WSU for providing funding for my archival work in St. Louis. My thanks and appreciation to the faculty and staff of the Department of Anthropology at Washington State for providing me with the academic and intellectual skills to undertake this degree and my project, and to the University of Idaho for providing additional laboratory resources for my analysis.

A special thanks goes to my committee. Many of the ideas and approaches used in this thesis were shaped by my committee members through their thoughtful readings of the text, as well as their corrections, critiques and suggestions. My work has benefited significantly from their assistance, and I have appreciated their patience in working with me across thousands of miles. Karen Lupo has been an extremely supportive and valuable mentor to me throughout this process, especially in training me in zooarchaeological analysis and providing constructive advice. I owe a special thanks to Mark Warner for fielding my constant questions and for his thoughtful insight on the meaning and importance of foodways. Thanks to Mary Collins for her contributions to my thesis and my degree at Washington State. An additional thanks to Dave Schmidt for his help with identifications over the many months I spent the laboratory.

A sincere thanks goes out to my fellow graduate students for your friendship, advise and support. Cheryl, Melissa, Becca and Liz, I could not have maintained my sanity without your friendship and advice. Maia, I could definitely not have finished this thesis without you, so I thank you dearly. Thank you Brad for your unwavering love and support during this lengthy process. Finally, I would like to thank my family for their unconditional love and support throughout my endeavors and throughout my life. Mom and Keith, I love you both for your constant enthusiasm and encouragement. You have made me the person I am today. Dad, I miss you more than words can express and I wish you were here rooting for me, as you have always done without condition

and without question.

MEAT ME IN ST. LOUIS: AN ANALYSIS OF 19TH CENTURY HISTORIC FAUNAL REMAINS FROM COCHRAN GARDENS (23SL2229), ST. LOUIS, MISSOURI

Abstract

By Diane Wallman, MA
Washington State University
May 2009

Chair: Karen D. Lupo

In 2005 an opportunity arose for a look into the lives of, immigrant families in 19th century urban-America, with the exposure of archaeological features dating to the mid to late nineteenth century within the city of St. Louis, specifically within the Old North St. Louis neighborhood. The excavations of the Cochran Gardens Hope VI Housing Development Tract (Cochran Gardens) were undertaken by the Archaeological Research Center of St. Louis. Investigations exposed 37 yard and building features dating from the mid-late 19th century. Beginning around 1840, this area contained various tenements and flats, occupied by immigrants of variable nationalities.

This thesis reports the results of the analysis of a sample of the faunal remains recovered from Cochran Gardens, including four yard features, which were utilized as privies. All of the animal remains were deposited from approximately 1850 to 1900, allowing the examination of changes in the material record over a time. The goal of my study is to analyze food bone remains to address the complex interactions between the residents of this neighborhood and the social and economic environment in which they lived. My principal objectives are to determine if there are any apparent socioeconomic differences among the 'slum-dwellers' associated with

the deposits, and also to assess the influence of other forces that affected the consumer choices of the households.

To address these larger theoretical issues, I examined different aspects of assemblage composition, including taxonomic and anatomical part representation, and the ages of animals. I also evaluated the natural and cultural processes to assess what factors influenced the formation of the deposits. Results show that consumption patterns differ between households, specifically with regard to the diversity of taxa consumed. Additionally, the results indicate a change over time in consumption patterns in the last half of the 19th Century. Differences among the faunal assemblages are due to shifts in the meatpacking industry, as well as economic and ethnic influences on consumer behavior. The results of this analysis demonstrate that the material record, faunal remains in particular, can help elucidate the effect of social, environmental and cultural factors on consumer behavior.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I:
INTRODUCTION

But 'tis the *poor,* who little buy,
That miss their *meat,* and wonder why.
(DeVoe 1867: 9)

During the 19th century, the United States experienced rapid growth and transformation, in the form of industrialization and urbanization. The newly formed nation underwent a change from an economy based on rural agriculture to one based on urban wage labor and manufacturing. The second half of the nineteenth century in particular witnessed a dramatic change in the production and consumption of goods, and also saw the rise of the middle class. Along with this economic change, the mid-late 1800s in American culture was a time of significant social transformation, as swaths of immigrants came to the United States in search of opportunity and a new life. This period represents a significant era in the development of America, an era in which people from many different cultures established their place within the growing nation.

Beginning in the mid-19th century, immigration played a pivotal role in both expanding the population and transforming the economy of the United States. The first big wave of immigration began around 1844, and continued until the start of the Civil War, and consisted largely of German and Irish immigrants. A second major wave, came in the late-19th century, and included mostly eastern and southern Europeans. Not only did this rapid increase in population considerably encourage the transformation of the American economy and structure at the time, but also in the minds of many 'native-born' Americans posed a serious threat to American culture (Howe 1975). Immigrants brought with them their traditional "habits, attitudes, and folkways that conflicted, at times dramatically with the prevailing American

patterns of thought and behavior" (Collier 1991: 32). Many of these arrivals to the United States settled in cities in search of unskilled labor positions, finding themselves in working-class neighborhoods and tenement houses.

These 'poor huddled masses' comprised the majority of the population during the late 19th century in the United States, yet remain largely invisible within historical literature. Due to this paucity of written documentation associated with urban, working-class immigrants, historical archaeologists are in a unique position to examine the complexities of the lives of these groups in 19th century America. Archaeological investigations of this period can provide insight into how these largely undocumented populations both adapted to living in an increasingly industrial society and helped to create those industries.. Historical archaeology provides an account of the past at a "small scale, emphasizing the commonplace and bringing the lives of the disenfranchised into focus" (Praetzellis and Praetzellis 2004: 5).

By examining the eating habits of poor, urban populations from the early industrial era in the United States, archaeology informs us on how people interacted with the growing and changing market system. Additionally, archaeology addresses the role of culture and of social factors in the consumption of material goods. Praetzellis and Praetzellis (2004: 75) suggest that historical archaeologists investigate the degree to which people were "affected by economic and cultural factors, and test the notion that class/wealth and ethnicity determined what people purchased." Landon (2005: 23) further proposes that historical archaeological studies of economics and/or ethnicity must examine how the choice, preparation, consumption, and discard of food contribute to the creation and definition of individual and/or group identities. By studying past foodways, and specifically meat consumption during the mid-19th century within

the United States, we can gain insight into the daily lives and everyday choices affecting these populations.

The city of St. Louis, Missouri was significantly affected by 19th-century industrialization. During this time, the city was transformed from a hub of the fur-trading network to a city economically rooted in manufacturing and wage labor (Parrish 1973; Primm 1998). Centrally located between the industrialized eastern states and the newly settled western territory, St. Louis underwent rapid urbanization in the second half of the 19th century. The city became a destination for those in search of employment and opportunity, especially newly arriving immigrants to America. Despite their contributions to the growth of the city, these working-class immigrant families in St. Louis are largely underrepresented or misrepresented in most historical depictions of this time period.

In 2005, an opportunity arose for a look into the lives of immigrant families in 19th century urban-America. This opportunity came with the exposure of archaeological features dating to the mid to late nineteenth century within the city of St. Louis, specifically within the Old North St. Louis neighborhood of St. Louis. A state funded construction project in the northern section of St. Louis requested data recovery excavations for the Cochran Gardens Hope VI Housing Development Tract (Cochran Gardens). The excavations were undertaken by the Archaeological Research Center of St. Louis. Investigations at Cochran Gardens covered an area of approximately three city blocks dating from the mid-late 19th century, and recorded 37 historic yard and building features. A large amount of food waste was recovered from the privies and cisterns in the yard areas. Beginning around 1840, this area contained various tenements and flats, at first occupied by Irish and German immigrants, followed by Russian and Polish immigrants towards the end of the century. Lacking organized trash collection, the residents of

this neighborhood deposited waste in privies and cisterns located in the yard spaces between the various tenements and flats.

This thesis reports the results of the analysis of a sample of the faunal remains recovered from Cochran Gardens. The sample consists of the animal remains recovered from four yard features, which were utilized as privies. All of the animal remains were deposited from approximately 1850 to 1900 allowing the examination of changes in the material record over a fifty-year period. Each feature is associated with a single tenement or flat, occupied by multiple families. According to historic records, the large majority of the occupants of the tenements or flats were recent Irish immigrants, although a few German immigrant, and African American families also occupied the residences. Census data indicates that the inhabitants of these residences held largely unskilled, labor-related jobs (Harl 2006: 9). The 19th century working-class residences represented in this study provide a unique opportunity to examine patterns of meat consumption and foodways in an industrial-era 'slum.'

The goal of my study is to analyze food bone remains to address the complex interactions between the residents of this neighborhood and the social and economic environment in which they lived. I use a consumer behavior framework (after Huelsbeck 1991 and Spencer-Wood 1987), to assess how economic, environmental, economic and social factors affected the consumption patterns of the 19th-century occupants of Cochran Gardens. My principal objective is to determine, through the analysis of meat consumption, if there are any apparent socioeconomic differences among the 'slum-dwellers' associated with the deposits. Furthermore, this thesis aims to assess the possible influence of other forces that affected the consumer choices of the households, including market availability and price, the time period of deposition, and the composition (number, occupation, age, ethnicity) of the families in the

households. To address these larger theoretical issues, I examined different aspects of assemblage composition, including taxonomic and anatomical part representation, and the ages of animals. I also examined the natural and cultural processes to assess what factors influenced the formation of the deposits.

I begin this thesis in Chapter 2, which is a brief overview of urban archaeology, focusing specifically on relevant literature on zooarchaeology from urban sites. In this chapter, I introduce the consumer behavior framework employed in the analysis of the faunal samples from Cochran Gardens. This is followed by a succinct history of St. Louis and the project area neighborhood in Chapter 3, with a specific focus on economics and demographics within St. Louis through the 19th century. In this chapter, I review the historical literature on Old North St. Louis, and also provide a history of meat provisioning and meatpacking in the United States in order to set up the historical, environmental, economical, and social context in which the faunal materials were deposited. Chapter 4 describes the features and materials recovered from the Cochran Gardens site, including the census data and depositional contexts associated with the features analyzed in this thesis. I then outline the methods used to identify the fauna in the sample, and present the results of the laboratory analysis of these materials.

In Chapter 5, I present the taphonomic analysis of the faunal samples. First, I outline evidence of human taphonomic processes on the bones, including butchery marks, burning and the extent of fragmentation within each feature. I then examine evidence for natural taphonomic processes, focusing on weathering and the impact of carnivores and rodents on the assemblage. Chapter 6 includes analyses of the assemblages with regard to taxon, meat cut composition, and the age of the species. In this chapter, I compare the results among the four features in order to assess any socioeconomic differences between the households associated with the features, as

well as to examine other factors affecting the meat consumption of the residents depositing the bones. Chapter 7 situates the results of this study within the broader context urban historical zooarchaeology, comparing my research with other studies. Finally, Chapter 8 summarizes and concludes this study.

This study finds that if certain variables are known for households, such as location, socioeconomic status, ethnicity and temporal period, the factors affecting consumer choice can be better understood. Specifically, the results reveal differences among the assemblages, specifically regarding the diversity of taxa consumed by the households. These results suggest that consumption patterns change over time within the Old North St. Louis neighborhood in the last half of the 19th Century, based on availability of resources, shifts in the livestock and meatpacking industries, as well as differences in economic and ethnic factors. Additionally, the results of the analysis indicate that by examining the taphonomic processes affecting faunal assemblages, depositional patterns can reveal patterns of behavior related to socioeconomic status and changing sanitation practices. Based on the analysis of taphonomic processes, this study demonstrates changing attitudes towards sanitation in Old North St. Louis over time. This analysis reveals that the material record, and faunal remains in particular, can help elucidate the effect of social and cultural factors on consumer behavior, providing us insight into the lives of the historically undocumented and misrepresented urban poor of the 19th century.

CHAPTER 2:
THE STUDY OF URBAN ARCHAEOLOGY AND FOODWAYS: CONSUMER BEHAVIOR AND THE FACTORS AFFECTING THE INTERPRETATION OF URBAN HISTORIC FAUNAL ASSEMBLAGES

The study of foodways through faunal analysis has developed together with the discipline of historical archaeology in the United States (see Landon 2005 for recent review). In the past 30 years, significant advancements have been made methodologically and theoretically (Henn 1985; Huelsbeck 1989, 1991; Lyman 1977, 1979, 1987; Schulz and Gust 1983). Additional development has been made in applying zooarchaeological research to different historical periods in the United States and to new geographical locations, diverse environmental contexts, and novel theoretical objectives. In this chapter, I present a brief overview of significant research in urban archaeology, and continue with a discussion of studies on urban foodways. I then provide an outline of the model employed in this study, the Consumer Behavior Framework (Huelsbeck 1991).

Urban Archaeology

In the most general sense, urban archaeology is defined as the archaeology of cities (Staski 2008: 5). While this definition seems simple, this area of research has grown in complexity and scope since interest in the subject began to develop over 30 years ago (Staski 2008). As noted by Mullins and Warner (2008:1), interest in urban archaeology arose in the early 1970s, but it was not until the publication of Roy Dicken's (1982) *Archaeology of Urban America* that such research was widely read in the archaeological community. Dickens (1982: xix) suggests that urban archaeology should aim to "elucidate the complex developmental processes and potential future directions of urbanized human behavior." Prior to the 1980's, urban archeological research focused on archaeology *in* cities, and methodological concerns,

rather than on developing theory and historical research of living in cities (Staski 1987a: ix). Since the publication of Dickens (1982), however, research in urban archaeology has resulted "in significant increases in knowledge and understanding of the human experience" (Staski 2008: 5).

Throughout the 1980s, research in urban archaeology grew in the types of questions asked by researchers. This progress is best exemplified by a collection of articles published in 1987, entitled *Living in Cities: Current Research in Urban Archaeology.* This publication put a spotlight on the archaeology of cities, illustrating the range of research occurring throughout the United States in hopes of contributing to "the overall understanding of what it is like to live in cities" (Staski 1987a:ix).

Many of the papers in the volume focus both on broad theoretical and methodological advancements. Mrozowski (1987) and Orstrogorsky (1987), for example, explore the transformation of urban landscapes, as seen in the change from colonial to urban New England and in the developing frontier of Seattle, respectively. In New England, Mrozowski (1987) found that market forces were a significant force in shaping urban development. Orstrogorsky (1987: 17-18) argues that the "industrialization of Seattle was accomplished by phenomenal population growth and the appearance of visible social stratification." Henry (1987a:19) focuses on elucidating an urban subsistence pattern, which she had developed previously, through research on late 19th to early 20th century sites in Phoenix, Arizona. Employing faunal, ethnobotanical, container, and documentary data, Henry (1987a: 27) delineates certain artifact patterns that should be observed in other cities.

Other papers in the volume focus on research questions involving specific urban sub-populations. Praetzellis et al. (1987), for example, use the material culture of 19th century Chinese immigrant cultures in Sacramento to demonstrate the dynamic nature of ethnicity and

the complexities of culture change. Based on faunal and ceramic data from late 19th through early 20th century sites in El Paso, Texas, Staski (1987b) demonstrates the utility of employing archaeological data to supplement the documentary record, on changing relations between Mexicans and Euroamericans in this region.

Recent studies in urban archaeology have turned to large-scale approaches to understanding how people lived in cities and how this changed over time with the onset of the industrial revolution and increased urbanization. Often, this research highlights the daily lives of historically marginalized populations living in cities, and populations absent from the historical literature, such as working class immigrant, cultural or ethnic groups who lived in the notorious 'slums' of the 19th century.

Archaeological excavations, completed in the 1990s, of two blocks of the notorious Five-Points neighborhood in New York City provides a notable model for investigating the daily lives of a 19th century working class population. This contract-driven project involved a thorough investigation of a neighborhood with the reputation as "one of the world's worst slums" (Yamin 2001a: 2). The research questions guiding the project involved an assessment of the possible influence of the descendants of the 18th century African burial ground located in the neighborhood, an examination of the basis for the reputation of the neighborhood, and a concern for what life was like for the people who lived at Five Points (Yamin 2001a: 2). The project involved a thorough analysis of all data including studies of ceramics (Brighton 2001), fauna (Milne and Crabtree 2001), medicinal bottles and plants (Bonasera and Raymer 2001), textiles (LaRoche and McGowan 2001), Tammany Hall (Pitt 2001), clay tobacco pipes (Reckner 2001), and missionaries (Fitts 2001). These studies investigate consumer behavior and constraints on spending, diet, ethnicity, religion, illnesses and medicine, and politics within this working class

neighborhood to provide insight into the meaning of the material possessions left behind in the cisterns and privies (Yamin 2001b: 13)

Other scholars of urban archaeology who undertake research involving comprehensive studies of cities, focus more directly on the emergence and growth of capitalism and its effects on urban populations (Shackel et al. 1998: xvi). Perhaps one of the most systematic archaeological studies of a city, the Archaeology in Annapolis Project exemplifies this approach by exploring a range of research questions. Spearheaded by Richard Dent, Mark Leone and Anne Yentsch in the early 1980s, this project involved the "comprehensive…study of the socioeconomic development of an eighteenth-century port town" (Shackel et al. 1998: xvii). The archaeology of Annapolis involved research on many scales, with a focus on critical theory and an interest in *why* society works, not *how* (Mullins 1998:12). In order to investigate the question of why and in what ways "people accept, modify, and reject" ideological domination (Mullins 1998:28), the studies examine oral history, architecture, foodways, ceramics, landscapes, households, and city planning. In his recent book, Leone (2005: 41) presents an extensive review of the archaeology of Annapolis, using history and material culture to discuss the construction and maintenance of power in the city from the late 17th century until today.

The Cypress Archaeological Project in West Oakland, California represents an additional comprehensive approach to the archaeological exploration of the development of a city from the 19th into the 20th Century (Praetzellis and Praetzellis 2004). This project involved analyses at the household, neighborhood and city levels, focusing on modernization, Victorianism and working-class culture (Praetzellis and Praetzellis 2004a:5). Researchers explore a variety of material culture, including consumer artifacts, foodways, spatial analysis, symbolism, ceramics, crafts, household materials, music, commercial artifacts, medicine, landscapes, and garbage disposal

(Praetzellis and Praetzellis 2004). Using this information, the project addresses questions of consumer behavior and strategies, ethnicity and urban subcultures, industrialization and technology, urban geography and municipal waste disposal (Praetzellis and Praetzellis 2004). The research addresses how the "influence of forces such as social class, ethnicity, and consumerism are expressed in the evidence from individual households and populations" (Praetzellis and Praetzellis 2004b: 308).

The important point to acknowledge from this brief sketch of key publications in urban archaeology is that research in this area now addresses the complexities of urban life, and how individuals, households, and neighborhoods coped and lived within changing urban environments. Through such comprehensive studies, the archaeology *of* cities has resulted in the sharpening of methodology and the attention to critical theory (Staski 2008). Furthermore, through studying working class neighborhoods and marginalized populations of the past, it is possible to address how people adapted to increasing urbanization and consumerism. According to Mullins and Warner (2008: 2), "examining social complexity in cities wrestles with stereotypes of urban life, complicating the social landscape of cities, and challenging archaeologists to see such complexity in mass-produced goods." In attempting to address the major questions in urban archaeology, the study of foodways, and of food bone refuse in particular, has become an integral area of inquiry.

The Study of Food Bone Refuse in Urban Archaeology

The study of foodways in archaeology involves the investigation of the system of food procurement, processing/preparation, distribution, preservation, consumption, and discard (Binford 1984: 51; Brown and Bowen 1998: 72; Landon 1996: 3). The study of bone refuse in urban archaeology investigates these factors within urban environments. While faunal analyses

have remained a principal focus of prehistoric archaeology since the turn of the 19th century, zooarchaeology did not become a widespread focus within historical archaeology until the 1980s (Landon 2005:3).

Although research in historical archaeology during the 1970s began to include studies of faunal materials, intensive examination of zooarchaeology started in the 1980s, with archaeologists such as Elizabeth Reitz (1986, 1987), Roselle Henn (1985) and Susan L. Henry (1987a, 1987b). Reitz (1986, 1987) initiated research evaluating differences in consumption patterns between rural and urban contexts. Henn (1985) investigated how market distribution affects meat purchases in Brooklyn, and Henry (1987a, 1987b) attempted to develop an urban subsistence pattern, based on the retail purchase of professionally butchered domestic meats (1987a: 19).

Despite the theoretical and methodological advancements developed through zooarchaeological research, faunal studies are still frequently appended to site reports with little real integration, or are published as separate studies (Landon 2005:5). Historical archaeologists, however, have undertaken extensive research in urban foodways in numerous regions within the United States, spanning different time periods, and have considered diverse theoretical questions. In addressing variation in foodways within urban environments, two principle factors have dominated urban zooarchaeological studies: socieconomic status and ethnicity.

Socioeconomic Status and Food Bones

As with studies in prehistoric archaeology, many analytical frameworks within historical zooarchaeology involve an extension of Binford's (1978) economic utility indices to interpret faunal remains from urban sites, although economic studies in historical archaeology can and do

make use of historical records to determine the cost and ranking of meat cuts. In his classic study of the Nunamuit, Binford (1978) introduced the idea of utility curves that designate which parts of an animal maximize return in terms of meat, marrow and grease weight. The extension of this model into historical urban environments involves investigating how socioeconomic status affects food choice, particularly how purchasing power is reflected in meat consumption at urban sites. Researchers look at how purchases of particular meat cuts or of specific types of meat of differing costs reflect the socioeconomic position of the household or individual under study (Henn, 1985; Lyman 1977, 1979; Schulz and Gust 1983). The effect of socioeconomic status on meat purchases has historically been the most investigated factor in the analysis of historical faunal remains to date. While many, like Singer (1987:87), intuitively argue that income level is "the most important determining factor" in consumer choice, deriving socioeconomic status from this factor and relating it to faunal assemblages continues to cause problems and methodological debate (Henn 1985; Huelsbeck 1989, 1991; Landon 1996, 2005; Lyman 1977, 1979, 1987; Schulz and Gust 1983). These difficulties may reveal the inadequacies in trying to associate meat choices solely with economics. Surveys of literature in history, folklore and cultural anthropology reveal the symbolic nature of food dedicating "a great deal of time to exploring the scores of ways that food influences lives beyond the basic biological fact of keeping one alive" (Warner 1998: 71).

Most analyses of 19th century historic fauna remain based on the archetypal work of Schulz and Gust (1983), which provides a rank scale for cuts of beef based on estimates of late-19th to early-20th century retail values. This ranking provides values that should enable analysts to infer economic status of the "depositing population" (Schulz and Gust 1983:12). In their landmark study of a 19th-century jail, two taverns and a hotel from Sacramento, Schulz and Gust

(1983) demonstrated that "the frequency of consumption of differently priced cuts will vary with the socioeconomic status of consumers." While this approach has maintained longevity and apparent utility, some have argued that results of analyses based on this ranking often do not seem to follow the expected patterns (see below) (Huelsbeck 1989, 1991; Lyman 1979, 1987). Such arguments have led to the elaboration of this model, involving the addition of meat yield to address cost-efficiency (Huelsbeck 1989, 1991; Lyman 1979, 1987).

Despite the inadequacies and methodological alterations the Schulz and Gust model has undergone, (Henn 1985; Huelsbeck 1989, 1991; Landon 1996, 2005; Lyman 1977, 1979, 1987), it remains a prominent method utilized by historical zooarchaeologists for interpreting faunal remains in relation to socioeconomic status. According to Huelsbeck (1991: 72), the model maintains logistical strength, suggesting, "to the extent that higher priced cuts are more preferred cuts…and to the extent that higher status people will purchase more of the preferred cuts…the Schulz and Gust price-ranking is a measure of status." Since the publication of this study, historical archaeologists have invested significant time into researching socioeconomic status through faunal remains.

Defining socioeconomic status with this approach, however, remains problematic (Garrow 1987; LeeDecker et al. 1987; Reitz 1987). Some confusion involves the correlation of class to status, because "there is clearly an interplay between status and class, where class can be a means to define status in a society," (LeeDecker et al. 1987: 241) and one's class may be defined by occupation as opposed to income level. Socioeconomic status in this case may not be associated with the actual economic position of an individual or household. While definitions of 'socioeconomic status' have varied among anthropologists, in most studies it seems to represent

simply income level, or "purchasing power of the household under study at the time the faunal material was used and discarded" (Garrow 1987: 218).

Several studies investigating the influence of socioeconomic status on the consumption of meat in historic time periods have revealed interesting patterns, while others have produced results that are not unequivocal. Based on the economic ranking of species, Singer (1987) successfully utilized fish remains to establish socioeconomic levels from four sites dating from 1730-1885 in Massachusetts and New Hampshire. Branstner and Martin (1987:317) demonstrated that "a distinct working-class consumption pattern can be defined using butchering units of beef and possibly pork, relative proportions of fowl and fish, and the presence-absence of imported foodstuffs," based on remains from 19th century Detroit. Henn's (1985) study of deposits in Brooklyn revealed a correlation between the socioeconomic status of households and their meat consumption. Some researchers have combined faunal analyses with other artifactual data to determine socioeconomic status in historic environments (Branstner and Martin 1987; Cheek and Friedlander 1990; Garrow 1987). This technique provides a more refined and successful method of interpreting the meaning of historic faunal assemblages, specifically as it relates to economic status. Schmitt and Zeier (1993), for example, applied quantitative zooarchaeological methodology to an assemblage combined with ceramic data to assess socioeconomic status from a mining camp in Nevada, finding ceramics to be more indicative of socioeconomic status than meat purchases.

Ethnic Identity and Food Bones

Ethnicity, as it relates to consumer behavior in purchasing meat, has received much attention in historical zooarchaeological literature. As with socioeconomic studies, research

investigating ethnic differences in consumer choice has variable results. For instance, based on their study in late 19th to early 20th century Washington, D.C., Cheek and Friedlander (1990: 34) found that "differences based on ethnic behavior rather than on income will characterize archaeological assemblages from black households." Despite the results of this study, zooarchaeological investigations into the relationship between ethnicity and foodways have remained largely inconclusive. According to Schulz and Gust (1983: 51), before 1983, "sparse documentary evidence was found supporting differences in archaeologically visible butchering and consumption patterns between different Euroamerican groups." Research has since further confirmed the difficulty in establishing ethic preferences through faunal remains. Rothschild (1990), for example, found very little association between socioeconomic status or ethnicity and food consumption in 18th century New York City. Based on most of the research, ethnicity is difficult to discern through faunal remains unless ethnic "dietary practices are markedly different and identifiable" (Landon 2005: 21). These differences are most visible in southern plantation contexts (Crader 1984, 1990) and in 18th and 19th-century Chinese immigrant sites in the western U.S., which show traditional Chinese foodways are distinguishable based on a preference for pork and poultry (Gust 1993; Langenwalter 1980; Staski 1996: 182). When distinct patterns of species consumption, such as in those observed among Chinese immigrants, do not exist, investigating ethnic differences within faunal remains a difficult task. Additionally, as many ethnic differences may be manifested in preparation and serving traditions, rather than in the type of food eaten, ethnic variation may often be difficult to discern archaeologically (Landon 2005: 21; Rothchild 1990: 161).

Clearly, studies often yield unrewarding results when trying to directly correlate economic status or ethnicity to meat consumption patterns. While some success stories exist,

Landon (1996: 1) suggests that most studies "have failed to demonstrate a strong correlation between either socioeconomic status or ethnicity and assemblage patterning." Many historical zooarchaeologists now recognize that "a complex set of factors related to economic, ethnic, or other subcultural identities affected food choices" (Rothchild and Balkwill 1993: 71).

Distributional Systems of Meat

In order to better explain differences in the zooarchaeological record of urban sites, more recent research has moved towards greater focus on the distribution systems that influence the availability of food within different contexts and environments (Bowen 1998; Brown and Bowen 1998; Landon 1996; Reitz 1986). The study of distribution systems involves the examination of the trade and exchange of live animals and meat (Landon 2005: 18) as well as the operation of food marketing systems, the nature of markets, how they changed through time, and the interaction of households with market systems (Bowen, 1992, 1998; Henn, 1985; Henry, 1987a). Landon (1996: 2), for example, in his expansive exploration of food supply and consumption in Colonial Boston, "examines the broader characteristics of urban supply and distribution systems…and attempts to explain urban processes and model the implications of urbanism." Landon (1996) found some differences in taxonomic composition, skeletal part representation, butchery practices and age profiles that indicate differences in meat distribution systems between urban and rural sites, but there were also many similarities, suggesting that significant differentiation in distribution did not occur until the onset of 19th century urbanism in Boston.

In another examination of the regional distribution of meat, Reitz (1986) compared deposits in rural and urban sites from the South Atlantic Coastal Plain and found differences in wild and domestic taxonomic composition between the two areas. Henry (1987: 19) explored subsistence in 19th-century Phoenix to delineate an "urban subsistence pattern." In her study, she outlines an

"urban procurement system" which focuses on the consumption of retail meats, and shows the following patterns archaeologically: 1) few non-meat anatomical elements, such as head and feet, aside from those from small animals raised locally or hunted; 2) few game or wild animals; and 3) the presence of various non-local, exotic food items (Henry 1987:19). Henn (1985) examined the market system in New York City, assessing the distribution of meat, providing an assessment of common assumptions of urban markets, such as the presence of wild fauna in urban deposits.

A Consumer Behavior Framework

Research on distribution and market systems demonstrate the value in broadening the scope of questions asked within studies of urban foodways, and provide a more complete picture of the factors influencing the consumption of meat in historical urban contexts. Researchers in urban historical zooarchaeology have continued to expand the scope of their research questions and have progressed in their consideration of additional variables that may affect consumer choice. In order to thoroughly address variability in the material record of urban environments, historical archaeologists developed a model of consumer choice (Spencer-Wood 1987).

Consumer-choice models explain "why goods of differing quality or price were selected for acquisition and archaeological deposition by different cultural subgroups in a market economy" (Spencer-Wood 1987: 9). Fundamentally, this method attempts to determine and isolate the factors influencing the purchasing decisions of the individuals that deposited the materials. Huelsbeck (1991) identifies a variation on this theme through developing a "consumer behavior research framework." Similar to consumer choice in method, this framework attempts to "identify significant variables affecting meat acquisition and consumption" (Huelsbeck 1991: 63).

While the quality and price of meat remain significant aspects of my study, a consumer behavior framework comprehensively assesses the formation of the faunal deposits. First, this framework aims to elucidate the availability of goods to consumers, along with the preparation behavior and purchasing decisions not associated with price (Huelsbeck 1991). Additionally, my analysis explicitly addresses both human and non-human taphonomic processes affecting the assemblages, an important yet underdeveloped issue in many historic faunal studies, to provide more accurate representations of the consumer behavior of the households associated with the deposits (Huelsbeck 1991; Landon 1996).

In my study of Cochran Gardens, I use a consumer behavior framework in investigating the faunal materials. As outlined by Huelsbeck (1991: 62-6), this framework is an assessment of the factors that affect the availability of meat, as well as the factors that affect consumer decisions. This study also addresses the human and natural taphonomic processes affecting the assemblages. Human taphonomic processes provide information on both the preparation and consumption of meat, as well as on depositional context. By addressing the natural taphonomic processes that affected the deposits, I can gain insight into depositional context and any biases that these processes may have created within the assemblage.

Factors Affecting Availability

The availability of meat in 19th century urban areas was significantly affected by the distribution of goods within the market system (Brown and Bowen 1998; Henn 1985; Reitz 1986, Landon 1996). Availability was affected by the location of the site within the urban environment, as proximity to aquatic or terrestrial resources affected the range of fauna available to consumers (Henry 1987a, 1987b; Reitz 1986). Additionally, the location of a household

within a city may affected the occupants access to certain goods, as proximity and access to larger thoroughfares or business districts increased the variety of available goods (Milne and Crabtree 2001: 34).

The goods available to urban consumers changed in response to changes in markets, distribution systems and technology (Brantsner and Martin 1987; Huelsbeck 1991; Reitz 1987). Changes in transportation systems and in meatpacking and preservation technology influenced the meats available seasonally to city residents (Huelsbeck 1991: 63). Furthermore, temporal and local differences in butchering methods influenced the availability of certain cuts to local consumers (Ashbrook1955; Brody 1964). Seasonality significantly influences the availability of certain species to consumers, and this factor was especially important before the advent of refrigeration and railroads (Clemen 1923; Drury 1966). As slaughtering cycles varied between species, different meats would be available to consumers at different points throughout the year (Davidson 1982; Landon 1996). Furthermore, certain species, such as turkey and goose, were consumed at certain times based on traditional holidays, such as Thanksgiving (Davidson 1982; Williams 2006).

Factors Affecting Choice

An array of social, economic and technological factors influence consumer choice when purchasing meat. Socioeconomic status, as a constraint on consumer choice, is a necessary consideration when evaluating purchasing decisions, but is most successful when addressed through a critical lens. Essentially, because correlating socioeconomic status with meat purchases has remained an arduous task for researchers, many archaeologists have started to investigate the specific components affecting socioeconomic status, such as income strategy or occupation, household composition, and household life cycle. Henry (1987: 25) suggests an

evaluation of social class, a factor in socioeconomic status, which is related to the type of occupation, income level, and wealth of a household.

LeeDecker et al. (1987: 31) found that the purchasing decisions of households in 19th century urban Delaware varied according to household composition, life cycle, and income strategy, and suggest that the income strategy of a household is affected by the household composition, as the "presence of secondary wage earners" increase purchasing power. Age of the individuals occupying the household, the presence of children, and non-working elderly, and additional wage earners may affect a households consumer decisions (Henry 1987a, 1987b; LeeDecker et al. 1987). These studies show that in assessments of how the socioeconomic position of a household affects meat purchases, one must examine the total range of factors that influence the purchasing power of a household.

Even though it is difficult to correlate ethnicity with meat purchases, the effect of ethnic preferences on consumer behavior remains a necessary consideration. In evaluating the role of ethnicity in meat consumption, for instance, researchers must be careful to completely isolate ethnic differences between assemblages and eliminate the possibility of equifinality. Archaeologists have encountered difficulty in assessing the impact of ethnicity on consumer behavior when a high turnover rate within a neighborhood makes connecting a deposit to specific residents problematic (Rothschild and Balkwill 1993: 79). In general, ethnicity as a factor affecting consumer choice is best evaluated when dealing with "specific, reasonably well-documented households" in the archaeological record (Brown and Bowen 1998: 73). While some ethnic patterns have been identified, these patterns must be considered cautiously, because as noted by Huelsbeck (1991: 66), certain foodways such as those emphasizing soups and stews may be associated with ethnicity, economics, or functionality. Additionally, many

archaeologists view ethnic identity as fluid as opposed to static, as well as created and negotiated by agents within larger social structures. Jones (1997: 4), for example, suggests that ethnicity is based on "shifting, situational, subjective identifications of self and others" expressed in everyday practice and experiences rooted in ongoing daily practice and historical experience (Jones 1997: 4). According to cultural literature, however, foodways tend to remain a more conservative phenomenon within ethnic group identity, and may significantly influence the consumption of food (Warner 1990: 67-77). According to Warner (1990: 239) 19th century social engineers viewed the food choices made by the poor and immigrants as "the major hindrance to improving their situation in society" because they often purchased expensive foods as opposed to making more cost-effective food choices.

Clearly, a thorough examination of consumer behavior incorporates both cultural and economic variability between households that influence food purchases, including nationality or ethnicity, occupation, income, household composition and lifecycle. Milne and Crabtree (2001: 44), for example, "investigate household composition, at the Five Points site in New York City, evaluating the occupation, ethnicity, religion and income of different households and their effect on meat purchases to address consumer choice in the face of the changing urban marketplace."

Cost is another influential factor affecting consumer behavior. The cost of food, especially of different cut and types of meat undoubtedly varied over time. Schulz and Gust (1983) suggest that beef prices in the 19th century did vary slightly over time, but the relative prices of different cuts remained consistent. This assertion is still generally accepted, and the pattern extends to the relative prices of pork and mutton cuts throughout time (Henry 1987b, Huelsbeck 1991: 65; Rothschild and Balkwill 1993: 80).

Variability in cooking technology and facilities also influenced consumer choice and behavior. In the mid-late 19th century, for example, hearth cooking was still common, despite the transition to wood and coal cookstoves during this time (McClean 2006: 4). Large cast-iron pots and kettles with three short legs, known as the early American Dutch oven, were placed over the fire, and foods were typically boiled, simmered and stewed in these containers (McClean 2006: 4). Foods were also roasted over hearths, with the aid of a spit or reflector oven, which kept the heat contained in the hearth (McClean 2006: 5). By mid-century, cookstoves were common in urban middle class households, and were associated with flat-bottomed Dutch ovens, used for braising and stewing (McClean 2006: 5).

Cultural and Natural Taphonomic Processes

Researchers must evaluate site formation processes to provide an accurate interpretation of the taphonomic history of the assemblage under investigation (Schiffer 1983). In order to assess the causes of patterning displayed by bones, analysts must identify the suite of factors that influence the formation of the deposit, from the point of the slaughtering of the animal to the recovery of the remains by the archaeologist.

In order to appropriately interpret an assemblage of faunal remains, zooarchaeologists must explore the effect of human taphonomic processes on faunal assemblages. For urban historical assemblages, in particular, this requires the interpretation of the butchery marks displayed on the bones. Butchery analysis can provide information on butchery practices, such as the steps taken in the division of the carcass, as well as information on local tastes or preferences (Landon 1996: 59; Lyman 1977; Schulz and Gust 1983). Furthermore, butchery marks can indicate what types of technology were used in home-butchery, as butcher knifes, and

chopping cleavers were common tools in mid to late 19th-century kitchens (McClean 2006: 2). Additionally, butchery marks provide information on consumer behavior, specifically on the ways in which people divided, sold, bought, prepared and consumed meat.

A thorough zooarchaeological analysis will consider the depositional context of faunal remains and the associated post-depositional factors affecting the bones. In urban contexts, this often requires an understanding of privies as a depository for garbage. In the 19th Century, the dominant perspective on sanitation was the theory that miasmas, or bad smells, caused illness (Crane 2000: 20; Wheeler 2000: 5). Garbage was seen as unsanitary and a nuisance, often associated with immigrants, the poor and the working class (Crane 2000: 23). Without proper trash removal in working class and immigrant neighborhoods, privies and unused cisterns and wells became the preferred depositories to keep garbage 'out of sight' and to acquiesce to nuisance laws, making them valuable features when uncovered by urban archaeologists (Stottman 2000). McCarthy and Ward (2000:113) identify six behaviors associated with the filling of these 'features':

1) direct deposition of human and other wastes;
2) accidental loss of objects;
3) deliberate placement of artifacts and/or other materials into the feature to serve as percolation fill, a common practice in some cities;
4) gradual, long-term accumulation of direct household refuse;
5) rapid deposition of household refuse, and possibly other materials, as might occur as part of a major cleaning or site abandonment event; and finally,
6) redeposition of household refuse originally deposited, or "stockpiled," in yards or sheds.

The depositional context of faunal materials has important implications for post-depositional processes affecting assemblages. If, for example, materials are directly deposited in privies, then the bones should show no evidence of undergoing weathering. The longer bones remain in yards before deposition in these privies, the more we should expect to see the effects of weathering on

the faunal remains in an assemblage. Materials deposited in sealed and lined privies are often reasonably well-preserved because of their protected context (Brown and Bowen 1998: 72; Milne and Crabtree 2001: 32).

In addition to protection from weathering, bone refuse in privies is not susceptible to other destructive forces, such as trampling and rodent and carnivore gnawing, and the presence of evidence of these forces indicates that the bones were not immediately deposited into privy vaults. Additionally, carnivore and rodent activity biases faunal samples through the removal of certain bones (Binford 1980). Based on the potential of natural taphonomic processes to affect assemblages, it is important for researchers of urban food bone refuse to undertake "careful consideration of excavation practices, depositional context, taxonomic representation, body part representation, and bone surface modification" (Landon 2005: 6).

Researchers face difficulties in isolating the exact factors involved in consumer choice and in the interpretation of zooarchaeological remains. When comparing urban faunal assemblages from a single neighborhood, it is important to address all variability between the deposits, including the composition of the household, the dates of the assemblages, and the depositional context. As Branstner and Martin (1987: 301) suggest, "the more homogeneous the neighborhood the greater the facility in isolating significant factors" affecting consumer choices. Researchers can evaluate the potential impact of these processes through careful attention to the documentary record.

The Written Record in Historical Archaeology

Historical zooarchaeologists have access to information from the documentary and material record, that help "to control intersite variation in the physical and cultural setting" and

allow for accurate analysis and interpretation (Landon 1996: 5). As the documentary and historical record are imperfect and often biased, historical archaeological studies (Little 1992; Potter 1992) often focus on solving problems of documentary ambiguity and attempt to fill in gaps in the record (Deagan 1996: 20). Holes, ambiguity and bias in historical documents can greatly hinder historical archaeological research, so it is important to take these data as independent sources that can provide different, but not necessarily better or worse representations of the same underlying reality (Potter 1992: 10). Historical archaeologists must maintain a cautious use of the documentary record, but it is through the combined use of the emic view (expressed in documents), and the etic view (the archaeological record), that researchers can study the "behavioral processes involved in human perception, and the manipulations and means of coping" with one's environment (Deagan 1996: 18).

In my analysis and interpretation of the Cochran Gardens faunal material I will focus on consumer behavior and what can be learned about the residents lives. With this research, I attempt to elucidate the decision-making processes that lead to the purchase, preparation and consumption of the fauna by the former inhabitants of the site. The following chapters identify the factors affecting consumer behavior in late 19th century St. Louis, Missouri and the formation of the Cochran Gardens assemblages.

CHAPTER 3
THE COCHRAN GARDENS HOPE TRACT VI SITE: HISTORICAL CONTEXT AND CONSUMER OPTIONS

Zooarchaeologists investigating consumer choice must establish the complete historical, cultural and environmental context in which faunal material is formed prior to analysis. In this chapter, I describe the specific conditions under which meat was purchased, and consumed and the resulting food bone deposited. I begin with a brief overview of the city of St. Louis from the first European settlement until the beginning of the 20th century. With a specific focus on the population dynamics and economic conditions throughout this period. I then present a succinct overview of immigrant groups in 19th century St. Louis, and follow this with a discussion of the historical record of the neighborhood of Old North St. Louis in the latter half of the 19th century, and the historical setting for the Cochran Gardens archaeological materials. Finally, in order to establish the meat commodities available to consumers in the project area, I present a brief history of meat provisioning and meatpacking in the United States, with a specific focus on the city of St. Louis

The Beginnings of a City: European Contact in Missouri

The city of St. Louis is situated in an area with an extensive history of human settlement and interaction. Located on the west bank of the Mississippi River, at the confluence of the Mississippi and Missouri Rivers, the city sits across from the famed Cahokia site and associated Mississippian earthen mounds, providing the town with its nineteenth-century nickname, "the Mound City" (Primm 1998: 1). This region has a rich record of human use, from the original

settlers of North America inhabiting the area approximately 8,000 years ago, to the thriving, historical city of St. Louis we know today.

At the time of European contact, the Osage and Missouri Indian groups occupied the area now known as Missouri. The Siouan-speaking Osage were the dominant group in the area , engaging in a 'dual-economy' of seasonal agriculture and large-scale hunting, focused largely on bison and deer. The Osage Indians were most likely immigrants from the East, that settled in the area sometime prior to the 17th century, and seemed to embody a blend of cultural attributes from the eastern woodlands and western grasslands, making theirs "a culture in between" (Aron 2006: 3). Additionally, the Osage had a reputation for being "hostile and warlike" (Foley 1971: 4). Similar in economic structure to the Osage, the Missouri Indians also encountered the first European settlers to the Missouri River Valley. Although not as large in numbers as the Osage, the Missouri were more at risk of becoming destabilized through inter-tribal warfare during the 16th and 17th centuries, and often allied with the Osage against common enemies, such as the Kiowa and Comanche (Aron 2006:22). Both of these groups saw a considerable military benefit in fostering a relationship with European settlers.

Although the Spanish traveled into this territory as early as the 16th century, the French were the first to settle the area that would become St. Louis. The French established villages along the east bank of the Mississippi in the late 1600s. During these initial years of settlement, French settlers began establishing trade systems with Indians in the area. The Missouri considered French goods appealing for both symbolic and practical reasons because of the exotic nature of glass and metal goods and in the functional nature of metal tools and firearms (Aron 2006: 23). Furthermore, the French were particularly interested in obtaining beaver skins. The Osages, however, were in a more advantageous position to establish a concrete and profitable

trading network with the French, due to their larger numbers and geographical location. Eventually, the Missouri tribe experienced considerable destabilization through disease and warfare, leading to the group's eventual dispersal in the late 18th Century (Foley 1971: 5). The Osage, on the other hand, remained the "foremost power in the lower Missouri valley" due to their strategic position as envoy between the Europeans to the east and Indian tribes to the west (Aron 2006: 3).

Settlement and Exchange in the Missouri Valley

As the fur trade flourished in the Missouri valley, the area lured more settlers to the region by the mid-18th Century. Land grants in the 1740s persuaded settlers to cross the Mississippi and settle villages on the west bank (Aron 2006: 39). In 1764 Pierre de Laclede, head of a prominent New Orleans mercantile firm, established a village on the western bank of the Mississippi in hopes of setting up a post to trade with the Indians along the Missouri and Mississippi Rivers. Laclede named the village St. Louis in honor of the reigning French King Louis XV, and laid out the village in a "gridiron pattern…featuring a public *place* (market)" (Primm 1998: 13). The city included certain areas designated as common fields, providing staples to support the trading network which dominated the economy at the time (Primm 1998: 17).

By this time, France had already made negotiations to cede its territory west of the Mississippi to the Spanish. Thus in 1777, the Spanish entered the area to assume political control of the region. St. Louis was now positioned within the Spanish territory, bordered on the east by British territory and on the west by unsettled Spanish lands (Aron 2006: 70). Following the American Revolution, Spain retained its western territory, and attempted to stop American

immigrants from settling the west, by maintaining close relations with the Osage (Aron 2006: 77-78). St. Louis, during the late 18th century, was "imperial Spain's borderland capital, the hub of the Missouri River trade, the place of contact with the powerful and capricious Plains tribes, and a key location in the competition with Great Britain" (Primm 1998: 36).

In 1800 Spain and France again changed the fate of St. Louis, the Louisiana Territory was sold back to France at the behest of Napoleon, which relieved Spain of "the expenses of administering what had never been a profitable colony" (Aron 2006: 107). Napoleon had intentions to revive the French Empire on the Western Hemisphere, but became discouraged by military losses in Caribbean conflicts (Foley 1971: 63-64). The Louisiana Purchase of 1803 brought land from the Mississippi to the Rockies under the control of the United States for $15 million. With these lands, including the city of St. Louis, now in the hands of the U.S. government, the stage was now set for large-scale settlement in the Western United States.

Prelude to the War in St. Louis

Early 19th Century St. Louis experienced a significant growth in population, as free people and their slaves moved into the town and surrounding area, doubling the population between 1810 and 1820 to about 4,500 (Aron 2006: 168). This influx of Americans in and around the city shifted the economic focus of St. Louis away from the fur trade and towards agriculture (Aron 2006: 172). In addition, the arrival of these newcomers to St. Louis led to the 'Americanization' of the town. Architecture of the American 'style' became interspersed among the older French buildings, English overtook French as the primary language, and American fashions were now seen on the streets (Foley 1971: 138).

In 1821, Missouri obtained statehood, and was a major center of trade between the East Coast and the Frontier West (Aron 2006). Immigrants and Americans were moving to the town to exploit the opportunities in the expanding city. Prior to the Civil War, St. Louis was "beset by ethnic and religious animosities," and as one of the most rapidly growing urban centers at the time, it experienced significant overcrowding, unemployment and general lawlessness (Winch 1999: 5). In fact, this period was known for its "deplorable public behavior" (Primm 1998: 83). Despite these concerns, St. Louis, with its central location, continued to develop with the help of steamboats and railroads, which connected it to eastern U.S. cities. Unlike the economically thriving cities to the east such as New York, Philadelphia, and Cincinnati, St. Louis was situated in a slave state, which "significantly complicated the city's transition to a market economy rooted in wage labor" (Graff 2004: 54). Nevertheless, many opportunities remained in the burgeoning city, beckoning newcomers of various ethnic, racial, and cultural backgrounds.

During the first half of the 19th century St. Louis was home to a small minority of African Americans, both free and slave. In the mid-1800s, St. Louis was an active slave market, and also the place of residence to about 1,398 of free African Americans in 1850 (Table 3.1) (Primm 1998: 179) representing approximately two percent of the city's population at the time. Some African Americans were quite affluent. In an account of the elite 'colored' society of St. Louis in the 19th century, entitled *The Colored Aristocracy of St. Louis,* Cyprian Clamorgan (1830) gives brief biographical sketches of several wealthy individuals, although it is necessary to disclose that most of the individuals discussed were of mixed descent. The experiences of African American St. Louians however, was quite atypical of the times, with most African Americans in St. Louis encountering an entirely different existence in the city, that of a slave. In

1850, the number of slaves nearly doubled that of free blacks in St. Louis, and the city was "noted for its barbarity" towards slaves (Primm 1998: 180).

In addition to transitioning to an agricultural economy during first half of the 19th century, the city simultaneously expanded its role as a business and commercial center. While maintaining its status as a successful port city, this period saw the introduction of railroads to the area. The city became the state headquarters for manufacturing and exporting products to "southern, eastern, and world markets" (McCandless 1972: 130). Manufacturing in St. Louis provided a range of goods, from leather goods, to tobacco, to machinery to lumber, to whiskey and malt beverages (McCandless 1972: 152). In the 1840s, the workingmen of St. Louis became involved in the national labor movements (McCandless 1972: 159). The era prior to the Civil War was an era of industrial, economic and demographic growth, overshadowed by urban violence and decay.

Table 3.1 Summary Table of St. Louis Population 1850-1910

Year	Population
1850	77,860
1860	160, 733
1870	310, 869
1880	350,318
1890	451,770
1900	575,238
1910	687,029

The Civil War and the Aftermath

The state boundaries drawn after the incorporation of the Louisiana Territory into the Union, established Missouri's position as a border state, in the middle of the conflict between free and slave states leading up to the Civil War. In this situation, Missouri was essentially

divided between Unionists and Confederates during the war (Primm 1998: 260). Officially, the government of Missouri remained loyal to the Union, but the population of Missouri was divided in their sentiments towards the war, although the numbers suggest the populace leaned toward confederate sympathy. This is reflected in the fact that approximately 100,000 Missourians joined the Union army and another 30,000 men joined the Confederate army (Primm 1998: 260).

The period during the Civil War significantly hurt the economy and changed the social and economic direction of St. Louis. While at war, martial law was declared throughout Missouri as guerilla warfare infested the state (Parrish 1973: 53). In addition, the Confederate Army blockaded trade routes on the lower Mississippi (Primm 1998: 255). St. Louis also became a place of refuge for both Unionist supporters from Arkansas, and escaped slaves (Parrish 1973: 70-71). Aside from the influx of refugees from the war, population growth during the war slowed down. By the end of the war, natives and second-generation Germans and Irish comprised the majority of the population in the city (Primm 1998: 265-266).

After the close of the Civil War, St. Louis regained significant economic success. St. Louis became third, to New York and Philadelphia, in number and value of manufacturing plants (Faherty 2001: 101). Manufacturing and agricultural industries thrived into the 1880s, and the city established its status as a railroad hub. Production in St. Louis included tobacco, iron, raw-material mining, furniture manufacture, clothing, drugs, beer brewing, and flour milling. Labor unions became active during this period, providing protection for workers in these industries (Parrish 1973: 224). The decade from 1880-1890 saw a rise in the number of industrial establishments from 2,984 to 6,148, with associated jobs in those industries growing from 41,825 to 82,911 (Primm 1998: 327).

Certainly, this active economy in St. Louis created a profusion of wealth in the city. As is typical of growing urban centers in America, however, this 'progress' became the cause of various problems often associated with urban environments. For instance, coal smoke from expanding industry led to pollution problems, while overcrowding from the growing populations and inadequate sewage and garbage disposal issues created serious health risks for everyone (Parrish 1973: 202-203).

Population growth continued throughout the end of the 19th century, and into the 20th with the population in St. Louis increasing to 575,238 (Primm 1998: 327). During the 1900s, production and consumption in the state of Missouri significantly increased (Christensen and Kremer 1997: 80). Despite the brief depression in the 1890s, St. Louis remained an important center for trade and manufacturing into the 20th century. The city maintained its status in the production of tobacco and beer, while adding the manufacture of women's clothes, boots and shoes, and liquor as considerable contributors to its economy.

Immigrant Populations in St. Louis

Up until the early 1800's, the majority of Missouri's population remained French-American, with only approximately one third of the residents in 1818 speaking English (Winch 1999: 4). Yet before too long, the city would see the results of the great explosion of immigration into the U.S. According to Primm, between 1830 and 1840 Missouri's population increased by 173 percent, from 140,455 to 383,702; with the population of St. Louis growing to 16,439 during that time (Primm 1998: 135, 143). The population in St. Louis was now comprised of inhabitants from various European nations, Americans of European descent, African Americans, both free and slave, and a small population of Indians. This rapid population

increase was due to an increase in immigration to the U.S. from certain European countries associated with specific events. These include the defeat of German Liberalism in the Revolutions of 1848, the Irish potato famine of 1845-46, and the young Ireland rebellion of 1848 (Primm 1998: 164). It was these two groups, the German and the Irish who dominated the foreign-born segment of the St. Louis population throughout the 19th century.

Early in the wave of immigrants into Missouri, a German lawyer named Gottfried Duden wrote a guide for Germans interested in moving to America. Duden's positive account, published in 1829, was widely read in Germany. This publication brought thousands of Germans to Missouri in the 19th Century, who found the area quite suitable as it "reminded them of the river valleys, forests, and hills of their homeland" (Burnett and Luebbering 1996: 1). German settlers came from many different social and economic backgrounds, immigrating in groups and alone. As reported by Primm, in 1837 there were thirty thousand Germans in Missouri with more than six thousand in St. Louis (1988: 144). German immigration into St. Louis continued throughout the 19th century. A large wave of Germans came to Missouri in the 1950s, for example, doubling the German-born population, and mostly settling in St. Louis (McCandless 1972: 40).

The second largest immigrant group in 19th-century St. Louis was the Irish. In 1776, only one resident of St. Louis claimed to have been born in Ireland, and one individual of Irish ancestry is recorded as living in the city (Faherty 2001: 7). By the early 1800s, more immigrated to Missouri and the French residents in St. Louis met the Irish immigrants with hospitable attitudes largely because of the common religious practices of both groups. Furthermore, the French at this time are historically acknowledged as demonstrating a "splendid cooperative spirit" with Anglo-American newcomers to the city (Faherty 2001: 12). Many of these early

Irish became wealthy and powerful residents of St. Louis, and by 1840 there were several hundred Irish families in the city (Primm 1998: 164).

A second wave of Irish immigrants came to America, to escape the poverty and strife of the Potato Famine, which began in 1845, and many found their way to St. Louis. These immigrants came from areas throughout rural Ireland and sought largely unskilled labor in various enterprises (Faherty 2001: 54). Irish immigrant women often established employment in domestic service. As Catholicism remained a common bond among the Irish immigrants, the largest group of these newly arriving settlers to St. Louis found homes in the northern section of the city around St. Patrick's Church (Faherty 2001: 55).

Immigration from Germany and Ireland continued throughout the 19th century, and St. Louis became a popular final destination for many of these newcomers. In 1880, of the 350,518 residents in St. Louis, 54,901 were German, 28,566 were Irish, and 8,762 were from Great Britain (Primm 1998: 315). Including people who were second generation Europeans, at least two-thirds of St. Louis' population at this time were counted as members of one of those three groups (Primm 1998: 315). Throughout this time, the newly arrived German and Irish immigrants were met with some hostility. The most well known period of American anti-immigrant sentiment came in the mid-19th century, with a substantial rise in hostility towards immigrant Catholics throughout the country. Anglo-American "militant" Protestants took aim at Catholic Irish and Germans in St. Louis, resulting in many squirmishes and political fights (Faherty 2001: 61-68). Both the Germans and Irish, however, established themselves as diverse groups and valuable contributors to the political, social, and economic conditions within the city of St. Louis during the 19th century.

Old North St. Louis and the Cochran Gardens Project

"The people who make this locality their home, are unquestionably only raised a little above the wild Indians of the plains. In point of morality the Indians have a decided advantage" (Dacus and Buel 1878: 415).

Many of the newly arrived immigrants settled in an area in the northern section of St. Louis, now known as Old North St. Louis. The Cochran Gardens project area is located within this region of the city, bounded to the East by the Mississippi river (Figure 3.1). Most of the households associated with the features identified during excavation were located within one mile of the Mississippi. This neighborhood has a unique and complex history, as "Old North St. Louis has long served as a 'gateway' or 'port-of-entry' neighborhood, a place where people of diverse backgrounds came from afar to gain a foothold in the city before moving on to other parts of the metropolis" (Baumann et al. 2008: 75). This area remained a separate village until 1841 when it was absorbed by the City of St. Louis (Wayman 1970). The landowners of this region opened subdivisions of the tracts of lands, until around 1850, sparking the development of this area (Wayman 1970). Beginning in the early 1840s, immigrant populations moved into this area, taking up residence in densely-populated tenements and flats on streets and alleys (Harl 2006: 5; Wayman 1970).

These low-cost tenements and hastily constructed buildings, were first occupied by Irish and German immigrants, followed by Russian and Polish immigrants towards the end of the century. The poorer Irish, in particular, congregated in this area in droves, occupying these "dilapidated shanties" forming such infamous neighborhoods as the "Kerry Patch," "Castle Thunder, " and "Wild Cat Chute" (Towey 1986: 139). According to many historical accounts, these areas became refuges of iniquity and immorality in the latter 19th Century; immigrant populations were viewed as the lowest social class in the city (Dacus and Buel 1878; Rumbold 1908; Wayman 1970). This negative scrutiny from outsiders is not uncommon for immigrant or

minority neighborhoods within cities of the 19th century, as they were often written by members of the middle or upper classes for middle and upper class audiences, and probably inform us more on the values of these individuals than on the actual living conditions in these neighborhoods (Fitts 2001: 115).

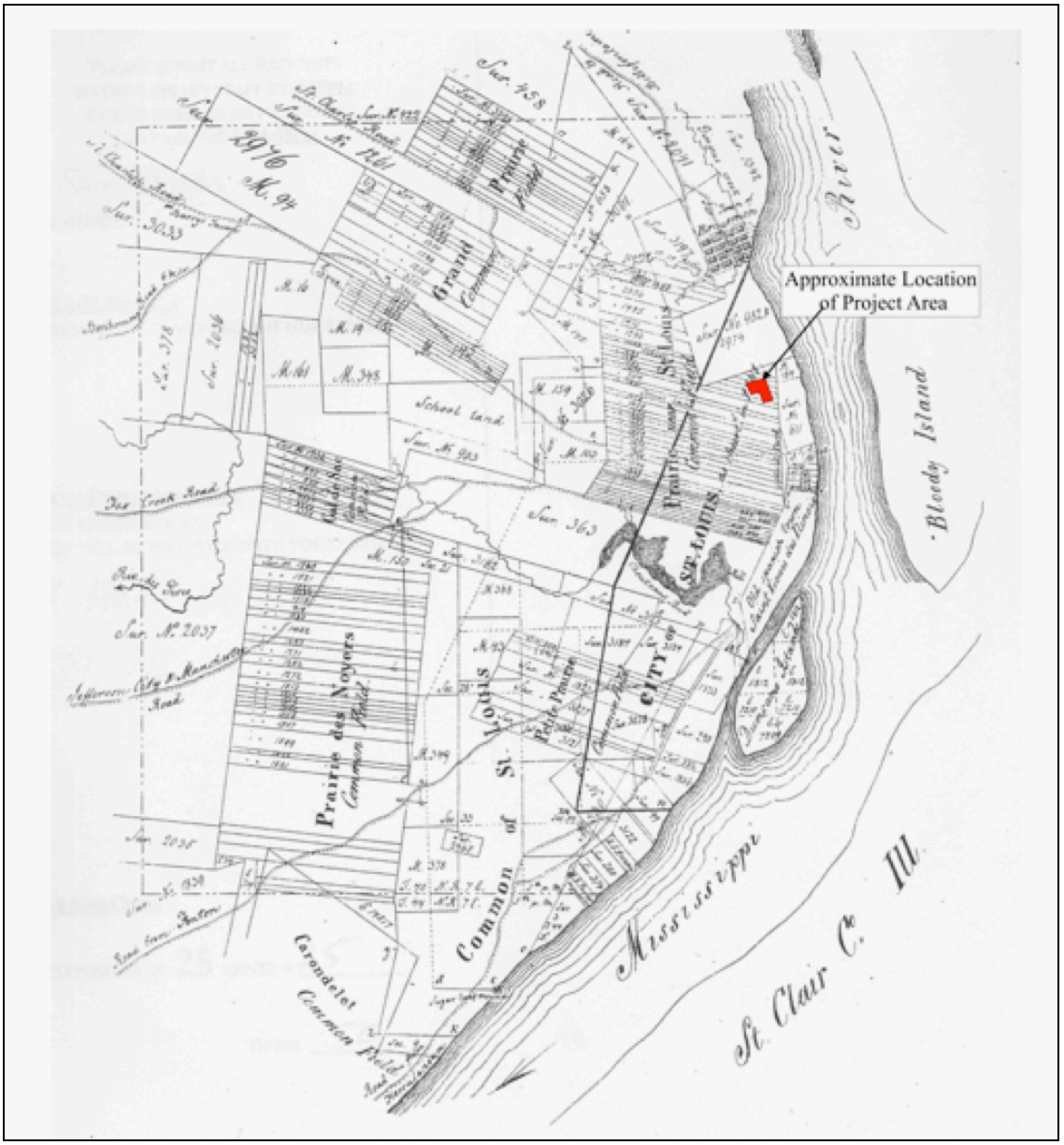


Figure 3.1. 1847 Atlas of St. Louis, Missouri (Hutawa 1847 *in* Harl 2006: 4)

During the second half of the 19th and into the beginning of the 20th century, this region of the city became notorious for the "depths of depravity and crime in alley tenements" within the neighborhood (Wayman 1970). One contemporary account of the neighborhoods suggests that the tenements in this area were "wretched enough to make social pariahs of all their inmates" (Dacus and Buel 1878: 413). The living environment in this area was described at the time as "dilapidated, grimy and foul beyond [sic] powers of description." (Dacus and Buel 1878: 413). Historical depictions of the area describe how Irish immigrants "filled the lowest ranks of the working class and strained the city's charity institutions to their limits" (Towey 1986: 141).

Based on census data, the percentage of foreign-born residents in the project area decreased from 86% in 1850 to 76.1% in 1880, and finally to 65% in 1900 (Harl 2006: 1-31). Additionally, the composition of the neighborhood, in terms of nationality, changed from 1850 to 1900 (Figures 3.2, 3.3, 3.4). Throughout this entire period, the majority of the population in the project area held either unskilled or extremely low-paying occupations (Harl 2006: 1-31). These conditions continued into the early 20th century, although the composition of the immigration populations changed from Irish and German to Polish, Russian and Italian. (Rumbold 1908: 4).

In 1908, the Civic League of St. Louis conducted a study of the housing conditions in the city, focused on a section of the city adjacent to the area that became the Cochran Gardens project area (Rumbold 1908). Although the study dates later than the features investigated in this thesis, the report contains a rare, if not completely unique account of the living conditions in the neighborhood close to the time of the deposition of the materials. The report suggests that this neighborhood remained densely populated with rundown tenements and replete with unsanitary conditions (Rumbold 1908) (Figures 3.5, 3.6, 3.7).

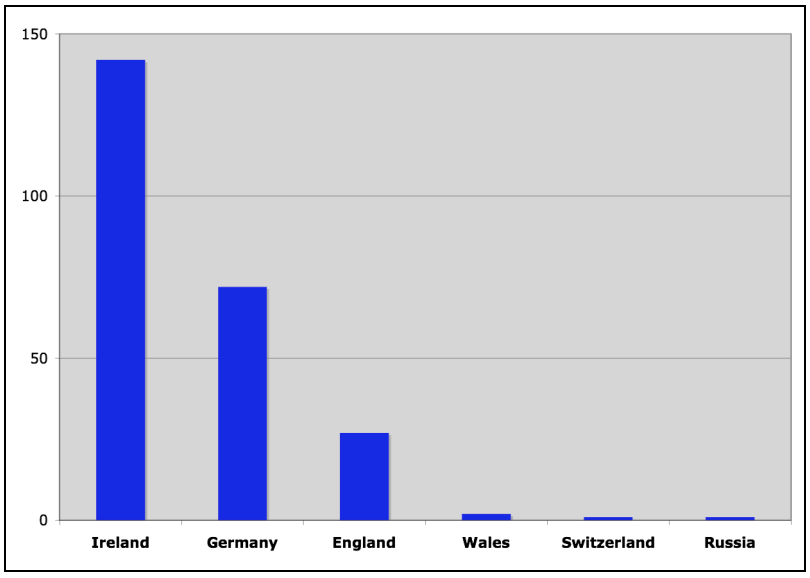


Figure 3.2 Number of Foreign Born Heads of Households within the Cochran Gardens Project Area According to the 1850 Census (from Harl 2006: 8)

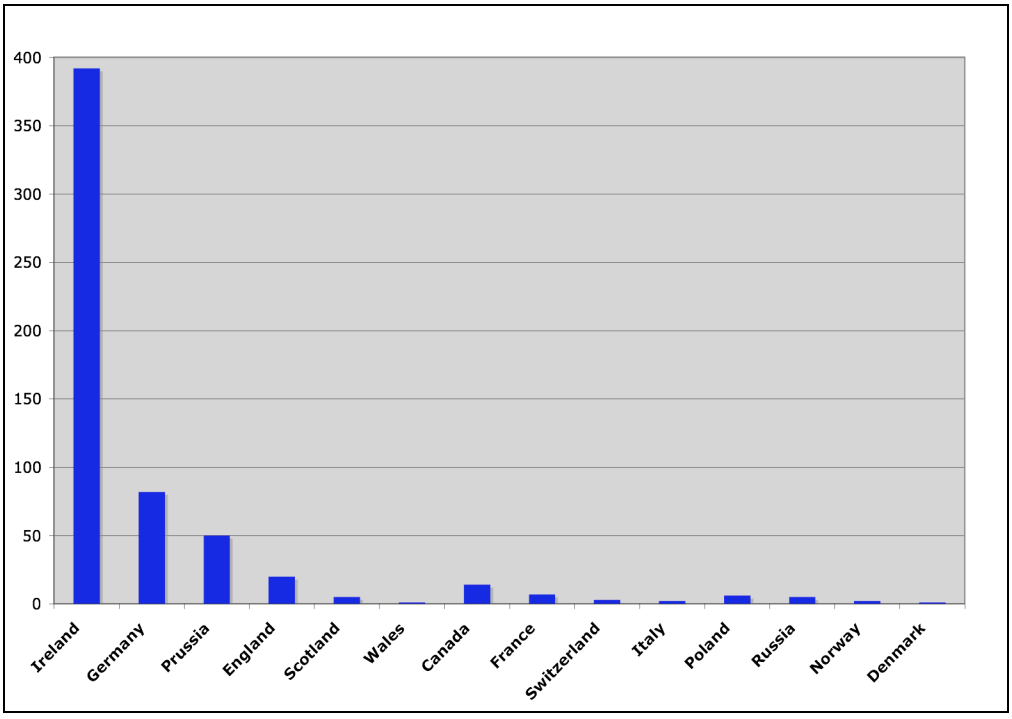


Figure 3.3 Number of Foreign Born Heads of Households in the Cochran Gardens Project Area According to the 1880 Census (from Harl 2006: 15)

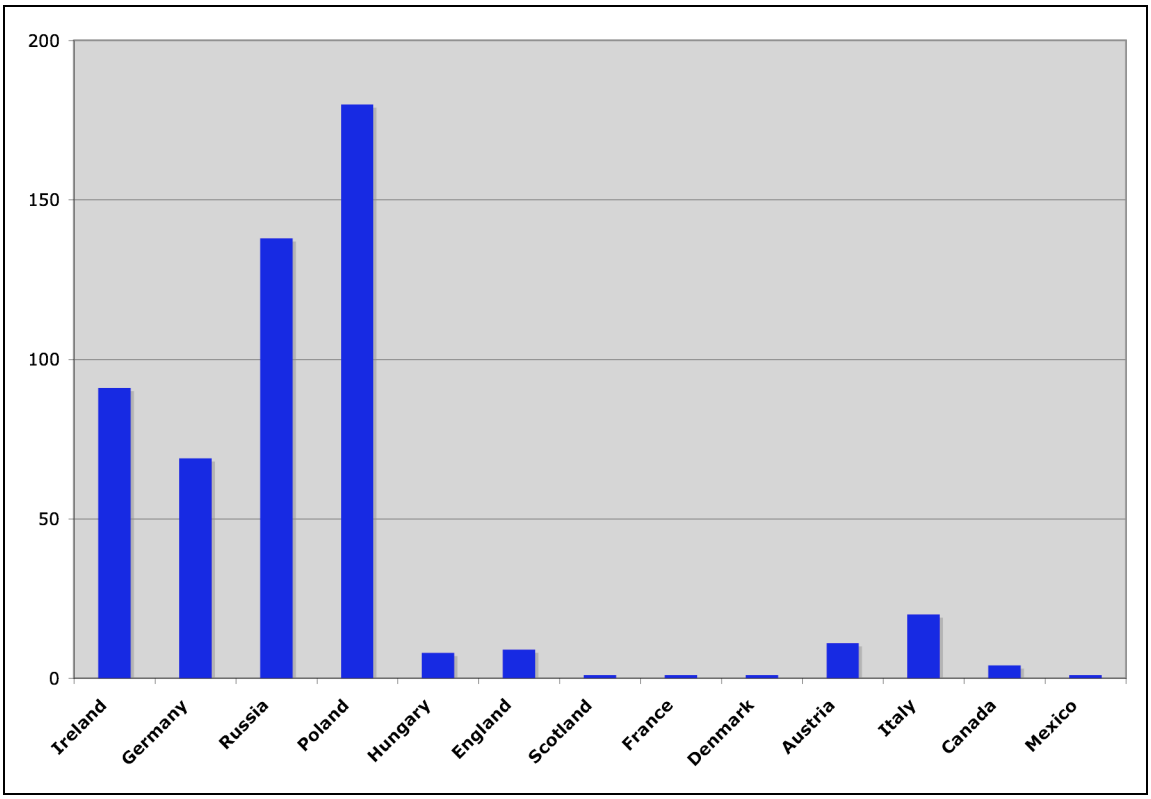


Figure 3.4 Number of Foreign Born Heads of Households in the Cochran Gardens Project Area according to the 1900 Census (from Harl 2006: 20)

It is necessary, however, to consider the external bias of the organization and individuals conducting the 'study' of this area. Similar to other urban 'slums' of the 19th and 20th centuries, such as Five Points in New York, neighborhoods containing large numbers of minorities were often subject to extreme condemnation by the majority population (Yamin 2001: 1). While this source is valuable in its temporal and geographic relevance to this study, it must be examined with a critical lens. The study was undertaken by the Civic League of St. Louis and written by Charlotte Rumbold, who was a prominent St. Louis civil servant and social reformer (Fischetti 2009). This organization conducted the study with the explicit expectation that the results would lead to the recommendation of "the abolition of the existing evils" of housing conditions in St. Louis (Rumbold 1908: 4).

Figure 3.5 A Yard Between Rear Houses on Eighth Street, "Preparing Spaghetti Sauce" (Rumbold 1908: 65)

Figure 3.6 "An unpaved yard on North Eighth Street" (Rumbold 1908: 41)

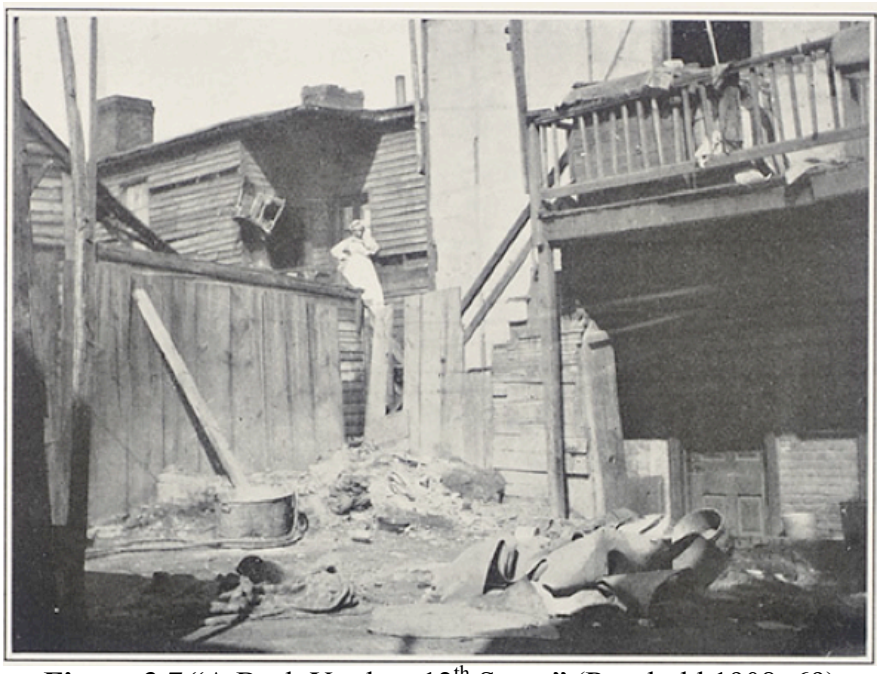


Figure 3.7 "A Back Yard on 12th Street" (Rumbold 1908: 69)

Fire insurance maps illustrate the spatial organization of the residences described in the 1908 report (Rumbold 1908), and Figure 3.8 shows the location of the features analyzed for this study in relation to roads, alleys and buildings. According to the report (Rumbold 1908: 11):

> The typical block presents a solid front to the street of two or three-story buildings of brick or wood. Then another such front faces the alley. Often the people in the alley have a separate address for the postman. It is practically another street. Each house, front and rear, covers the entire width of the lot. The entrance to the yard between the two houses is a passageway under part of the building, roofed over by the story above.

The alley tenements in the area are described as dilapidated, miserable and dirty, the people in them "poorer, more sickly, less cleanly and generally of lower standards in every way than those who live in front" (Rumbold 1908: 31).

While there seems to be a great deal of variability, from the mid-19th to the early 20th century, both the street and the alley buildings housed on average between 4 to 6 families each (Harl 2006: Tables 130, 131). The crowding within each tenement and flat varied from building to building, as did the organization of the residences (Rumbold 1908). Some families lived in

flats containing simply a living room, kitchen and bedroom, others contained parlors and multiple bedrooms (Rumbold 1908). Most residences in 1908 were recorded as containing kitchens, but "the gasoline stove comes out in May and the cooking goes on out of doors" (Rumbold 1908: 56). In 1908, two-thirds of the apartments required rents under $10 per month (Rumbold 1908: 84).

Other than census records, and the brief housing committee report, detailed accounts of working-class families in 19th century St. Louis are rare or nonexistent. In order to obtain a general estimate of expenditures of working-class families in late 19th-century America, therefore, I examined a 1909 report on the "standard of living among workingmen's families in New York City" (Chapin 1909). The report was based on a study involving "collecting comparing and combining workmen's budgets…to get a reliable representation of the standard of living" in New York around the turn of the century (Chapin 1909: 2). Based on this research, it is possible to get an approximation of the general expenditures of the working class in an urban environment, similar to that of St. Louis. Investigating families of several nationalities and at a range of income-levels, the report shows that, at the lowest income bracket ($499-$600), families averaged spending 26.8% of their income on rent, 5.6% on fuel, 40.8% on food, 13.0% on clothing, 3.1% on health and 6.7% on sundries (Chapin 1909: 70). Of the total food income, an average of 29.4% of the expenditure was on meat purchases (Chapin 1909: 125). According to Chapin, "most families buy their supplies from day to day in very small quantities, partly from the lack of facility for storing and keeping food and partly from the lack of money" (Chapin 1909: 132). The study also suggested that based on the nutritional requirements for a person at the time, 76% of families in the lowest income bracket ($600) were "underfed" (Chapin 1909: 143).

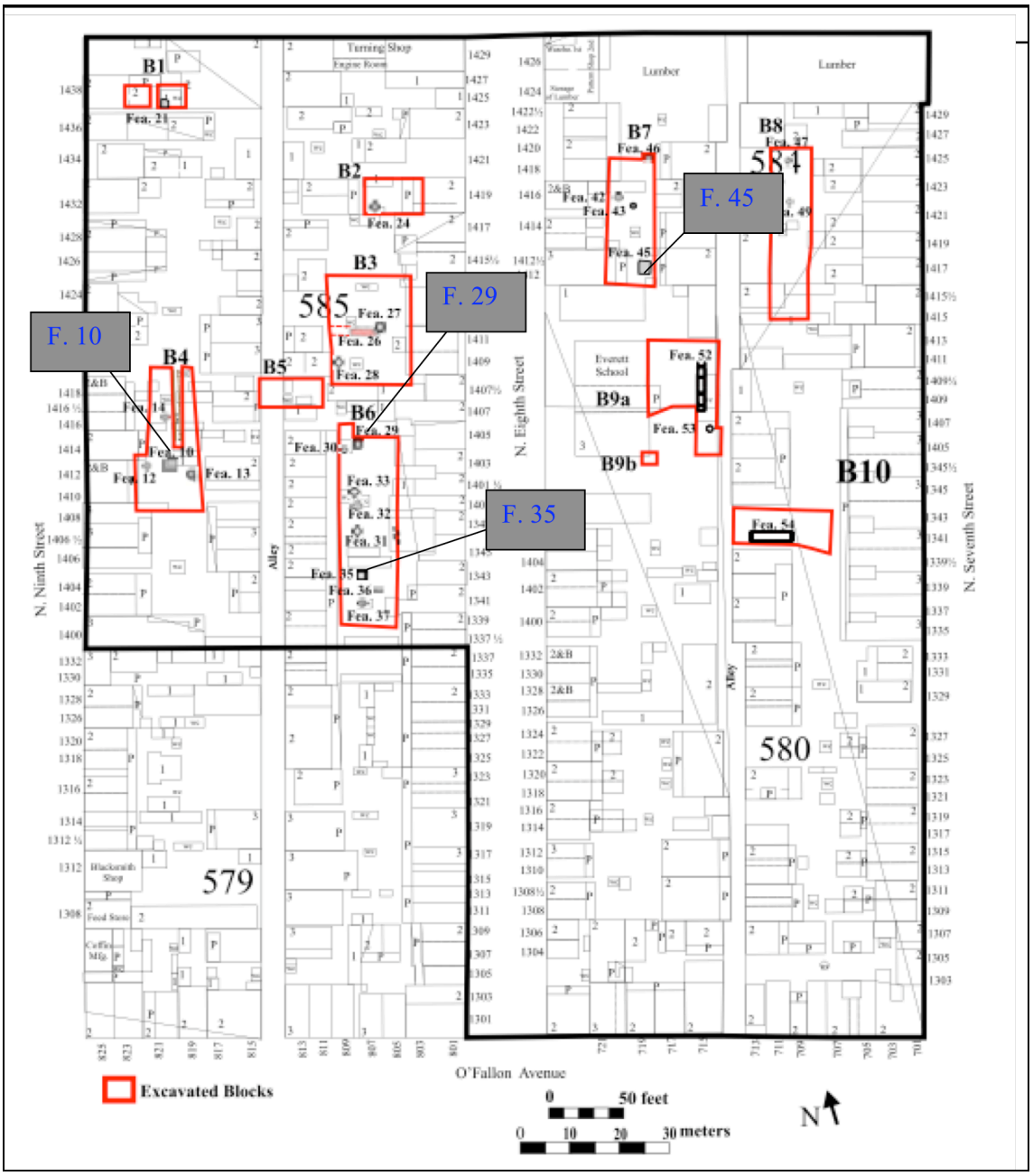


Figure 3.8 Location of Excavated Blocks and Features on 1876 Fire Insurance Map. Excavated blocks outlined in red. Features sampled for faunal analysis are highlighted. (Adapted from Harl 2006)

According to census records and documentary sources the turnover of families living in these residences varied within the neighborhood. While census records show changes in composition of the households between 1880 and 1900 (Harl 2006), some people were recorded as living in a residence for over 80 years (Rumbold 1908). Because the 1890 census was destroyed in

a fire there is an unfortunate gap in the housing data for the St. Louis. While there are undoubtedly records that could be recovered with extensive research, at this point, it is difficult to accurately determine how often tenants changed residences.

No organized trash collection existed in St. Louis until into the 20th century. Waste was therefore often deposited within the yards and communal features between the residences, as illustrated by photographs from the 1908 report (Figures 3.5, 3.6, 3.7) (Harl 2006; Rumbold 1908). According to Rumbold (1908: 13), the yard between the front and rear houses contained "the row of privy vaults, the piles of manure, ashes and garbage, the frequent dead rat which lies for weeks, the old mattresses and bed springs, the rags and rubbish, blood and feathers of fowls" (Figure 3.8). Refuse accumulated in the privy vaults when this garbage was cleaned and deposited into the pits, possibly after the privy went out of use (Harl 2006; Rumbold 1908). Privies therefore likely did not only serve as latrines, but later served as repositories for trash, likely at the time of its disuse.

The construction of privies, according to the city ordinance of 1881, was the responsibility of property owners (Sullivan 1881: 481). The ordinance states "each and every tenement within the city, except such parts which are not laid out in blocks, or where streets have not been opened, used as a dwelling house, or factory, shall be furnished with a suitable privy" (Sullivan 1881: 481). Additionally, the ordinance sets guidelines for the timing of privy cleaning, declaring "no privy shall be emptied at any other time than between the hours of twelve p.m. and four a.m., unless by special permission or order from the health commissioner" (Sullivan 1881: 483). Since individual landowners were in charge of digging and constructing the privies, there was variation in the size and construction types of the privies in the neighborhood (Wheeler 2000: 6).

Figure 3.9 "A Yard Toilet on North Eighth Street" (Rumbold 1908: 21)

Availability of Meat in 19th-Century St. Louis

St. Louis was an industrialized and urban city in the latter half of the 19th century, and it is likely that the households within this study were purchasing the majority of their goods, including meat, from local sources. The exceptions to this may be the raising of domestic fowl for personal consumption, and possibly the exploitation of wild resources, such as fish, from the Mississippi. By the 1840, St. Louis was home to several slaughterhouses to serve local farmers (Skaggs 1986: 44). Most of the meat from medium and large domestic mammals in St. Louis, then, likely came from these local suppliers, sold to butchers within the city limits. In order to establish the options available to the consumers living in the households in this study, I here provide background on the livestock industry in the United States, especially as this topic relates to consumer trends and changes in distribution or technology.

Since European settlement in North America, the raising, processing and consumption of domesticated animals has remained a significant social and economic component of American society. From the early years at Jamestown, with the few sheep, goats, cattle, hogs, horses and poultry brought across the Atlantic, livestock raising in America has transformed and changed as the country shifted from an agrarian to a market-based economy. Trends in the raising, processing, packing and consumption of livestock have shifted considerably throughout the history of the United States, due not only to technological advances, but to changing social structures and tastes.

Prior to the early 19th century, the raising of livestock for commercial use and family consumption in the United States was mostly centered in the eastern seaboard, usually as local and small-scale ventures. In the late 1700s, however, the "conditions were set for major expansion of livestock production" (Lesser 1993: 36). With the ongoing Westward expansion of Euro-Americans, specifically the opening of large parts of the Midwest, the livestock industry began to develop its roots in Ohio. With the introduction of the railroad, this industry was able to expand further, eventually moving westward throughout the Midwest, to the Great Plains and beyond.

Meatpacking up until the late 1800s was largely a seasonal undertaking on an industrial scale. Due to a lack of refrigeration, the slaughtering of livestock occurred during the dead of winter, producing a traditional November to March packing season (Wade 2003: 105). Dressing of the carcass remained the butcher's duty, with most of the fresh meat shipped during the cold months for retail sale. Slaughtered cattle, for example, would be sold directly to butchers and "as late as 1880…were disbursed in relatively small lots to wholesale butchers nationwide for the fresh-beef trade" (Skaggs 1986: 91). While fresh meat could only be shipped during the winter

months, meat could also be preserved by curing, drying, and smoking and sold throughout the year. The prevalence of cured meat during this period clearly influenced the trends in the consumption of meat in the United States.

Throughout the early and mid 19th century, meat consumption in the United States is marked by a clear preference for pork. In fact, this period is considered the "pork-eating era in American history, as distinguished from the predominantly beef-eating era of today" (Drury 1966: 133). This propensity for pig meat, however, was not due to an overall fondness for pork over beef, but largely due to a preference for *cured* pork over *cured* beef. According to Marvin Harris, during this time "as far as salted or barreled meat was concerned, pork was preferred over beef in most sections of the country" (1985: 115). Additionally, pork was more amenable than beef to preservation, and the process of "smoking and salting of ham, bacon, smoked butts, bellies, jowls and other cuts remained unchanged for many centuries" (Hampe and Wittenberg 1964: 171).

The post-Civil War era saw a considerable decline in pork consumption. Additionally, due to large demands during the Civil War, the numbers of hogs and cattle waned significantly, causing an increase in sheep consumption after the war (Skaggs 1986: 51). The impacts that the war had on meatpacking in the United States, nevertheless, paled in comparison to the effects of technological advancements made in the late 19th century, most specifically the development of the refrigerator railroad car.

George H. Hammond of Chicago developed the first successful iced freight car in 1869. This consisted simply of a car "cooled with blocks of ice and hung with many quarters of beef and pork" (Drury 1966: 145). While this initial development succeeded in transporting dressed beef far distances, it was Gustavus Swift in 1882 that more effectively refined and exploited the

technology. Regardless of claim to invention, this advancement drastically transformed meatpacking in the United States. Most notably, refrigeration altered the seasonal pattern of meatpacking, allowing business to continue in summer as well as winter. Again, until the late 1800s, "slaughtering and processing remained a local business that was carried on largely in conjunction with retailing" (Brody 1964: 1). After the arrival of the refrigeration car, "meat packing coalesced into a major industry, rapidly expanding to national and even international scope" (Drury 1966: 143). The car essentially created the dressed beef traffic, with the industry concentrated in a few geographical areas. The large packing plants in these centers were at an advantage because shipping dressed beef is less laborious, and therefore less costly than "cutting, trimming, curing, preserving, and packing in tierces, barrels, boxes, cans or jars" (Wade 2003: 105).

In addition to the development of the refrigerator car, the growth of the packing plant industry produced other innovations affecting the meat industry in the United States. Along with Philip D. Armour, Swift developed the concept of the "disassembly line" in meatpacking plants. This development consisted of "an overhead trolley or conveyor…which moved hanging carcasses past rows of workmen, each man assigned to a particular task in the disassembling of the carcass" (Drury 1966: 172). On one hand, this clearly improved the efficiency of the meatpacking plants. On the other hand, and of more concern to the archaeologist, this development standardized the dressing and processing of livestock, which would then be shipped throughout the country.

The introduction of cheaper, 'imported' meat from the Midwest throughout the United States did not develop without difficulty. Within many of the urban centers and cities, the public developed a staunch resistance to purchasing refrigerated meat (Clemen 1923: 221). As the

public was accustomed to purchasing fresh meat that had been slaughtered locally, the new dressed meat trade met complications. In addition, the local butchers themselves were clearly threatened by this expanding industry. Beginning in the late 1800's, "organizations were formed, prejudices enflamed, and, finally, laws passed in a number of states prohibiting the sale of out-of-state meat" (Brody 1964: 2). Soon, however, the meatpacking industries gained control of the market, providing cheaper meat throughout the year to retailers across the United States (Clemen 1923).

This transformation in livestock production and distribution produced changes in the options available to the consumer at a local butcher or market in 19th century urban America. Fresh, as opposed to cured, meats would be available year-round, and beef consumption would nearly equal pork consumption in the United States at the turn of the century (Clemen 1993: 211; Harris 1985: 119). While these developments changed what was available, the rise of the meatpacking industry also regulated the butchery of livestock. With some regional variability in butchery throughout North America (Schueren 1927), the rise of the meatpacking industry created a relative standardization of the meat-cuts available to consumers.

Aside from the lack of power tools, practices for slaughtering and butchering livestock during the mid to late 19th century were similar to those used today (Schulz and Gust 1983: 48). According to Landon (1995: 58), the butchery process involves three principal steps. First, the animal is slaughtered, and the carcass is dressed and eviscerated (Landon 1995: 58). Next, the carcass is divided into major portions, at least split and likely quartered. "Tertiary butchery" involves the final dividing of the animal occurring before and during consumption (Landon 1995: 58).

For slaughtering and butchering livestock, a meat saw, a cleaver, and knives are required (Ashbrook 1955: 60). The late 19th century saw the introduction of electricity and power tools, however, these are not known to have been ubiquitous tools in packing houses until the mid 20th century (Ashbrook 1955). Since the tools and methods have largely remained the same for the past 150 years, I will now describe the general methods involved in these steps, including tool types, that were likely employed during the butchery of commercial livestock during the second half of the 19th Century. Figures 3.10, 3.11 and 3.12 illustrate the 'standard' retail butchery cuts for American livestock.

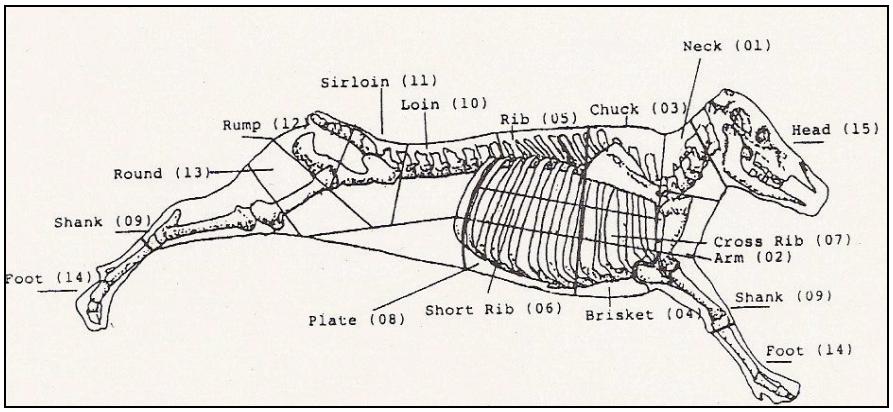


Figure 3.10 Standard Retail Beef Cuts (Azizi et al. 1996: 239)
*(Numbers next to meat cuts were used for coding.)

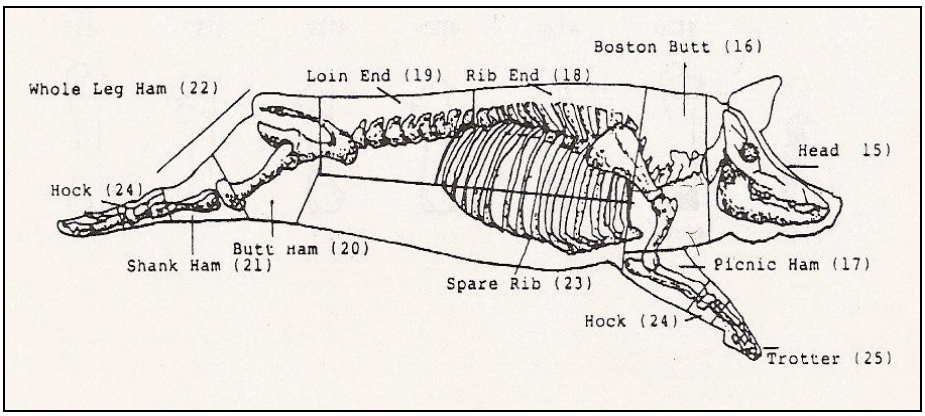


Figure 3.11 Standard Retail Pork Cuts (Azizi et al. 1996: 239)

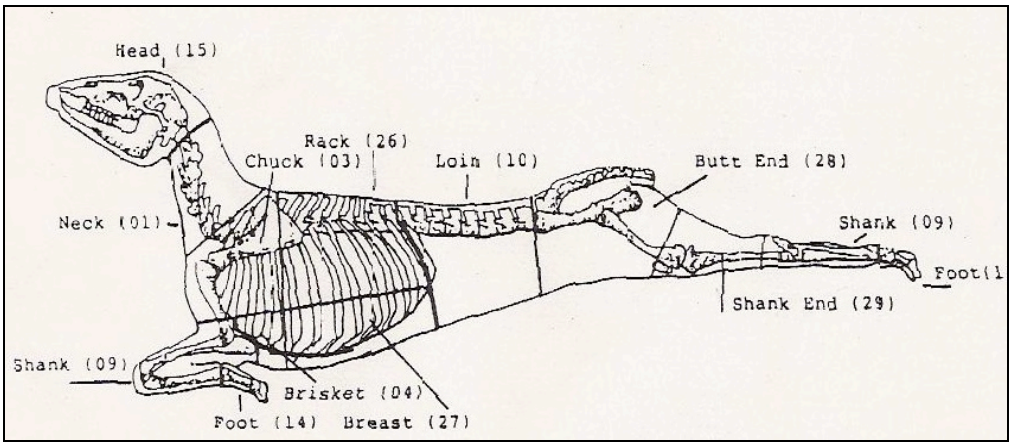


Figure 3.12 Standard Retail Mutton Cuts (Azizi et al. 1996: 239)

For cattle, after slaughter, the first step of the butchery process involves the skinning, exsanguination, evisceration, and the removal of the head, typically with a saw or knife (Ashbrook 1955: 95-97; Romans et al. 2001: 178-183). At this point, the shanks of the cattle are often removed, with a saw or knife (Ashbrook 1955: 95-97; Romans et al. 2001: 178-183). The animal is then halved along the sagittal axis, which may be accomplished with a saw or with a cleaver (Ashbrook 1955: 99; Romans et al. 2001: 178-183). With this action, the sternum, vertebra and pelvis will all split. Although the next stage varies according to local taste, the carcass is then quartered, typically between the 12th and 13th rib, using either a saw or typically a knife to sever the vertebrae. The rib and plate are then "severed from the chuck, brisket, and shank by a cut made between the fifth and the 6th ribs," after which the plate and rib cuts are then separated, cutting through the ribs usually with a saw (Romans et al. 2001: 547). These sections may or may not be processed further, depending on the butcher and/or meatpacking company (Ashbrook 1955: 140; Romans et al. 2001: 548).

The processing of the hindquarter of cattle involves the separation of three wholesale cuts, including the round, the loin, and the flank, (Romans et al. 2001: 562). The loin is separated from the round and rump at the articulation of the head of the femur with the

acetabulum, cut with a knife, a saw or both (Ashbrook 1955: 143; Romans et al. 2001: 565). If necessary, the hindshank is removed near the articulation of the tibia and the femur, usually with a knife (Ashbrook 1955: 143; Romans et al. 2001: 569). The short loin is then separated from the sirloin with a saw or knife, and these cuts may be further sectioned into steaks, as may the round (Romans et al. 2001: 577-585).

For butchering pigs, most of the initial processing is very similar to that of cattle. After slaughtering and dressing, the carcass is split sagitally and the head is removed (Ashbrook 1955: 127; Romans et al. 2001: 168). The first step in butchering a pig is often the removal of the hind and front feet, which is typically completed with a saw at the distal end of the tibia and radio-ulna, respectively (Ashbrook 1955: 129-136; Romans et al. 2001: 509). The ham of the pig is removed with a saw or knife, cutting through the illium; and the shank may be removed at the articulation of the tibia and femur (Ashbrook 1955: 131; Romans et al. 2001: 512-513). The loin is separated from the shoulder, usually with a saw between the 1st and 3rd rib (Ashbrook 1955: 127; Romans et al. 2001: 517). A saw is then used to cut the belly off of the line across the ribs, and to sever the picnic from the boston butt along the distal end of the scapula (Ashbrook 1955: 131; Romans et al. 2001: 528). As with cattle, these cuts may be sectioned into smaller cuts for retail sale.

Unlike cattle and pigs, sheep carcasses are often not split during the initial processing stage (Ashbrook 1955: 148; Romans et al. 2001: 599). The legs of the sheep are separated from the loin at the last lumbar vertebra, and this section is then split at the pubis with a saw or knife (Ashbrook 1955: 148; Romans et al. 2001: 603). The foot is removed from the leg with a knife, and the shank may be separated near the articulation of the femur and tibia (Ashbrook 1955: 148; Romans et al. 2001: 605). A knife is then used to separate the foreshanks from the shoulders, at

the distal end of the humerus (Ashbrook 1955: 148; Romans et al. 2001: 612). The rack is cut from the loin, with a saw, between the fourth and fifth ribs, and the neck is removed at the last cervical vertebra (Ashbrook 1955: 148; Romans et al. 2001: 168). The butcher then uses a saw to separate the pair of shoulders, cutting through the vertebral column (Ashbrook 1955: 149; Romans et al. 2001: 613).

Meat Availability in Cochran Gardens

A number of slaughterhouses were present within St. Louis around mid-century serving local farmers (Skaggs 1986: 88). By 1872, St. Louis had well-established stockyard companies, providing livestock for Missouri residents and beyond (Pate 2005: 21). St. Louis became a "mecca" for cattle drovers in the later 19th century, with cattle trains arriving from the West and heading to the 400-acre National Stockyards across the river (Rammelkamp 1963). In 1873, these stockyards had a daily capacity of 17,000 cattle, 20,000 hogs, and 15,000 sheep (Pate 2005: 73). The location of the stockyards next to the city ensured that within St. Louis, "the market for the local consumptions is always well supplied" (Kargau 1902: 124). The stockyards in St. Louis did not close until 1959 and were an integral part of the national meatpacking system until that time (Pate 2005: 73). It is likely that these industries in East St. Louis provided constant availability of fresh meat for the residents of Old North St. Louis at a lower cost than in other cities. The nearby stockyards may have provided local residents with free or inexpensive meats. These industries, however, were located on the eastern banks of the Mississippi and not directly accessible to St. Louis residents, which may have prohibited the acquisition of free and/or cheap meat from these sources.

The fresh meat supply in the later 19th Century within St. Louis was maintained by local sources (Kargqau 1902), but with the development of the meatpacking industry, prices for refrigerated meat declined towards the turn of the century (Robbins 1999). The centralization and increasing efficiency of the meatpacking industry put many small, localized slaughtering and butchering operations out of business, therefore forcing most cities in the United States to import refrigerated meat (Robbins 1999: 228). Due to the presence of the slaughterhouses in East St. Louis, however, this may not have significantly influenced the residents of Old North St. Louis. The availability and use of products transported on refrigerator cars for the residents living in the project area is supported by the recovery of a milk bottle, with a marking from a Chicago company, from Feature 29 (Harl 2006: 122).

Historical maps and records show that "family owned businesses existed at the north and south ends of the blocks," which included butchers (Harl 2006: 18). These shops provided consumers access to beef, pork and mutton, and undoubtedly exotic and imported items. With regard to domestic bird resources, chicken and turkey, along with various other wild and domestic avian species would likely have been available for purchase at the local markets as was common in industrialized urban areas of the time (DeVoe 1867). According to contemporary accounts of the project area, residents were known to raise their own chickens in the yards between buildings at least as late as beginning of the 20th century (Rumbold 1908: 11). Fish would also have been available, and according to accounts of late 19th-century urban markets, fresh and salted fish could likely be purchased locally in St. Louis (DeVoe 1867). Additionally, the proximity of the neighborhood to the Mississippi River – the project area is located approximately 1 mile from the bank of the river - may have provided resources to supplement the diets of these families, in the form of fish, wild birds, and other aquatic species

This chapter has provided the specific context for analyzing Cochran Gardens faunal assemblages. I have outlined the general conditions at the time of deposition of the materials, discussed the specific setting, including the population and environment, of the Cochran Gardens features in Old North St. Louis, evaluated the depositional contexts of the materials, and assessed the availability of resources within St. Louis. With the historical and documentary record in place, I will now address the archaeological record at the Cochran Gardens site.

CHAPTER 4
THE COCHRAN GARDENS HOPE TRACT VI SITE: MATERIALS AND METHODS

In this chapter I discuss the excavation, location and depositional context of the archaeological features that are germane to this thesis, and also provide census data associated with each specific feature. Additionally, I present an overview of the materials recovered from the features analyzed for this study, and then discuss the methods used to analyze the faunal remains from Cochran Gardens. Finally, I provide the results of the laboratory analysis of the faunal remains, presenting a summary of the species and meat cuts identified in each assemblage.

Cochran Gardens Hope VI Development Tract

Excavations conducted in 2005 by the Archaeological Research Center of St. Louis, Inc., sampled 9% of the proposed development area in northern St. Louis. The site revealed 25 yard and 14 architectural features dating from the mid-late 19th century, including four cisterns, one well and 14 privies. Recovering thousands of artifacts, the investigations provided significant insight into the "changing social patterns among St. Louis' residents from the 1840s until the early 1900s" (Harl 2006: 32).

According to the report (Harl 2006: 39) 26 of the identified features were thoroughly investigated. The top of each feature was drawn and photographed in plan view, and a backhoe was used to take a cross-section of the yard features, to a depth of 10 feet below modern grade (Harl 2006: 39). The remaining halves were profiled and excavated with trowels or shovels in arbitrary 20cm levels, unless a different fill was encountered (Harl 2006:39). The fill was screened through one-quarter inch wire mesh and artifacts placed into bags with appropriate provenience information (Harl 2006: 39).

In this analysis I used a sample of faunal remains from four of the privy features, Features 35, 10, 45 and 29 (Figure 3.6).

Utilizing historical maps and census records, the project researchers attempted to link each feature with a specific household. Census data from 1880 and 1900 are summarized in Table 4.1. Because some of the features, such as privies, may be linked only to a general time span, associating specific household residents with the deposited materials was a difficult task. Furthermore, because census records were not available for 1890, associating a single household with each feature was not always possible (Harl 2006).

Although the features were dug stratigraphically, the Cochran Gardens report noted few incidences of visually-evident stratigraphy within features, and does not provide information on stratification in artifact deposition (Harl 2006). This fact produces difficulty in using stratigraphic levels to distinguish deposits, because without field separation, "it is highly unlikely that artifacts from individual deposits can be distinguished during processing or analytical phases of work" (Wheeler 2000: 30).

Additionally, privies were not typically regular trash receptacles, often only occasionally used to deposit trash during yard cleaning or before its closure (Griggs 1999: 93; Rothschild and Balkwill 1993: 75). The refuse within a privy could represent one or more cleaning episodes, and the bones deposited during this episode may span a long time interval. Another important consideration for stratigraphy is that "maintenance practices for privies consist mainly of cleaning, resulting in a subtractive formation process of removing deposits" (Wheeler 2000: 9), a behavior confirmed to exist in St. Louis, as noted by the city ordinance (Sullivan 1881). Furthermore, the possibility that a liquid matrix may have filled the privies during the time of the

deposition of the materials may obscure stratigraphy in deposits. According to Wheeler (2000:8), "in impervious privy shafts constructed with the aim of containing human waste, we may discover that heavier artifacts tended to sink to the bottom of the privy shaft."

Table 4.1. Demographic Statistics of Features Sampled for Faunal Analysis

Feature	Dates[1]	Census Year	Address[1]	Nationality	Occupation	Number of Children/ Boarders
F. 35	1850-1870	1880	1343 N. 8th St	Ireland Ireland Ireland	Laborer Grocery Store Gas Fitter	3 2 2, 2 relatives
F. 10	1870-1880	1880	1412 N. 9th St.	Prussia Ireland Ireland Ireland Germany	Tailor Laborer Stovemoulder Widow, KH[2] Stove factory	5 1 1 3 (1 son chair factory) 1
F. 45	1880-1890	1880	1412 N. 8th St.	Ireland Ireland Ireland Penn Ireland AF.[3] MO[4] AF. TN AF. LA	Grocery Laborer Pork House Widow, KH Laborer Laborer Rag Shop Keep House	0 2 (1 dau. sewing, 1 son foundry) 0 1, 1 son in law 0 1 0 0
F. 29	1880-1900	1880	1403 N. 8th St	Ireland Ireland	Printer Widow, KH	2 relatives, 1 boarder, 1 dau. sewing, 1 son teamster
		1900	1417 N. 8th St	MO Ireland Russia	Widow Widow Tailor	3 3 (1 son boilermaker, 1son teamster, 1 dau. telegraph agent) 2

From Harl (2005)
[1]Information is based on the households most likely associated with the privies according to documentary evidence.
[2] KH = Keep House
[3] AF=African American
[4] MO=Missouri, TN=Tennesssee, LA=Louisiana

Due to the reasons outlined above, materials deposited in each feature are treated as a single assemblage for the following analysis. The materials from each of the features represent a

sample of consumer behaviors of the associated residences. Artifacts recovered from each of the features are summarized below, as described in the Cochran Gardens report (Harl 2006). The dates associated with the features were determined from ceramics and other artifacts found with the faunal materials (Harl 2006).

Materials Recovered: Feature 35

Feature 35 was a privy with limestone lining, containing a fill of mixed cinder and limestone rubble extending 170 cm in depth (Harl 2006: 201) (Figure 4.1). According to the report, most of the artifacts recovered from this feature were dining and kitchen-related (Harl 2006: 221) (Table 4.2). Based on the artifacts recovered, the fill was likely deposited sometime between the 1850's to the 1880's, which made this feature one of the oldest recovered in the excavations (Harl 2006: 221).

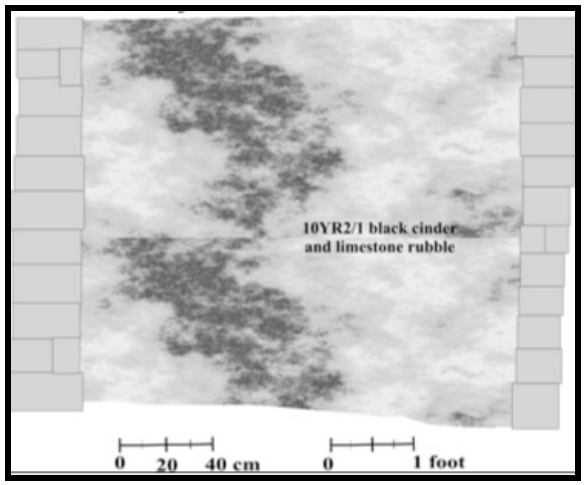


Figure 4.1 Feature 35 North Wall Profile (Harl 2006: 201).

Dining and kitchen related artifacts recovered from this feature included ironstone and other ceramics, glass, and metal pieces. This included tableware, storage jars and drinking containers. According to Harl (2006: 213), "manufacturer's marks on the ceramics indicated that the majority of the dinnerwares dated between 1836 and 1867" (Table 4.3). The presence of one unknown vessel contained an Alfred Meakin mark, which was produced from 1875-1913, suggests

a somewhat later date of deposition for some of the materials in the deposit. This date presents fairly reliable support for the association of this feature with the residents listed in the 1880 Census.

Table 4.2 Artifacts Recovered from Feature 35

Artifact Category [a]	N (%)
Dining/Kitchen [b]	98 (45%)
Clothing Items	44 (20.2%)
Recreational Drinking	27 (12.4%)
Medicine/Hygiene	23 (10.6%)
Personal Objects	14 (6.4%)
Household	12 (5.5%)

[a] Frequencies represent minimum numbers calculated for each category
[b] Does not include faunal remains

Table 4.3 Manufacturer's Marks on Ceramic Vessels Recovered from Feature 35

N	Type	Manufacturer's Marks
1	Unknown	Alfred Meakin, Tunstall, Staffordshire, England, 1875-1913
1	Plate	Agricultural vase "RMW&Co. Improved Granite China" Ridgway, Morley, Wear & Co., Broad Street, Sheltons Hanley, Staffordshire, England, 1836-1842
1	Saucer	Garden scenery "TJ&J Mayer" Thomas, John, and Joseph Mayer, Longsport, Burslem, Broad Street, Sheltons Hanley, Staffordshire, England, 1836-1842
2	Plate	Garden Scenery by TJ&J Mayer, Longport, 1842-1855
1	Plate	Boston Mail by James and Thomas Edwards, Burslem, Staffordshire, England, 1839-1842
1	Soup plate	"Muleteer" by Henry and William Davenport, Longport, Staffordshire, England, dated 1836
1	Bowl	"Edw. Challinor", Tunstall, Staffordshire, England, 1842-1867, marked "December 18, 1856"
1	Plate	"Imported by N.E. Janney & Co. No. 80 Main St. For the Planters House", 1835-1851

Clothing items recovered from this feature included buttons, mostly porcelain, a brass and glass cuff link and a mother of pearl collar stay. Artifacts associated with recreational drinking included a porcelain tea set, 18 bottles that contained carbonated drinks, and 8 containers that held alcohol (Harl 2006: 215). Medicinal and hygiene products recovered from

Feature 35 include 21 medicine bottles, 1 lice comb and 1 toothbrush with a bone handle (Harl 2006: 217). Personal items deposited in this feature included a plastic fan rib, 1 penny, 5 pipes, and 6 children's items (Harl 2006: 219). Household products from this feature included chamber pots, pitchers and 3 "writing implements" (Harl 2006: 215).

The privy is associated with the residence at 1409 or 1411 N 8th Street, and according to the 1880 census, which is the earliest census record that provides street addresses in this neighborhood, the buildings were flats that housed three families each (Harl 2006: 221). Establishing which specific household utilized this privy was difficult with the documentary records used for the report and those obtained for this study. If we rely on the later date of the assemblage based on the Meakin mark, however, we can associate at least some of the materials in this deposit with an all-Irish household, with the residents holding unskilled and low paying skilled positions (Harl 2006: 222). According to Harl (2006: 219) the recovery of some more costly artifacts recovered in this feature, such as a mother of pearl collar stud, a porcelain egg cup, as well as the high incidence of serving vessels recovered, may suggest that individuals of middle class standing occupied a residence utilizing this privy prior to 1880. The Turkish face pipe, for example, was a status symbol as the face "reflects the quality of smoking tobacco, as Turkish tobacco was supposedly of the best quality" (Harl 2006: 219). Without direct documentary evidence, however, it is prudent to remain cautious in assigning status to this household.

Materials Recovered: Feature 10

The excavated block containing this feature represented flats that, according to the 1880 census, were owned by German immigrants who occupied the first floor, and rented out the remaining floors to Irish immigrants (Harl 2006: 83). Specifically, many of the materials

deposited in this privy are associated with 1412 N 9th St., a building owned and occupied by William Kaflsing, a Prussian tailor (Harl 2006: 223). Feature 10, along with Feature 35, represents one of the oldest features recovered in the excavations. Serving as a privy, and lined with wood, this feature was disturbed by a sewer line after the deposition of the materials, which cut through the center of the privy (Harl 2006: 84) (Figure 4.2). The fill was a very dark silty clay, and contained mostly artifacts associated with dining and kitchen activities (Harl 2006: 103). Based on the materials recovered, this feature seems to date between 1860 and 1880 (Harl 2006: 103).

Figure 4.2 Feature 10 North Wall Profile Revealing Remains of Wood Lining

Table 4.4 Artifacts Recovered from Feature 10

Artifact Category[a]	N (%)
Dining/Kitchen[b]	115 (33.2%)
Clothing Items	87 (25.1%)
Medicine/Hygiene	50 (14.5%)
Personal Objects	40 (11.6%)
Recreational Drinking	27 (7.8%)
Household	27 (7.8%)

[a] Frequencies represent minimum numbers calculated for each category
[b] Does not include faunal remains

Feature 10 contained a variety of ironstone and other ceramic dinnerware, serving vessels and storage containers (Table 4.4) (Harl 2006: 88). Glass storage and drinking containers were also recovered, as were multiple condiment, fruit and extract jars (Harl 2006: 88).

Manufacturers marks indicate that "the dinnerwares were produced between 1855 and 1891, although the majority of the ceramics were probably discarded sometime during the 1860s and 1870s" (Harl 2006: 89) (Table 4.5). This feature is fairly reliably associated with the residents of 1412 N 9th St., listed in the 1880 census.

Table 4.5 Manufacturer's Marks Found On Ceramic Vessels from Feature 10

N	Type	Manufacturer's Marks
1	Pitchers	"C. & W. K. Harvey," Charles Street Lane, England, 1835-1852
1	Saucer	"Mayer & Elliot, Dec. 18, 1856", Longport, Staffordshire, England, 1855-1860
1	Plate	"Hope and Carter, Burslem", Staffordshire, England, 1862-1880
1	Plate	"Turner, Goddard & Co.", Tunstall, Staffordshire, England, 1867-1874
1	Plate	"W. & E. Corn, Burslem", Staffordshire, England, 1864-1891

A variety of artifacts associated with recreational drinking were found in Feature 10. Carbonated beverage consumption is represented by 16 bottles, and a minimum of 3 objects found were associated with tea drinking. A minimum of 9 alcoholic beverage containers were recovered in this feature.

Household items recovered included mostly pitchers (N=7), and chamber pots (N=7). The pitcher with the C. & W.K. Harvey was the oldest dateable artifact found in Feature 10, produced between 1835 and 1852. Other household items from this feature include a wash basin, a shaving mug, a lid to a shaving cream jar, a porcelain bud vase and seven writing implements.

Materials Recovered: Feature 45

Feature 45 is a rectangular wood-lined privy with a depth of approximately 112 cm, and contained black cinder fill (Harl 2006: 270) (Figure 4.3). Unfortunately, a looter disturbed this feature, likely affecting the stratigraphy of the deposited materials, however, this should not significantly affect this analysis (Harl 2006: 270). Clothing, along with dining and kitchen-

related artifacts dominated the artifacts recovered from Feature 45 (Harl 2006: 288). The artifacts uncovered in this feature suggest that the privy dates from approximately 1880 into the 1890's (Harl 2006: 270) (Table 4.7).

Clothing comprised the largest numbers artifact of those recovered from Feature 45 (Table 4.6). Most of the clothing items recovered were porcelain buttons (N=52), but buttons made from glass, bone and brass were also found in Feature 45. Dinnerwares and kitchen items comprised many of the items recovered from this feature. Similar to the other features, these included ironstone and other ceramics, and metal artifacts. Feature 45 contained a range of serving, drinking, storage and condiment containers as well as plates, bowls and utensils.

Figure 4.3 Feature 45, Facing North, with Traces of Wood Lining (Harl 2006)

Personal items recovered included a pocket watch, two plastic hair combs, four coins, and a crinoid stem, which may have been associated with limestone that was deposited in the pit (Harl 2006: 283). Children's items deposited in Feature 45, consist of a minimum of 8 marbles, 4 dolls and 6 pieces to a toy tea set. Additionally, a minimum number of 7 pipes were recovered from the feature. One pipe, in particular, was inscribed with the message "Home Rule,"

associated with Irish politics, supports the idea that individuals with Irish heritage deposited some of the materials (Harl 2006: 288).

Table 4.6 Artifacts Recovered from Feature 45

Artifact Category [a]	N (%)
Clothing	76 (32.2%)
Dining and Kitchen [b]	67 (28.4%)
Personal Objects	34 (14.4%)
Household	29 (12.3%)
Medicine/Hygiene	19 (8.1%)
Recreational Drinking	11 (4.7%)

[a] Frequencies represent minimum numbers calculated for each category
[b] Does not include faunal remains

Feature 45 contained a variety of household, medicinal and hygiene, and recreational drinking related artifacts. The household objects recovered include chamber pots, pitchers, spittoons, a shaving mug, a porcelain candle holder and vase, and 16 writing implements. Artifacts associated with medicine include 14 unknown bottles and 2 bottles with maker's marks. Additionally, a toothbrush fragment, a cologne bottle and a perfume bottle were found within Feature 45. Only a small number of artifacts represented recreational drinking behavior (N=11). These included items from tea sets, carbonated beverage bottles and alcoholic beverage bottles.

Table 4.7 Manufacturer's Marks Found on Ceramic Vessels from Feature 45

N	Type	Manufacturer's Marks
1	Saucer	William Adams, Tunstall, Staffordshire, England, 1829 - 1865
2	Plate and Pitcher	"Liddle Elliot & Son" Longport, Staffordshire, England, 1860-1870
1	Plate	"H. Burgess" Burslem, Staffordshire, England, 1864-1892
1	Plate	"Peru" Peter Holdcroft &Co., Burslem, Staffordshire, England, 1846-1852
1	Plate	"Castle Scenery JF", Jacob Furnival & Co., Cobridge, Staffordshire, England, 1845-1870
1	Creamer	"W. M. Co." Willets Manufacturing Co., Trenton, New Jersey, 1879-1909

As with other features from the project, this privy has an unclear association with particular individuals. This ambiguity is largely due to the time elapsed between the census data, making it difficult to determine when specifically the residents in the household changed (Harl 2006: 287). Based on the 1880 census, eight families mostly of Irish heritage occupied the residence, with the upper stories occupied by two African American families (Harl 2006: 287). By 1900, the residence housed immigrants of mostly eastern European descent (Harl 2006: 287).

Materials Recovered: Feature 29

Excavations revealed that this feature served as a privy, with limestone lining (Harl 2006: 119) (Figure 4.4). This feature revealed a relatively small amount of artifacts, as compared to the other features excavated, and unfortunately looters disturbed the upper 10 cm of this feature (Harl 2006: 119). Materials associated with dining and kitchen activity represented the largest percentage of the artifacts recovered (Harl 2006: 127) (Table 4.8). The artifacts recovered suggest that the privy was in use and closed around the turn of the century (Harl 2006: 127).

Table 4.8 Materials Recovered from Feature 29

Category [a]	N (%)
Dining and Kitchen [b]	24 (41.4%)
Clothing	10 (17.2%)
Recreational Drinking	9 (15.5%)
Personal Objects	6 (10.3%)
Medicine/Hygiene	5 (8.6%)
Household	4 (6.9%)

[a] Frequencies represent minimum numbers calculated for each category
[b] Does not include faunal remains

The artifacts related to dining and kitchen activities found in Feature 29 included ironstone plates bowls, platters, cups and saucers and a stoneware crock and jug. Additionally, 2 glass milk bottles and a single brass spoon were recovered. With the exception of the saucers, few of

the ironstone or stoneware artifacts were decorated. One saucer was decorated with a blue transfer print containing a "Boston Mails" pattern, which was produced by a company in England operating between 1839 and 1842 (Harl 2006: 120). Of the two milk bottles recovered, one contained embossed lettering indicating its origination in Chicago, demonstrating the effect of refrigerator cars on the long distance shipment of perishable items (Harl 2006: 120).

Clothing items recovered included brass, glass and porcelain buttons. Feature 29 contained 4 bottles for carbonated beverages and 5 containers for alcoholic beverages. Additionally, the personal objects found within this feature include a bone snuff vial, 3 smoking pipes, a porcelain marble and a minimum of 1 doll. Household items were the least common artifacts recovered from Feature 29. These items included two chamber pots and two writing implements.

The medicinal and hygiene items from Feature 29 provide a good indication of the date of deposition of the materials. According to Harl (2006: 124):

> Only three medicine bottles were found. One of these contained embossed lettering indicating that it had been produced by the "Wolff-Wilson Drug Co." located in St. Louis. On its base is the manufacturer's mark of the Obear Nester Glass Company of East St. Louis, Illinois, who produced the bottle from the drug company. The company continued in operation from 1894 until 1980, but it used the mark recovered from the feature until 1915. Preceding the company mark was "REX" which was placed on prescription bottles after 1896. So the bottle was dumped into Feature 29 sometime between 1896 and 1915. Personal hygiene products included a tooth powder bottle produced by the Illinois Glass Company of Alton, which was in operation between 1873-1929, although they only marked their bottles from 1900 - 1929. A small perfume bottle was also found that had been produced on a fully automatic machine and had a sheared finish. Bottles of this type were produced after 1903.

Based on the bottles recovered from this feature, there is solid evidence that this feature represents a turn-of-the century deposition. It is likely then, that many of these materials are associated with the residents of 1417 N. 8th St., listed in the 1900 census. The residents included families of American, Irish and Russian descent.

Figure 4.4 Feature 29 West Wall Profile

Methods Used For the Analysis of the Faunal Remains

The faunal remains were analyzed using standard zooarchaeological methods, and coded based on a system adapted from Azizi et al. (1996) (see Appendix A). With the exception of fish remains, which were only identified to class, all bones were identified to the lowest taxonomic level possible utilizing the comparative faunal collections in the Department of Anthropology at Washington State University and the Department of Anthropology at the University of Idaho, and reference materials including Brown and Gustafson (2000), Gilbert (1990), Gilbert et al. (1981), Hillson (2005), Olsen (2004), Pond and Mersmann (2001), and Sisson (1953).

Recordation Techniques

All food remains identified were likely locally purchased, acquired or raised, in the case of some poultry. Large mammals, then likely represent cattle (*Bos taurus)*, while medium mammals, likely came from pig (*Sus scrofa)* or sheep/goat (*Ovis aries/Capra hircus)*. These bones likely represent common breeds of each species known for the late 19th century. Common cattle breeds in the 19th Century included Angus, Hereford and Shorthorn, and eventually the

Texas Longhorn (Skaggs 1986). Pig breeds in the 19th Century included English Berkshire, Bedford, Byfield and Irish Graziers (Clemen 1923: 48-49).

Each specimen identified as cattle, pig or sheep/goat was then assigned to a specific retail meat cut as designated by Azizi et al. (1996), associated with standard American butchery techniques utilized for the past 100 years (Figures 3.10, 3.11, and 3.12). Elements identified to species correspond to specific illustrated meat cuts, based on an extended version of Lyman's (1977) system (Azizi et al. 1996: 211). The illustration of the specific fragment or section of an element is correlated to the retail meat cut it represents (Azizi et al. 1996: 211). This system accounts for the difficulty in linking identifiable fragments to specific meat cuts. Butchering units for beef, for example, contain different portions of the same element (see Tables 4.5, 4.6, 4.7). In addition, any observable refits or conjoined bones, that is any bones from a single animal that put back together, were recorded in order to better determine the actual number of bones present, as opposed to bone fragments.

Table 4.9 Skeletal Correlates to Cattle Butchering Units

Butchering unit	Skeletal definition
Hindshank	Tibia, distal femur, patella, proximal metatarsal
Round/buttock	Femur shaft
Rump	Proximal femur, ischium, pubis, acetabulum
Loin	Lumbar vertebra
Sirloin	Ilium, sacrum, sacral vertebra
Plate/Brisket	Ventral rib, rib cartilage, sternum, ventral rib
Ribs	Dorsal rib 6-12, thoracic vertebrae 6-12
Foreshank	Radius-ulna, distal humerus, proximal metacarpal
Neck	Cervical vertebrae, proximal humerus, distal scapula
Chuck	Dorsal rib 1-5, thoracic vertebrae 1-5, humerus shaft, scapula blade
Arm	Proximal humerus, humerus shaft, distal scapula
Foot	Metacarpals, tarsals, carpals, phalanges

Both cultural and non-cultural taphonomic processes were assessed in the assemblages, using zooarchaeological methods posited by Lyman (1994). The following attributes were

recorded for each specimen: weathering stage and other natural taphonomic processes (Behrensmeyer 1978); presence of carnivore or rodent gnawing (Binford 1981; Lyman 1994b); presence and intensity of burning (Brain 1981; Johnson 1989); and any evidence of butchery (Binford 1981; Crader 1990; Landon 1996), including cutting, chopping, sawing, and any signs of breaking for marrow extraction (i.e. spiral fracturing, impact points).

Table 4.10 Skeletal Correlates to Pig Butchering Units

Butchering unit	Skeletal definition
Boston Butt	Scapula blade, proximal humerus, cervical vertebra
Picnic Ham	Distal humerus, radius, ulna
Rib End	Dorsal ribs, thoracic vertebra, proximal scapula
Spareribs/Side	Mid and ventral ribs
Loin End	Lumbar vertebrae, ilium, sacrum
Ham	Acetabulum, pubis, ischium, proximal femur and shaft
Shank Ham	Distal Femur, proximal tibia and shaft
Hock	Carpals, tarsals
Foot	Metatarsals, metacarpals, phalanges

Table 4.11 Skeletal Correlates to Sheep/Goat Butchering Units

Butchering unit	Skeletal definition
Shoulder	Tibia, distal femur, patella
Rack	Thoracic vertebra 6-12, dorsal rib 6-12, lumbar vertebrae
Loin	Lumbar Vertebra
Butt End	Pelvis, sacrum, proximal femur and shaft
Shank End	Distal Femur, proximal tibia and shaft
Shank	Distal humerus, radius-ulna, tibia, metapodial
Foot	Carpals/Tarsals, Phalanges
Neck	Cervical vertebrae
Chuck	Scapula, thoracic vertebrae 1-5, rib 1-5, proximal humerus and shaft

Specimen Identification Techniques

Specimens without diagnostic features were assigned to animal size class categories (adapted from Thomas 1969) (Table 4.12). Unidentifiable bones were graded by size based on "bone size and thickness" (Schmitt and Lupo 1995: 499). Cattle-size fragments, for example, were classified as Class VI, large mammals.

Table 4.12 Mammalian Size Classes[1]

Class I	Mammals weighing less than 100g., e.g., meadow mouse and pocket gopher.
Class II	Mammals weighing between 100 and 700 g., e.g., squirrel and chipmunk.
Class III	Mammals weighing between 700 g. and 5kg., e.g., cottontail rabbit and marmot.
Class IV	Mammals weighing between 5 and 25 kg., e.g., coyote and bobcat.
Class V	Mammals weighing more than 25kg., e.g., antelope, deer and mountain sheep.
Class VI	Mammals cow size and larger

[1]After Thomas (1969: 393)

Distinguishing between sheep and goat remains can present significant difficulties to analysts, because the bones are similar in overall size and morphological attributes (Boesneck 1970; Halstead et al. 2002; Payne 1985). It is therefore possible that some bones identified as sheep could in fact represent goat. Even with extensive reference collections, "distinguishing between sheep and goat bones is often not easy" (Boessneck 1970: 358). While publications have presented diagnostic criteria to identify between the two Genera, the criteria rely on the presence of certain bones (Halstead et al. 2000; Payne 1985; Prummel and Frisch 1986). Teeth and mandibles have proved to be the most useful elements for differentiating between sheep and goat (Halstead et al. 2000; Payne 1985). Studies have developed methods for the distinction between these two Genera based on the morphological characteristics of post-cranial skeletal elements (Prummel and Frisch 1986). Sheep, however, not goat were common in livestock markets, and based on the urban location of the site, the raising of large livestock, including goats and sheep, was likely outlawed in St. Louis, as it was in many cities of the time (Huelsbeck 1991: 63). Despite the fact that many of the ovicaprine remains may in fact represent sheep, they will be categorized as sheep/goat.

Additionally, I assessed the relative age of each specimen (after Silver 1963). Relative age was established by the degree of epiphyseal fusion and tooth eruption sequences, the most commonly employed skeletal parts for determining age (Klein and Cruz-Uribe 1984: 41). Aging

specimens in an assemblage can provide information on "kill-off" patterns in past animal husbandry systems, and the quality (i.e. the fat content) of the meat purchased (Landon 1996: 96). When epiphyses were present, I recorded the stage of fusion for each specimen identified as cow, pig and sheep. Stages were recorded as fused, unfused, and partially fused, distinguished by the presence of an epiphyseal line or suture. These stages are compared to the relative ages at which specific epiphyses fuse for each animal (Table 4.13). Additionally, deciduous teeth and permanent teeth were differentiated to provide a relative age for specimens.

Table 4.13 Ages of Epiphyseal Fusion by Element and Species

Cattle		Pig		Sheep	
Age of Fusion[a]	Skeletal Element	Age of Fusion[a]	Skeletal Element	Age of Fusion[a]	Skeletal Element
7-10 months	Scapula	12 Months	Scapula	6-8 months	Scapula
	Acetabulum		Acetabulum	6-10 months	Acetabulum
12-18 months	Dist Humerus		Dist. Humerus	10 months	Dist. Humerus
	Prox radius		Prox. radius		Prox. radius
18 months	Dist. 1st phalanx		Prox. 2nd phalanx	13-16 months	Dist. 1st phalanx
	Dist. 2nd phalanx	24 months	Prox. 1st phalanx		Dist. 2nd phalanx
24-30 months	Dist. metacarpal		Dist. metacarpal	18-24 months	Dist. metacarpal
	Dist. tibia		Dist. tibia		Dist. tibia
27-36 months	Dist. metatarsal	24-30 months	Calcaneum	20-28 months	Dist. metatarsal
36-42 months	Calcaneum	27 months	Dist. metatarsal	30 months	Ulna
42 months	Prox. femur	30 months	Dist. fibula	30-36 months	Prox. femur
42-48 months	Prox. humerus	36-42 months	Ulna		Calcaneum
	Dist. radius	42 months	Dist. radius	36 months	Dist. radius
	Ulna		Prox. humerus	36-42 months	Prox. humerus
	Dist. femur		Prox. femur		Dist. femur
	Prox. tibia		Dist. femur		Prox. tibia
			Prox. Tibia		
			Prox. fibula		

[a] Based on Silver (1963)

Quantification of Faunal Remains

Determining the appropriate unit of quantification for faunal analyses remains a complicated concern within zooarchaeology. The use of the number of identified specimens, or NISP, to quantify faunal remains has received significant criticism (Grayson 1984, Klein and Cruz-Uribe 1984), most importantly for its failure to account for specimen interdependence, because several bone fragments may come from the same element. To account for this problem,

many zooarchaeologists calculate the minimum number of individuals, or MNI to determine how many animals are actually represented by the recovered remains. This calculation, however, has also been subject to criticism, as it is known to correlate with sample size, as the larger the number of bones in an assemblage the greater the MNI (Grayson 1984; Lyman 1979: 537, 1994a). In historic assemblages, MNI remains a problematic value because people purchase butchering units, not complete animals, with the possible exception of fish and poultry (Lyman 1979, 1987, 1994a; Milne and Crabtree 2001). Determining the contribution of various species or of the different cuts to an assemblage, therefore, remains a difficult task, as the butchering units acquired are not always known or consistent.

In the past, historical zooarchaeologists calculated the amount of available meat for species, and for meat cuts utilizing bone-weights (Otto 1984) and the amount of usable meat (Lyman 1979). However, bone weight analysis was based on the assumption that the relation between bone and meat weight is linear, which is not accurate (Grayson 1984). Additionally, ”bone weights are subject to biases from differential mineralization, leaching, weathering, and preservation” (Lyman 1979: 536). According to Reitz and Wing (1999: 202), specimen weight is rarely used directly to document relative frequency, but is instead used as an estimate for ‘edible’ or ‘usable’ meat.

Calculating “usable meat” for each species is a suggested method to account for the amount of meat purchased and consumed (Lyman 1979, 1987). This approach, however, has not been widely applied to historic assemblages and therefore its utility has not been sufficiently tested (Landon 2005: 9). Furthermore, it is necessary to consider size change through time and space when estimating dietary contribution based on weight (Reitz and Wing 1999: 226). The

total weight of species with "determinate growth varies because of geographical range, age, sex, season and nutritional condition" (Reitz and Wing 1999: 226).

Despite potential problems with this unit of measurement, NISP is the most widely used unit of quantification in zooarchaeology. The features investigated in this study all have similar depositional contexts, and the households who deposited the materials had access to the same types of meat and meat cuts. In consideration of possible quantification techniques, employing the NISP to calculate relative abundances should provide a sufficient means for comparison among the features from Cochran Gardens. For those animals, such as birds and rabbits, that were likely acquired whole, whether purchased or raised on site, the MNI is calculated. For the evaluation of meat cuts, I calculate a minimum number of meat cuts for cattle, pig and sheep/goat.

Summary of the Cochran Gardens Faunal Remains

Excavations of the four features from Cochran Gardens recovered 9,173 bones, 3,310 of which were identified to at least the level of family (see Appendix B for raw data). The identified faunal remains were comprised of mammals (86%), birds (11%), aquatic and other (3%, e.g., fish, mollusks and reptiles) (Figure 4.5). In the remainder of this chapter, I summarize the results of the analysis of the faunal remains by feature.

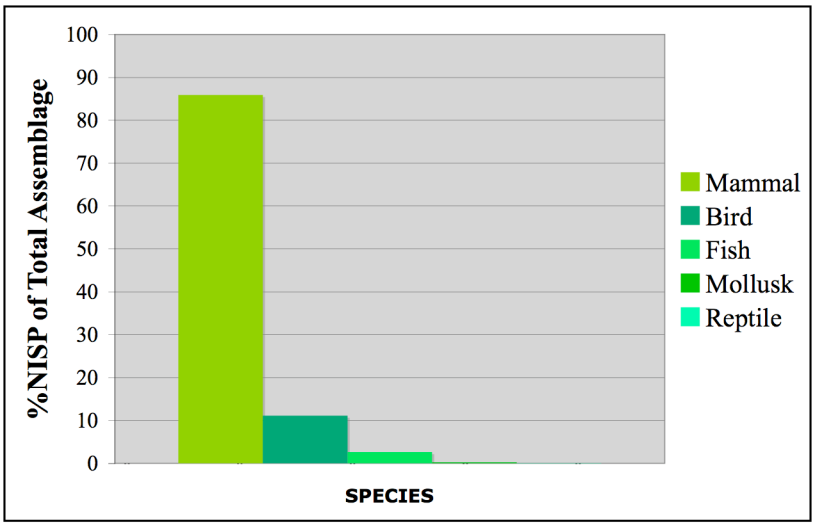


Figure 4.5 Quantity of Animal Classes, Total Assemblage (All Features Combined)

Feature 35 Assemblage Composition

The excavation of Feature 35 yielded 1,602 bone fragments, 39% of which were identified to at least the level of Family (Table 4.14). In terms of relative abundance of medium and large mammals, pork dominates the assemblage, followed by beef and mutton. Although many mammalian remains were only identified to size class, it is important to note that pig and sheep/goat-sized fragments (medium mammals) dominate in this feature (Table 4.14).

Only one individual rabbit represented by 3 specimens was consumed by the households associated with this feature. The rabbit is represented by two skull fragments, which conjoin, and a thoracic vertebra. The skull fragments indicate that the rabbit was acquired whole. Whole rabbits were available for purchase in 19th-century urban markets (DeVoe 1867). Additionally, however, wild rabbit has been recovered from urban sites (Reitz 1986) making it difficult to determine if the specimens recovered represent a wild animal or one purchased from a market. Regardless of how the rabbit was acquired, this species was clearly not commonly consumed by the families that deposited the materials.

Table 4.14 Species Representation, Feature 35

Taxon/Class	NISP	%NISP[1]	MNI[2]
FOOD BONES			
Mammal			
Pig; *Sus scrofa*	235	51.2	-
Sheep; *Ovis aries*	44	9.6	-
Cow; *Bos*	177	39	-
Rabbit; *Lepus* sp.	3	.7	1
Total	459		
Aves			
Chicken; *Gallus gallus*	74	63.2	10
Turkey; *Meleagris gallopavo*	25	21.3	3
Goose; *Anser sp.*	8	6.8	3
Duck; *Anas sp.*	3	2.6	1
Pigeon; Columbidae	4	3.4	1
Galliform	3	2.6	-
Unidentified Aves	146	-	-
Total	263		
Pisces	22	-	-
Mollusk			
Oyster; *Crassostrea* sp.	8	-	8
Unidentified Mollusk	10	-	-
Turtle; Trionychoidea	3	-	1
NON-ECONOMIC SPECIES			
Rattus sp.	18	-	3
Scurius sp.	-	-	-
Canis familiaris	8	-	2
Felis catus	19	-	3
SIZE GRADED FRAGMENTS			
Rat/Squirrel sized (Class II)	20	-	-
Cat/Dog sized (Class III/ IV)	34	-	-
Sheep/Pig sized (Class V)	301	-	-
Cow sized (Class VI)	130	-	-
Indeterminate	307	-	-
TOTAL	1602		

[1] %NISP within each class for food bones for specimens identified to the level of class.
[2] Calculated only for birds and other species that were likely purchased or acquired whole.

Feature 35 yielded 5 avian species, including: chicken (*Gallus gallus),* turkey (*Meleagris gallopavo*), goose (*Anser sp.*), pigeon (Columbidae), and duck (*Anas sp.).* Of the remains

identified to at least family, chicken bones dominate the aves (63% of NISP), and represent a minimum number of 10 individual birds. Turkey is the next most common bird found within this feature, representing 21.3% of the identified birds, and a minimum number of 3 individual birds. The recovered bird remains also include a minimum number of 3 geese, although these remains comprise only 6.8% of the total NISP. Feature 35 also revealed bones identified as duck and pigeon, representing 2.6% (MNI=1), and 3.4% (MNI=1), of the identified avian remains, respectively.

The recovery of skulls as well as tarsometatarsus bones from chickens indicate that these remains represent whole birds, most likely raised by the households or purchased whole (Table 4.15). Determining the origin of the remaining birds causes a problem as it is not easy to distinguish between wild and domestic species. According to Reitz (1986: 54), "at least some Canada geese (*Branta canadensis*), mallards (*Anas platyrhynchos*), and turkeys (*Meleagris gallopavo*) were domesticated by the mid-1800s." Because of size and morphological similarities, it is difficult to differentiate between the wild and domestic varieties of geese, duck and turkeys (Landon 1996: 41-42). For the geese and duck, the absence of non-meat elements, such as skulls, tarsometatarsus bones and phalanges (Table 4.15) suggests that these birds were either purchased from the market with these elements removed, or that initial slaughtering and butchering took place elsewhere. The turkey remains include a phalange and tarsometatarsus bones, however, which may indicate that these birds were either acquired whole or that the feet were not removed during butchery.

All of these species were categorized as poultry during the 19th Century, and were common in Victorian era cooking (Williams 2006: 33). As observed in the proportions of the particular species consumed by this household, chicken was more of an 'everyday' protein, with

the other species consumed less often. Goose, duck and turkey were more costly than chicken to obtain, whether wild or domestic, and were therefore purchased for specific holidays or celebrations, and incorporated into such recipes as Christmas goose pie, pigeon pie, hash duck and boiled turkey (Williams 2006: 33). While pigeon, both wild and domestic, was commonly eaten in the late 19th century (DeVoe 1867), these birds were also known to be common pets of children in this neighborhood (Rumbold 1908: 57).

Table 4.15 Skeletal Representation of Birds, Feature 35

Skeletal Element	Chicken	Turkey	Goose	Pigeon	Duck
Skull	2	-	-	-	-
Bill	1	-	-	-	-
Coccyx	1	-	-	-	-
Scapula	2	1	-	-	-
Coricoid	9	1	1	1	1
Humerus	16	5	5	1	1
Radius	1	1	-	-	-
Ulna	4	2	-	-	-
Carpometacarpus	5	2	-	-	1
Phalange	-	1	-	-	-
Synsacrum	5	-	-	-	-
Femur	11	4	-	-	-
Tibiotarsus	10	4	2	1	1
Tarsometatarsus	7	3	-	-	-
Tarsometatarsus with talus	-	1	-	-	-

The fish recovered from Feature 35 were not identified to species or element, but fish, both salted and fresh, was common protein consumed within the 19th century (DeVoe 1867; Williams 2006). Cod, haddock, mackerel, salt fish, salted mackerel, salted shad and smoked salmon were frequent purchases of the "frugal" consumer (Williams 2006:27). Additionally, this feature returned 3 fragments of turtle shell, which were assigned to the superfamily

Trionychoidea, based on geographic location of the site (Olsen 1968) (Figure 4.6). Many varieties of turtle were consumed by Americans in the 19th Century, the meat prepared as steaks, in stews or in soups (DeVoe 1867: 312-318; Williams 2006: 120). Similar to some of the avian species, it is difficult to determine if the fish and turtle were acquired at markets or were wild species.

Figure 4.6 Turtle Remains From Feature 35

The consumption of oysters by the households associated with Feature 35 is indicative of the popularity of this shellfish in the second half of the 19th Century. While these oysters may have arrived on boat from New Orleans, it is also possible that they arrived from New York via train, after the post-Civil War construction of the railroad linking St. Louis to the East Coast (Kurlansky 2007: 207). Despite the modern perception of oysters as a delicacy, this was not the case in the later 19th Century. In fact, according to Kurlansky (2007: 214), oysters remained inexpensive during this time, and was a food commonplace within all socioeconomic classes. Oysters were a regular item on the menu of all classes in Victorian America (Williams 2006: 28-29).

The non-economic species recovered from Feature 35 include dogs, cats and rats. The cats and dogs are both represented by a range of elements, including skull fragments for both of the species (Appendix B). Additionally, the stages of epiphyseal fusion observed on the long

bones indicates that a single juvenile dog and an individual adult dog, as well as 2 juvenile cats and 1 adult cat were deposited or fell into the privy shafts. It is difficult to determine the exact context under which these remains entered the archaeological record. Domestic dogs and cats were common animals in urban environments in the 19th century (Brown and Bowen 1998; Milne and Crabtree 2001; Warner and Genheimer 2008). As rats were a widespread nuisance in cities, and thought to carry diseases, cats were often kept or fed by households to help control the rats (Brown and Bowen 1998; Warner and Genheimer 2008). Attempts to eradicate felines from cities, however, have been observed in the material record (Warner and Genheimer 2008).

Table 4.16 shows the skeletal element representation of medium and large mammals. In general, body part representation is the most diverse for pigs. Cattle are represented by a less diverse range of skeletal elements, and sheep/goat skeletal representation is the least diverse. For both cattle and sheep/goat, as compared to pig, elements from the head and feet are not well-represented. This may indicate differences in primary butchery, purchasing decisions, or differential deposition. As the lower limb elements of cattle and sheep/goat are often removed by butchers or suppliers before parts of the carcass are brought to urban sites (Landon 1996: 53), this seems to be a likely explanation. Pig feet, on the other hand, were a very marketable cut in the 19th century in both urban and rural deposits (Cheek and Friedlsander 1990; Henry 1987a: 23).

Feature 10 Assemblage Composition

The excavation of Feature 10 returned some 4,660 bone fragments, 28% of which were identified to at least the level of Family (Table 4.18). This feature contained the largest number of bones of all the features analyzed for this study.

Table 4.16 Distribution of Skeletal Elements For Medium and Large Mammals, Feature 35

Element	Cattle (NISP)	Pig (NISP)	Sheep/Goat (NISP)
Cranial fragment	2	8	
Mandible		2	
Tooth Fragment		19	
Axis/Atlas	2	2	1
Cervical Vert	11	11	7
Thoracic Vert	21	9	1
Lumbar Vert	25	8	7
Sacrum/Sacral & Trunk Vert	4		1
Rib	44	12	4
Sternum		1	
Scapula	7	4	3
Humerus	13	8	4
Radius	5	10	2
Ulna	6	9	1
Carpal	11		
Metacarpal		8	
Metacarpal/Metatarsal		15	
1st Phalange		15	
2nd Phalange	1	7	
3rd Phalange		7	
Sesamoid		2	
Innominate	12	17	5
Femur	5	16	4
Tibia	2	12	3
Fibula		1	
Patella	3		
Metatarsal	1	18	
Tarsal	1	2	
Astragalus		6	1
Calcaneus	1	6	

Approximately 24% of the mammalian remains were identifiable to genus or species, with the remainder graded by size class, when possible (Table 4.17). Pork remains slightly dominate in the assemblage; beef was nearly as abundant. Mutton comprised only 13% of the sample. Within the unidentifiable bones assigned to size-class, pig and sheep-sized fragments are the most abundant.

Table 4.17 Species Representation, Feature 10

Taxon/Class	NISP	%NISP[1]	MNI[2]
FOOD BONES			
Mammal			
Pig; Sus scrofa	356	43.5	-
Sheep; Ovis aries	106	13	-
Cow; Bos	351	42.9	-
Rabbit; *Lepus* sp.	5	.6	2
Total	818		
Aves			
Chicken; Gallus gallus	188	56	25
Turkey; Meleagris gallopavo	13	4	2
Goose; *Anser sp.*	11	3.3	1
Duck; *Anas sp.*	14	4.2	2
Pigeon; Columbidae	5	1.5	2
Galliform	106	31.25	-
Unidentified Aves	173	-	-
Total	510		
Pisces	185	-	-
Mollusk			
Oyster; Crassostrea sp.	2	-	2
Unidentified Mollusk	1	-	-
Turtle; Trionychoidea	-	-	-
COMMENSAL SPECIES			
Rattus sp.	112	-	14
Scurius sp.	3	-	1
Canis familiaris	11		3
Felis catus	24		7
SIZE GRADED FRAGMENTS			
Mouse/Rat/Squirrel Size (Class I/II)	100	-	-
Cat/Dog Size (Class III/ IV)	38	-	-
Sheep/Pig Size (Class V)	1267	-	-
Cow Size (Class VI)	719	-	-
Indeterminate	870	-	-
TOTAL	4660		

[1] %NISP within each class for food bones for specimens identified to the level of class.
[2] Calculated only for birds and other species that were likely purchased or acquired whole.

Rabbit is again represented by only a few specimens; only 5 bones from 2 individual animals. The rabbit remains recovered include elements from the hindquarter of the animal,

including 2 pelves, 2 tibia, and 1 femur. This may indicate that the rabbits were not purchased whole, but more likely is the result of taphonomic factors on the deposit.

As with Feature 35, this feature contained a variety of both avian and aquatic species. Of the avian remains, 66% were identified to at least the level of family, and a total of 5 types of birds were identified within this sample. Chicken bones dominate and represent a minimum number of 25 individual birds. Only 13 bones were identified as turkey, representing 4% of the avian remains and a minimum of 2 individual animals. The recovered bird remains also include a minimum number of 1 goose, with this species comprise 3.3% of the total bird NISP. Feature 10 also returned bones identified as duck and pigeon, representing 4.2% (MNI=2), and 1.5% (MNI=2), of the identified avian remains, respectively. About 31.25% of the avian remains were determined to be from the galliform family, likely representing chicken or turkey remains.

The presence of specimens from the skull and tarsometatarsus of chicken suggest that these remains represent whole birds, either raised on-site or purchased whole from the market (Table 4.18). The other bird remains from this feature seem to represent less commonly consumed species. A goose skull was recovered from this feature suggesting at least one of these birds was acquired whole. Tarsometatarsus bones from turkey, duck and pigeon also indicate that these were likely whole individuals.

Aquatic remains consumed by this household include fish and mollusks. The fish remains recovered from this privy include 185 bones, not assigned to specific species. A minimum number of 2 oysters shells, (*Crassostrea* sp.), were identified within this feature, along with 1 fragment of an unidentifiable mollusk shell. Clearly, oysters were consumed, but seemingly only rarely, possibly as a supplement or for a special occasion.

Table 4.18 Skeletal Representation of Birds, Feature 10

Element	Chicken	Turkey	Goose	Pigeon	Duck
Skull	4		1		
Vertebra	2		1		
Sternum	1				
Scapula	2	1	1		1
Coricoid	22			1	2
Furicula					1
Humerus	17		1		2
Radius	14	2	1		2
Ulna	19		2	1	2
Carpometacarpus	16			1	
Phalange	1				
Synsacrum	16				
Femur	19				
Tibiotarsus	12	4			2
Tarsometatarsus	41	1		2	2
Tarsometatarsus with talus	2	2			

The non-economic species recovered from Feature 10 include dogs, cats, squirrels. Although squirrels were often consumed by urban residents during the 19th century (DeVoe 1867: 123), there was no evidence of butchery or burning on the squirrel bones identified to indicate that these animals were in fact eaten by the households associated with this deposit. As with Feature 35, there is a range of elements recovered for these species including skull fragments (Appendix B). Additionally, observations of the stages of epiphyseal fusion identified 6 juvenile cats and one adult cat, as well as well as 2 juvenile dogs and a single adult dog.

The skeletal elements of medium and large mammals identified in Feature 10 are summarized in Table 4.19. As with Feature 35, this feature contained few specimens from the

head or feet of sheep/goats. Specimens from the cranium of cattle, however, are more common in this feature. Pig feet and specimens from pig crania are comparatively more frequent than those from cattle and sheep. Overall, the element distribution in this feature is more diverse than that from Feature 35. Sample size, however is a likely factor in this difference.

Table 4.19 Distribution of Skeletal Elements For Medium and Large Mammals, Feature 10

Element	Cattle (NISP)	Pig (NISP)	Sheep/Goat (NISP
Cranial frag	6	22	
Hyoid		4	
Mandible	2	6	1
Maxilla	12	8	
Tooth Frag	12	48	1
Axis/Atlas	1	12	3
Cervical Vert	7	16	14
Thoracic Vert	36	25	8
Lumbar Vert	64	28	16
Sacrum/Sacral & Trunk Vertebrae	10	4	
Rib	102	41	16
Sternum		2	
Scapula	16	3	9
Humerus	14	17	7
Radius	14	15	5
Ulna	4	10	3
Carpal	11	1	
Metacarpal	1	2	
1st Phalange	2	4	
2nd Phalange	1	1	
3rd Phalange	1	9	
Mtc/mtt	1	9	
Innominate	15	19	6
Femur	19	24	4
Tibia	11	17	5
Patella	1		
Tarsal	1		
Astragalus	2	2	4
Calcaneus	2	6	3

Feature 45 Assemblage Composition

The faunal sample recovered from Feature 45 revealed 1,969 bone fragments, 17% of which were identified to at least the level of family (Table 4.20). In terms of relative abundance, pork remains are the most frequent in the assemblage, comprising 48% of the food mammal

remains identified to species. Beef remains make up 35% of the recovered remains, and mutton comprises approximately 13% of this sample. As with the previous features, pig and sheep-sized fragments dominate the unidentifiable pieces.

Table 4.20 Species Representation, Feature 45

Taxon/Class	NISP	%NISP[1]	MNI[2]
FOOD BONES			
Mammal			
Pig; Sus scrofa	115	48	
Sheep; Ovis aries	31	13	
Cow; Bos	84	35	
Rabbit; *Lepus* sp.	10	4	1
Total	240		
Aves			
Chicken; Gallus gallus	66	70	7
Turkey; Meleagris gallopavo	5	5	1
Goose; *Anser sp.*	-	-	-
Duck; *Anas sp.*	-	-	-
Pigeon; Columbidae	1	1	1
Galliform	22	23	-
Unidentified Aves	47	-	-
Total Aves	141		
Pisces	1		
Mollusk			
Oyster; Crassostrea sp.	-	-	-
Unidentified Mollusk	-	-	-
Turtle; Trionychoidea	-	-	-
COMMENSAL SPECIES			
Rattus sp.	2	-	1
Scurius sp.	3	-	1
Canis familiaris	1	-	1
Felis catus	1	-	1
SIZE GRADED FRAGMENTS			
Rat/Squirrel (Class II)	11	-	-
Cat/Dog (Class III/ IV)	4	-	-
Sheep/Pig (Class V)	480	-	-
Cow (Class VI)	368	-	-
Indeterminate	717	-	-
TOTAL	1969		

[1] %NISP within each class for food bones for specimens identified to the level of class.
[2] Calculated only for birds and other species that were likely purchased or acquired whole.

The faunal sample from Feature 45 contained only 3 species of birds and 1 fish bone. Chicken remains are the most frequent in this feature, comprising 70% of the identified birds, representing a minimum of 7 individual birds. Another 23% of the bird specimens were identified to the galliform family, which probably represent chicken. Turkey is represented by 1 individual bird, and these remains comprise 5% of the NISP. Neither chicken nor turkey skulls were identified in the assemblage, and only 2 chicken tarsometatarsus bones were recovered (Table 4.21). This dearth of non-meat anatomical elements from these birds suggests that unlike Features 35 and 10, these animals were likely not acquired whole and this may be due to changing food consumption and market patterns towards the turn of the century. Only one pigeon remain was recovered from this feature, represented by an articulated radius and ulna, a wing fragment from this bird. Other than the single fish bone recovered, no aquatic species were identified within Feature 45.

Table 4.21 Skeletal Representation of Birds, Feature 45

Element	Chicken	Turkey	Pigeon
Vertebra	7	1	
Scapula	5		
coricoid	8	1	
Humerus	12	1	
Radius	3		
Ulna	4		
Radius and Ulna			1
Carpometacarpus	2		
Synsacrum	1		
Femur	1		
Tibiotarsus	6	2	
Tarsusmetatursus	2		

The non-economic species recovered from Feature 45 include a dog metatarsal, an adult cat femur, 3 squirrel remains (humerus, radius, mandible), and 2 rat elements (femur and tibia). While these species were likely abundant in the city during the later 19th Century (Brown and Bowen 1998; Milne and Crabtree 2001; Warner and Genheimer 2008), it is surprising that they are each only represented by one individual in the archaeological record. This may suggest a difference in disposal practices by the households using this privy, but more likely reflects refined urban sanitation practices occurring towards the end of the 19th century due to sanitation reforms (Crane 2000; 31; Wheeler 2000).

The skeletal element distribution for medium and large mammals from Feature 45 is listed in Table 4.22. Similar to the other two features previously described, this feature contained multiple elements from the head and feet of pig. Only one cattle head element was recovered and no cattle elements from the feet were identified. This deposit contained no cuts from the head of sheep/goat, and only a single sheep/goat metacarpal. As noted with the avian remains from this feature, the lack of cattle and sheep/goat cranium and feet may indicate changes in consumption towards the end of the 19th century, as these elements became less and less marketable.

Feature 29 Assemblage Composition

Of the remains recovered from Feature 29, 40% of the 930 bones were identifiable to at least the level of family (Table 4.23). This feature contains the least amount of faunal material of the four privies analyzed for this study.

Table 4.22 Distribution of Skeletal Elements For Medium and Large Mammals, Feature 45

Element	Cattle (NISP)	Pig (NISP)	Sheep/Goat (NISP)
Cranial fragment		2	
Mandible		2	
Tooth Fragment	1	11	
Axis/Atlas	1	3	1
Cervical Vert	7	7	4
Thoracic Vert	4	5	1
Lumbar Vert	7	10	2
Sacrum/Sacral & Trunk Vert		2	1
Rib	13	6	6
Scapula	6	5	1
Humerus	7	16	3
Radius		6	4
Ulna	4	4	3
Carpal	4	1	
Carpal/tarsal;		1	
Metacarpal			1
1st Phalange		1	
3rd Phalange		5	
Metatarsal/carpal		10	
Innominate	11	4	1
Femur	8	4	
Tibia	7	6	2
Astragalus	1	1	1
Calcaneus	3	3	1

Of the mammalian remains, approximately 41% were identifiable to genus or species (Table 4.23). Beef remains dominate the sample from Feature 29, comprising 45.8% of the food bone identified to species. Pork bones follow in frequency (36.8% of the NISP), and mutton comprises only 16.7% of this sample. Rabbit is again the least common mammalian species recovered in this feature, with one individual animal represented by 2 bones, an innominate and a tibia. Pig and sheep-sized fragments dominate the unidentifiable pieces.

Table 4.23. Species Representation, Feature 29

Taxon/Class	NISP	%NISP[1]	MNI[2]
FOOD BONES			
Mammal			
Pig; *Sus* scrofa	106	36.8	-
Sheep; *Ovis* aries	48	16.7	-
Cow; *Bos*	132	45.8	-
Rabbit; *Lepus* sp.	2	.7	1
Total	288		
Aves			
Chicken; *Gallus* gallus	38	55.9	5
Turkey; *Meleagris* gallopavo	4	5.9	1
Goose; *Anser sp.*	1	1.5	1
Duck; *Anas sp.*	-	-	-
Pigeon; Columbidae	4	5.9	1
Galliform	21	30.9	-
Unidentified Aves	48	-	-
Total	116		
Pisces	35	-	-
Mollusk			
Oyster; Crassostrea sp.	-	-	-
Unidentified Mollusk	-	-	-
Turtle; Trionychoidea	-	-	-
COMMENSAL SPECIES			
Rattus sp.	7	-	2
Scurius sp.	-	-	-
Canis familiaris	-	-	-
Felis catus	-	-	-
SIZE GRADED FRAGMENTS			
Rat/Squirrel Size (Class II)	-	-	-
Cat/Dog Size (Class III/ IV)	10	-	-
Sheep/Pig Size (Class V)	231	-	-
Cow Size (Class VI)	51	-	-
Indeterminate	192		
TOTAL	930		

[1] %NISP within each class for food bones for specimens identified to the level of class.
[2] Calculated only for birds and other species that were likely purchased or acquired whole.

The faunal sample from this feature included a variety of avian species and also contained fish remains. Of the avian remains, 59% were identified to at least the level of family,

and a total of 4 different types of birds were identified within this sample. Chicken remains are the most abundant bones, representing a minimum number of 10 individual birds, and 63% of the identified bird NISP. Turkey and pigeon are the next most common birds found within this feature, both representing 5.9% of the identified birds, and a minimum number of 1 individual bird. The recovered bird remains also include at least 1 goose, represented by a single bone. Fish remains were the only aquatic remains recovered from this feature, and comprise approximately 4% of the total faunal sample from Feature 29.

Chicken remains recovered include skulls and 5 tarsometatarsus bones, which suggests that some of these birds were acquired whole (Table 4.24). Additionally, this feature contained the skull of a pigeon, indicating that a whole bird was deposited. Turkey and goose remains are relatively uncommon in this feature, and it is unclear in what state they were acquired. Due to the recovery of the skull of a pigeon, it appears as though this bird was acquired whole. It is important to note, however, that pigeons, while known to be consumed as food during the late 19th century, there is also references to individuals keeping these birds as pets (Rumbold 1910). Rat remains were the only non-economic species recovered in Feature 29. With the known presence of cats and dogs within urban settings in the late 19th Century, the absence of these species in the privy is unexpected (Brown and Bowen 1998; Milne and Crabtree 2001; Warner and Genheimer 2008). Many explanations may provide insight into this pattern, but it may be due to changing disposal patterns and the refinement of urban sanitation practices (Crane 2000: 31; Wheeler 2000).

Table 4.24 Skeletal Representation of Birds, Feature 29

Element	Chicken	Turkey	Goose	Pigeon
Skull	2			1
Vertebra		1		
Scapula	1		1	
coricoid	8			
Humerus	8	1		
Radius	3			1
Ulna	4			
Carpometacarpus	1			1
Femur	2			
Tibiotarsus	4	1		
Tarsometatarsus	3	1		1
Tarsometatarsus with talus	2			

Table 4.25 lists the distribution of skeletal elements for the medium and large mammal remains identified from Feature 29. As with the other features, body part representation is the most diverse for pigs. Interestingly, however, cattle and sheep/goat are represented by a nearly equally diverse range of skeletal elements, although both are less diverse than pig. Of the few sheep remains identified, however, specimens from the foot of sheep/goat are more well represented than in other features. Elements from the lower limbs and the skull of the pig are present within this deposit, indicating that pig feet and head remained common cuisine throughout the 19th century in Old North St. Louis.

This chapter provided a summary of the archaeological methods used and the materials recovered from the excavations at Cochran Gardens. The finds were reported for each feature, with a specific focus on the faunal materials identified through laboratory analysis. These results reveal that the residents of the Old North St. Louis neighborhood consumed a variety of animals, including medium and large domestic mammals, rabbits, various domestic and possibly wild

birds, fish and additional aquatic taxa including oysters and turtle. The following chapters will analyze the faunal materials to address both intra- and inter- assemblage variability. First, I will address human and natural taphonomy and then I will evaluate variability between assemblages with regard to species composition and meat-cut representation.

Table 4.25 Distribution of Skeletal Elements For Medium and Large Mammals, Feature 29

Element	Cattle (NISP)	Pig (NISP)	Sheep/Goat (NISP)
Cranial fragment		1	
Mandible	1	2	
Maxilla		2	
Tooth Fragment	1	9	
Axis/Atlas		2	
Cervical Vert	3	2	
Thoracic Vert	6	6	1
Lumbar Vert	10	7	
Sacrum/Sacral & Trunk Vert	3		
Rib	57	5	5
Scapula	8	4	2
Humerus	9	9	6
Radius	5	3	5
Ulna	1	5	2
Metacarpal		9	1
1st Phalange		3	4
2nd Phalange		3	1
3rd Phalange		2	
Sesamoid		1	
Metacarpal/tarsal		10	1
Innominate	10	7	4
Femur	13	4	4
Tibia		5	5
Metatarsal		2	1
Tarsal	3		
Astragalus		1	1
Calcaneus		2	4

CHAPTER 5:
CULTURAL AND NATURAL TAPHONOMIC PROCESSES

Thorough evaluation of the taphonomic processes affecting an archaeological assemblage is essential for many reasons. Assessing the impact that humans have on bones can provide insight into how meat was processed, prepared and consumed. Additionally, human activities, animal behavior, and forces of the natural environment (wind, rain, etc.) influence bone survivorship. In the following chapter, I analyze the taphonomic processes that affected the faunal remains from Cochran Gardens. First, I will assess evidence for human taphonomic processes, including butchery marks, burning and the extent of fragmentation within each feature. Then I will examine evidence for natural taphonomic processes, focusing on weathering and the impact of carnivores and rodents on the assemblage. Finally, I will discuss the impact of density-mediated attrition on the assemblages.

Butchery Marks

Three types of butchery marks were evaluated for this study based on morphological characteristics (Landon 1996; Lyman 1994b). These include: 1) saw-marks, represented by a series of parallel striations on the bone; 2) shears, distinguished by straight edges, likely caused by chopping or cutting with an ax or butcher's cleaver when it breaches the cortical bone (Landon 1996: 59); and 3) cut marks, a linear incised mark (Lyman 1994: 318). Table 5.1 provides a summary of the butchery marks observed for medium and large mammals. For the analysis of butchery marks, I employ the chi-square statistic in order to test if differences within and among the assemblages could be due to sampling. To interpret variations among features and species with regard to butchery marks, I evaluate the standardized residuals from the tests, which allow for an assessment of observed deviation from expected values (Drennan 1996: 189).

Saw Marks and Shears

The butchery process and the temporal setting of the four deposits (Chapter 3) provide information regarding expectations for butchery marks within the assemblages. In general, the butchery marks observed on the bones should change with the standardization of the meatpacking industry, and can provide information regarding the preparation and consumption of meat. I have the following expectations for butchery marks within the assemblages: 1) because sawing is often necessary to cut through the large and thick beef bones, I expect these specimens to display higher frequencies of saw marks than smaller animals (pig or sheep/goat); 2) due to their smaller body size, pig and sheep/goat remains will have more evidence of cutting through the bone with a knife or chopping with an ax or cleaver than cattle remains; 3) with the growing standardization of the meatpacking industry, the frequency of saw marks observed on the bones will increase in the later assemblages.

As expected, sawing is the most frequent butchery damage observed throughout the features. There are significant differences among the frequency of saw marks, shears and undamaged bones among species within all of the features (F.35: $\chi 2 = 156.57$, df=4, $p<.0001$; F.10: $\chi 2 = 166.71$, df=4, $p<.0001$; F.45: $\chi 2 = 70.8$, df=4, $p<.0001$; F.29: $\chi 2 = 114.51$, df=4, $p<.0001$). The following results are based on an evaluation of the standardized residuals from the chi-square analyses of butchery marks by species within the features (Appendix C, III-VI). Beef remains in particular displayed significantly more saw marks than sheep/goat and pig remains within all four of the features. The cattle remains from Features 35, 10 and 29 all had more saw marks and fewer shears than expected. In Feature 45, however, there are more shears than expected observed on cattle bones. For all features, pig bones with both shears and saw marks are underrepresented, and there are significantly more undamaged pork remains than beef

or mutton. Finally, as anticipated, sheep/goat remains in Features 35, 10 and 29 show significantly higher frequencies of shears and fewer saw marks on specimens than expected when compared to the other assemblages. Feature 45, on the other hand, contained slightly fewer chopped mutton remains than expected if there was no difference among the features.

Table 5.1 Butchery Marks, by Species and Feature

	Feature 35 (1850-1870)		Feature 10 (1870-1880)		Feature 45 (1880-1890)		Feature 29 (1880-1900)	
Type[a]	N	%	N	%	N	%	N	%
Beef								
Saw	109	62	208	59	47	56	102	77
Chop/Shear	10	6	39	11	18	21	18	14
Cut marks	12	7	11	3	12	14	6	5
Undamaged	47	27	100	28	16	19	17	13
Pork								
Saw	33	14	59	17	14	12	17	16
Chop/shear	8	3	30	8	9	8	5	5
Cut marks	8	3	14	4	13	11	5	5
Undamaged	170	72	241	68	78	68	72	68
Mutton								
Sawed	13	30	21	20	2	6	4	8
Chop/Shear	14	32	23	22	2	6	7	15
Cut marks	1	2	0	0	4	13	3	6
Undamaged	13	30	56	53	21	68	23	48

[a] From Lyman (1994) and Landon (1996)

When compared among features, there are significant differences among the overall percentage of saw marks on beef remains ($\chi 2 = 15.81$, df=3, $p<.0012$). Based on the standardized residuals of the chi square analysis comparing the assemblages, Feature 29 contains significantly more saw marks than expected on beef remains (see Appendix C, I) for analysis of residuals). Additionally, fewer cattle specimens than expected showed evidence of damage from sawing in Features 10 and Features 45.

The frequency of observed saw marks on pork remains does not differ significantly among the features ($\chi 2$= 1.64, df=3, p=.6504). Sheep/goat bones, on the other hand, do differ significantly among features with regards to saw marks ($\chi 2$=10.24, df=3, p<.0166). Feature 35 contains significantly more sheep/goat bones with saw marks than the other features, and the frequency of saw marks on sheep/goat remains decreases over time, that is from the earliest assemblage to the most recent (Table 5.1) (See Appendix C, II for analysis of chi squared residuals).

Skeletal Part Butchery Damage

Based on the methods used to butcher domestic mammals (Chapter 3), I have developed the following expectations for the patterning of butchery marks on specific elements identified in the assemblages. For cattle, saw marks are likely to occur on vertebra and pelves, because carcasses were split sagittally, and the shafts of ribs are expected to show evidence of sawing due to the segregation of the retail 'rib' cut from the 'plate' cut. Additionally, cattle innominates should show a high frequency of saw marks due to the separation of the loin from the round and the rump, as well as femora and humeri, from the removal of the shanks. Saw or shears on other elements may indicate further processing as determined by local taste or preference.

Pig remains, like cattle, are likely to show butchery damage on vertebra and pelves, due to splitting. Additionally, if the common butchery methods of the time were employed, tibia, radii, scapulae and illium should have high frequencies of saw or shears. Based on the outlined butchery methods for mutton, sheep/goat remains will not show evidence of the sagittal splitting of the carcass on all vertebrae, save cervical and thoracic, due to the splitting of the shoulders. Sheep/goat ribs and humeri are also expected to show marks from butchering. As a knife is used more often for sheep/goat butchery than cattle or pigs, sheep/goat remains will likely exhibit

more evidence of cutting with knives than the other large mammal species (Ashbrook 1955: 131; Romans et al. 2001: 512-513).

When the frequency of saw marks and shears are evaluated across the recovered elements for each of the medium and large mammal species, certain patterns emerge supporting expectations (Tables 5.2, 5.3, 5.4). Although there is some variability among the samples with regard to butchery marks, saw marks were observed on most of the elements represented in the assemblages. For cattle remains, cuts from the innominate, scapula and vertebral column all consistently show evidence of sawing and chopping, likely representing the initial processing of the carcass into retail cuts. For these elements, sawing is most often the preferred method of butchery, although in Feature 45, shears were more common than saw marks on cattle cervical and lumbar vertebra. With the exception of thoracic vertebrae, cuts from the sacrum, and any cuts not identified within this assemblage, Feature 29 has the highest percentage of saw marks recorded for all cattle elements, and the lowest percentage of chop marks. Saw marks or shears were observed on a percentage of all longbone elements in all four features, with the exception of radii from Feature 45. This suggests secondary butchery and that due to secondary butchery, these elements were likely rarely complete when purchased by the consumer.

Although there is no statistically significant difference among the assemblages with regard to saw marks on pig bones ($\chi 2= 1.64$, df=3, p=.6504), some patterning is observed in the distribution of saw marks and shears on elements (Table 5.3). As expected from an assessment of primary butchery methods, all four features contain femora, innominates, and scapulae with saw marks, and sawing seems to be preferred over chopping or cutting on these elements. Butchery marks (either chop or saw marks) were also observed on the femora, innominate, scapula, and humerii, indicating some consistency in the butchery of hams and shoulder cuts.

Table 5.2 Skeletal Distribution of Saw Marks and Sheers on Cattle Remains by Feature.

		Feature 35			Feature 10			Feature 45			Feature 29		
Species	Element	N	%Shears	%Saw	N	%Shears	%Saw	N	%Shears	%Saw	N	%Shears	%Saw
Beef													
	Rib	44	6.82	61.36	102	12.75	51.96	13	0.00	76.92	57	14.04	71.93
	Humerus	13	7.69	61.54	14	21.43	64.29	7	42.86	42.86	9	22.22	66.67
	Innominate	12	8.33	91.67	15	0.00	93.33	11	9.09	90.91	10	0.00	100
	Radius	5	40.00	40.00	14	7.14	71.43	6	0.00	0	5	0.00	100
	Lumbar	25	0.00	88.00	64	9.38	84.38	7	57.14	42.86	10	0.00	100
	Thoracic	21	14.29	71.43	36	8.33	50.00	4	0.00	50.00	6	16.67	50
	Femur	5	0.00	80.00	19	10.53	84.21	8	12.50	75.00	13	0.00	100
	Cervical	11	27.27	63.64	7	14.29	57.14	7	42.86	28.57	3	0.00	66.67
	Sacral Vert	1	0.00	100.00	1	0.00	0	0	0.00	0	0	0.00	0
	Sacrum	3	0.00	100.00	10	0.00	90.00	3	0.00	66.67	3	0.00	33.33
	Scapula	7	0.00	71.43	16	12.50	87.50	6	0.00	100	8	0.00	100
	Ulna	6	0.00	33.33	4	25.00	0	4	0.00	25.00	1	0.00	100
	Phalanx II	1	0.00	100.00	0	0.00	0	0	0.00	0	0	0.00	0
	Tibia	2	0	50.00	11	18.18	63.64	7	57.14	57.14	0	0.00	0
	Skull*	2	0	0	20	5.00	0	0	0.00	0	1	100.00	0
	Atlas	2	100	0	1	100.00	0	1	0.00	0	0	0.00	0
	Astragalus/Calcaneus	0	6.82	0	0	0.00	0	0	0.00	0	0	0.00	0

Table 5.3 Skeletal Distribution of Saw Marks and Sheers on Pig Remains by Feature.

		Feature 35			Feature 10			Feature 45			Feature 29		
Species	Element	N	%Shears	%Saw	N	%Shears	%Saw	N	%Shears	%Saw	N	%Shears	%Saw
Pork													
	Skull	10	0.00	0	36	5.56	6.25	4	50.00	25.00	5	0.00	20.00
	Hyoid	0	0.00	0	4	0.00	0	0	0.00	0	0	0.00	0
	Sacrum	0	0.00	0	3	0.00	66.67	2	0.00	100	0	0.00	0
	Cervical	11	9.09	9.09	16	43.75	12.50	7	0.00	0	2	0.00	0
	Lumbar	8	12.50	0	28	14.29	25.00	10	20.00	10.00	7	42.86	14.29
	Thoracic	9	0.00	11.11	25	16.00	28.00	5	20.00	0	6	16.67	33.33
	Rib	12	0.00	8.33	41	12.20	4.88	6	0.00	16.67	5	60.00	0
	Scapula	4	0.00	75.00	3	0.00	33.33	5	20.00	20.00	4	0.00	50.00
	Humerus	8	12.50	0	17	11.76	29.41	16	6.25	12.50	9	11.11	66.66
	Radius	10	0.00	20.00	15	0.00	6.67	6	16.67	0	3	0.00	33.33
	Ulna	9	11.11	44.44	10	0.00	30.00	4	0.00	25.00	5	0.00	0
	Carpal/Tarsal	1	100.00	100.00	1	0.00	0	2	0.00	0	0	0.00	0
	Innominate	17	5.88	58.82	19	0.00	47.37	4	0.00	75.00	7	28.57	42.86
	Femur	16	12.50	18.75	24	4.17	41.67	4	0.00	25.00	4	25.00	25.00
	Tibia	12	0.00	16.67	17	5.88	17.65	6	33.33	0	5	20.00	0
	Calcaneus	6	0.00	33.33	6	0.00	50.00	3	0.00	33.33	2	0.00	0
	Astragalus	6	0.00	16.67	2	0.00	0	1	0.00	0	1	0.00	0
	Phalanges	29	0.00	0	14	0.00	0	6	0.00	0	8	0.00	0
	Metatarsal/Carpal	18	0.00	0	9	0.00	11.11	10	0.00	0	2	0.00	0
	Axis/Atlas	2	50.00	0	12	25.00	25.00	3	33.33	0	2	0.00	0

Table 5.4 Skeletal Distribution of Saw Marks and Sheers on Sheep/goat Remains by Feature.

		Feature 35			Feature 10			Feature 45			Feature 29		
Species	Element	N	%Shears	%Saw	N	%Shears	%Saw	N	%Shears	%Saw	N	%Shears	%Saw
Sheep/Goat													
	Axis/Atlas	0	0.00	0	0	0.00	0	0	100.00	0	0	0.00	0
	Cervical	7	42.86	14.29	14	21.43	28.57	4	0.00	0	0	0.00	0
	Lumbar	7	28.57	57.14	16	43.75	31.25	2	50.00	0	0	0.00	0
	Thoracic	1	0.00	100.00	8	37.50	12.50	1	0.00	0	1	100.00	0
	Sacrum	1	0.00	100.00	0	0.00	0	1	0.00	0	0	0.00	0
	Rib	4	25.00	25.00	16	6.25	6.25	6	0.00	0	5	60.00	20.00
	Scapula	3	33.33	66.67	9	11.11	22.22	1	0.00	100	2	0.00	0
	Humerus	4	75.00	25.00	7	0.00	28.57	3	0.00	0	6	16.67	50.00
	Innominate	5	40.00	20.00	3	66.67	100	1	0.00	100	4	25.00	0
	Radius	2	0.00	50.00	5	40.00	40.00	4	0.00	0	5	0.00	0
	Femur	4	25.00	0	4	25.00	0	0	0.00	0	4	0.00	50.00
	Tibia	3	33.33	0	5	40.00	0	2	0.00	0	5	20.00	20.00
	Ulna	0	0.00	0	3	0.00	33.33	3	0.00	0	2	0.00	0
	Astragulus	1	0.00	0	4	0.00	0	1	0.00	0	1	0.00	0
	Calcaneus	0	0.00	0	3	0.00	0	1	0.00	0	4	0.00	0

The assemblages have significant differences in the frequency of saw marks ($\chi 2=10.24$, df=3, p<.0166) and chop marks ($\chi 2 =8.44$, df=3, p=.0377) observed on sheep/goat remains. Interestingly, sheep/goat elements with saw marks and shears are more common within the earlier features (35 and 10) than the later features (45 and 29) (Table 5.4). Primary butchery activity is indicated by the increased presence of saw marks on the forequarter of the animal. Elements representing the hind leg of sheep/goat, the femur and tibia, show little to no evidence of sawing or chopping, compared to the humerus, radius and scapula. This pattern suggests that the sheep/goat leg-cuts were acquired by the consumer as a whole cut. Overall, the low incidence of sawed and sheared elements corresponds with the expectation that saws were employed less often for smaller animals, such as sheep/goat. This pattern seems to increase over time, as butchery marks on sheep/goat elements decrease, indicating a preference for larger cuts of mutton or goat meat. Feature 45, in particular contains significantly few sheep/goat bones with evidence of sawing or chopping (See Appendix C for chi-square residual analysis).

In conclusion, butchery marks observed on the assemblages agree with the expectations, but also reveal unexpected patterns. When the total large mammal assemblages are assessed across time, saw marks increase in frequency, especially on cattle remains, indicating an increasing preference for the use of saws in secondary butchery toward the turn of the 19th Century (as exhibited by the remains in Feature 29). According to Landon (1996: 64) and Romans et al. (2001), this corresponds to the standardization of the meatpacking industry in the United States. Additionally, this increase in saw marks on the bones over time may result from the growing preference for individual or single-serving cuts of beef. The sagittal splitting of the carcass is the best established butchery practiced observed in the assemblages. The butchery of pig carcasses involves a combination of sawing, and chopping, with no clear preference

observable overall, although there is evidence of some consistency in butchery methods on the elements associated with common cured cuts such as ham.

Sheep/goat butchery was most often completed with the use of an ax or cleaver, evidenced by the significant number of shear marks observed on the bones. These findings support the expectation that the smaller the animal, the more frequently butchers used axes and cleavers (or butchery knives). In the evaluation of the distribution of butchery marks across the elements, the sagittal splitting of cattle thorax is quite visible in the remains, but not visible with pig remains, suggesting that these animals were not processed in a consistent manner in the late 19th Century. While sheep/goat carcasses were more consistently butchered by axes or cleavers, overall, sheep/goat remains show fewer saws and shears over time, suggesting that in the later households (Features 45 and 29), sheep/goat meat was purchased in larger cuts, such as complete hindlegs. In general, based on the butchery patterns observed on longbones, sheep/goat remains, followed by pig limb bones were more often complete when meat cuts purchased by the consumer than cattle limb bones, which were often sawed or cut through.

Finally, Feature 45 revealed some unique patterning, containing fewer chopped or sawed sheep/goat remains than expected, and also fewer sawed cattle bones, with more shears on specific elements, such as vertebra. This indicates that the patterns of purchasing, preparation and possibly consumption for the households associated with Feature 45 were distinct from the other households in this study. These families, for example, may have purchased larger cuts of meat, resulting in fewer saw and chop marks. It is necessary, however, to keep in mind the small sample size for sheep/goat remains, which may be influencing these results.

Cut Marks

In this context, cut marks are expected to occur during the removal of meat from the bone

during tertiary butchery (preparation) and consumption (Crader 1990: 706; Landon 1996; 59). In particular these marks may be associated with for cooking or roasting, rather than stewing or boiling in a pot, and are expected "to be more common on bones that are prepared by dry-cooking methods or which are being stripped of their meat prior to cooking because both require substantial cutting" (Crader 1990: 705).

The relative frequency of cut marks observed in the assemblages displays a similar pattern for all species and across all four features (Table 5.1). When compared by species across the features, there are no significant differences in the frequency of cut marks among the assemblages ($\chi 2 = 1.28$, df = 3, $p < .739$). When medium and large mammal specimens are taken as a whole, however, the features do show significant variability in the number of specimens with cut marks ($\chi 2 = 31.97$, df=3, $p < .0001$). Based on the standardized residuals (Appendix C, VII), for example, Feature 10 has significantly fewer cut marks on medium and large mammal remains than expected, whereas Feature 45 contains significantly more bones with evidence of cut marks than the other features.

An examination of the distribution of elements with cut marks shows considerable variation among the species and also the features (Table 5.5). The number of elements with cutmarks within a species can be used as a rough estimate of diversity. Feature 45, for example, has the highest diversity of elements with cut marks for cattle, pig, and sheep/goat; 8, 9, and 4, respectively. According to the Kendall's rank correlation coefficient, the relative diversity of specimens with cut marks does not correlate to sample size for cattle (*tau*=-.33, p=.734), pig (*tau*=.1825, p=1), or sheep/goat (*tau*=.67, p=.308).

For beef remains, ribs are the most frequent elements with cut marks, and innominates often show evidence cutting. The cut marks on the rib fragments may indicate that cuts from the

rib of cattle were often prepared differently than other cuts of beef, as they were likely roasted. Pig innominates often show cut marks, as do pig femurs. Eight of the 11 pig femurs with cutmarks are nearly complete or whole, and 3 of the 6 innominate were nearly complete or complete. This phenomenon is likely associated with the prevalence of the consumption of cured ham in the 19th century (Chapter 2), as these cuts would not likely have been stewed or boiled, but eaten off the bone with utensils (Crader 1990; Landon 1996). Without fresh meat available year round, the households in this neighborhood certainly relied on cured pork as a source of protein. Since so few mutton remains contain cut marks, it is difficult to discern any patterning on elements, but the infrequency of cut marks on sheep/goat bones may suggest that these cuts were prepared in a pot, rather than roasted.

Table 5.5 Elements with Cut marks by Species and Feature

	Feature 35	**Feature 10**	**Feature 45**	**Feature 29**
Beef	Ribs (5) Lumbar (1) Thoracic (1) Humerus (1) Radius (1) Innominate (2) Femur (1)	Rib (6) Thoracic (1) Scapula (1) Humerus (1) Innominate (1) Tibia (1)	Rib (3) Thoracic (1) Scapula (2) Humerus (1) Calcaneus (1) Ulna (1) Innominate (2) Femur (1)	Rib (3) Radius (1) Femur (1) Sacrum (1)
Pork	Ulna (3) Humerus (1) Radius (1) Innominate (2) Metacarpal (1) Femur (4)	Mandible (2) Rib (2) Humerus (3) Innominate (1) Femur (6) Astragalus (1)	Atlas (1) Cervical (1) Scapula (2) Humerus (2) Radius (2) Ulna (1) Innominate (2) Femur (1) Calcaneus (1)	Thoracic (1) Rib (1) Ulna (1) Innominate (1)
Mutton	Femur (1)	-	Thoracic (1) Rib (1) Ulna (1) Innominate (1)	Ulna (1) Tibia (1) Rib (1)

The overall distribution of cut marks provides information on the methods of preparation and consumption of the meat. Clearly, the households associated with Feature 45 had a unique preference for preparing meat, as this assemblage had the highest diversity of elements with cut

marks. Again, while cut marks are associated with various activities, such as disarticulation, they are often associated with preparation for consumption, in particular the roasting of meat (Crader 1990: 709; Landon 1996: 79).

For avian remains, cut marks were the only butchery marks recorded, and very few were observed in all of the features. Less than 1% of the bird bones from features 35, 10 and 29 displayed cut marks. A lack of cut marks is expected if the households focused on 'one-pot' meals, a common feature of low-income families of this time. Feature 45 showed the highest relative amount of cut marks on bird specimens, with 7% of the total avian sample displaying cut marks. The only aquatic remains with observed cut marks include the turtle shell fragments from Feature 35. Cut marks were observed on the interior surface of the shells, indicating that the household consumed this species as food.

Feature 35 also contained a bone with the most unique category of human-caused modification of the analyzed samples. A single specimen from this feature contained a gunshot wound (Figure 5.1). Observed on the innominate of a cow, the puncture is approximately 1.5 cm in diameter, and displays a clear entrance and exit wound, with no evidence of healing around the wound. Although gunshots were employed to slaughter cattle, at slaughterhouses, the shot was most often to the head of the animal (Ashbrook 1955). If, however, local farmers were supplying meat to the city butchers, then this could better explain the gunshot, as farmers may have shot the animals and sold the carcass to shops or markets. The location of the gunshot on the pelvis may suggest that this was accidental as this would destroy marketable meat and would not be an efficient means of killing the animal. As this feature is the oldest of the four analyzed, it is likely that the animals were coming from local sources. The gunshot may reveal that during

the mid-19th century, the slaughtering process was undertaken locally and also was not yet mechanized in St. Louis during the mid-19th century as it was toward the turn of the century.

Figure 5.1 Bullet Wound on Cattle Innominate, Feature 35

Burning

For each assemblage, I evaluated the extent of burning on the bones. Every specimen was observed and categorized to a burning stage based on color. Thermally altered bone will display a surface color and texture change, based on the temperature to which the bone was heated, as well as to the duration of the heating (Brain 1983; Hansen and Cain 2007; Johnson 1989). Specimens were classified as one of four stages, in order of increasing intensity of thermal alteration: unburned; burned (superficial burning, brown or black patches on a bone); carbonized (bone is black due to collagen carbonization); or calcined (white and chalky caused by oxidization of black carbon) (Brain 1983; Hansen and Cain 2007; Johnson 1989).

Results from the analysis suggest that overall, few of the bones were burned (Table 5.6). When evaluating the total number of burned bones among the features, the assemblages show significant differences ($\chi 2=607.52$, df =3, $p<.0001$). Based on the standardized residuals (Appendix C, X-XI), the remains recovered from Feature 45 show more evidence of burning

than the other features. Both Features 29 and 35 contained fewer burned specimens than expected.

Table 5.6 Quantity of Specimens Showing Burning, by Species and Feature

	Feature 35		Feature 10		Feature 45		Feature 29	
Class	N	%	N	%	N	%	N	%
Beef	8	5	31	9	16	19	6	5
Pork	21	9	36	10	18	16	5	.9
Mutton	1	2	14	13	8	26	1	2
Rabbit	0	0	1	20	1	10	0	0
Bird	2	.8	15	3	27	20	2	1.7
Class V	14	5	112	9	131	27	8	3
Class VI	2	1	98	14	189	51	0	0
NID	9	3	19	2	101	14	0	0

In order to assess the intensity of burning within the assemblages, I compared the number of 'burned' bones to the number of combined carbonized and calcined specimens (due to sample size limitations), as well as to the number of specimens that showed no evidence of damage from burning (Table 5.7). Based on this analysis, the assemblages show significant differences in the intensity of burning observed on the bones ($\chi 2=82.15$, df = 6, $p<.0001$). Most significantly, based on the standardized residuals (Appendix C, XI), Features 10 and 45 contained more carbonized and calcined bones than expected when evaluated against the other features. This indicates that the bones from these features were subject to more contact with direct fire than remains from the other features. Feature 35, on the other hand, has fewer calcined or carbonized bones than expected, suggesting that the bones in this assemblage did not have extensive contact with direct fire.

Although "damage by burning occurs when bone is in direct contact with fire", and it is not associated with preparation of meat in a pot, the cooking technology of this time would likely ensure that meat was not roasted over an open fire (Crader 1990: 710). Any burning, therefore, is likely due to disposal practices in urbanized St. Louis. Since it was often costly to hire a

scavenger to clean privies, and sanitation and garbage disposal was an issue in the city (Rumbold 1908; Sullivan 1881), it is likely that poor households would have resorted to burning their trash. This practice has been observed in other urban contexts in the late 19th Century (Crane 2000: 24). It is plausible, therefore, that the extensive burning observed in Feature 45 is due to solving the issue of trash disposal in a space-constrained urban environment. The soil matrix for Feature 45 is described as "black cinder fill" (Harl 2005: 270) suggesting that the privy filled with ash and burned materials prior to its closure.

Table 5.7 Burning Stage by Feature and Species

	Burned	Carbonized	Calcined	Carbonized and Calcined
Feature 35				
Pig	19	2	-	-
Cattle	7	-	1	-
Sheep/goat	-	-	-	1
Total	*28*	*2*	*1*	*1*
(% NISP)	*(6.14)*	*(.43)*	*(.22)*	*(.122)*
Feature 10				
Pig	23	6	5	2
Cattle	24	-	4	3
Sheep/goat	5	6	2	1
Total	*52*	*12*	*11*	*6*
%NISP	*(6.70)*	*(1.48)*	*(1.35)*	*(.73)*
Feature 45				
Pig	6	1	9	2
Cattle	6	2	7	3
Sheep/goat	-	1	5	2
Total	*12*	*4*	*21*	*7*
%NISP	*(5.22)*	*(1.74)*	*(9.13)*	*(3.04)*
Feature 29				
Pig	1	2	2	1
Cattle	5	-	-	-
Sheep/goat	-	-	1	-
Total	6	2	3	1
%NISP	(2.10)	(.71)	(1.04)	(.35)

Extent of Fragmentation

I employed a modification of Lyman's (1994b) technique to quantify the extent of fragmentation in the assemblages. This involved calculating the ratio of complete elements to the total NISP of the assemblages. Lyman (1994b) suggests using the ratio of complete specimens recovered to the total NISP. While this is useful for prehistoric assemblages where

animals were likely acquired whole, this method is not appropriate for historic assemblages where some elements would be incomplete when purchased by the consumer. Thus, this calculation was slightly modified for this study. I counted the total number of identified large mammal bones that were either recorded as whole, or recorded as butchered sections, (e.g. bones that appeared purposefully butchered, either sawed, cut or chopped, as opposed to broken). The extent of fragmentation is measured by the ratio of these 'complete' specimens to the total NISP. The lower the ratio of complete specimens to the total NISP, the higher the extent of fracturing within the assemblage.

Based on this measure (Table 5.8), Feature 45 is the most fragmented assemblage of the four analyzed. This is further evidenced both by the fact that this assemblage contained the highest percentage of unidentifiable specimens. According to the Kendall's rank correlation coefficient, this ratio does not correlate to sample size (*tau*=.67, p=.308).

Table 5.8 Extent of Fragmentation

Feature	Complete Specimens	Total NISP	Extent of Fragmentation [a]
35	399	1602	.249
10	876	4660	.19
45	123	1973	.062
29	264	917	.29

[a] Based on a modification of a technique from Lyman (1994).

When evaluating the meaning of the fragmentation of a historic faunal assemblage from an urban context, there are many likely scenarios. As the populations associated with these remains are working-class, poor households, fragmentation may provide insight into both consumption and disposal practices, as well as natural taphonomic forces. The large frequency of fragmented bones in Features 45 and 10, for example, may be indicative of trampling as the bones lay in the yard prior to burial. Additionally, the friability of some elements may lead to increasing fragmentation from the deposition of refuse on the top of the previously deposited

bones, or from weathering and other attrition processes. Fragmentation may also be associated with food-preparation techniques, such as the breaking of bones for boiling in a pot for stews or soup or to extract the fat from the bones, which was undoubtedly a common practice of economically constrained households. It is likely that the high proportion of fragmented specimens in Feature 45 is indicative of the socioeconomic status of the households associated with the deposit, as again, privy-cleaning was an expensive undertaking for this population and the bones were likely left in yards and susceptible to crushing. The extensive fragmentation observed in the deposit from Feature 10 may also be due to the intentional breakage of bones by people for boiling, but may also be a result of taphonomic processes leading to the fragmentation of bones.

The high level of fragmentation observed in Feature 45 may also explain the lower frequency of saw and chop marks recorded on the specimens from this deposit. Increased fragmentation of bones, combined with the higher degree of burning observed on the remains from Feature 45 would create significant difficulty in identifying butchery marks on specimens. While the relative scarcity of saw and chop marks in this deposit may indicate different consumption patterns, such as the purchase of larger cuts, it seems probable that the fragmentation and burning observed on the bones in this assemblage influenced the identifiability of butchery marks within Feature 45.

Weathering

Examining the patterning and extent of weathering on the bones, allows for the determination of both the depositional context and the exposure of the bones to destructive forces that may lead to differential preservation. In order to assess weathering for the assemblages, maximum stages of weathering were recorded for all medium and large mammals remains, based

on research by Behrensmeyer (1978) (Lyman 1994b). As recommended by Behrensmeyer (1978: 152), for each specimen I recorded "the most advanced stage which covers patches larger than 1 cm^2 surface." The weathering stages recorded, after Behrensmeyer (1978) include: 0, no visible weathering; 1, superficial longitudinal cracking; 2, more distinct cracks and bone flaking; 3, fibrous exterior; 4, cracks grow deeper and flaking becomes extensive; 5, bone begins to fall apart.

A few expectations may be derived with regards to weathering in the assemblages. First, if the bones were immediately deposited in the privies, then I expect little evidence of weathering on the bones. Specimens that were left in yards or exposed to environmental factors for an extended period of time will show weathering, and cause increasing disintegration of the bones the longer they are left outside of the privies. Due to the high proportion of fragmented specimens and the small size of many of the unidentifiable fragments, only identifiable specimens of cattle, pig, and sheep/goat are utilized to evaluate the extent of weathering within the assemblages.

While nearly all of the bones recovered were subject to transformational processes after deposition into the privies, and many showed staining from the privy contents, only a fraction of the remains show evidence of exposure to environmental forces prior to burial. All four of the features contained bones showing signs of weathering (Table 5.9). In all of the features, the highest stage of weathering observed was stage 2. This suggests that at least some of the remains were exposed to forces before deposition in the privies, however, they were not left out for enough time to allow for intensive weathering. The evidence of weathering on the remains from the features implies that there was a fairly regular pattern of clean-up of trash from the yards. The sample from Feature 45 showed significantly more weathered bones than the other features,

with evidence of weathering observed on approximately 59% of the identified large mammal remains ($\chi 2$ =141.96, df = 6, p<.0001) (See Appendix C, XII for chi square residual analysis). Both Feature 45 and Feature 10 contained significantly more bones showing stage 1 and stage 2 weathering than expected, when compared to the other features. Feature 29, on the other hand, displays significantly less weathering than expected, both of stage 1 and stage 2. This feature also contained significantly more unweathered specimens than expected.

Table 5.9 Analysis of Weathering Stages, by Feature

	Stage 1		Stage 2	
Feature	N	%NISP	N	%NISP
35	15	3.29	80	17.54
10	27	3.32	236	29.03
45	13	5.65	122	53.04
29	3	1.05	41	14.34

Note:$\chi 2$=141.96, df = 6, p<.0001

The extent of the weathering can provide an estimate of the relative length of time that the bones were exposed to the environment. The highest stage of weathering observed was 2, which correlates to Behrensmyers time-frame of 6 years exposure before final deposition into the privies (Behrensmeyer 1978: 157). Due to the geographical differences between Behrensmeyer's (1978) study in Africa and the location of these deposits in St. Louis, however, these stages may only be used as a general indicator of the relative time the bones spent in yards prior to deposition in the privies. While all of the features contained remains without evidence of weathering that were likely directly deposited in the privies after consumption, the weathering found on bones within these deposits suggests that many of the bones were clearly deposited into the privies after initial disposal in a yard for a period of time. This is not surprising, as this area lacked organized trash collection and as the cleaning of privies was likely too expensive of an undertaking for these households.

For all four of the features, beef bones showed the highest percentage of stage 2 weathering (Table 5.10, 5.11, 5.12). While Feature 45 contained significantly more beef remains showing stage 1 and stage 2 weathering than all of features, Feature 10 also had more stage 1 and stage 2 cattle bones than the other two features. There do not appear to be any clear patterns within the distribution of weathered cattle elements within the samples, although there appears to be variation in weathering as a result of the amount of cortical bone. Ribs, for example, are the most frequent specimens with evidence of stage 2 weathering for all of the features, likely due to the thin layer of cortical bone found on this element.

Similar to cattle remains, there is considerable variability in the pig elements showing weathering in all features (Table 5.11). Pig and sheep/goat remains, however, show significantly less weathering than cattle in all four of the features ($\chi 2 = 60.35$, $df = 2$, $p < .0001$; See Appendix C, XIII for residual analysis). This is expected due to the thinner layer of cortical bone present on medium-sized mammals, such as pig and sheep, as compared to large mammals, such as cattle. Feature 10 and Feature 45 contained a large range of pig elements showing stage 1 or stage 2 weathering, as both contained 17 different elements with evidence of weathering, compared to 12 for Feature 35 and 6 for Feature 29. Similarly, Features 10 and 45 show the most diversity in sheep/goat elements with evidence of weathering.

Overall, the samples from Features 10 and 45 show significantly more weathering on elements than Features 35 and 29. Cattle remains show the most weathering for all of the features, and the only observable pattern of weathering on specific elements is the higher frequency of weathering found on bones with thinner layers of cortical bones, such as ribs. Based on these results, most of the remains from the assemblages were likely deposited in the

Table 5.10 Analysis of Weathering of Cattle Remains, by Stage and Feature

	Stage 1		Stage 2	
	Element	N	Element	N
Feature 35	Rib	1	Cervical	6
	Innominate	1	Lumbar	7
	Humerus	1	Thoracic	5
			Rib	17
			Scapula	3
			Humerus	3
			Radius	4
			Femur	3
			Astragalus	1
Percent of Species NISP		1.70%		27.7%
Feature 10	Lumbar	1	Skull	1
	Thoracic	1	Atlas	1
	Rib	5	Lumbar	15
	Radius	2	Thoracic	5
	Femur	2	Sacrum	1
	Tibia	1	Rib	43
	Patella	1	Scapula	10
			Humerus	9
			Radius	9
			Carpal/Tarsal	9
			Phalanges	4
			Metacarpal/tarsal	1
			Innominate	8
			Femur	8
			Tibia	9
			Astragalus	1
			Calcaneum	2
Percent of Species NISP		4.00%		38.7%
Feature 45	Rib	2	Atlas	1
	Cervical	1	Cervical	3
	Humerus	1	Lumbar	5
	Astragalus	1	Rib	9
			Scapula	5
			Humerus	3
			Ulna	2
			Innominate	5
			Femur	6
			Tibia	7
			Calcaneus	2
			Carpal/Tarsal	4
Percent of Species NISP		5.95%		62%
Feature 29			Lumbar	1
			Thoracic	1
			Rib	12
			Scapula	5
			Humerus	1
			Radius	2
			Ulna	1
			Innominate	4
			Femur	5
Percent of Species NISP				24.20%

Table 5.11 Analysis of Weathering of Pig Remains, by Stage and Feature

	Stage 1		Stage 2	
	Element	N	Element	N
Feature 35	Skull	1	Skull	2
	Lumbar	1	Atlas	1
	Thoracic	1	Thoracic	1
	Sternum	1	Humerus	1
	Ulna	1	Radius	3
	Femur	2	Ulna	1
	Tibia	3	Metacarpal/tarsal	5
	Astragalus	1	Femur	6
			Tibia	2
			Astragalus	1
Percent NISP of Species		**4.68%**		**9.79%**
Feature 10	Skull	1	Mandible	5
	Lumbar	1	Skull	1
	Thoracic	1	Atlas	4
	Rib	1	Lumbar	1
	Radius	3	Thoracic	4
	Femur	3	Rib	2
	Tibia	2	Scapula	1
	Astragalus	1	Humerus	2
			Radius	2
			Ulna	2
			Phalanges	3
			Metacarpal/tarsal	2
			Innominate	8
			Femur	8
			Tibia	5
			Calcaneum	4
Percent NISP of Species		**3.65%**		**15.17%**
Feature 45	Lumbar	1	Atlas	1
	Thoracic	2	Axis	1
	Radius	1	Cervical	1
	Phalanges	1	Lumbar	6
	Femur	1	Thoracic	4
	Tibia	2	Rib	3
			Sacrum	1
			Scapula	5
			Humerus	10
			Radius	5
			Ulna	4
			Phalanges	2
			Carpal/Tarsal	4
			Innominate	2
			Femur	3
			Tibia	3
			Calcaneus	1
Percent NISP of Species		**6.96%**		**48.70%**
Feature 29	Femur	1	Cervical	1
	Calcaneus	1	Humerus	4
			Ulna	1
			Tibia	1
Percent NISP of Species		**1.89%**		**6.60%**

Table 5.12 Analysis of Weathering of Sheep/Goat Remains, by Stage and Feature

Sheep/goat	Stage 1		Stage 2	
	Element	N	Element	N
Feature 35	Femur	1	Cervical	1
			Tibia	3
			Astragalus	1
Percent NISP of Species		**2.27%**		**11.36%**
Feature 10	Scapula	1	Mandible	1
			Atlas	1
			Cervical	1
			Lumbar	3
			Thoracic	1
			Rib	1
			Humerus	3
			Radius	1
			Innominate	4
			Femur	1
			Tibia	3
			Astragalus	3
			Calcaneus	1
			Scapula	1
Percent NISP of Species		**0.94%**		**23.58%**
Feature 45			Lumbar	1
			Thoracic	1
			Rib	2
			Radius	1
			Ulna	2
			Calcaneus	1
			Metacarpal/Tarsal	1
			Tibia	1
Percent NISP of Species				**32.26%**
Feature 29			Phalanges	2
			Femur	1
Percent NISP of Species				**6.25%**

privies quickly after consumption or deposited in a protected location, although some were clearly left in yards or alleys prior to deposition in the privy vaults.

The extent of weathering of the remains suggest that the households associated with Features 10 and 45 deposited some of their refuse in the yards or other locations for a longer period of time than the other households from this sample. If privy cleaning was a costly undertaking, which is likely based on the high population density of this neighborhood, then it is

unlikely that privies were a preferred depository for trash during the time of their use. Both landlords and tenants may have avoided depositing refuse in the privies, until the privy was no longer in use or until the construction of a new building. Weathering of the faunal remains may therefore imply a sense of frugality on the part of the residents of these tenements, and likely relates to differences in depositional processes.

Rodent Gnawing and Carnivore Ravaging

To establish the impact of carnivore ravaging and attrition from rodent activity on the samples, I evaluated each specimen for evidence of carnivore damage and rodent gnawing. For carnivores, the damage included the following markings, based on Binford (1981:44-46): 1) punctures, in which the "bone has collapsed under the tooth, frequently leaving a fairly clear imprint of the tooth"; 2) pitting, which occurs when gnawing proceeds from soft to hard bone, and the "bone is now strong enough not to collapse under the gnawing action"; 3) scoring, which involves the animal "turning the bone against the teeth or dragging the teeth across relatively compact bone," resulting in a linear scar on the surface of a bone; furrowing, which results in close, irregular, and randomly-oriented grooves, often on epiphyses of longbones; and 4) scooping, which is intensive furrowing, causing destruction of the cancellous ends of longbones. Evidence of rodent damage observed on bones included the presence of "parallel tooth marks, production of "windows" in the shafts of bones, and extensive modifications in localized areas" (Binford 1981: 49).

The presence of rodent and carnivore gnawing on faunal remains may provide some indication of the potential biases that these animals can create within an assemblage. While cats may impact the assemblages, dogs and rodents are known to have significant impacts on skeletal

representation in faunal deposits (Binford 1981; Haynes 1980, 1983; Lyman 1994; Lyon 1970). In particular, Lyon (1970: 215) observed that dogs may totally consume smaller bones, such as fish and bird, leaving larger mammal bones intact. Many studies, on the other hand, indicate that canids have a considerable impact on assemblages through their tendency to gnaw on longbone epiphyses, thus destroying the cancellous ends of bones (Binford 1981; Haynes 1980, 1983). In fact, Haynes (1980; 1983) demonstrates the impact of wolves in the destruction of longbone ends from large mammals, including bison. Based on such studies, some suggest that "carnivore deletion of limb-bone ends may be most intense on assemblages where dogs were kept as domesticates" (Marean and Spencer 1991: 658). Kent (1981) also demonstrates that dogs will move bones, influencing the spatial distributions of remains at a site.

Within the assemblages, there are very few bones that show damage from either rodent or carnivore activity (Table 5.13). There are significant differences among the assemblages with regard to carnivore and rodent damage ($\chi 2=19.23$, df = 6, $p<.0038$). In particular, Feature 10 has fewer rodent and carnivore bones than expected, and Feature 45 has more evidence of carnivore activity than the other features (see Appendix C, XIV for residual analysis). The specimens with carnivore damage are mostly (83%) longbones (Table 5.14). Rodent gnawing was observed on a variety of bones, including ribs, vertebrae and scapula.

Table 5.13 Carnivore and Rodent Damage, by Feature

	Feature 35		Feature 10		Feature 45		Feature 29	
Modification	Count	% NISP	Count	% NISP	Count	% NISP	Count	% NISP
Rodent Gnawed	9	2.41	7	.98	3	2.17	8	4.20
Carnivore Damage	8	1.97	4	1.11	8	3.04	4	1.40

Both dogs and rodents could affect the accuracy the results of this analysis by removing certain bones from the yards prior to their disposal in the privies. Evidence of gnawing and ravaging, combined with the observed presence of dog bones within the privy deposits suggests

that carnivores were likely a cause of some bone destruction and the removal of small bones from the site, and also may have affected the survivorship of longbone epiphyses. The higher frequency of carnivore damage on bones from Feature 45 parallels the extent of weathering observed on the bones (Table 5.9, Appendix C, XII). If the bones from Feature 45 were exposed longer than the other assemblages and therefore were more susceptible to carnivore ravaging. The low frequency of gnawing on the bones in general, however, suggests that the bones were not left on the surface for an extended period of time.

Table 5.14 Skeletal Distribution of Rodent and Carnivore Damage

Type of Damage	Feature 35	Feature 10	Feature 45	Feature 29
Rodent	Pig rib	Pig Atlas	Pig humerus	Pig rib
	Pig humerus	Pig humerus	Cattle ulna	Pig scapula
	Pig radius	Sheep/goat humerus	Cattle humerus	Pig radius
	Pig tibia	Sheep/goat femur		Pig metacarpal
	Sheep/goat innominate	Sheep/goat calcaneus		Pig innominate
	Cattle rib (2)	Cattle lumbar (2)		Cattle mandible
	Cattle humerus			Cattle rib
	Cattle carpal			Cattle scapula
Carnivore	Pig mandible	Pig humerus	Pig radius	Pig tibia
	Pig radius	Pig Ulna	Pig tibia	Pig radius
	Pig femur	Cattle humerus (2)	Sheep/goat humerus	Sheep/goat tibia (2)
	Cattle thoracic		Sheep/goat ulna (2)	
	Cattle humerus (2)		Cattle calcaneus	
	Cattle radius		Cattle humerus	
	Cattle innominate		Cattle ulna	

Within this urban context, it is likely that dogs were scavenging scraps from refuse in the yards and alleyways. The evidence of dog activity in all of the assemblages, suggests that it is probable that dogs transported bones between yards and households, mixing deposits. Additionally, it is likely that dogs completely consumed smaller bones with any attached meat, which would affect the remains identified within the privy samples. Rodents, rats in particular as identified in the assemblages by skeletal remains, likely affected the deposits, by consuming or

removing small discarded bones in the alleys and yards. Based on rodent body size, it is unlikely that these animals transported any large mammal bones, but it is more likely they removed smaller bird or fish bones from the assemblage. These factors suggest that there is a possible under-representation of smaller-sized fauna within these deposits. While it is unlikely that this phenomenon would influence the richness measures within these large assemblages, it may affect the evenness measures, underestimating the importance of small fauna in the diets of the households.

Overall, the taphonomic evidence suggests that Features 10 and 45 may be secondary deposition. The fragmentation of the bones as well as evidence of burning indicate that these materials were collected and burned and finally deposited in the privies. The remains from Features 35 and 29, on the other hand, did not show extensive evidence of these processes, suggesting that they were deposited more directly in the privies upon the disuse of the privy vaults human waste receptacles. The relatively sparse evidence of rodent or carnivore gnawing, considering the recovery of these animals' remains in the deposits, may indicate that these bones were removed from the yards or houses by the animals, and not deposited within the privies.

Density Mediated Attrition

In order to assess if differential survivorship of elements has had an affect on skeletal frequencies within the assemblages, I evaluated the frequency of cattle elements against their structural density, as published by Ioannidou (2003). According to Lyman, (1994: 235) "the probability that a skeletal part will survive the rigors of various taphonomic processes is at least partially a function of that part's structural density (g/cm^3)." Ioannidou (2003) employed photondensitometry to determine the density of different portions of domestic cattle (*Bos taurus*). For each assemblage, I calculated the frequency of specimens, based on the portion of the bone

present, that corresponds with the scan sites from the study. With these values, I employed the Pearson Correlation to determine the relationship between bone density and the preservation of skeletal parts (Figures 5.2, 5.3, 5.4, 5.5).

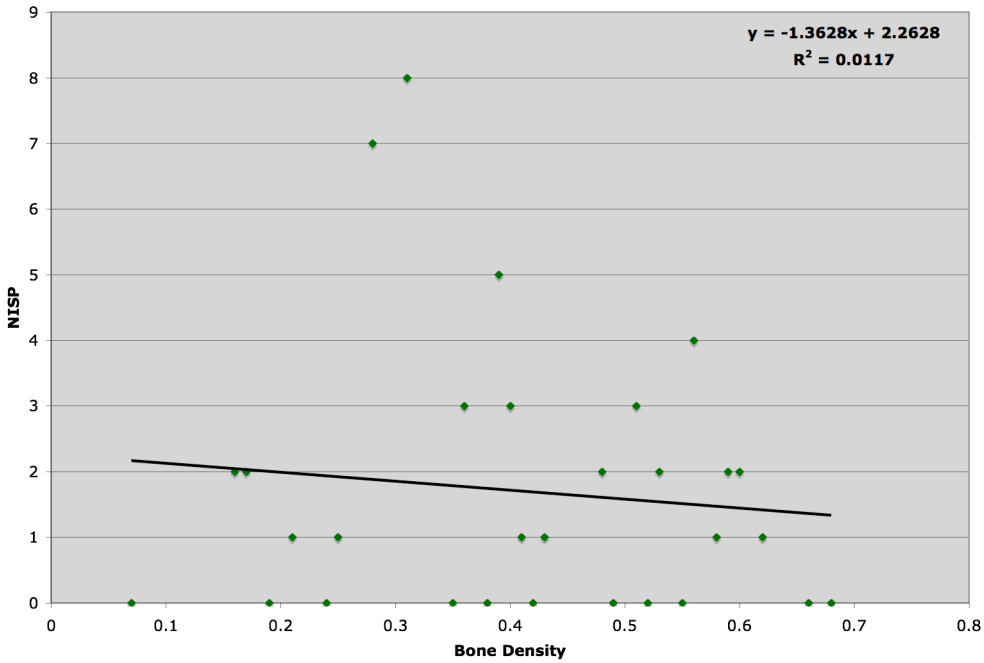


Figure 5.2 Feature 35 Bone Density against NISP for Cattle Remains (p<.205)

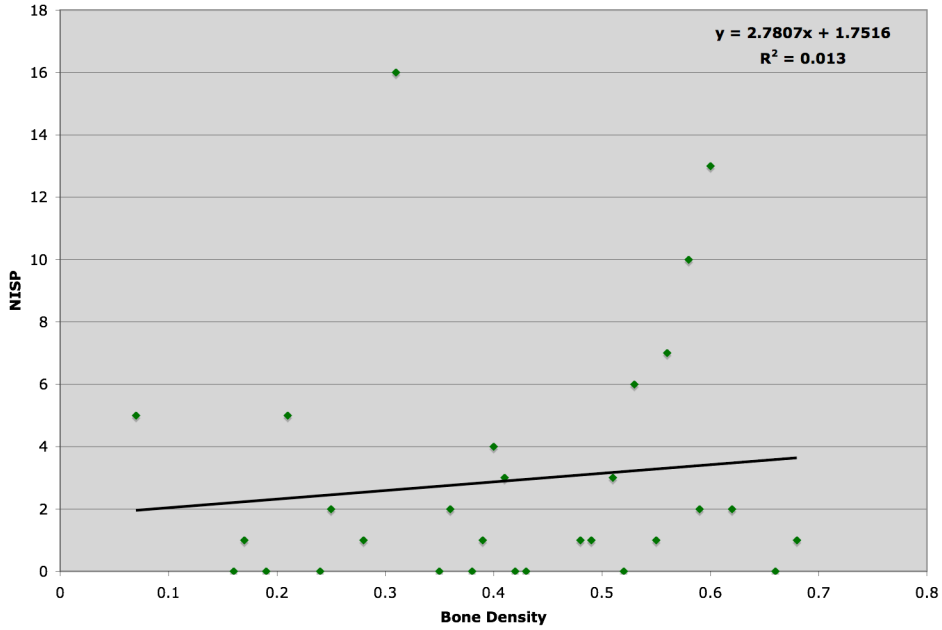


Figure 5.3 Feature 10 Bone Density against NISP for Cattle Remains (p=.94)

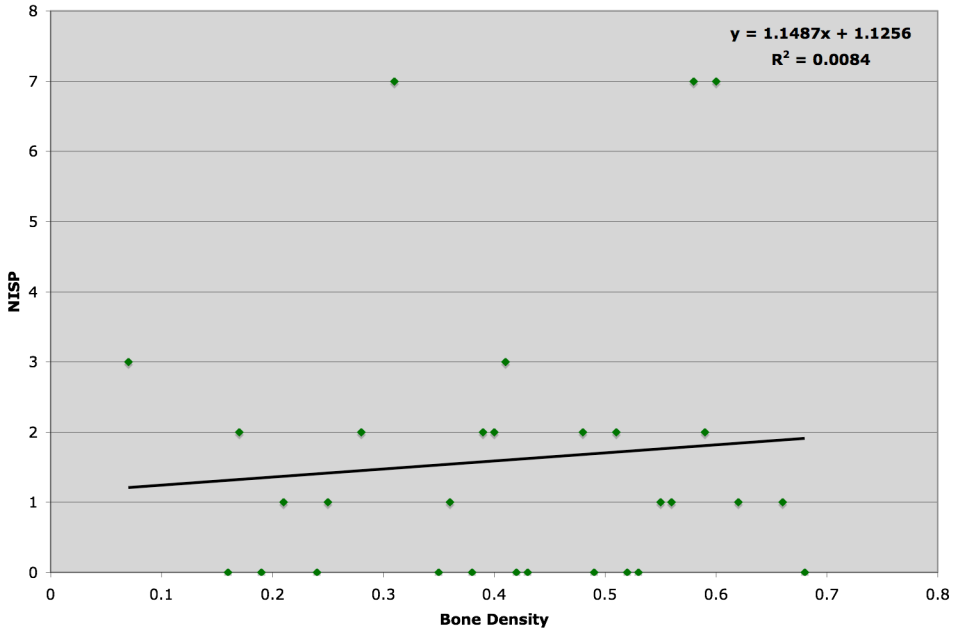


Figure 5.4 Feature 45 Bone Density against NISP for Cattle Remains (p=.84)

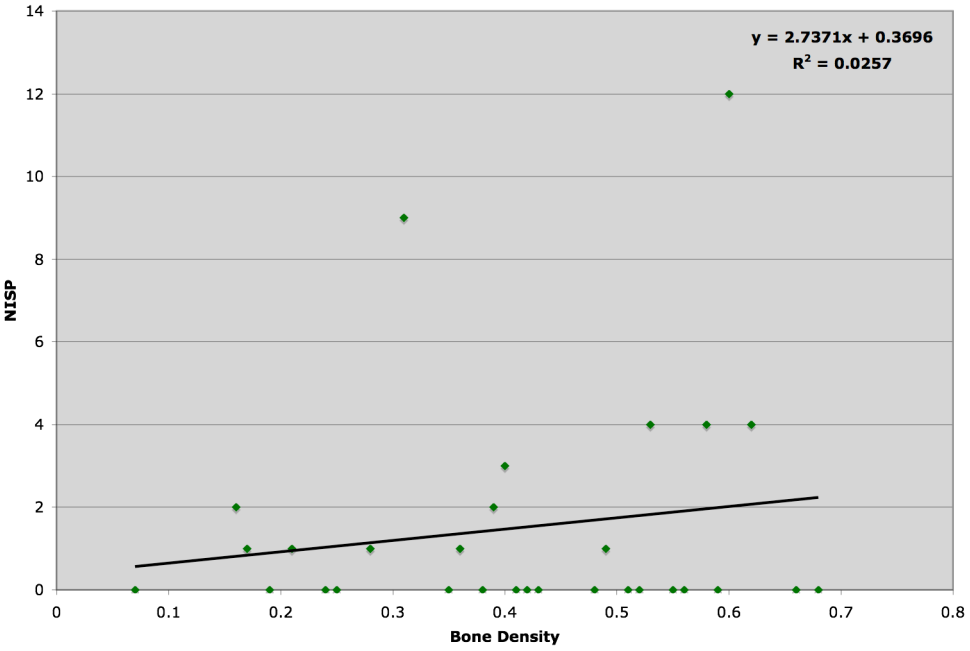


Figure 5.5 Feature 29 Bone Density against NISP for Cattle Remains (p=.79)

All four features show a very weak, insignificant correlation between structural density and skeletal frequency of cattle. These analyses suggest that for all of the assemblages analyzed, the structural density of bone was not a mediating influence on survivorship. This further supports

the argument indicated by the low proportion of bones with carnivore damage and early stages of weathering on the bones, that the deposits from this study did not undergo significant alteration from natural taphonomic processes. It is likely, therefore, that differences among the assemblages with regard to species representation, skeletal frequencies and human taphonomic processes are a reflection of decision-making on the part of the distributor and consumer of the goods.

Conclusion

In this chapter, I presented information on taphonomic processes, both cultural and natural. Results from the analysis of butchery marks on bones revealed that butchery methods differed among assemblages and species, suggesting change over time in butchery methods. In particular, the cattle remains indicate a significant increase in sawing used in the butchery of carcasses, likely associated with the rise and development of the meatpacking industry and standardization of meat cuts. Additionally, the butchery marks observed on the bones from Feature 45 suggest that the residents associated with this deposit had a distinct pattern of preparation and consumption, possibly a focus on roasting as opposed to boiling or stewing. The burning, fragmentation and weathering analyses provided information on disposal practices by the households. As privy-cleaning was likely an undesirable expense for the population represented in this study, increased evidence of burning, weathering and fragmentation of bones suggests that two of the households burned trash before depositing it into privies no longer in use. The other households may have deposited the remains directly into unused old privies without burning or dumping the bones into yards prior to their final disposal. The analysis of natural taphonomic agents resulted in an elucidation of the impact of weathering, carnivore ravaging, and rodent activity on the assemblage, indicating that although these processes may

have affected the identifiability of some specimens as well as the frequency counts of certain species, these factors were not likely significant causes of assemblage variation. With the effects of taphonomic processes established, the next chapter focuses on the analysis of the assemblages with regard to species representation, meat cut consumption and animal age.

CHAPTER 6:
ANALYSIS OF SPECIES, MEAT CUT AND AGE

The following chapter analyzes the assemblages with regard to taxon, meat cut composition, and the age of the species. I begin with a brief analysis of the relationship among the number of bones recovered from each deposit, the number of individuals associated with each privy, and the dates of each assemblage. I then analyze the variation in taxonomic composition through an assessment of evenness and richness values for each assemblage, focusing specifically on the representation of medium and large mammals within each feature. I evaluate meat cut representation for beef, pork and mutton within each feature, investigating the role of socioeconomic status in consumer behavior, through the analysis of meat cut rankings. Finally, the ages of the cattle, pig and sheep/goat are examined, based on epiphyseal fusion and dental eruption stages to address issues of urban provisioning and 19th century animal husbandry practices in the western United States.

Analysis of Household Variability and Composition

Using the census data most likely associated with each residence and privy, as determined in Chapter 4 (Table 4.1) by ceramic dates and census data, I calculated the total number of occupants of each tenement, including spouses, children, boarders to determine if there is a relationship between the number of bones in the deposit and the size of the household. As expected, the number of occupants likely associated with each assemblage has a strong correlation with the number of bones recovered from the features (Figure 6.1). Feature 10, in particular contained the largest assemblage analyzed in this study, and also is associated with households that were cumulatively inhabited by the most people of the 4 features analyzed.

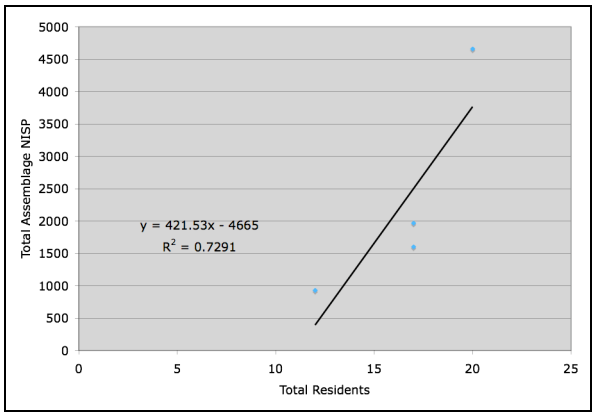


Figure 6.1 Total Assemblage Size Compared to Total Residents Associated with each Feature

We should expect that the number of bones recovered from a privy to increase the longer it was in use. The approximate length of use determined for each privy, based on dateable artifacts (Table 4.1), are as follows: Feature 35, 20 years; Feature 10, 10 years; Feature 45, 10 years, and; Feature 29, 20 years. According to the Kendall's rank correlation coefficient, there is no correlation between the length of time the privy was in use and the number of faunal remains recovered from the feature (*tau*=-.816, *p*=.245). This is unexpected, as the number of bones should increase as a function of the time-span the privies were in use. This trend, however, corresponds to the suggestion that privies were used differently, and that there was variability in how and when garbage was disposed of in the privy vaults (McCarthy and Ward 2000: 113; Wheeler 2000: 11). This finding further supports the assertion that the cost of privy-cleaning discouraged the disposal of refuse into the privies while they were in use as repositories for human waste. The faunal remains recovered from the features may not represent the total food-bone refuse produced by the households associated with the privies during their use, but remain accurate samples for analysis.

Analysis of Species Composition

For each feature, I calculated taxonomic evenness and richness to compare the diversity of taxa across the assemblages. Richness is equal to the total number of species identified within

each assemblage (∑TAXA) (Grayson 1984). For this particular measure, I have included all identified *food* remains, with fish counted as a single taxon. Evenness is measured using the reciprocal of Simpson's index $1/\sum p_i^2$, where p_i is equal to the proportion of specimens in the assemblage identified as species (Grayson 1984; Schmitt and Lupo 1995: 508). The higher the evenness, the more even the distribution of specimens across species.

While the interpretation of these measures is often difficult, the richness and evenness values can provide information of the socioeconomic limitations on the households' protein consumption, as well as acquisition context of the animals. Households with more purchasing power, for example, would be able to purchase a variety of meat more consistently than a poorer household. If a household is limited in their choice due to economic constraints, we should expect to see more variability in the amounts of the different meats consumed, as they are affected by fluctuation in the market and will be more likely to supplement their diets with rare species.

Comparison of the richness and evenness values calculated for the assemblages shows some differences in the dietary patterns of the households associated with the deposits (Table 6.1). Richness is not correlated with sample sizes for the assemblages (*tau* = .33, p = .73). Evenness values are positively, although not significantly correlated with the NISP value for the features (*tau* = .67, p = .31), suggesting that while the larger assemblages may tend to be more diverse, sample size is not a significant contributing factor to the evenness values.

Table 6.1 Richness and Evenness Values for Cochran Gardens Assemblages

Feature	Dates	N	Richness	Evenness
35	1850-1870	606	12	3.86
10	1870-1880	1236	11	4.61
45	1880-1890	313	8	3.8
29	1890-1910	370	9	4.07

Overall, richness values are higher in the earlier assemblages (Features 35 and 10), decreasing towards the end of the 19th century (Features 45 and 29). Evenness values, on the other hand, vary among the features, with lower values in Features 35 and 45. Feature 35 contained the most diverse range of species, but had a lower evenness value than Feature 10 and Feature 29. These values indicate that while the households associated with Feature 35 consumed a higher variety of meat than the other features, not all of the species were exploited to the same extent. This supports the assertion that the households represented by this assemblage were consuming uncommon species, such as the turtle, rabbits, and oysters to supplement their diet, as opposed to consuming a variety of species on a regular basis.

The families associated with Feature 10 had a more diverse diet than other families, and consumed a large number of species fairly evenly. As the residence associated with this feature housed the Kafsling family, the household with more economic flexibility than the others in this study, the high richness and evenness values may reflect socioeconomic status. In contrast, the bones deposited in Feature 45 reflect a more specialized diet, with a focus on fewer animals. This household consumed mostly large and medium domestic animals, with few fish and no additional aquatic taxa exploited, and the only birds other than chicken identified a single turkey and pigeon. It is important to keep in mind, however, that the effects of taphonomic processes including fragmentation, weathering, burning and the removal of bones by carnivores may have impacted the evenness values for the assemblages, Feature 45, in particular. These processes make it difficult to assess the reliability of the evenness numbers for the smaller taxa from the samples, such as bird and fish remains, which may appear underrepresented in the deposits due to reasons other than actual consumption rates.

The decrease in the diversity of taxa consumed over time may indicate a changing environment in St. Louis during the late 19th century. With the increasing availability of pork, beef and mutton year-round in local markets, the households in Old North St. Louis may have developed more reliance on markets for fresh meat. As St. Louis became progressively more populated and urbanized in the later 1800s, households may have had less access to supplemental taxa, such as ducks, geese, and aquatic species. While these taxa may have been available in local markets in the second half of the 19th century (DeVoe 18), wild forms of these animals could have been more readily available to the residents who initially populated the area around mid-century.

The lack of fish remains is surprising, considering the proximity of the neighborhood to the Mississippi. Additionally, salted and smoked fish, such as cod and herring were available year-round in 19th century urban markets and commonly consumed by poor households (Brown and Bowen 1998: 78; Milne and Crabtree 2001: 37). Many factors could explain the low frequency of fish consumed by the residents of the households in Old North St. Louis, including a perception of fish as the food of the poor, as was documented in Annapolis (Warner 1990: 279). It is important to note, however, that the use of ¼" screen in the excavations may have influenced the recovery of small fish bones from the deposits. Additional taphonomic factors, such as dogs and rodents, or depositional processes could also explain the dearth of fish in the deposits.

Analysis of Medium and Large Mammal Composition

While all of the assemblages indicate a preference for beef and pork over mutton, there are differences in the relative proportions of these species among the features (Figure 6.2). The

differences in the proportions of medium-large mammals observed among features are distinct (Figure 6.2). There are significant differences among the assemblages in the relative amounts of beef, pork and mutton cuts ($\chi 2 = 21.03$, $df = 6$, $p<.002$). Based on the standardized residuals of the contingency table (Appendix C, XV), Feature 35 contains more pig remains and less sheep/goat remains than expected compared to the other features. Feature 10, on the other hand, in relation to the other assemblages, does not show any significant deviations from the expected frequencies of large mammal remains, but does contain fewer pig specimens and more cattle than expected. As indicated by the residuals from the chi square analysis, Feature 45 contains significantly more pork remains and fewer beef specimens than expected. Feature 29, conversely, shows significantly more beef than pork, and also contains significantly more mutton remains relative to the other assemblages.

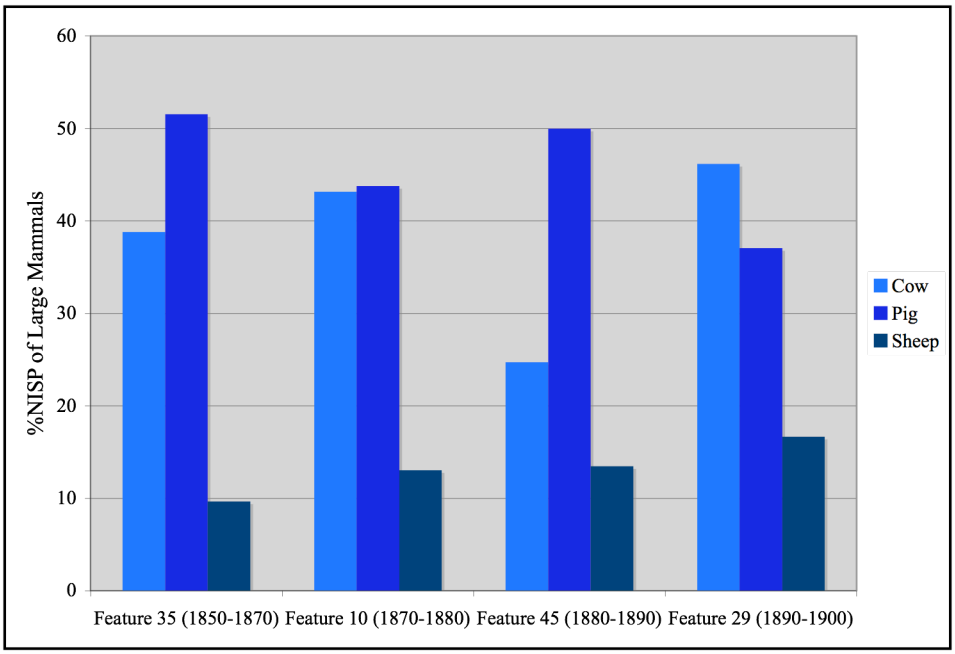


Figure 6.2 Large and Medium Mammal Representation, by Feature

The partiality for pork observed in Feature 35 aligns well with both the dates associated with this deposit, and the probable occupants of the households. Based on census records, the

building was occupied by Irish immigrant families, likely before 1870. At this point in time, pork still dominated meat consumption in the United States, as these materials were deposited prior to the boom of the livestock industry and the development of the refrigerated railroad car, which increased cattle production and availability (see Chapter 3). The availability of cured pork throughout the year undoubtedly influenced the pattern seen in the archaeological record.

Furthermore, pork and mutton were important foods to emigrants escaping the Irish Potato Famine. According to Miller (1988: 313), the diets of rural Irish prior to the famine was composed largely of potatoes, supplemented with milk, butter, bread, fish and occasional servings of pork. During the time of the Potato Famine, these farmers were forced to sell the butter, pork, eggs and poultry formerly consumed at home due to the demands of the famine (Miller 1988: 215). Upon arrival to the United States, many Irish immigrants found the ability to slaughter and eat mutton, beef, pork and fowls in any quantity "incredible" (Miller 1988: 313). The prevalence of large quantities of pork in assemblages from Irish households, then, may suggest that this meat has cultural and symbolic meaning to the second wave of Irish immigrants to the New World. The high proportion of pork in Feature 35 may reveal both the greater availability of pork during the mid-19th century, as well as a cultural preference for this meat by Irish immigrants.

The pattern observed for Feature 10 is unexpected, based on the dates of the assemblage. The early dates associated with this deposit would lead to the expectation that the composition of this sample would be similar to that of Feature 35, and while the richness values are nearly identical for both features, Feature 10 shows a slightly more even consumption among all of the various species, including an almost equal preference for pork and beef. The differences among

the deposits suggest that availability is not the only factor affecting the purchasing decisions of the families associated with the features.

This deviation may be explained by the composition of the households associated with the deposit from Feature 10. First, the flats were composed of families of mixed ethnicities, Prussian, German, and Irish. Second, one residence was headed by a "skilled" laborer, William Kafsling, who was a tailor (Harl 2006: 83). Mr. Kafsling had five children and owned the residence, renting space to the other families. With the growth of the livestock industry, that corresponds with the dates of this deposit, and the availability of more low-cost beef increased, the "well-to-do began to look down on pork as rural, lower class and inferior" (Hooker 1981: 221). If a family has a higher income, this would likely increase the choices available to the consumer, such as the option to purchase fresh beef more regularly than those in a lower economic position. The families occupying the residence associated with Feature 10 were likely able to purchase higher 'status' items more frequently, resulting in the equal proportion of beef and pork bones.

The results of the analysis of the faunal sample from Feature 45 reveal an interesting pattern. The households associated with this feature consumed a smaller diversity of species, had the narrowest diet of all the features analyzed. With only 7% of the sample representing avian species, mostly chicken, and only a single fish specimen recovered, the deposit from Feature 45 is comprised mostly of large domestic mammal remains. These results, however, must be considered with caution due to the intensive fragmentation and extensive burning observed within this assemblage. It is possible that the diversity calculated for this feature is lower due to the lower percentage of identifiable specimens.

The deposit from Feature 45 reflects a significant preference for pork over beef and mutton (see Appendix C, XV for chi square residuals). The consumption patterns observed from Feature 45 could be attributed to a number of factors, all related to the occupants of the households associated with this feature. The residence likely associated with most of the materials in the deposit housed 3 Irish families, one American family, and the 3 African American families. The ethnic identities of the occupants of the residences associated with Feature 45 may be a factor in the preference for pork revealed from the analysis, as pork is considered an important component of the foodways of at least two of the ethnic cultures represented, Irish and African Americans (Cheek and Friedlander 1990; Griggs 1990; Warner 1998). As food preferences are often held onto despite emigration and may be used to "communicate culture," the preference for pork within these households may indicate a desire to express ethnic group identity (Warner 1998: 273). The recovery of the pipe marked with the "home rule" insignia from Feature 45 indicates a strong connection to Ireland, as does the consumption of high quantities of pork (Griggs 1999: 94;). Another contributing factor to the high consumption of pork by these households, could be linked to the occupation of one of the household heads as a pork house worker. This individual, however, had no children or boarders making it unlikely that this significantly affected the composition of the faunal sample. It seems likely, then, that the ethnic preferences and socioeconomic status of the residents associated with Feature 45 affected the meat consumption choices of these households. Although this feature dates to the later 19th century, the seasonal availability of fresh meat may still have affected the options available. Cured pork may have remained a cost-efficient protein option for low-income families during this period.

The bones in Feature 29 indicate a consumer preference for beef, which is likely related to the date of the assemblage. Feature 29 is the latest deposit of those analyzed in this study, and is dated to the turn of the century. The Midwestern meatpacking industry was well established at this point, increasing the availability of beef year-round. The assemblage from Feature 29 reflects this change, as beef becomes the meat of choice for the households associated with this feature. This observable shift to the standardization of the meatpacking industry is further supported by the significant increase in the frequency of saw marks observed on the beef remains in Feature 29, which may be indicative of the growing trend towards individual portions. The growing preference for beef around the turn of the century by American consumers is clearly demonstrated by the bones from Feature 29.

Analysis of Meat Cuts

To evaluate differences among assemblages with regard to particular meat-cuts, I calculated the minimum number of meat cuts represented within each deposit (Table 6.2). For this measure, I determined the minimum number of each meat cut necessary to account for the specimens identified to each cut, accounting for side and age, when possible (based on Lyman 1979, 1987). While it can be useful to classify these cuts by age, the few specimens representing different aged animals within the assemblages does not make this segregation possible.

Ranking of Meat-Cuts

Most economic analyses of 19th century historic faunal assemblages is based on the archetypal work of Schulz and Gust (1983), which provides a rank scale for cuts of beef based on estimates of late-19th to early-20th century retail values. In theory, this ranking provides values that analysts can use to interpret the economic status of the "depositing population" (Schulz and Gust 1983: 12). While this approach has maintained longevity and apparent utility, some have

argued that results of analyses based this ranking often do not show socioeconomic influences in assemblages, leading to an elaboration of this model, which has been rarely employed, involving the addition of meat yield to address cost-efficiency (Huelsbeck 1989, 1991; Lyman 1979, 1987).

Table 6.2 Minimum Number of Meat Cut, by Feature and Species

	Feature 35		Feature 10		Feature 45		Feature 29	
Bone Type	MNMC	%MNMC	MNMC	%MC	MNMC	%MC	MNMC	%MC
Cow (BEEF)								
Short Loin	9	17	7	7.69	2	4.00	2	3.33
Rib	4	7.55	3	3.30	2	4.00	2	3.33
Sirloin	3	5.66	11	12.09	9	18.00	9	15.00
Round	4	7.55	13	14.29	7	14.00	12	20.00
Chuck	4	7.55	14	15.38	4	8.00	8	13.33
Rump	7	13.20	2	2.20	2	4.00	1	1.67
Arm	7	13.20	6	6.59	3	6.00	8	13.33
Foreshank	5	9.43	13	14.29	6	12.00	5	8.33
Hindshank	2	3.77	9	9.89	6	12.00	2	3.33
Plate/Brisket	2	3.77	7	7.69	5	10.00	9	15.00
Head	1	1.89	3	3.30	1	2.00	1	1.67
Neck	3	5.66	2	2.20	2	4.00	1	1.67
Foot	2	3.77	1	1.10	1	2.00	0	0.00
Pig (PORK)								
Ham[a]	8	17.39	13	17.33	3	8.11	6	19.35
Loin	1	2.17	5	6.67	2	5.41	2	6.45
Rib end	3	6.52	5	6.67	2	5.41	3	9.68
Boston Butt	6	13.04	8	10.67	7	18.92	3	9.68
Picnic	5	10.87	13	17.33	11	29.73	6	19.35
Shank Ham	4	8.70	11	14.67	1	2.70	2	6.45
Spareribs/side	2	4.35	2	2.67	1	2.70	0	0.00
Hock	6	13.04	9	12.00	5	13.51	3	9.68
Head/Jowl[a]	3	6.52	5	6.67	2	5.41	3	9.68
Foot[a]	8	17.39	4	5.33	3	8.11	3	9.68
Sheep/goat (MUTTON)								
Loin	3	15.00	3	8.82	1	7.14	0	0.00
Rack	2	10.00	2	5.88	2	14.29	2	7.41
Shank End	3	15.00	3	8.82	1	7.14	3	11.11
Chuck	3	15.00	7	20.59	1	7.14	6	22.22
Butt end	3	15.00	7	20.59	1	7.14	5	18.52
Neck	2	10.00	3	8.82	1	7.14	0	0.00
Shank	4	20.00	8	23.53	7	50.00	9	33.33
Foot	0	0.00	0	0.00	0	0.00	2	7.41
Head	0	0.00	1	2.94	0	0.00	0	0.00

[a] Likely pickled or cured

Different methods have been suggested to assess the cost-efficiency of different beef cuts from 19th century sites. Lyman (1987) was one of the first researchers to propose the use of meat yield per cut to use in addition to economic rankings. Using values of both historical price per pound beef cuts, and of consumable meat weight for each cut, Lyman (1987) calculated a measure of "cost-efficiency" for beef cuts. This value was meant to provide a more thorough measurement of optimal purchasing decisions by providing the cost per pound of edible meat for each cut. According to the study, "both a high degree of cost-efficiency and optimal foraging are indicated by minimizing costs while maximizing yields" (Lyman 1987: 81). While Lyman's was an attempt to increase the accuracy of the analysis, the equation was miscalculated. Huelsbeck (1989) revisited Lyman's measurement of "cost-efficiency" and corrected the error, providing a more effective measure of cost-efficiency based on price per pound and meat yield per cut of beef. What also remains important is that with the correction, "Lyman's suggested refinement of the interpretive model…is a welcome addition to the suite of techniques available to faunal analysts" (Huelsbeck 1989: 116). According to Huelsbeck's (1989) calculations, however, this new measure was statistically correlated to Schulz and Gust's economic ranks, suggesting that these initial ranks do in fact reflect cost-efficiency.

In this analysis, I used the Schulz and Gust (1983) beef rankings to investigate the effect of socioeconomic status on consumer choice as adapted by Azizi *et al*. (1996). These rankings for beef, based on historic retail values of cuts, are provided in Table 6.3. Additionally, Azizi et al. developed rankings for pork and mutton cuts based on historical records of retail values and interviews with butchers, which I use for my analysis of meat-cuts (after Pipes 1995, Ubaldi and Crossman 1987).

Table 6.3 Price-Scaled Rankings for Meat Cuts

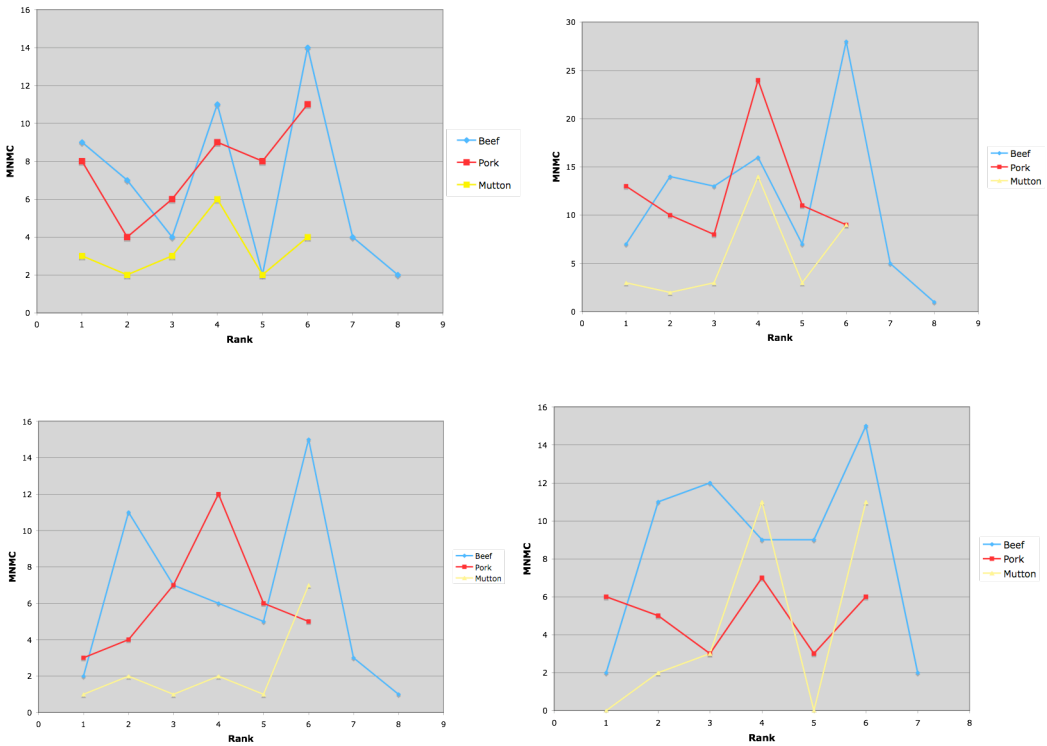
Rank [a]	Beef	Pork	Mutton
1	Short Loin	Ham	Loin
2	Rib/Sirloin	Loin/Rib End	Rack
3	Round	Boston Butt	Shank End
4	Rump/Chuck	Picnic/Shank Ham	Chuck/Butt End
5	Brisket/Plate	Spareribs/Side/Hock	Neck
6	Foreshank/Hindshank/Arm	Head/Jowl /Foot	Shank/Foot/Head
7	Neck/Head	-	-
8	Foot	-	-

[a] After Azizi et al.1996

Based on Kendall's rank correlation, there is no correlation in any of the assemblages and for any of the species, between the ranking of meat cuts and the minimum number of each cut within the deposits (Figures 6.3, 6.4, 6.5, 6.6; See Appendix D for Kendall's rank correlation results). This result may reflect a shortcoming in the method of ranking, or may indicate that more than purchasing power is affecting the choice of the consumers represented by the assemblages in this study. In order to better evaluate the differences between meat-cut representation within the assemblages, I take a closer look at the variation for each species.

Beef

There are significant differences in the beef cuts represented within the features, excluding head and feet cuts ($\chi 2=41.9$, df=24, p = .013). Based on the contingency table from the chi square analysis, there are some deviations from expected values for certain cuts within the assemblages (See Appendix C, XVI for contingency table). Feature 35 contains relatively more short loin, rib, and rump cuts than the other features, but fewer sirloin, round, and plate cuts. Feature 10, on the other hand, did not deviate significantly from the expected values, but does include a slightly higher proportion of shank cuts and chuck cuts than the other features. Feature 45 has significantly more plate/brisket cuts than the other features. Finally, Feature 29 contained fewer short loin and shank cuts, but relatively more round and arm cuts than the other assemblages.



Figures 6.3, 6.4 , 6.5, 6.6 Minimum Number of Meat Cuts by Rank, Beef, Pork and Mutton (Clockwise from left, Feature 35, Feature 10, Feature 45, Feature 29)

Although there are significant differences among the beef cuts represented in the assemblages, the overall variation does not indicate many clear patterns. Since the ranked price of the cuts is not correlated with this variation, then the differences may be due to small, local changes in availability or prices. As most of the households within this study were likely living on a daily budget and irregular incomes, planning and economizing may have been difficult (Walker 2008: 121). Furthermore, the lack of refrigeration would also limit the amount of meat a household could purchase at one time. On any given day, therefore, the consumer may have purchased whatever cuts could provide the most food for the dollar, the most 'bang for their buck.' This could involve the purchase of an expensive, less time-consuming to prepare, individual cut, such as a round or chuck steak or a larger rump roast cut, for stewing to feed a

whole family. Interestingly, remains from the head of cattle were recovered in all of the features, and feet were identified in all but Feature 29. The presence of these often 'unmarketable' and very inexpensive cuts of beef likely reflects the economic position or ethnic preferences of the families associated with the deposits.

Pork

For both pork and mutton cuts, the low frequencies observed for certain cuts would not allow for accurate statistical comparisons, but certain patterning is observable within the assemblages. In all but Feature 45, ham is the most frequent meat cut represented. This trend not surprising, as ham was likely cured or pickled. Even after the introduction of refrigerator cars, cured meats would have been desired by the lower classes in the late 19th Century, as most poor households probably lacked iceboxes or refrigerators (Walker 2008: 121).

Pig's feet are also present in all four assemblages, but differ in relative importance. Feature 35, in particular, contained a markedly high amount of pig's feet, suggesting a preference for this cut by the households associated with the deposit. Similar to ham, pig's feet were pickled and more consumption of this cut is expected prior to the development of refrigerator cars. This tendency is likely reinforced by the composition of the residences associated with this privy, all Irish families. Pork, and especially pig's feet were commonly consumed in rural Ireland (Griggs 1999: 94), suggesting that these consumer choices may be influenced by cultural taste, as well as by availability. The pig foot bones in the assemblages may represent consumption of either boiled, broiled, fried, or pickled pig's feet (Henry 1987a: 23).

While for cattle and sheep/goat, animal heads are often not considered "marketable" cuts (Bowen 1998: 141; Henry 1987a: 23; Rothschild and Balkwell 1993), pig's head is an ingredient

in common 19th-century dishes, such as scrapple and head-cheese (Devote 1867: 96). All of the features analyzed in this study contained fragments or sections of pig skulls, supporting the common consumption of this cut within mid-late 19th-century urban environments (Figure 6.7). Additionally, these 'waste' cuts could have been obtained cheaply from local packinghouses.

Figure 6.7 Fragment of Pig Skull, Feature 35

The pork remains deposited in Feature 45 signify a slightly different consumption pattern than the other features. Boston butt and picnic cuts are the most common cuts in this assemblage, and ham is not as well-represented. This indicates a preference for cuts from the forequarter of the animal, and this corresponds with the cut marks observed on pig radii, humerii, ulna and scapula contained within this privy. According to Roman et al. (2001: 528-529), these cuts are often sold and purchased as roasts, further supporting that the households represented by this deposit may have differed in meat consumption, preparation and cooking.

A thorough analysis of the consumption of pork by the households requires a discussion of the presence of immature pig remains (shotes) within the assemblages. Shotes (or shoats) refer to pigs killed "between two and three months of age" (Milne and Crabtree 2001: 35). Preparation of shotes could involve quartering and boiling, but most often involved roasting, and were a common element of cuisine in the late 19th Century (Devoe 1867: 76). With the exception of Feature 29, all of the faunal assemblages from Cochran Gardens but Feature 29 contained immature pigs (shotes) (Table 6.4, Figure 6.8). These animals may represent

inexpensive sources of protein that were relatively rare purchases.

Figure 6.8 Immature Pig Illium (Left) and Tibia (Right)

Table 6.4. Immature (shote) Remains Recovered, by Feature

Feature 35 (MNI = 2)	Feature 10 (MNI = 1)	Feature 45 (MNI =1)
Cervical vert (2)	Radius (1)	Radius (1)
Lumbar vert (2)	Innominate (3)	Ulna (1)
Thoracic (3)	Cervical vert (1)	
Metacarpal (3)		
Innominate (2)		
Tibia (1)		
Fibula (1)		

Sheep/Goat

As expected, few elements representing the head or feet of sheep/goat were identified in any of the assemblages (Table 6.3). Feature 35 does not show considerable variability in the proportion of minimum sheep/goat cuts. In general, this deposit reflects relatively even consumption of all sheep/goat cuts. Cuts from the chuck, butt end and shank are more abundant in Feature 10, which is similar to the pattern seen in Feature 29. Feature 45 indicates a preference for shank and rack cuts by the households associated with this deposit. Overall, the patterning observed for mutton in the assemblages indicate that this meat is purchased as large cuts (Chapter 6), and often a preference for the forequarter of the animal, which would have been less expensive and cooked slowly by braising or stewing (Romans et al. 2001).

Age Profiles for Food Animals

In the latter half of the 19th century, as the meatpacking industry was shifting to industrial production (Clemen 1923; Drury 1966), we should expect that the age profile of the cattle in the deposits to represent the raising of animals for meet. If, however sheep/goat were raised to produce wool and milk and cattle for dairy and draft, the animals would be culled after their use for these purposes, and we may expect to see age profiles representing older animals (Bowen 1975:18; Landon 1996: 114; Lyman 1979: 541, 1977: 71). The ages at slaughter for the cattle and sheep/goat represented in the assemblages, if used for purposes other than meat prior to slaughter, would be beyond the "prime" slaughtering age for these species, at which the highest-quality meat would be obtained (Landon 1996: 114; Lyman 1977: 71). For cattle, this age is between 18 and 36 months, and veal, which often came from male dairy calves, were slaughtered before the age of 18 months (Lyman 1977: 71).

If raised for wool production, any possible sheep remains would follow a similar pattern to cattle, and adult animals should dominate age profiles (Bowen 1998: 148; Landon 1996; Lyman 1977). Lamb, that is sheep slaughtered before 12 months of age, will be rare in such cases, and most sheep remains will indicate slaughter at ages over 2-3 years if wool production is a factor in the livestock raising (Bowen 1998; Landon 1996; Lyman 1977). Meat from adult cattle and sheep/goat is analogous to what is now labeled by the USDA as lower "grades" of meat, and costs less than younger, fattier, more tender cuts of beef and lamb (Lyman 1977: 70; Romans and Ziegler 1974). The socioeconomic class that occupied Cochran Gardens could probably only afford to purchase lower quality meat. A high incidence of older cattle and sheep/goat remains within the deposits therefore may indicate frugal choices by the households,

but may also be the result of local suppliers' decisions to sell lower 'grades' of meat within this neighborhood due to the lower socioeconomic class of the general population.

Pork is not expected to follow this pattern, because pigs were not raised for secondary products, and were usually killed while they are still juveniles (Landon 1996: 96). Most pigs were slaughtered at under 30 months old, and often at around 12 months of age. Older pigs were uneconomic to raise because an older pig will not gain weight efficiently in relation to its food intake (Landon 1996: 97). Pig husbandry, then, is an undertaking solely for the sale of meat, and thus the majority of the ageable pig specimens from the samples should not exceed 30 months.

Cattle Mortality Profiles

Epiphyseal fusion data from cow remains indicate a similar mortality profile for all of the features (Table 6.5, Figure 6.9). Three of the features lack evidence for the consumption of veal or juvenile cows. In all of the assemblages, cattle killed at over 36 months dominate. Some variation in age at death, nonetheless, is apparent in the data.

Table 6.5 Epiphyseal Fusion Stages of Cattle Elements by Feature

		Feature 35			Feature 10			Feature 45			Feature 29		
Age of Fusion[a]	**Skeletal Element**	**U[b]**	**E**	**F**	**U**	**E**	**F**	**U**	**E**	**F**	**U**	**E**	**F**
7-10 months	Scapula			4		2				1			3
	Acetabulum			7			3			2			1
12-18 months	Distal Humerus			8			5			5			2
	Proximal radius			2		3	4						3
18 months	Distal first phalanx						2						
	Distal second phalanx			1			1						
24-30 months	Distal metacarpal					2							
	Distal tibia						6		1	2			
27-36 months	Distal metatarsal			1									
36-42 months	Calcaneum			1			2		1				
42 months	Proximal femur		1				1						
42-48 months	Proximal humerus		2	3			7		1				4
	Distal radius			2			5						3
	Ulna		3	4	2	1	2		2	1			
	Distal femur					2	2						1
	Proximal tibia			2						3			

[a]based on Silver (1963) and Landon (1995)
[b]U = unfused, E = epiphyseal line, F = fused

Despite the small sample size of ageable specimens within the assemblages, an overall pattern seems to appear for the age of cattle at the time of slaughter. In general, it seems that for all of the households, most of the beef consumed came from older animals, with many of the specimens identified as older than 30 months of age. Feature 10 was the only deposit that contained bones from cattle under 18 months old, possibly reflecting the higher socioeconomic status of these households. Feature 29, on the other hand, contained no cattle remains that could definitively be aged to under 42 months. Additionally, it is important to note that of those features containing loose cattle teeth, but no deciduous teeth were recovered. As incisors are the first permanent teeth to erupt, and are not fully in place until the animal is 36 months of age, this further suggests that the beef remains from all of the features come from older cattle (Pace and Wakeman: 2003).

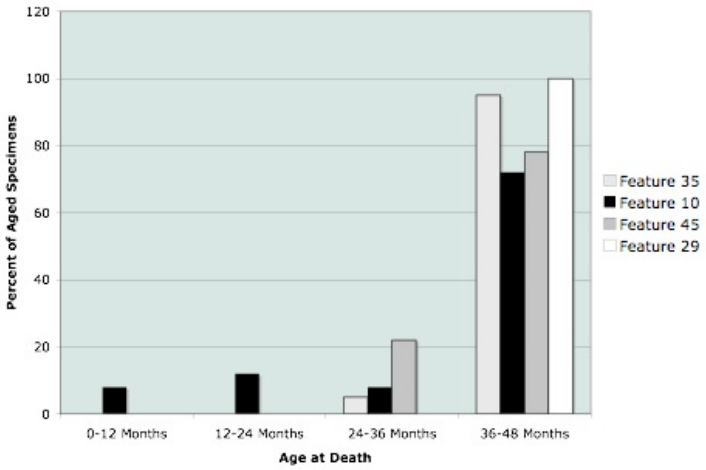


Figure 6.9 Cattle Mortality Profiles, By Feature

Pig Mortality Profiles

Based on epiphyseal fusion data, pig slaughtering occurred at a range of ages, from very young to very old (Table 6.6, Figure 6.10). As expected, pigs were killed at young ages, and

only one specimen from the all the assemblages was over 42 months old when slaughtered. From all of the features, most of the specimens were aged between 12 and 42 months.

Teeth and tooth fragments recovered can also indicate the age of the consumed pigs. It is necessary to keep in mind, however, that it is possible that pig heads or jowls were purchased as single cuts, and the ages may therefore reflect the age of individual animals. Permanent incisors erupt at 8-18 months in pigs, canines at 8-12, premolars at 12-16, and molars at 4-22 months (Hillson 1996: 206). Nearly all of the pig teeth recovered from the excavations were permanent

Table 6.6 Epiphyseal Fusion Stages of Pig Elements by Feature

		Feature 35			Feature 10			Feature 45			Feature 29		
Age of Fusion[a]	**Skeletal Element**	**U[b]**	**E**	**F**	**U**	**E**	**F**	**U**	**E**	**F**	**U**	**E**	**F**
12 Months	Scapula			1		1	1					1	1
	Acetabulum	1	1	3	1	1	2			1		1	2
	Distal Humerus		1	3	1	2	5			8			3
	Proximal radius		7	2	1	2	3		1	2			
	Proximal second phalanx			5									3
24 months	Proximal first phalanx			15		2	2		1				3
	Distal metacarpal	3		3		1	1						9
	Distal tibia	2	1			3	1		3			2	
24-30 months	Calcaneum		4	1		5	1		1			1	
27 months	Distal metatarsal	2	2	14									2
30 months	Distal fibula												
36-42 months	Ulna	1	5	2		2	4		1	1		1	2
42 months	Distal radius	1			1	5	1	3					1
	Proximal humerus		3		2	2	1			1		1	1
	Proximal femur	1	6		3	8						1	
	Distal femur	1	4	1	5	4	2	1	2				
	Proximal tibia		4		1	8	1		2			1	
	Proximal fibula												

[a]Based on Silver (1963) and Landon (1995)
[b]U = unfused, E = epiphyseal line, F = fused

suggesting the majority of the pig heads purchased came from mature animals, that is, at least over the age of 8-18 months (Table 6.7). Only Feature 10 contained specimens with deciduous teeth, specifically one mandible and one maxilla with deciduous premolars. In pigs, permanent premolars erupt between 12-16 months, suggesting that these specimens from Feature 10 represent individuals slaughtered before this age (Hillson 1996).

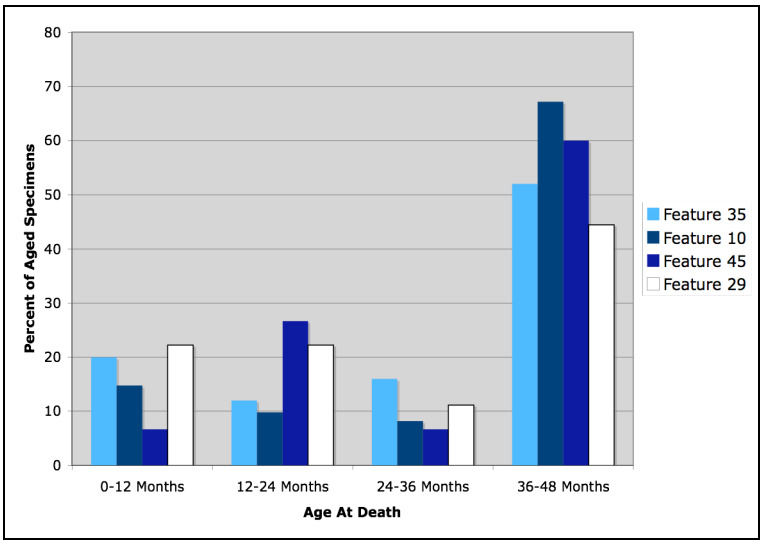


Figure 6.10 Pig Mortality Profiles, By Feature

Overall, the mortality profile of pigs is representative of common animal husbandry patterns of the 19th century. The prime age for slaughtering for pigs is between two and three years of age (Clemen 1923), and most of the specimens in the features fall within this range. Consumers also purchased suckling pigs, or shotes, although in rare instances suggesting that these were a supplement to the diet of the households, rather than a common purchase. It is possible that these individual shotes were available as a cheap source of meat for the households, as a by-product from local pig farms.

Table 6.7 Pig Teeth Recovered, by Feature

Stage	Feature 35	Feature 10	Feature 45	Feature 29
Permanent				
	7 incisors	10 incisors	3 incisors	2 incisors
	4 canine	13 canine	1 canine	1 premolar
	3 premolars	5 premolars	4 molars	6 molars
	4 molars	18 molars	2 mandible[a]	2 mandible[a]
	2 mandible[a]	5 mandible[a]		2 maxilla[a]
		6 maxilla[a]		
Unerupted		1 mandible[b]		
		1 maxilla[b]		

[a] All teeth permanent
[b] Unerupted premolars

Sheep/Goat Mortality Profiles

For sheep/goat remains, age profiles for the features from epiphyseal fusion data suggest similar patterning for all of the features (Table 6.8, Figure 6.11). Specimens from mature sheep/goat dominate the samples, and only Feature 35 and Feature 45 contain specimens younger than 13 months at the time of slaughter. The purchase of lower-quality mutton meat from older animals is expected, based on the low socioeconomic status of the households associated with the deposits. According to Potter et al. (1917) in the early 20th century, in the Western United States "the production of wool was so "intimately connected with the raising of mutton that in practically no case it has proved practicable to raise sheep for either mutton or wool exclusively." This suggests that most of the mutton meat consumed in the West likely came from older animals previously farmed for wool. In fact, the authors remark that "all of the sheep west of the Missouri River, which includes approximately 70 percent of the sheep in the United States the income from wool amounts to 43 percent of the total gross income" (Potter et al. 1917: 226).

Table 6.8 Epiphyseal Fusion Stages of Sheep/Goat Elements by Feature

		Feature 35			Feature 10			Feature 45			Feature 29		
Age of Fusion[a]	Skeletal Element	U[b]	E	F	U	E	F	U	E	F	U	E	F
6-8 months	Scapula			2			4						2
6-10 months	Acetabulum						2						4
10 months	Distal Humerus			3			2						2
	Proximal radius		1				2			2			
13-16 months	Distal first phalanx												
	Distal second phalanx												
18-24 months	Distal metacarpal												1
	Distal tibia			2		1	1			2			2
20-28 months	Distal metatarsal												1
30 months	Ulna		1				1			1		1	1

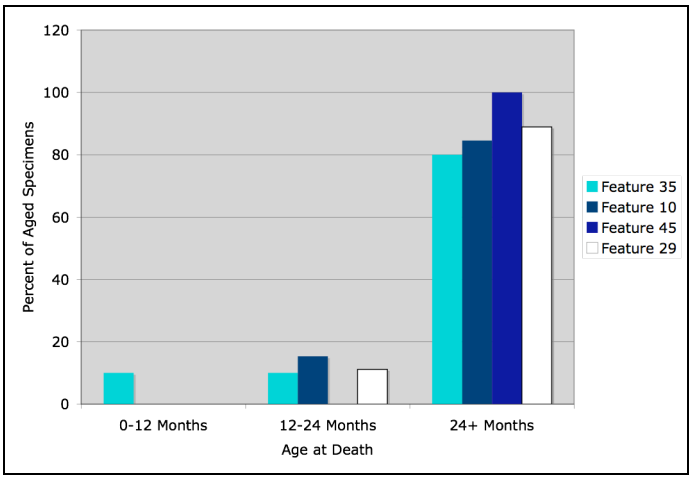


Figure 6.11 Sheep/Goat Mortality Profiles, By Feature

The age profiles of the large and medium mammals likely reflect the socioeconomic positions of the households in this study. Most often, the families in this study purchased cuts of cattle and sheep/goat from animals beyond their 'prime' age for consumption, which were likely less costly than meat from younger individuals. The households associated with Feature 10, however, were able to purchase meat from younger cattle on occasion, possibly reflecting the higher economic standing of the Kafsling household. Pork cuts in the assemblages came from animals of a variety of ages, revealing the raising of pigs solely for consumption, the common animal husbandry practice of the time. The households associated with the three earliest deposits acquired suckling pigs, or shotes, indicating that these animals may have been used as an inexpensive, although rare supplement to the diet of the families.

Conclusion

This chapter provided an analysis of the composition of the assemblages from Cochran Gardens. Through the evaluation of evenness and richness, I assessed variability in the diets reflected by the assemblages, demonstrating that strategies ranged from specialized to broad among the households represented in this study. These differences likely reflect a changing

urban environment and market within the city of St. Louis. Variation in the proportion of large mammal species contained within the deposits revealed that availability, economic factors and possibly ethnicity influenced the consumptive behavior of the households who discarded the bones. An analysis of the meat cuts from the cattle, pig and sheep/goat suggests that a price-scaling of the cuts is not a good indicator of the socioeconomic position of the households, although it does reveal some patterns of thrifty consumption including the common purchase of cured pork and of the 'less-meaty' cuts of the animals. The analysis of age profiles for medium and large mammals suggests that beef and mutton/goat meat came from older animals that was likely less expensive than meat from 'prime-aged' individuals. The following chapter will situate this analysis within broader historical and zooarchaeological literature on meat consumption by poor, urban households.

CHAPTER 7:
DISCUSSION

By determining why people chose to eat in specific ways, we can gain significant insight into how the immigrant communities living in Old North St. Louis lived their lives within the social and economic constraints associated with 'slum-life.' As shown by this study, the complex nature of urban deposits poses many challenges to the archaeologist in trying to evaluate consumer behavior, yet it is still possible to ascertain certain patterns within the material record. In this chapter, I situate the results from the analysis of the faunal samples from Cochran Gardens within some of the broader research themes of the archaeology of urban foodways. The faunal assemblages in this study can add to the growing research on urban supply and market systems, the effect of socioeconomics and ethnicity on consumer choice, as well as provide insight into the importance of investigating depositional contexts. Table 7.1 provides a summary of some significant differences in the results between features, along with information on the associated households.

Urban Supply and Market Systems

Within the assemblages, there were noticeable changes over time with regard to the diversity of taxa consumed, the frequency that certain taxa were consumed, as well as butchery patterns on the bones. These changes provide insight into the changing market and supply system within St. Louis during the latter half of the 19th Century. Landon (1996: 2) suggests "broad characteristics of urban markets have potentially stronger effect on assemblage pattern than either ethnicity or status." Previous studies in urban areas throughout the United States have shown that consumption patterns will change over time as the urban environment changes,

and the Cochran Gardens assemblages add a new geographical and historical context to this literature.

Table 7.1 Summary of Significant Differences Between Features

Feature	Dates[1]	Census Year	Nationality	Occupation	Summary of Significant Results
F. 35	1850-1870	1880	Ireland Ireland Ireland	Laborer Grocery Store Gas Fitter	High Diversity (oysters, turtle, birds) More Pork, less beef More variety of pork cuts Pig's feet and heads Less weathering, burning and fragmentation
F. 10	1870-1880	1880	Prussia Ireland Ireland Ireland Germany	Tailor Laborer Stovemoulder Widow, KH[2] Stove factory	High diversity More beef than expected Some valuable beef cuts More weathering, burning, fragmentation
F. 45	1880-1890	1880	Ireland Ireland Ireland Penn Ireland AF.[3] MO[4] AF. TN AF. LA	Grocery Laborer Pork House Widow, KH Laborer Laborer Rag Shop Keep House	Low diversity More pork, less beef Pig's feet Significant weathering, burning, fragmentation
F. 29	1880-1900	1880	Ireland Ireland	Printer Widow, KH	Low diversity Significant increase in beef Increase in sawed beef remains Fewer 'vermin' Less weathering, burning, fragmentation Fewer skull fragments of birds and medium-large mammals
		1900	MO Ireland Russia	Widow Widow Tailor	

In her study of urban and rural deposits in the 18th-century southeastern United States, Reitz (1986: 44-45) suggests assemblages from urban environments will include a greater range of

domestic species, more domestic birds, fewer wild mammals, fewer reptiles and fewer fish. The Cochran Garden faunal assemblages indicate that this pattern may not characterize all urban deposits. Although the nature of urban markets during the 19th century make the total dietary contribution of wild animals difficult to assess within the assemblages, it is likely that the earlier deposits in this study, features 35 and 10, contained some wild species, including turtle and possibly wild pigeon, duck and goose. Additionally, fish remains were more abundant in the earlier assemblages. This 'urban pattern' seems to better fit the later deposits, which may be attributable to the increasing urbanization and industrialization of St. Louis towards the turn of the century.

The decrease in the diversity of species consumed over time indicated by the Cochran Gardens assemblages may be attributed to factors associated with urbanization. Rothschild's study in New York City (1989) and Henry's study in Phoenix (1987a, 1991) have shown that standardized food production and market distribution tend to lower faunal diversity in urban settings. Increasing urbanization would lead to a decrease in the diversity of food species consumed for various reasons. First, according to Rotschsild (1989: 93), "building a city implies environmental change, particularly the loss of certain econiches due to filling, other land alterations, and pollution." Additionally, the increasing participation of an urban community in a market economy and an "increasing reliance on specialist provisioners (butchers and commercial fisherman)" leads to higher standardization of available foods, and lower diversity of taxa consumed (Rothschild 1989: 93). These studies demonstrate that as cities grow and industrialize, urban populations will consume a lower frequency of game animals and wild food plants, since habitats for most of these species were supplanted by the urban landscape or decimated due to pollution (Henry1987: 19). It is possible, however, that these taxa were

available in the urban markets of St. Louis during this time, as city markets contained a wide variety of rare and unique species (Devoe 1867).

Towards the end of the 19th century, residents in St. Louis undoubtedly gained increasing access to more readily available fresh meat, such as beef and pork, at local markets due to the standardization of the meat packing industry and refrigeration. Additionally, increasing industrial development within St. Louis and particularly along the Mississippi during this period may have complicated river access and the availability of wild resources (see Chapter 3). At Cochran Gardens, richness values calculated for the faunal assemblages supports the findings of Rothschild (1989) and Henry (1987, 1991). The later features have lower faunal diversity, due to the absence of certain birds within the samples, as well as fewer types of aquatic remains. Additionally, all of the features, aside from Feature 10, have relatively low evenness values, suggesting a focus on a few taxa, specifically large and medium mammals. Although the increasing availability of domestic mammal meat year-round towards the end of the century, this may reflect food habits.

For Feature 35, the earliest of the deposits, which dates from 1850 to 1870, the high diversity of animals consumed and the low evenness value clearly reflects the early stage of urban development within Old St. North Louis at this time. This section of the city remained a sparsely populated village until 1841, when it was incorporated into the city of St. Louis. The households associated with Feature 35 likely represent some of the first waves of settlers into the area at a time when some of the tracts of land remained undeveloped. These early inhabitants of this community were likely exploiting the available wild aquatic taxa and birds from around the Mississippi, and based on the low richness value, these taxa were exploited more opportunistically.

The high diversity of taxa consumed by the families associated with Feature 35 contrasts with the low richness values calculated for Features 45 and 29, which both date to the end of the 19th century. Although these features were deposited only 20-30 years after Features 35 and 10, the neighborhood of Old North St. Louis had quickly become one of the most densely populated sections of the city toward the turn of the century. The decrease in richness values observed in these later features is likely due to this change in environment, although changes in the production and distribution of meats certainly affected this decline in the number of taxa consumed.

The changes observed in the most recent deposit, Feature 29, clearly demonstrate the changing nature of both the urban environment and the market system in St. Louis during the late 19th century. The significant increase in the consumption of beef, in particular, is indicative of the standardization and transformation of the meatpacking industry in the latter half of the 19th Century. Landon's (1996) study in Massachusetts emphasizes the increasing consumption of beef that occurred in cities with the development and standardization of the meatpacking industry. At Cochran Gardens, this process is demonstrated not only in the clear shift from a preference to pork in the earliest assemblage to beef in the most recent assemblage, but also in butchery. According to Landon's (1996: 8) study of urban-rural market systems, "as the amount of home butchery decreases in urban areas, and the scope of internal exchange systems increases, the tendency will be for urban butchers to prepare more standardized, smaller portions for exchange in urban markets." The beef remains in Feature 29, which were deposited around the turn of the century, show significantly more saw marks than the earlier assemblages, with more reliance on these 'individual' steak cuts from the round and sirloin of the cattle, further supporting Landon's conclusions.

With our broadened understanding of the nature of urban market systems, future studies can better explore how individual households interacted with markets, evaluating "when and how the transition to full dependence on commodity purchases occurred in urban contexts" (Henn, 1985: 208). As research on urban faunal assemblages is relatively sparse, this study adds another geographical and historical context to the investigations. As St. Louis was a frontier settlement that eventually became a trading and railroad hub as a link to the West, this study provides information regarding the effect of 19th century urbanization on the residents and immigrants to a newly developed city. As the city became increasingly populated and industrialized towards the end of the 19th century, there is clearly an increased reliance on markets for food.

Socioeconomic Status

Although studies in the past have attempted to show that the representation of specific portions of price-ranked meat cuts should indicate socioeconomic status, the results of this study indicate that socio-economic status may be difficult to discern through a price-ranking of cuts. Previous historic faunal analyses have attempted to demonstrate a correlation between socioeconomic status and meat cuts (Branstner and Martin 1987; Henn 1985; Henry 1987b; Milne and Crabtree 2001; Rothschild and Balkwill 1993; Schulz and Gust 1983; Singer 1985, 1987; Yentsch, 1994). Some of this research, such as Schulz and Gust (1983) in 19th-century Sacramento, has found a relationship between the socioeconomic status of households and the cuts of meat purchased. Most of these studies, however, use more lines of evidence than just the price-scaling of meat cuts to determine variability in consumption between houses of different socioeconomic statuses. Branstner and Martin (1987: 316-317), for example, present a "distinct working-class consumption pattern" based on archaeological excavations from a late 19th century

low-income neighborhood. The authors defined this pattern "using butchering units of beef and possibly pork, relative proportions of fowl and fish, and the presence-absence of imported foodstuffs" (Branstner and Martin 1987: 317).

For the Cochran Gardens assemblages, all of which were deposited by households situated within a lower-class neighborhood identified as a 'slum' during the late 19th century, certain consumption patterns have emerged. Despite the presence of a slightly more wealthy Kafsling family living at 1412 N. 9th St., the "neighborliness" of the assemblages and the fact that the same suppliers were potentially available to the residents would suggest that there should be some similarity between the assemblages from Cochran Gardens (Branstner and Martin 1987: 303). While this analysis found differences among the assemblages from Cochran Gardens, I have observed the following trends within the faunal samples that are likely correlated with the lower economic class of the households in this study:

1) Cattle, pig and sheep/goat were consumed in varying proportions by families residing in the Old North St. Louis community, but all families did depend on the locally-available medium and large domestic mammals for the majority of their meat.

2) The households consumed a vast range of cuts of beef and pork, while focusing on more particular cuts of mutton/goat meat. All of the households consumed cuts that are often considered to have 'low-utility or low market value' including the heads and feet of cattle and pigs.

3) Most of the cattle and mutton/goat meat consumed by the households came from mature animals, past the 'prime' age of slaughter.

These general trends seem to characterize the four deposits from Cochran Gardens analyzed for this study. The results from Branstner and Martin's (1987: 316) analysis indicate that the butchering units of beef consumed by the households are a useful index to evaluate different income levels within the neighborhood. These results contrast to those from the analysis of the Cochran Garden samples, in which the economic ranking of different cuts of meat

did not provide much information regarding the socioeconomic factors affecting the choices of the families associated with the deposits. The Cochran Garden assemblages correlate better with Mudar's (1978) findings from his study of 19th century privy deposits from Detroit, in which he determined that intrasite status differences were most well-represented by proportions of beef versus pork, or beef versus mutton consumption, rather than by actual cuts of meat being consumed in any single species category. Feature 10, for example, despite being one of the earliest deposits, contains more beef than was expected. Based on census records, this household likely had more purchasing power than the others in the study, a fact reflected in the ability to purchase beef more frequently.

The only patterns observed regarding the consumption of different cuts of meat within the assemblages relates to the presence of inexpensive head and feat cuts for cattle and pigs, and the high incidence of low-cost "stewing" meat from the forequarter of sheep. Prior studies of urban assemblages suggest that cattle and caprine cuts with 'low-utility' or low market-value will be rare or absent (Henry 1987; Landon 1996; Reitz 1986). Landon (1996: 119), for example, found a "consistent underrepresentation of distal metapodials and phalanges for cattle and caprines" in assemblages from Colonial-era Boston that did not result from taphonomic processes. Furthermore, Whittaker (1999) approached late 19th century markets from the production-end, demonstrating that the production of animals for market sale from a small-scale farm in Iowa included the removal of "low-utility" cattle and caprine heads and feet prior to the sale of the meat into the market.

The Cochran Gardens assemblages follow this pattern for caprine remains, but not consistently for cattle remains. All four assemblages contained remains from the heads of cattle, and all but the most recent deposit contained foot bones. While these cuts remain rare in the

deposits, it seems that these 'low-utility' elements may have had some value in the Old North St. Louis neighborhood, as they may have been low-cost options for the community. Furthermore, studies, such as Milne and Crabtree (2001: 36) show that cuts from the forequarter of sheep including neck and shoulder, were common in working-class neighborhoods as they were used in stews. These cuts were common within all four of the Cochran Gardens assemblages, and the cuts of sheep/goat had less evidence of butchery into small portions, indicating a preference for inexpensive and large cuts of mutton.

The presence of pig head and feet, while more common in urban deposits than those of cattle and sheep/goat, suggests some preference for low-cost meat within the Old North St. Louis Community, although this could be attributed to cultural choices. Previous studies in working-class urban environments, such as New York (Cantwell and Wall 2001; Milne and Crabtree 2001; Rothschild 1989) and Colonial Boston (Brown and Bowen 1998; Landon 1996), have demonstrated a preference for these cuts by working-class households. Brown and Bowen (1990: 75) suggest that these inexpensive "waste" cuts may have been obtained by households from local slaughterhouses in Boston. Although I could not recover any documentation of this behavior, it is a likely possibility at Cochran Gardens due to the proximity of slaughterhouses to the neighborhood. The employment of an individual in the study area as a "porkhouse worker" may indicate that households in this neighborhood may have had direct access to slaughterhouse 'waste'.

With the exception of the households associated with Feature 10, which consumed some 'prime-age' beef, the majority of the remains from the assemblages come from older animals, in particular cattle and sheep/goat. Previous research suggests that when used for other purposes, such as draft, dairy or wool, cattle and sheep were slaughtered for market sale at older ages and

was less expensive than 'prime-age' meat (Bowen 1998; Landon 1996; Lyman 1977). The age-profiles for the samples seem to be highly indicative of the working-class characterization of the community in 19th Century Old North St. Louis. In his study of faunal assemblages from 18th-century Annapolis, Lev-Tov (1998: 129) suggests that the mortality patterns of cattle and caprines reveal differences in the purchasing power of households. The working-class status of the households represented in the Cochran Gardens assemblages is revealed through the purchase of lower-quality meat from older animals. The only household able to purchase 'prime' beef was the Kafsling family, associated Feature 10. The Kafslings were the only family in this study with a 'skilled' head of the household who owned the residence, reflected in their purchase of some higher-quality beef.

Deposition

The taphonomic analyses of the assemblages from Cochran Gardens provide information regarding the depositional processes that occurred at the site. The manner of deposition reveals not only insight into 19th century attitudes about sanitation and 'nuisances,' but also how socioeconomic factors specifically affected the decisions of households in Old North St. Louis. Landon (1996: 6) suggests that the "determination of depositional context is based on characteristics of the faunal material, such as degree of weathering and fragmentation and on associated archaeological materials and information about the site."

The incidence of weathering in all of the assemblages indicates the tendency to use privies as a secondary deposit for refuse, when they were no longer in use, as cleaning or the construction of new structures would have been costly endeavors for low-income families. Nineteenth-century concepts of sanitation that "stressed that bad air or miasmas were primarily responsible for sickness, and all kinds of filth contributing to miasmas were hazardous and

needed to be disposed of somewhere else" make it unlikely that the disposal of refuse into yards was a choice necessitated by anything but lack of resources and space (Wheeler 2000: 10). Additionally, Wheeler (2000: 17) suggests "distinctions between faunal-free and faunal-full privies are likely related to ethnicity, literacy and degree for accumulation to a New World setting."

Without organized trash clean-up in St. Louis and without the economic means for privy cleaning, however, it seems more likely that the deposition of trash in the yard-areas between the tenements by the households in this community was done out of economic necessity. Furthermore, as evidenced in Feature 45 and Feature 10, some residents attempted alternative means of trash removal, such as the burning of refuse, which indicates a different disposal pattern than that of the households associated with the other two features. The burning of refuse in these features may be due to sanitation reform in urban areas in the later half of the 19th century, as has been demonstrated in cities such as Boston and Washington D.C. (Crane 2000: 24). Additionally, there is evidence of attempts to control vermin, based on the lack of commensal taxa in Feature 29. This, again, may reflect changing perceptions towards sanitation towards the end of the 19th century, as Crane (2000: 36) suggests occurred in Washington D.C. The increasing influence of urban sanitation movements in working-class neighborhoods is further supported by the report commissioned by the Housing Committee of the Civic League in St. Louis in the early 20th century (Rumbold 1908).

Ethnicity

Through an examination of the historical records, it is clear that trying to associate specific households to particular deposits is difficult, due to high turnover rates, a lack of certainty linking households to specific privies. Trying to ascertain the effect of social factors on

the formation of urban privy deposits becomes increasingly complicated in tenement situations, when multiple families were located in one household. In studies attempting to address the factors influencing consumption, several individual households are frequently conflated in a single refuse deposit, which is problematic when making correlations between faunal materials and social factors (LeeDecker 1991: 32).

Although I was unable to associate specific families with faunal deposits, there is some indication within the assemblages that households were consuming foods associated with particular ethnic groups. The remains from Feature 35, for example, suggest a clear preference for pork and pigs feet, and the most likely inhabitants of this residence were all Irish immigrants. Archaeological investigations of Irish households in 19th century New York City (Cantwell and Wall 2001; Rothschild 1989; Yamin 2002) have found that households from Irish tenements favored pork in all forms. In particular, these households show a clear preference for pig's feet, which was an ingredient in crubeen, a traditional Irish dish in which the meat was simmered for hours in white wine and spices (Yamin 2002: 162). The faunal remains from Feature 35 indicate a clear preference for pork, and pig's feet in particular, suggesting some influence of ethnic preference on the consumptive choices of these households.

A marked preference for pork is also apparent in Feature 45. The ethnic composition of this household, however, is mixed between Irish, Euro-American, and African American families. Studies involving Irish foodways (Cantwell and Wall 2001; Rothschild 1989; Yamin 2002), as well as studies of African-American consumption, such as Warner's (1998) investigation of African-American foodways in Annapolis, suggest that pork was highly preferred by both of these ethnic groups.

Furthermore, the recovery of the 'Home Rule'-marked pipe in this deposit indicates a strong tie to the Irish nationalist Home Rule movement, and such pipes have been recovered in Irish households from Five Points in New York (Reckner 2001: 111). If pork did contain symbolic value for Irish immigrants in the United States as suggested (Griggs 1999; Miller 1998), then it is likely that the remains in this deposit represent ethnic choices. While I am tentative to assign a direct correlation between ethnic preference and meat consumption with the faunal assemblage from Feature 45 due to an unclear association of a specific household family with the deposit, the evidence remains fairly strong that some members of this household maintained some sense of Irish identity.

Conclusion

Clearly, the Cochran Gardens assemblages can further our knowledge of the processes and factors affecting the consumptive decisions. Despite some uncertainty regarding household composition and association of households with specific deposits, it is still possibly to identify some of the factors that affected the formation of the faunal deposits. This chapter examined how the faunal deposits from Cochran Gardens can add to the growing literature on urban food-bone studies. Due to the geographical and temporal setting of this study, the results provide novel insight into issues of urban supply and market systems in a newly urbanized late 19th century city, including the changing environment within the Old North St. Louis neighborhood. Additionally, this study demonstrates the useful information that can be derived from an investigation of depositional context and processes. Finally, I have connected the results of this study to other archaeological investigations of how social factors influence consumer behavior and the formation of faunal deposits. In the following chapter, I will summarize and conclude the results of this thesis.

CHAPTER 8:
SUMMARY AND CONCLUSION

Summary

The purpose of this study was to investigate foodways in a mid-late 19th century working class neighborhood. I analyzed the faunal remains from four features recovered at the Cochran Gardens site dating from the mid to late 19th century from a working class neighborhood in St. Louis, Missouri. Through contextualizing the deposits within their temporal, geographical, historical and cultural situations, the objective was to attempt to isolate some of the factors affecting the consumptive decisions of the associated households. My research design involved an assessment of the factors affecting the consumer choices of the household. First, I aimed to examine any apparent socioeconomic differences among the 'slum-dwellers' associated with the deposits. Furthermore, this study attempted to assess the influence of market availability through an assessment of how consumption changed as St. Louis became increasingly industrialized and urbanized. Finally, I hoped to address the affect of any other potential variables, including environmental change and ethnicity.

I presented a review of the relevant literature on urban archaeology and urban foodways. This overview demonstrated the common themes in studies of historic urban faunal deposits. Specifically, I identified the relevant research into the effect of socioeconomic status, ethnic identity, and meat supply and market systems on consumer behavior. Based on the complexities of consumer behavior, I employed a consumer behavior framework (Huelsbeck 1991) to address my research questions.

In order to contextualize the deposits historically and geographically, I provided a brief history of the city of St. Louis, concentrating on the population dynamics, immigrant groups and

economic conditions from settlement until the turn of the 20th century. Through an examination of historical literature involving the neighborhood of Old North St. Louis in the latter half of the 19th century, I demonstrated the external attitudes towards and perceptions of the neighborhood as a depraved and notorious slum. Finally, I presented a brief history of the development of the meatpacking trade in the United States, as changes in technology and in the distribution of meat would likely affect the deposits in Cochran Gardens.

After a summary of the excavations at Cochran Gardens, as well as the location of the features identified during the project, I provided the census data associated with the features, finding that although it was possible to determine some likely associations between household and privy, conflation of multiple families within tenements, as well as a high turnover rate creates difficulty in linking specific people to individual privies. In the latter half of Chapter 4, I detailed the methods used to analyze the faunal assemblages, and then provided the results of the laboratory analysis of the faunal remains, presenting a summary of the species and meat cuts identified within each features.

In order to assess how the taphonomic history of the assemblages might influence my results and interpretations, I evaluated the taphonomic processes affecting the deposits, both cultural and natural. Results from the analysis of butchery marks on bones revealed that butchery methods differed among assemblages and species, suggesting change over time in butchery methods. In particular, the cattle remains indicate a significant increase in sawing used in the butchery of carcasses, likely associated with the rise and development of the meatpacking industry and standardization of meat cuts. The burning, fragmentation and weathering analyses completed provided information on disposal practices by the households. As privy-cleaning was likely an undesirable expense for the population represented in this study, increased evidence of

burning, weathering and fragmentation of bones suggests that many of the households deposited refuse in yards and alleys, or burned trash to avoid filling privies with materials other than human waste. The analysis of natural taphonomic agents resulted in an elucidation of the impact of weathering, carnivore ravaging, and rodent activity on the assemblage, indicating that although these processes may have affected the identifiability of some specimens as well as the frequency counts of certain species, these factors were not likely *significant* causes of assemblage variation. Furthermore, the analysis of taphonomic processes, both cultural and natural indicate changing disposal patterns within the Old North St. Louis Neighborhood as sanitation reform became increasingly influential in urban areas in the late 19th century.

With the taphonomic history of the assemblages established, I analyzed of the composition of the assemblages from Cochran Gardens to address the factors affecting the choices of the households associated with the deposits. Through the evaluation of evenness and richness, I assessed variability in the diets reflected by the assemblages, demonstrating that strategies ranged from specialized to broad among the households represented in this study. These differences likely reflect a changing urban environment and market within the city of St. Louis, as demonstrated in other studies of urban faunal assemblages. Variation in the proportion of medium and large mammal species contained within the deposits revealed that availability, economic factors and likely ethnicity influenced the consumptive behavior of the households who discarded the bones. An analysis of the meat cuts from the medium and large domestic animals suggests that a price-scaling of the cuts is not a good indicator of the socioeconomic position of the households, although it does reveal some patterns of thrifty consumption including the common purchase of cured pork and of the 'less-meaty,' 'low-market value' cuts of the animals. The analysis of age profiles for medium and large mammals suggests that beef

and mutton/goat meat came from older animals that was likely less expensive than meat from 'prime-aged' individuals.

Conclusion

The occupants of the residences in this study were mostly new immigrants to the United States, searching for opportunity and a life that they could not find in their homeland. The bones, therefore, do not always present direct correlations on specific family, ethnic or class preferences, but can provide insight into the processes of adaptation to a new environment and culture. The immigrants of Old North St. Louis were working-class laborers and domestic workers, aiming to survive, live their daily lives and adapt to a new life in an increasingly urban environment. Through the consumption of beef, as a means of displaying more economic freedom, as may have occurred with the Kafsling family, and by partaking in "American" traditions, such as the consumption of turkey around the holidays, these families found ways to express their identity through food.

Furthermore, despite limited economic and social power, the families in this study found methods to cope with the daily risks of poverty and marginalization from 'mainstream' society. It is likely that these families were able to satisfy the basic nutritional requirements through the acquisition of supplementary taxa, such as turtle and wild birds, and through the purchase of low-cost options, such as lower-grade meat from mature animals or low-utility head and feet cuts. The residents of Old North St. Louis were not simply slum-dwellers, but active participants in the economically expanding, newly industrialized United States.

The investigation of the faunal deposits from Cochran Gardens provides an important contribution to the literature on urban historic foodways. As a city, St. Louis holds a unique and

significant place in the history of the United States. In the 19th century, the 'gateway' city provided a hub for travel and trade from the East Coast to the Western territories. Often forgotten, however, are the individuals who came to work and live in the expanding metropolis, many from foreign countries, who remain silent in history books. Through investigating the foodways of these communities crammed into tenements and adapting to life in a new and constantly changing environment, we can have a better understanding of the past.

REFERENCES CITED

Aron , Stephen
2006 *American Confluence: The Missouri Frontier From Borderland to State.* Bloomington: Indiana University Press.

Ashbrook, Frank G.
1950 *Butchering, Processing, and Preservation of Meat.* Toronto: D. Ban Nostrand Co. Inc.

Azizi, Sharla C., Diane Dallal, Mallory A. Gordon, Meta F. Janowitz, Nadia N. S. Maczai, and Marie- Lorraine Pipes.
1996 *Analytical Coding System for Historic Period Artifacts* East Orange, NJ: Cultural Resources Group, Louis Berger & Associates, Inc.

Baumann, Timothy, Andrew Hurley and Lori Allen
2008 Economic Stability and Social Identity: Historic Preservation in Old North St. Louis. *Historical Archaeology* 42(1): 70-87

Behrensmeyer, A. K.
1978 Taphonomic and ecologic information from bone weathering. *Paleobiology* 4: 150–163.

Binford, Lewis
1978 *Nunamiut Ethnoarchaeology*. New York: Academic Press.

1981 *Bones: Ancient Men and Modern Myths.* New York: Academic Press.

1984 *Faunal Remains from Klasies River Mouth.* New York: Academic Press.

Boessneck, J.
1970 Osteological Differences Between Sheep (Ovis aries Linne) and Goat (Capra hircus Linne). In *Science in Archaeology.* Edited by Don Brothwell and Eric Higgs. New York: Praeger Publishers

Bonasera, Michael and Leslie Raymer
2001 Good for What Ails You: Medicinal Use at Five Points. *Historical Archaeology* 35(3): 31–48.

Bowen, Joanne
1975 Probate Inventories: An Evaluation from the Perspective of Zooarchaeology and Agricultural History at Mott Farm. *Historical Archaeology.* 9: 11-25.

1998 To market, to market: Animal husbandry in New England. *Historical Archaeology* 32(3): 137–152.

Brain, C.K.
1981 *The Hunter's or the Hunted? An Introduction to African Cave Taphonomy.* Chicago: University of Chicago Press.

Branstner, Mark C. and Terrance J. Martin
1987 Working Class Detroit: Late Victorian Consumer Choices and Status. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer- Wood, pp. 301-320. New York: Plenum Press.

Brighton, Stephen A.
2001 Prices that Suit the Times: Shopping For Ceramics at the Five Points. *Historical Archaeology* 35(3): 16-30.

Brody, David
1964 *The Butcher Workmen: A Study of Unionization*. Cambridge, Massachusetts: Harvard University Press.

Brown, Gregory J and Joanne Bowen
1998 Animal Bones from the Cross Street Back Lot Privy *Historical Archaeology.* 32(3):72-80.

Brown, Christopher L. and Carl E. Gustafson
2000 *A Key to Postcranial Skeletal Remains of Cattle/Bison, Elk, and Horse.* Washington State University: Department of Anthropology.

Burnett, Ronyn and Ken Luebbering
1996 *German Settlement in Missouri: New Land, Old Ways*. Columbia: University of Missouri Press.

Cantwell, A., and Wall, D. Z.,
2001 *Unearthing Gotham: The Archaeology of New York City*. New Haven: Yale University Press.

Chapin, Robert Coit
1909 *The Standard of Living Among Workingmen's Families in New York City.* New York: Charities Publication Committee.

Cheek, Charles D. and Amy Friedlander
1990 Pottery and Pig's Feet: Space and Ethnicity, and Neighborhood in Washington, D.C., 1880-1940. *Historical Archaeology* 24(1): 34-60

Christensen, Lawrence O. and Gary R. Kremer
1997 *A History of Missouri: Volume IV: 1875 to 1919.* Columbia: University of Missouri Press.

Clamorgan, Cyprian B.
1999[1830] *The Colored Aristocracy in St. Louis.* Julie Winch, editor. Columbia : University of Missouri Press.

Clemen, Rudolf Alexander
1923 *The American livestock and meat industry.* New York: Ronald Press.

Collier, James Lincoln
1991 *The Rise of Selfishness in America.* New York: Oxford University Press

Crader, D. C.
1984 The zooarchaeology of the storehouse and the dry well at Monticello. *American Antiquity* 49(3): 542–558.

1990 Slave Diet at Monticello. *American Antiquity.* 55(4): 690-717.

Crane, Brian D.
2000 Filth, Garbage and Rubbish: Refuse Disposal, Sanitary Reform, and Nineteenth-Century Yard Deposits in Washington, D.C. *Historical Archaeology.* 34(1):2O-38.

Crass, D. C., and Wallsmith, D. L.
1990 Where's the beef? Food supply at an Antebellum Frontier Post. *Historical Archaeology* 26(2): 3–23

Dacus, Joseph A, and James William Buel
1878 *A Tour of St. Louis.* St. Louis: Western Publishing Co.

Davidson, Paula Edmiston
1982 Patterns in Urban Food Ways: An Example from Early Twentieth-Century Atlanta. In *Archaeology of Urban America: The Search for Pattern and Process,* Edited by Roy S. Dickens, Jr. pp 381-398

Deagan, Kathleen
1996 Avenues of Inquiry in Historical Archaeology. In *Images of the Recent Past: Readings in Historical Archaeology.* Edited by Charles Orser. Pp 16-41. Walnut Creek, CA: Altamira Press.

DeVoe, Thomas F.
1867 *The Market Assistant.* New York: Hurd and Houghton.

Dickens, Roy, editor.
1982 *Archaeology of Urban America: The Search for Pattern and Process.* New York: Academic Press.

Drennan, Robert D
1996 *Statistics for Archaeologists: A Commonsense Approach.* New York: Plenum Press.

Drury, John
1966 *Rare and Well Done: Some Historical Notes on Meats and Meatmen.* Chicago: Quadrangle Books.

Fishetti, Zelli
2009 Frank M. Rumbold (1862-1934) Papers, 1854-1937. *Western Historical Manuscript Collection – St. Louis, University of Missouri, St. Louis.* http://www.umsl.edu/~whmc/guides/whm0181.htm

Fitts, Robert
2001 The Rhetoric of Reform: The Five Points Missions and the Cult of Domesticity. *Historical Archaeology* 35(3): 115-132.

Foley, William E.
1971 *A History of Missouri: Volume I, 1673 to 1820.* Columbia: University of Missouri Press.

Garrow, Patrick H.
1987 The Use of Converging Lines of Evidence for Determining Socioeconomic Status. In *Consumer Choice in Historical Archaeology*, Susan Spencer-Wood, editor, pp. 217-232. New York: Plenum.

Gilbert, B. Miles
1990 *Mammalian Osteology.* Springfield: Missouri Archaeological Society.

Gilbert, B Miles, Larry D. Martin and Howard G. Savage
1981 *Avian Osteology.* Laramie: B. Miles Gilbert.

Graff, Daniel A.
2004 Race, Citizenship, and the Origins of Organized Labor in Antebellum St. Louis. In *The Other Missouri History: Populists, Prostitutes and Regular Folk.*

Grayson, D. K.
1984 *Quantitative Zooarchaeology.* Orlando: Academic Press.

Griggs, Heather J.
1990 GO gCUIRE DIA RATH AGUS BLATH ORT (God Grant That You Prosper and Flourish): Social and Economic Mobility Among the Irish in Nineteenth- Century New York City. *Historical Archaeology* 33(1):87-101.

Gust, S.M.
1993 Animal Bones from Historic Urban Chinese Sites: A Comparison of Sacramento, Woodland, Tucson, Ventura and Lovelock. In *Hidden Heritage: Historical*

Archaeology of the Overseas Chinese, edited by Priscilla Wegars, pp. 177-212. Amityville, NY: Baywood Press.

Halstead, P, P. Collins and V. Isaakidou
2002 Sorting the Sheep from the Goats: Morphological Distinctions between the Mandibles and Mandibular Teeth of Adult *Ovis* and *Capra. Journal of Archaeological Science.* 29:545-553.

Hampe, Edward C. and Merle Wittenburg
1964 *The Lifeline of America: The Development of the Food Industry.* New York: McGraw- Hill.

Hansen, Megan and Chester R. Cain
2007 Examining histiology to identify burned bone *Journal of Archaeological Science.* 34(11): 1902-1913.

Harl, Joseph
2006 *Data Recovery Investigations at the Cochran Gardens Hope VI Housing Development Tract St. Louis City, Missouri.* Archaeological Research Center of St, Louis, Inc. Prepared for KAI, Missouri Housing Development Commission, and Missouri Department of Natural Resources State Historic Preservation Office. Research Report #371. Copies available at Archaeological Research Center of St, Louis, Inc. 2812 Woodson Road, St. Louis, Missouri, 63114.

Harris, Marvin
1985 *Good to eat : riddles of food and culture.* New York : Simon and Schuster.

Haynes, G
1980 Evidence of Carnivore Gnawing on Pleistocene and Recent mammalian bones. *Paleobiology* 6: 341-351.

1983 A Guide for Differentiating Mammalian Carnivore Taxa Responsible for Gnaw Damage to herbivore limb bones. *Paleobiology.* 9:164-172.

Henn, R. E.
1985 Reconstructing the urban foodchain: Advances and problems in interpreting faunal remains recovered from household deposits. *American Archaeology*. 5(3): 202–209.

Henry, S. L.
1987a A chicken in every pot: The urban subsistence pattern in turn-of-the-century Phoenix, Arizona. In *Living in Cities: Current Research in Urban Archaeology, Special Publication No. 5. Society for Historical Archaeology,* Edited by E. Staski, pp. 19-28. Ann Arbor: Braun-Brumfield.

1987b Factors influencing consumer behavior in turn-of-the-century Phoenix, Arizona. In *Consumer Choice in Historical Archaeology*, Susan Spencer- Wood, editor, pp. 359-381. New York: Plenum..

Hillson, S.
1996 *Teeth.* New York: Cambridge University Press.

Hooker, Richard James
1981 *Food and Drink in America: A History.* Indianapolis: The Bobbs-Merril Co., Inc.

Howe, Daniel Walker
1975 American Victorianism as Culture. *American Quarterly.* 27(5):507-532.

Huelsbeck, David R.
1989 Zooarchaeological Measures Revisited. *Historical Archaeology.* 23(1):113-17.

1991 Faunal Remains and Consumer Behavior: What Is Being Measured? Historical Archaeology 25(2):62-76.

Hutawa, Edward
1847 *Atlas of the County of St. Louis, Missouri.* Published by Julius Hutawa.

Ioannidou, Evangelia
2003 Taphonomy of Animal Bones: Species, Sex, Age and Breed Variability of Sheep, Cattle and Pig Bone Density. *Journal of Archaeological Science.* 30: 355-356.

Johnson, E.
1989 Human modified bones from early southern Plains Sites. In *Bone Modification,* edited by R. Bonnichsen and M.H. Sorg. Orono: University of Maine Center for the Study of the First Americans.

Jones, Sian
1997 *The Archaeology of Ethnicity: Constructing Identities in the Past and Present.* New York: Routledge

Kargau, E.D.
1902 *Mercantile, Industrial and Professional St. Louis.* St. Louis: Nixon and Jones.

Kent, S
1981 The dog: an archaeologists best friend or worst enemy – the spatial distribution of faunal remains. *Journal of Field Archaeology* 8: 367-372.

Klein, R. G., and Cruz-Uribe, K.
1984 *The Analysis of Animal Bones from Archaeological Sites.* Chicago: University of Chicago Press.

Kurlansky, Mark
2007 *The Big Oyster: History on the Half Shell.* New York: Random House

Landon, David B.
1996 Feeding colonial Boston: A zooarchaeological study. *Historical Archaeology.* 30(1).

2005 Zooarchaeology and Historical Archaeology: Progress and Prospects. *Journal of Archaeological Method and Theory.* 12(1):1-36

Langenwalter, P. E.
1980 The Archaeology of 19th Century Chinese Subsistence at the Lower China Store, Madera County, California, Chapter 11. In *Archaeological Perspectives on Ethnicity in America,* edited by R.L. Schuyler. New York: Baywood Publishing Company

LaRoche, Cheryl and Gary S. McGowan
2001 "Material Culture": Conservation and Analysis of Textiles Recovered from Five Points. *Historical Archaeology:* 35(3): 65-75)

LeeDecker, Charles H., Terry H.Klein, Cheryl A. Holt and Amy Friedlander
1987 Nineteenth-Century Households and Consumer Behavior in Wilmington, Delaware. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 233-260. New York: Plenum Press.

Leone, Mark
2005 The Archaeology of Liberty in an American Capital: Excavations in Annapolis. Berkeley: University of California Press.

Lesser, William H.
1993 *Marketing Livestock and Meat* New York: Food Products Press.

Lev Tov, Justin
1998 Zooarchaeology and Social Relations in Annapolis, Maryland. In *Annapolis Pasts: Contributions from Archaeology in Annapolis,* edited by Paul A. Shackel, Paul R. Mullins, and Mark Warner, pp.119-146. University of Tennessee Press, Knoxville.

Little, Barbara, editor.
1992 Text aided Archaeology. In *Text Aided Archaeology.* Boca Raton Florida, CRC Press.

Lyman, R. L.
1977 Analysis of historic faunal remains. *Historical Archaeology* 11: 67–73.

1979 Available meat from faunal remains: A consideration of techniques. *American Antiquity.* 44(3): 536–546.

1984 Bone Density and differential Survivorshop of Fossil Classes. *Journal of Anthropological Archaeology* 3: 259-299

1987 On zooarchaeological measures of socioeconomic position and cost-efficient meat purchases. *Historical Archaeology* 21(1): 58–66.

1994a Quantitative units and terminology in zooarchaeology. *American Antiquity* 59(1): 36–71.

1994b *Vertebrate Taphonomy*. New York: Cambridge University Press

Lyon, P.J.
1979 Differential Bone Destruction: An Ethnographic Example. *American Antiquity.* 35: 213-215.

Marean, C. W. and L. M. Spencer
1991 Impact of carnivore ravaging on zooarchaeological measures of element abundance. *American Antiquity.* 56:645-658.

McCandless, Perry
1972 *A History of Missouri: Volume II, 1820-1860.* Columbia : University of Missouri Press

McCarthy, John P. and Jeanne A. Ward
2000 Sanitation Practices, Depositional Processes and Interpretive Contexts of Minneapolis Privies. *Historical Archaeology.* 34(1): 111-129.

McLean, Alice
2006 *Cooking in America: 1840-1945.* Westport, CT: Greenwood Publishing Group

Miller, Kerby A.
1988 *Emigrants and Exiles.* Oxford: Oxford University Press.

Milne, C., and Crabtree, P. J.
2001 Prostitutes, a rabbi, and a carpenter - Dinner at the Five Points in the 1830s. *Historical Archaeology* 35(3): 31–48.

Mrozowski, Stephen
1987 Exploring New England's Evolving Urban Landscape. In *Living in Cities: Current Research in Urban Archaeology.* Edward Staski, editor, pp 1-10. Special Publication No. 5 of the Society for Historical Archaeology.

Mullins, Paul
1998 Expanding Archaeological Discourse: Ideology, Metaphor, and Critical Theory in Historical Archaeology. In *Annapolis Pasts: Historical Archaeology in Annapolis, Maryland,* edited by Paul A. Shackel, Paul R. Mullins and Mark S. Warner. Pp 7-34. Knoxville: University of Tennessee Press.

Mullins, Paula and Mark Warner
2008 Revisiting Living in Cities. *Historical Archaeology.* 42:1-4.

Olsen, Stanley J.
1964 Food animals of the continental army at Valley Forge and Morristown. *American Antiquity* 29(4): 506–509.

1968 *Fish, Amphibian and Reptile Remains from Archaeological Sites: Part I: Southeastern and Southwestern United States, Appendix:The Osteology of the Wild Turkey.* Cambridge: Peabody Museum, Harvard University.

2004 *Mammal Remains From Archaeological Sites: Part I – Southeastern and Southwestern United States.* Cambridge: Peabody Museum, Harvard University.

Orser, Charles E. Jr.
1998 The Challenge of Race to American Historical Archaeology. *American Anthropologist*100(3):661-668.

Otto, J.S.
1984 *Cannon's Point Plantation, 1794-1860.* Orlando: Academic Press.

Parrish, William E.
1973 *A History of Missouri: Volume III, 1860-1875. Columbia : University* of Missouri Press.

Pate, J'Nell L
2005 *America's Historic Stockyards: Livestock Hotels.* Fort Worth: TCU Press.

Payne, S.
1985 Morphological Distinctions between the mandibular teeth of young sheep, Ovis, and goats, Capra. *Journal of Archaeological Science* 12: 139–147.

Pitt, Reginald
2001 "Suckers, Soap-Locks, Irishmen and Plug-Uglies": Block 160, Municipal Politics and Local Control. *Historical Archaeology* 35(3): 89–102.

Pond, Wilson G. and Harry J. Mersmann
2001 *Biology of the Domestic Pig.* Cornell: Cornell University Press.

Potter, Ermine Lawrence, Carl N. Kennedy, George R. Samson and Oran M Nelson
1917 *Western Livestock Management.* New York: The Macmillan Company.

Potter, Parker B.
1992 Middle-Range Theory, Ceramics, and Capitalism in 19th Century Rockbridge County, Virginia. In *Text Aided Archaeology,* Barbara Little, Editor. Boca Raton Florida, CRC Press.

Praetzellis, Adrian and Mary Praetzellis
2001 Mangling symbols of gentility in the Wild West: Case studies in interpretive archaeology*American Anthropologist* 103(3):645-655

Praetzellis, Mary and Adrian Praetzellis, editors.
2004 *Putting the "There" There: Historical Archaeologies of West Oakland.* Anthropological Studies Center. Prepared For California Department of Transportation. Cypress Replacement Project Interpretive Report No. 2. Copies available at http://www.sonoma.edu/asc/cypress/finalreport/index.htm

Praetzellis, Mary and Adrian Praetzellis
2004a The Loma Prieta Earthquake and its Aftermath. In *Putting the "There" There: Historical Archaeologies of West Oakland.* Mary Praetzellis and Adrian Praetzellis, editors. Anthropological Studies Center. Prepared For California Department of Transportation. Cypress Replacement Project Interpretive Report No. 2. Copies available at http://www.sonoma.edu/asc/cypress/finalreport/index.htm

2004b More Than Just a Place To Start From: Historical Archaeologies of West Oakland. In *Putting the "There" There: Historical Archaeologies of West Oakland.* Mary Praetzellis and Adrian Praetzellis, editors. Anthropological Studies Center. Prepared For California Department of Transportation. Cypress Replacement Project Interpretive Report No. 2. Copies available at http://www.sonoma.edu/asc/cypress/finalreport/index.htm

Praetzellis, A., Praetzellis, M., and M. Brown
1987 Artifacts as symbols of identity: An example from Sacramento's gold rush era Chinese community. In S. Turnbaugh (ed.) *Living in Cities: Current Research in Urban Archaeology*, pp.38-47. Society for Historical Archaeology, Special Publication Series No. 5.

Price, Cynthia R.,
1985 Patterns of Cultural Behavior and Intra-Site Distributions of Faunal Remains at the Widow Harris Site. *Historical Archaeology* 19(2): 40-56

Primm, James Neal
1998 *Lion of the Valley: St. Louis, Missouri, 1764-1980.* St Louis: Missouri Historical Society Press.

Prummel, W. and Frisch, H.J
1986 A guide for the distinction of species, sex and body side in bones of sheep and goat. *Journal of Archaeological Science* 13: 567-577.

Rammelkamp, Julian S.
1963 St. Louis in the Early 'Eighties. *Bulletin of the Missouri Historical Society*. 19(4): 329-339.

Reckner, Paul E.
2001 Negotiating Patriotism at the Five Points: Clay Tobacco Pipes and Patriotic Imagery Among Trade Unionists and Nativists in a Nineteenth-Century New York Neighborhood. *Historical Archaeology:* 35(3): 103-114.

Reitz, Elizabeth J.,
1986 Urban/Rural Contrasts in Vertebrate Fauna from the Southern Atlantic Coastal Plain. *Historical Archaeology* 20(2): 47-58

1987 Vertebrate Fauna and Socioeconomic Status. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 101-120. New York: Plenum Press.

Reitz, E. J., and Wing, E. S.
1999 *Zooarchaeology*. Cambridge: Cambridge University Press.

Robbins, Richard H.
1999 *Global Problems and the Culture of Capitalism.* Boston: Pearson.

Romans, John R. and Ziegler, Thomas P.
1974 *The Meat We Eat.* Danville, Illinois: The Interstate Printers & Publishers, Inc.

Romans, J. R., W. J. Costello, C. W. Carlson, M. L. Greaser, and K. W. Jones.
2001 *The Meat We Eat.* 14th ed. Danville, IL:Interstate Publishers, Inc.

Rothschild, N. A.
1990. *New York Neighborhoods: The 18th Century,* New York: Academic Press.

Rothschild, Nan A. and Darlene Balkwill
1993 The Meaning of Change in Urban Faunal Deposits. *Historical Archaeology.* 27(2): 71-89

Rumbold, Charlotte
1908 *Housing Conditions in St. Louis: Report of the Housing Committee of the Civic League of St. Louis.* St Louis: The Civic League of St. Louis.

Schueren, Arnold C.
1927 *Meat Retailing.* New York: Vaughan company.

Schiffer, Michael
1983 Toward the identification of formation processes. *American Antiquity* 48:675-706.

Schmitt, D. and Charles D. Zeier
1993 Not by Bones Alone: Exploring Household Composition and Socioeconomic Status in an Isolated Historic Mining Community. *Historical Archaeology.* 27(4):20-38.

Schmitt, Dave N. and Lupo, Karen D.
1995 On Mammalian Taphonomy, Taxonomic Diversity, and Measuring Subsistence Data in Zooarcheaology. *American Antiquity.* 60(3): 496-514.

Schulz, Peter D. and Sherri M. Gust
1983 Faunal Remains and Social Status in 19th Century Sacramento. *Historical Archaeology 17(1)* 44-53.

Skaggs, Jimmy M.
1986 Prime Cut: Livestock Raising and Meatpacking in the United States 1607-1983. College Station: Texas A&M University Press

Shackel, Paul, Paul R. Mullins and Mark S. Warner.
1998 Introduction. In *Annapolis Pasts: Historical Archaeology in Annapolis, Maryland,* edited by Paul A. Shackel, Paul R. Mullins and Mark S. Warner. Pp 7-34. Knoxville: University of Tennessee Press.

Silver, I. A.
1963 The Ageing of Domestic Animals. In *Science in Archaeology,* 1st ed., edited by D. Brothwell and E. Hias, pp. 283-302. Thames and Hudson, London.

Singer, David
1987 Threshold of Affordability: Assessing Fish Remains for Socioeconomics. In *Consumer Choice in Historical Archaeology*, edited by Suzanne M. Spencer-Wood, pp. 85-100. New York: Plenum Press.

Sisson, Septimus
1953 *The Anatomy of the Domestic Animals.* Philadelphia: W.B. Saunders Company.

Spencer-Wood, Suzann (ed.)
1987 Introduction. In *Consumer Choice in Historical Archaeology,* pp. 1-24. New York: Plenum Press.

Staski, Edward
1987 Introduction. In *Living in Cities: Current Research in Urban Archaeology,* edited by E. Staski, pp. ix-xi. Special Publication No. 5 of the Society for Historical Archaeology.

1987b Border City, Border Culture: Assimilation and Change in Late 19th Century El Paso. In Living in Cities: Current Research in Urban Archaeology, edited by E. Staski, pp. 48-55. Special Publication No. 5 of the Society for Historical Archaeology.

1996 The Overseas Chinese in El Paso: Changing Goals, Changing Realities. In *Images of the Recent Past: Readings in Historical Archaeology,* edited by C. Orser, pp. 166-190. Newbury Park, CA: Altamira Press/Sage Publications.

2008 Living in Cities Today. *Historical Archaeology.* 42(1):5-10

Stottman, M. Jay
2000 Out of Sight, Out of Mind: Privy Architecture and the Perception of Sanitation. *Historical Archaeology.* 34(1): 39-61.

Sullivan 1881 Ordinances of The City of St. Louis

Thomas, D.H.
1969 Great Basin Hunting Patterns: A Quantitative Method for Treating Faunal Remains. *American Antiquity.* 34: 392-401.

Towey, Martin G.
1986 Kerry Patch Revisited, Irish Americans in St. Louis in the Turn of the Century Era. In *From Paddy to Studs: Irish American Communities in the Turn of the Century Era, 1880 to 1920.* Timothy J. Meagher, editor. Westport, CT: Greenwood Press.

Wade, Louise Carroll
2003 *Chicago's pride : the stockyards, Packingtown, and environs in the nineteenth century.* Urbana : University of Illinois Press

Warner, Mark S.
1998 *Food and the Negotiation of African-American Identities in Annapolis, Maryland and the Chesapeake*, Ph.D. Dissertation, University of Virginia.

Warner, Mark S., and Robert A Genheimer
2008 "Cats Here, Cats there, Cats and Kittens Everywhere": An Urban Extermination of Cats in Nineteenth-Century Cincinatti. *Historical Archaeology* 42(1): 11-25

Wayman, Norbury
1970 History of St. Louis Neighborhoods: Old North St. Louis and Yeatman. St. Louis Community Development Agency, St. Louis.

Wheeler, Kathleen
2000 Theoretical and Methodological Considerations for Excavating Privies. *Historical Archaeology.* 34(1): 3-19

Williams, Susan
2006 *Food in the United States: 1820s-1890.* Westport, CT: Greenwood Press.

Winch, Julie
1999 Introduction. *The Colored Aristocracy of St. Louis.* Columbia : University of Missouri Press

Yamin, Rebecca
2001a Becoming New York: The Five Points Neighborhood. *Historical Archaeology:* 35(3): 1-5.

2001b From Tanning to Tea: The Evolution of a Neighborhood. *Historical Archaeology:* 35(3): 6-15.

APPENDIX

A. Coding System for Fauna

FAUNAL TYPOLOGY (TYPE)

MAMMALS

Domesticated Mammals (ZMD)		
ZMD00	Unidentified domestic	
ZMD10	Cat	*Unknown*
ZMD20	Dog	*Felis silvestris*
ZMD30	Sheep/goat	*Canis familiaris*
ZMD32	Sheep	*Ovis/Capra*
ZMD33	Goat	*Ovis aries*
ZMD60	Pig	*Capra hircus*
ZMD70	Cow	*Sus scrofa*
ZMD90	Horse	*Bos taurus*
		Equus caballus
Unidentified Mammals (ZMZ) Size classes		
ZMZ00	Unidentified mammal	
ZMZ01	Very small mammal	
ZMZ02	Small Mammal	Rodents: mouse, vole, shrew,
ZMZ03	Small/medium mammal	Squirrel
ZMZ04	Medium mammal	Rabbit/hare, muskrat, marmot, fox
ZMZ05	Medium/large mammal	Dog, bobcat, pig
ZMZ06	Large mammal	Deer, sheep/goat, human
		Elk, horse, bison
Non-Domesticated Mammals		
Artidactyla (MA*)		
Cervidae: Elk, Deer, Moose		
MAC00	Unidentified cervid	*Odocoileus hemionus*
MAC10	Mule deer	*Cervus elaphus/canadensis*
MAC20	Elk or Wapiti	
Antilocapridae: Pronghorn		
MAA10	Pronghorn	*Antilocapra americana*
Bovidae: bison, mountain goats/sheep		
MAB10	Bison	*Bos/Bison bison*
MAB11	Mountain/Bighorn Sheep	*Ovis Canadensis*
Carnivora (MC*)		
Canidae		*Canis latrans*
MCC00	Unidentified carnivore	*Vulpes macrotis*
MCC10	Coyote	
MCC11	Kit fox	*Ursus americanus*
Ursidae		
MCU10	Black Bear	*Felis concolor*
Felidae		*Felis lynx//Lynx canadensis?*
MCF10	Mountain lion	*Felis rufus*
MCF11	Lynx	
MCF12	Bobcat	*Procyon lotor*
Procyonidae		
MCP01	Raccoon	

Canivora (continued…)

Mustelidae: weasels, skunks, badgers, otters, martens

MCM10	Short-tailed Weasel	Mustela erminea
MCM11	Long-tailed Weasel	Mustela Frenata
MCM12	Mink	Mustela vison
MCM14	Wolverine	Gulo gulo
MCM15	Badger	Taxidea taxus
MCM16	Western Spotted Skunk	Spilogale gracilis
MCM17	Striped Skunk	Mephitis mephitis
MCM18	River Otter	Lutra Canadensis

Lagomorpha (ML*)

Leporidae: rabbits and hares

MLS10	Pygmy rabbit	
MLS11	Nuttall's Cottontail	Sylvilagus (Brachylagus) idahoensis
MLL20	White-tailed Jackrabbit	Sylvilagus nuttalli
MLL21	Black-tailed Jackrabbit	lepus townsendii
		Lepus californicus

Rodents (MR*)

Size classes

MRZ01	Small rodent	
MRZ02	Medium rodent	
MRZ03	Large rodent	

Sciuridae: chipmunks, marmots, squirrels, prairie dogs

MRS10	Least chipmunk	
MRS11	Yellow-Pine chipmunk	*Tamias minimus*
MRS12	Yellow-bellied marmot/rockchuck	*Tamias amoenus* *Marmota flaviventris*
MRS15	Townsend's ground squirrel	
MRS16	Belding's ground squirrel	*Spermophilus townsendii*
MRS17	Golden-mantled ground squirrel	*Spermophilus beldingi* *Spermophilus lateralis*
MRS18	Eastern Fox Squirrel	

Geomyidae: pocket gophers

MRG10	Northern pocket gopher	*Thomomys talpoides*

Heteromyidae: pocket mice

MRH10	Great Basin pocket mouse	
MRH11	Ord's K-rat	

Castoridae

MRC65	Beaver	

Cricetidae: Cricetid rodents

MRC10	Western harvest mouse	*Perognathus parvus* *Dipodomys ordii*
MRC11	Deer mouse	
MRC14	Northern Grasshopper	
MRC12	Canyon mouse	

Castor Canadensis

Reithrodontomys megalotis
Peromyscus maniculatus
Peromyscus crinitus
Onychomys leucogaster

Microtus longicaudus
Lemmiscus curatuts
Microtus montanus
Neotoma lepida
Neotoma cinerea
Ondatra zibethicus
Erethizon dorsatum
Rattus Sp.

Muridae: voles and muskrats

MRM10	Long tailed vole
MRM11	Sagebrush vole
MRM12	Mountain vole
MRM14	Desert woodrat
MRM15	Bushy-tailed woodrat
MRM16	Muskrat
MRM17	Porcupine
MRM18	Rat

Insectivores (MI*)

Soricidae: shrew

MIS10	Vagrant Shrew
MIS11	Merriam's shrew

Sorex vagrans
Sorex Merriami

BIRDS

Domesticated Birds (ZBD)

ZBD00	Galliform(Unidentified)
ZBD01	Chicken
ZBD02	Turkey

Exploited and/or Domesticated (ZBE)

ZBE01	Pheasant
ZBE02	Grouse
ZBE03	Goose
ZBE04	Swan
ZBE05	Duck
ZBE06	Pigeon/Rock Dove

Wild Bird Species (ZBW)

ZBW01	Turkey

Unidentified Bird (ZBZ)

ZBZ00	Unidentified bird
ZBZ01	Small bird
ZBZ02	Medium bird
ZBZ03	Large bird

SYMMETRY/SIDE (S)

L - Left
R - Right
M - Midline
U – Indeterminate/ Unknown

.

AQUATIC

ZFZ00	Unidentified fish
ZMM00	Unidentified mollusk
SXO00	Unidentified shell
ZMCO1	Crassostrea virginica (oyster)

ET

Cranial

001 calvar
002 antler
003 horn core
004 hyoid
005 pre-maxilla
006 maxilla
007 mandible
008 right mandible
009 left mandible
010 tooth/tooth fragment (undifferentiated)
011 incisor
012 canine
013 premolar
014 molar
015 post-canine
016 tusk
018 enamel
019 root
020 skull
021 cranial fragment
022 eye orbit
023 zygomatic arch
024 horn
025 mandible/maxilla
026 bill
027 rostrum

Vertebra

030 vertebra
031 atlas
032 axis
033 cervical vertebra
034 lumbar vertebra
035 caudal vertebra
036 thoracic vertebra
037 sacral vertebra
038 sacrum
039 rib
040 trunk vertebra
041 coccyx
042 costal rib7
043 unidentified vertebral plate

Pectoral Girdle

050 sternum
051 scapula
052 clavicle
053 coricoid
054 furicula

Fore Limb

060 humerus
061 radius
062 ulna
063 radioulna
064 carpal
065 metacarpal
066 carpometacarpus
067 pisiform
068 cuneiform
069 unciform
070 scapho-lunar
071 trapezoid
072 magnum

Metapodial

074 phalanx I
075 phalanx II
076 phalanx III
077 phalange
078 hoof
079 sesamoid
085 metacarpal/metatarsal

Pelvic Girdle

090 innominate
091 ilium
092 pubis
093 ischium
094 acetabulum
098 synsacrum/pelvis
099 os baculum

Hind Limb

100 femur
101 tibia
102 fibula
103 tibia/fibula
104 patella
105 metatarsal
106 tarsal
107 tibiotarsus
108 tarsusmetatarsus
109 tarsusmetatarsus w/ talus
110 astragalus
111 calcaneus
112 navicula-cuboid
113 navicul23ar
114 lunate
115 scaphoid
116 cuneiform
117 distal tibia (lateral malleolus)
118 cuboid

Other

120 longbone
121 longbone epiphysis
122 egg shell fragments
125 skin
200 NID (not identifiable)
201 unidentified bone chip
203 cancellous bone
205 bone and teeth
206 unidentified articular surface
207 Unidentified vertebral fragment
208 Shell

PORTION (PT)

00 Age indeterminate
01 whole (complete)
02 partial (almost complete)
03 fragment (mostly missing; undeter. break)
04 section (farag. that appears cut)
05 proximal fragment
06 proximal section
07 proximal epiphysis
08 proximal diaphysis w/epiphysis
10 distal fragment
11 distal section
12 distal epiphysis
13 distal diaphysis w/epiphysis
20 medial
21 lateral
22 dorsal
23 ventral

AGE CRITERIA (A)

01 fully fused (ADULT)
- 02 proximal epiphysis fused
- 03 distal epiphysis fused

04 epiphyseal line (SUBADULT)
05 unfused (JUVENILE)
- 06 prox. epiphysis unfused
- 07 distal epiphysis unfused

08 not fully developed (IMMATURE)

Teeth

09 unerupted
10 deciduous teeth
11 permanent teeth
12 worn down
13 Unerupted permanent

Class (CLS)

Mammal
Bird
Fish
Mollusk

Human taphonomic (HT)

04 shotgun
05 localized crushing
06 bone flake
07 scored

Human taphonomic (H2)

08 no marks discernable
09 broken through recent process
10 marks

Natural taphonomic (NT)

01 weathering present
02 absence of weathering
03 cracking cortex
04 spalled cortex
05 exfoliation/flaking cortex
06 cracking

Natural taphonomic (N2)

07 root-etched
08 waterworn
09 bleached
10 pitted
11 mineralized
12 staining
13 excavation damage

Burning (BR)

01 burned or stained
02 partially carbonized
03 carbonized
04 partially calcined
05 calcined
06 carbonized and calcined
07 blue
08 absence

Gnawing (GN)

01 presence
02 absence
03 rodent
04 canine/carnivore
05 rodent and carnivore
06 gnawed and partially digested

BUTCHERY (B)

00	no marks discernable
01	sawed
02	chopped
03	cut
04	cut marks on body
05	spiral fracture
06	sawed on end
07	sawed on two ends
08	sawed w/ cut marks on body
09	sawed w/ spiral fracture
10	chopped w/ cut marks on body

TYPE OF CUT (TC)			Rank (RK)
01	Beef		
	02	Chuck	(4)
	03	Fore Shank	(6)
	04	Brisket	(5)
	05	Rib	(2)
	06	Plate	(5)
	07	Short Loin	(1)
	08	Flank	(5)
	09	Sirloin Butt	(2)
	10	Round	(3)
	35	Hindshank	(6)
	37	Arm	(6)
	39	Head	(7)
	41	Foot	(8)
	44	Neck	(7)
	52	Rump	(4)
11	Veal		
	12	Shoulder	
	13	Rib	
	14	Flank	
	15	Loin	
	16	Leg	
	38	Foreshank	
17	Lamb		
	18	Shoulder	(3)
	19	Rib Rack	(2)
	20	Flank	(1)
	21	Loin	(1)
	22	Leg	(3)
	45	Butt End	(4)
	46	Shank End	(3)
	47	Shank	(7)
	48	Foot	(0)
	49	Head	(7)
	50	Chuck	(4)
	51	Neck	(6)
23	Pork		
	24	Jowl	
	25	Boston Butt	(3)
	26	Picnic	(4)
	27	Hock	(6)
	28	Foot	(6)
	29	Loin	(2)
	30	Spareribs/Side	(5)
	31	Ham	(1)
	40	Head	(6)
	42	Rib end	(2)
	43	Shank	

Additional Codes

BK=Block #

FT=Feature #

LVL=Level

CT=count

086 carpal/tarsal

Pelvic Girdle

090 innominate
091 ilium
092 pubis
093 ischium
094 acetabulum
098 synsacrum/pelvis
099 os baculum

Hind Limb

100 femur
101 tibia
102 fibula
103 tibia/fibula
104 patella
105 metatarsal
106 tarsal
107 tibiotarsus
108 tarsusmetatarsus
109 tarsusmetatarsus w/ talus
110 astragalus
111 calcaneus
112 navicula-cuboid
113 navicul23ar
114 lunate
115 scaphoid
116 cuneiform
117 distal tibia (lateral malleolus)
118 cuboid

Other

120 longbone
121 longbone epiphysis
122 egg shell fragments
125 skin
200 NID (not identifiable)
201 unidentified bone chip
203 cancellous bone
205 bone and teeth
206 unidentified articular surface
207 Unidentified vertebral fragment
208 Shell

PORTION (PT)

00 Age indeterminate
01 whole (complete)
02 partial (almost complete)
03 fragment (mostly missing; undeter. break)
04 section (farag. that appears cut)
05 proximal fragment
06 proximal section
07 proximal epiphysis
08 proximal diaphysis w/epiphysis
10 distal fragment
11 distal section
12 distal epiphysis
13 distal diaphysis w/epiphysis
20 medial
21 lateral
22 dorsal
23 ventral

AGE CRITERIA (A)

01 fully fused (ADULT)
- 02 proximal epiphysis fused
- 03 distal epiphysis fused

04 epiphyseal line (SUBADULT)
05 unfused (JUVENILE)
- 06 prox. epiphysis unfused
- 07 distal epiphysis unfused

08 not fully developed (IMMATURE)

Teeth

09 unerupted
10 deciduous teeth
11 permanent teeth
12 worn down
13 Unerupted permanent

Class (CLS)

Mammal
Bird
Fish
Mollusk

Human taphonomic (HT)

04 shotgun
05 localized crushing
06 bone flake
07 scored

Human taphonomic (H2)

08 no marks discernable
09 broken through recent process
10 marks

Natural taphonomic (NT)

01 weathering present
02 absence of weathering
03 cracking cortex
04 spalled cortex
05 exfoliation/flaking cortex
06 cracking

Natural taphonomic (N2)

07 root-etched
08 waterworn
09 bleached
10 pitted
11 mineralized
12 staining
13 excavation damage

Burning (BR)

01 burned or stained
02 partially carbonized
03 carbonized
04 partially calcined
05 calcined
06 carbonized and calcined
07 blue
08 absence

Gnawing (GN)

01 presence
02 absence
03 rodent
04 canine/carnivore
05 rodent and carnivore
06 gnawed and partially digested

BUTCHERY (B)

00	no marks discernable
01	sawed
02	chopped
03	cut
04	cut marks on body
05	spiral fracture
06	sawed on end
07	sawed on two ends
08	sawed w/ cut marks on body
09	sawed w/ spiral fracture
10	chopped w/ cut marks on body

TYPE OF CUT (TC)			Rank (RK)
01	Beef		
	02	Chuck	(4)
	03	Fore Shank	(6)
	04	Brisket	(5)
	05	Rib	(2)
	06	Plate	(5)
	07	Short Loin	(1)
	08	Flank	(5)
	09	Sirloin Butt	(2)
	10	Round	(3)
	35	Hindshank	(6)
	37	Arm	(6)
	39	Head	(7)
	41	Foot	(8)
	44	Neck	(7)
	52	Rump	(4)
11	Veal		
	12	Shoulder	
	13	Rib	
	14	Flank	
	15	Loin	
	16	Leg	
	38	Foreshank	
17	Lamb		
	18	Shoulder	(3)
	19	Rib Rack	(2)
	20	Flank	(1)
	21	Loin	(1)
	22	Leg	(3)
	45	Butt End	(4)
	46	Shank End	(3)
	47	Shank	(7)
	48	Foot	(0)
	49	Head	(7)
	50	Chuck	(4)
	51	Neck	(6)
23	Pork		
	24	Jowl	
	25	Boston Butt	(3)
	26	Picnic	(4)
	27	Hock	(6)
	28	Foot	(6)
	29	Loin	(2)
	30	Spareribs/Side	(5)
	31	Ham	(1)
	40	Head	(6)
	42	Rib end	(2)
	43	Shank	

Additional Codes

BK=Block #

FT=Feature #

LVL=Level

CT=count

B. Cochran Gardens Faunal Data

ID #	BK	FT	LVL	CT	TYPE	ET	A	CLS	PT	S	TC	RK	HT	H2	NT	N2	BR	GN	B
1000	6	35	1,2	1	ZMD70	60	1	Mam	11	R	4	2	8	8	5	12	8	2	6
1001	6	35	1,2	1	ZMD60	61	4	Mam	10	R	27	6	8	8	1	12	8	2	5
1002	6	35	1,2	1	ZMD32	90	1	Mam	4	L	21	1	8	8	1	12	8	2	3
1003	6	35	4	1	ZMD60	61	4	Mam	4	R	27	6	7	10	3	12	8	2	5
1004	7	35	7	1	ZMD60	60	1	Mam	10	L	26	4	8	8	1	12	8	3	0
1005	6	35	1,2	1	ZMD70	94	1	Mam	4	L	52	4	8	8	1	12	8	2	1
1006	6	35	1,2	1	ZMD60	91	8	Mam	3	R	29	2	8	8	1	12	1	2	3
1007	6	35	1,2	1	ZMD70	61	1	Mam	6	L	3	6	8	8	5	12	8	2	8
1008	6	35	1,2	1	ZMD70	94	1	Mam	4	R	52	4	8	8	1	12	8	4	8
1009	6	35	1,2	1	ZMD70	39	1	Mam	3	U	5	2	7	10	1	12	8	4	4
1010	6	35	1,2	1	ZMD70	39	1	Mam	4	U	5	2	8	8	1	12	8	2	7
1011	6	35	1,2	1	ZMD70	39	1	Mam	4	U	5	2	7	10	5	12	8	2	1
1012	6	35	1,2	1	ZMD70	39	1	Mam	4	U	5	2	8	8	1	12	8	3	8
1013	6	35	1,2	1	ZMD70	39	1	Mam	4	U	5	2	8	8	5	12	8	2	1
1014	6	35	6	1	ZMD60	61	5	Mam	3	R	27	6	8	8	1	12	8	2	0
1015	6	35	1,2	1	ZMD32	60	1	Mam	11	R	50	3	7	10	1	12	8	2	3
1016	6	35	1,2	1	ZMD70	51	1	Mam	4	L	37	6	8	8	5	12	8	2	7
1017	6	35	1,2	1	ZMD70	60	1	Mam	11	R	3	6	8	8	1	12	8	2	1
1018	6	35	1,2	1	ZMD70	62	0	Mam	4	L	3	6	8	8	1	12	8	2	2
1019	6	35	1,2	1	ZMD70	61	1	Mam	4	R	3	6	8	8	6	12	8	2	7
1020	6	35	7	1	ZMD60	90	5	Mam	2	L	31	1	7	10	1	12	8	2	0
1021	6	35	7	1	ZMD60	90	4	Mam	4	R	31	1	8	8	1	12	8	2	1
1022	6	35	1,2	1	ZMD60	100	4	Mam	5	U	31	1	8	8	5	12	8	2	0
1023	6	35	7	1	ZMD60	90	1	Mam	4	R	31	1	8	8	1	12	8	2	1
1024	6	35	1,2	1	ZMD70	34	1	Mam	4	M	7	1	8	8	5	12	8	2	6
1025	6	35	1,2	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	7
1026	6	35	1,2	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	6
1027	6	35	1,2	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	7
1028	6	35	1,2	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
1029	6	35	1,2	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
1030	6	35	1,2	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	4	3
1031	6	35	1,2	1	ZMD60	34	8	Mam	3	M	29	2	8	8	1	12	1	2	0
1032	6	35	1,2	1	ZMD60	34	8	Mam	3	M	29	2	8	8	1	12	1	2	0
1033	6	35	7	1	ZMD60	31	1	Mam	2	M	25	3	8	8	5	12	8	2	0
1034	6	35	1,2	1	ZMD60	36	8	Mam	3	M	42	2	8	8	1	12	1	2	0
1035	6	35	1,2	1	ZMD60	36	8	Mam	3	M	42	2	8	8	1	12	1	2	0
1036	6	35	1,2	1	ZMD60	9	1	Mam	4	U	40	6	8	8	5	12	8	2	3
1037	6	35	7	1	ZMD60	9	11	Mam	3	L	40	6	8	8	1	12	8	2	0
1038	6	35	1,2	1	ZMD60	11	11	Mam	1	U	40	6	8	8	1	12	8	2	0
1039	6	35	5	1	ZMD60	11	1	Mam	2	U	40	6	8	8	1	12	8	2	0
1040	6	35	1,2	4	ZMZ05	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1041	6	35	6	1	ZMD60	11	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1042	6	35	7	1	ZMD60	11	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1043	6	35	1,2	1	ZMD20	6	11	Mam	3	R	0	0	8	8	1	12	8	2	0
1044	7	35	7	1	ZMD60	60	1	Mam	11	L	26	4	8	8	1	12	8	2	2
1045	6	35	3	1	ZMD60	93	4	Mam	3	R	31	1	8	8	1	12	8	2	0
1046	6	35	7	1	ZMD60	90	4	Mam	3	L	31	1	8	8	1	12	8	2	0
1047	6	35	3	1	ZMD70	61	1	Mam	11	R	3	6	8	8	5	12	8	4	3

1048	6	35	7	1	ZMD60	90	0	Mam	4	L	31	1	8	8	1	12	8	2	7
1049	6	35	4	1	ZMD60	94	1	Mam	4	R	31	1	8	8	1	12	8	2	1
1050	6	35	3	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
1051	6	35	3	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
1052	6	35	3	1	ZMD60	34	5	Mam	3	M	29	2	8	8	1	12	1	2	0
1053	6	35	4	1	ZMD60	31	4	Mam	4	M	25	3	8	8	1	12	8	2	3
1054	6	35	3	1	ZMD60	36	4	Mam	2	M	42	4	8	8	1	12	1	2	0
1055	6	35	4	1	ZMD70	60	1	Mam	11	R	37	6	8	8	1	12	8	3	7
1056	6	35	3	1	ZMD60	70	4	Mam	6	U	27	6	7	10	1	12	8	2	1
1057	6	35	1,2	1	ZMD60	110	0	Mam	1	L	27	6	8	8	1	12	8	2	0
1058	6	35	7	1	ZMD60	60	1	Mam	11	L	26	4	8	8	1	12	8	2	3
1059	6	35	7	1	ZMD60	94	0	Mam	4	R	31	1	8	8	1	12	8	2	1
1060	6	35	4	1	ZMD60	94	1	Mam	4	L	31	1	8	8	1	12	8	2	1
1061	6	35	6	1	ZMD60	95	1	Mam	4	R	31	1	8	8	5	12	8	2	1
1062	6	35	5	1	ZMD60	110	1	Mam	1	R	27	6	8	8	1	12	8	2	0
1063	6	35	5	1	ZMD60	101	8	Mam	2	R	43	4	8	8	3	12	8	2	0
1064	6	35	6	1	ZMD60	61	4	Mam	3	R	26	4	8	8	1	12	8	2	0
1065	6	35	5	1	ZMD32	100	4	Mam	10	L	46	3	8	8	3	12	8	2	0
1066	6	35	5	1	ZMD32	100	1	Mam	5	L	45	4	8	8	1	12	8	2	4
1067	6	35	6	2	MLL	20	4	Mam	2	M	0	0	8	8	1	12	8	2	0
1068	6	35	6	1	ZMD60	101	4	Mam	11	L	43	4	8	8	5	12	8	2	5
1069	6	35	7	1	ZMD60	61	4	Mam	2	R	26	4	8	8	5	12	8	2	0
1070	6	35	7	1	ZMD60	61	7	Mam	1	R	26	4	8	8	5	12	8	2	0
1071	6	35	6	1	ZMD32	101	1	Mam	10	L	46	3	7	10	6	12	8	2	5
1072	6	35	6	1	ZMD70	60	1	Mam	11	R	37	6	7	10	1	12	8	2	10
1073	6	35	6	1	ZMD70	60	1	Mam	11	L	3	6	5	10	1	12	8	2	6
1074	7	35	7	1	ZMD32	60	1	Mam	6	L	50	4	8	8	1	12	8	2	2
1075	6	35	1,2	1	ZMD60	61	4	Mam	5	R	26	4	8	8	1	12	8	4	5
1076	7	35	7	1	ZMD32	101	1	Mam	11	R	46	3	8	8	5	12	8	2	3
1077	6	35	1,2	1	ZMD60	33	8	Mam	3	M	25	3	8	8	1	12	1	2	0
1078	7	35	7	1	ZMD32	51	1	Mam	6	R	50	4	8	8	2	2	8	2	2
1079	7	35	7	1	ZMD70	94	1	Mam	4	L	52	4	7	10	1	12	8	2	10
1080	7	35	7	1	ZMD60	100	1	Mam	4	L	43	4	8	8	1	12	8	2	3
1081	7	35	7	1	ZMD70	101	1	Mam	4	R	35	6	8	8	1	12	8	2	6
1082	7	35	7	1	ZMD70	91	1	Mam	4	U	52	4	4	10	1	12	8	2	7
1083	6	35	7	1	ZMD60	61	0	Mam	3	L	26	4	8	8	1	12	8	2	5
1084	6	35	7	1	ZMD60	61	1	Mam	7	R	26	4	8	8	1	12	8	2	6
1085	6	35	3	1	ZMD60	33	4	Mam	2	M	25	3	8	8	1	12	1	2	0
1086	6	35	1,2	1	ZMD60	62	4	Mam	3	R	26	4	8	8	1	12	8	2	0
1087	6	35	3	1	ZMD60	62	4	Mam	2	R	26	4	8	8	1	12	8	2	4
1088	6	35	4	1	ZMD60	62	4	Mam	4	R	26	4	8	8	1	12	1	2	6
1089	6	35	5	1	ZMD60	62	4	Mam	5	R	26	4	8	8	1	12	8	2	5
1090	6	35	7	1	ZMD70	60	4	Mam	3	L	2	4	8	8	5	12	4	2	0
1091	6	35	7	1	ZMD70	104	0	Mam	2	R	35	6	8	8	1	11	8	2	0
1092	6	35	7	1	ZMD70	104	0	Mam	1	R	35	6	8	8	1	12	8	2	0
1093	6	35	7	1	ZMD70	100	4	Mam	5	R	52	2	8	8	1	11	8	2	1
1094	6	35	4	1	ZMD60	33	5	Mam	2	M	25	3	8	8	1	12	8	2	0
1095	6	35	7	1	ZMD60	101	8	Mam	1	L	43	4	8	8	1	12	8	2	0
1096	6	35	7	1	ZMD60	101	0	Mam	6	R	43	4	8	8	5	12	8	2	6
1097	6	35	6	1	ZMD60	94	1	Mam	4	L	31	1	8	8	1	12	8	2	1
1098	6	35	5	1	ZMD60	33	5	Mam	1	M	25	3	8	8	1	12	8	2	0

1099	6	35	7	1	ZMD32	60	1	Mam	11	L	47	4	8	8	1	12	8	2	2
1100	6	35	7	1	ZMD32	31	1	Mam	1	M	51	6	8	8	1	12	8	2	0
1101	6	35	7	1	ZMD70	51	1	Mam	3	R	37	6	8	8	1	12	8	2	2
1102	6	35	7	1	ZMD70	33	1	Mam	4	M	44	7	8	8	5	12	8	2	1
1103	6	35	6	1	ZMD60	36	4	Mam	2	M	42	2	8	8	1	12	1	2	0
1104	6	35	6	1	ZMD60	36	8	Mam	1	M	42	2	8	8	5	12	1	2	0
1105	6	35	6	1	ZMD60	36	1	Mam	2	M	42	2	8	8	3	12	8	2	0
1106	6	35	7	1	ZMD60	36	0	Mam	3	M	42	2	8	8	1	12	8	2	0
1107	6	35	1,2	5	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	1	2	0
1108	6	35	1,2	5	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1109	6	35	4	1	ZMD70	60	1	Mam	4	R	37	6	8	8	1	12	8	2	7
1110	6	35	6	1	ZMD60	62	4	Mam	4	L	26	4	8	8	1	12	8	3	8
1111	6	35	5	1	ZMD60	33	5	Mam	1	M	25	3	8	8	1	12	8	2	0
1112	6	35	6	1	ZMD60	33	5	Mam	3	M	25	3	8	8	1	12	8	2	0
1113	6	35	4	1	ZMD60	39	1	Mam	4	U	30	5	8	8	1	12	8	2	6
1114	6	35	4	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	3
1115	6	35	4	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	3
1116	6	35	4	1	ZMD70	39	1	Mam	4	U	6	5	8	8	6	12	8	2	6
1117	6	35	4	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	7
1118	6	35	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	8
1119	6	35	4	1	ZMD70	34	1	Mam	3	M	7	1	8	8	1	12	8	2	0
1120	6	35	4	1	ZMD70	34	1	Mam	3	M	7	1	8	8	1	11	8	2	0
1121	6	35	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	6
1122	6	35	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	7
1123	6	35	4	1	ZMD70	34	1	Mam	3	M	7	1	8	8	1	12	8	2	0
1124	6	35	4	1	ZMD70	33	4	Mam	4	M	44	7	8	8	1	12	8	2	6
1125	6	35	4	1	ZMZ05	30	1	Mam	4	M	0	0	8	8	1	12	8	2	1
1126	6	35	4	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	1
1127	6	35	4	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	1
1128	6	35	4	1	ZMD70	31	1	Mam	4	M	44	7	8	8	1	12	8	2	2
1129	6	35	5	1	ZMZ04	39	0	Mam	3	M	0	0	8	8	1	12	1	2	0
1130	6	35	5	3	ZMZ04	39	0	Mam	3	M	0	0	8	8	1	12	8	2	0
1131	6	35	5	1	ZMD32	39	1	Mam	5	L	19	2	8	8	1	12	8	2	0
1132	6	35	5	1	ZMD60	34	5	Mam	4	M	29	2	8	8	1	12	8	2	3
1133	6	35	6	1	ZMD60	33	4	Mam	3	M	25	3	8	8	1	12	8	2	0
1134	6	35	7	1	ZMD60	33	5	Mam	2	M	25	3	8	8	1	12	8	2	0
1135	6	35	5	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	2	1
1136	6	35	5	1	ZMD70	31	1	Mam	4	M	44	7	8	8	1	12	8	2	3
1137	6	35	5	1	ZMZ05	30	1	Mam	4	M	0	0	8	8	1	12	8	2	1
1138	6	35	6	4	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	1	2	0
1139	6	35	6	6	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1140	6	35	6	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	1
1141	6	35	6	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	1
1142	6	35	6	1	ZMD32	33	1	Mam	4	M	51	6	8	8	2	2	8	2	3
1143	6	35	6	1	ZMD32	33	4	Mam	4	M	51	6	8	8	1	12	8	2	3
1144	6	35	5	1	ZMD60	36	0	Mam	3	M	42	2	8	8	1	12	8	2	0
1145	6	35	7	1	ZMD60	36	4	Mam	2	M	42	2	8	8	1	12	8	2	1
1146	6	35	6	1	ZMD60	34	5	Mam	4	M	29	2	8	8	1	12	8	2	3
1147	6	35	7	1	ZMD60	33	5	Mam	4	M	25	3	8	8	1	12	8	2	3
1148	6	35	7	1	ZMD60	33	0	Mam	4	M	25	3	8	8	1	12	8	2	1
1149	6	35	1,2	1	ZMD60	39	8	Mam	2	L	42	2	8	8	1	12	1	2	0

1150	6	35	1,2	1	ZMD60	39	8	Mam	2	L	42	2	8	8	1	12	1	2	0
1151	6	35	1,2	1	ZMD60	39	8	Mam	2	L	42	2	8	8	1	12	1	2	0
1152	6	35	7	1	ZMD60	94	4	Mam	3	L	31	1	8	8	1	12	8	2	0
1153	6	35	1,2	1	ZMD60	100	4	Mam	11	R	31	1	8	8	5	12	8	2	8
1154	6	35	6	1	ZMD70	34	1	Mam	4	M	7	1	8	8	5	12	8	2	1
1155	6	35	6	1	ZMD70	34	1	Mam	4	M	7	1	8	8	5	12	8	2	1
1156	6	35	6	1	ZMD70	34	1	Mam	4	M	7	1	8	8	5	12	1	2	1
1157	6	35	6	1	ZMD70	33	1	Mam	4	M	44	7	8	8	5	12	8	2	1
1158	6	35	6	1	ZMD70	33	1	Mam	4	M	44	7	8	8	5	12	8	2	1
1159	6	35	6	1	ZMD70	36	1	Mam	4	M	2	4	8	8	5	12	8	2	1
1160	6	35	6	1	ZMD70	36	1	Mam	4	M	2	4	8	8	5	12	8	2	1
1161	6	35	6	1	ZMD70	39	1	Mam	6	L	2	4	8	8	5	12	8	2	6
1162	6	35	6	1	ZMD70	39	1	Mam	6	L	2	4	8	8	1	12	8	2	6
1163	6	35	6	1	ZMD70	39	1	Mam	4	U	6	5	7	10	1	12	8	2	7
1164	6	35	6	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	7
1165	6	35	6	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1166	6	35	6	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	4
1167	6	35	6	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1168	6	35	6	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1169	6	35	6	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1170	6	35	6	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	7
1171	6	35	6	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	7
1172	6	35	6	1	ZMD70	62	1	Mam	3	R	3	6	8	8	1	12	8	2	0
1173	6	35	6	4	ZMZ04	30	0	Mam	4	M	0	0	8	8	1	12	8	2	3
1174	6	35	7	1	ZMD60	101	4	Mam	5	L	43	4	7	10	3	12	8	2	0
1175	6	35	7	1	ZMD60	94	0	Mam	4	L	31	1	8	8	1	12	8	2	8
1176	6	35	1,2	1	ZMD60	100	4	Mam	11	L	31	1	8	8	3	12	8	2	8
1177	6	35	1,2	1	ZMD60	100	4	Mam	6	R	31	1	8	8	5	12	8	4	2
1178	6	35	7	1	ZMD60	34	4	Mam	2	M	29	2	8	8	1	12	8	2	0
1179	6	35	7	1	ZMD60	34	4	Mam	2	M	29	2	8	8	1	12	8	2	0
1180	6	35	7	1	ZMD60	34	5	Mam	3	M	29	2	8	8	3	12	8	2	0
1181	6	35	7	1	ZMD60	33	8	Mam	1	M	25	3	8	8	1	12	8	2	0
1182	7	35	7	1	ZMD60	51	4	Mam	5	R	25	3	8	8	5	12	8	2	0
1183	6	35	7	1	ZMD60	51	1	Mam	4	L	25	3	8	8	1	12	8	2	7
1184	6	35	1,2	1	ZMD60	39	8	Mam	5	R	42	2	8	8	1	12	2	2	0
1185	6	35	7	1	ZMD32	34	0	Mam	3	M	21	1	8	8	1	12	8	2	0
1186	6	35	7	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	1
1187	6	35	7	1	ZMD32	33	4	Mam	4	M	51	6	8	8	1	12	8	2	3
1188	6	35	7	1	ZMD32	33	1	Mam	3	M	51	6	8	8	5	12	8	2	0
1189	6	35	7	10	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1190	6	35	7	5	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1191	6	35	7	1	ZMD70	34	1	Mam	4	M	7	1	8	8	5	12	8	2	7
1192	6	35	7	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	7
1193	6	35	7	1	ZMD70	34	1	Mam	4	M	7	1	8	8	5	12	8	2	6
1194	6	35	7	1	ZMD70	34	1	Mam	4	M	7	1	8	8	5	12	8	2	6
1195	6	35	7	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	6
1196	6	35	7	1	ZMD70	33	1	Mam	3	M	44	7	8	8	6	12	1	2	0
1197	6	35	7	1	ZMD70	33	1	Mam	4	M	44	7	8	8	1	12	8	2	6
1198	6	35	7	1	ZMD70	33	1	Mam	3	M	44	7	8	8	1	12	8	2	0
1199	6	35	7	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	7
1200	6	35	7	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	7

1201	6	35	7	1	ZMD70	36	1	Mam	4	M	5	2	8	8	5	12	8	2	0
1202	6	35	7	1	ZMD70	36	1	Mam	3	M	5	2	8	8	1	12	1	2	0
1203	6	35	7	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	1
1204	6	35	7	1	ZMD70	39	1	Mam	6	L	5	2	8	8	5	12	8	2	9
1205	6	35	7	1	ZMD70	39	1	Mam	5	L	5	2	8	8	1	12	8	2	0
1206	6	35	7	1	ZMD70	39	1	Mam	11	L	5	2	8	8	5	12	8	2	3
1207	6	35	7	1	ZMD70	39	1	Mam	4	L	6	5	8	8	1	12	8	2	8
1208	6	35	7	1	ZMD70	39	1	Mam	5	L	6	5	8	8	5	12	8	2	6
1209	6	35	7	1	ZMD70	39	1	Mam	6	R	5	2	8	8	1	12	8	2	0
1210	6	35	7	1	ZMD70	39	1	Mam	5	R	5	2	8	8	5	12	8	2	6
1211	6	35	7	1	ZMD70	39	1	Mam	6	R	5	2	8	8	5	12	8	2	5
1212	6	35	7	1	ZMD70	39	1	Mam	5	R	5	2	8	8	5	12	8	2	6
1213	6	35	7	1	ZMD70	39	1	Mam	5	R	5	2	8	8	1	12	1	3	3
1214	6	35	7	1	ZMD70	39	1	Mam	5	R	5	2	8	8	5	12	1	2	0
1215	6	35	7	1	ZMD70	39	1	Mam	5	R	5	2	8	8	1	12	8	2	0
1216	6	35	7	1	ZMD70	39	1	Mam	5	R	5	2	8	8	5	12	8	2	0
1217	6	35	7	1	ZMD70	39	1	Mam	5	R	5	2	8	8	5	12	8	2	0
1218	6	35	7	1	ZMD70	39	1	Mam	4	R	6	5	8	8	1	12	8	2	7
1219	6	35	7	1	ZMD70	39	1	Mam	4	R	6	5	8	8	1	12	8	2	6
1220	6	35	7	1	ZMD70	39	1	Mam	4	M	6	5	7	10	5	12	8	2	7
1221	6	35	7	1	ZMD70	39	1	Mam	4	M	6	5	8	8	1	12	8	2	4
1222	6	35	7	1	ZMD70	39	1	Mam	4	M	6	5	8	8	5	12	8	2	0
1223	6	35	7	1	ZMD70	39	1	Mam	4	M	6	5	8	8	1	12	8	2	7
1224	6	35	7	1	ZMD70	39	1	Mam	3	M	6	5	8	8	3	12	8	2	0
1225	6	35	7	1	ZMD70	39	1	Mam	4	M	6	5	8	8	1	12	8	2	2
1226	6	35	7	1	ZMD70	39	1	Mam	4	M	6	5	8	8	1	12	1	2	7
1227	6	35	7	1	ZMD60	62	4	Mam	5	L	26	4	8	8	2	2	8	2	5
1228	6	35	1,2	1	ZMD60	50	4	Mam	2	M	30	5	8	8	3	12	8	2	0
1229	6	35	1,2	1	ZMD60	100	5	Mam	10	U	43	4	8	8	1	12	8	2	0
1230	6	35	1,2	1	ZMD70	39	1	Mam	3	L	2	4	8	8	1	12	8	2	0
1231	6	35	1,2	1	ZMD70	37	1	Mam	3	M	9	2	8	8	1	12	8	2	1
1232	6	35	1,2	1	ZMZ05	30	0	Mam	4	M	0	0	8	8	1	12	8	2	0
1233	6	35	1,2	1	ZMD70	93	1	Mam	3	L	9	2	8	8	3	12	8	2	0
1234	6	35	1,2	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
1235	6	35	1,2	1	ZMZ04	30	0	Mam	4	M	0	0	8	8	1	12	8	2	1
1236	6	35	4	1	ZMD60	100	4	Mam	3	R	31	1	8	8	1	12	8	2	5
1237	6	35	1,2	1	ZMD60	100	5	Mam	3	R	31	1	8	8	1	12	8	2	0
1238	6	35	3	1	ZMD32	100	1	Mam	4	U	45	4	8	8	1	12	8	2	3
1239	6	35	7	1	ZMD60	110	1	Mam	1	L	27	6	8	8	5	12	8	2	0
1240	6	35	3	1	ZMD70	62	0	Mam	4	R	3	6	7	10	1	12	8	2	9
1241	6	35	3	2	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1242	6	35	3	1	ZMD70	60	1	Mam	6	L	2	4	8	8	1	12	8	2	1
1243	6	35	7	1	ZMD60	110	1	Mam	1	R	27	6	8	8	1	12	8	2	0
1244	6	35	3	1	ZMZ05	30	4	Mam	3	M	0	0	8	8	1	12	8	2	0
1245	6	35	3	1	ZMD32	39	1	Mam	2	R	19	2	7	10	1	12	8	2	6
1246	6	35	3	1	ZMZ04	60	0	Mam	3	M	0	0	8	8	1	12	8	2	0
1247	6	35	3	1	ZMD70	111	1	Mam	3	R	35	6	8	8	6	12	8	2	0
1248	6	35	4	1	ZMD60	100	4	Mam	3	R	31	1	8	8	6	12	8	2	0
1249	6	35	4	1	ZMD60	101	9	Mam	3	R	43	4	8	8	1	12	8	2	5
1250	6	35	4	1	ZMD70	21	0	Mam	3	M	39	7	8	8	1	12	8	2	0
1251	6	35	4	1	ZMZ04	21	0	Mam	3	M	0	0	8	8	1	12	8	2	0

1252	6	35	7	1	ZMD60	11	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1253	6	35	7	1	ZMD60	11	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1254	6	35	7	1	ZMD60	11	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1255	6	35	5	1	ZMD60	12	1	Mam	2	L	40	6	8	8	1	12	8	2	0
1256	6	35	5	1	ZMD60	90	0	Mam	4	U	31	1	7	10	1	12	8	2	6
1257	6	35	5	1	ZMD70	39	0	Mam	4	U	6	5	8	8	1	12	8	2	6
1258	6	35	5	2	ZMZ04	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1259	6	35	6	1	ZMD60	39	5	Mam	5	R	42	2	8	8	1	12	8	2	0
1260	6	35	5	1	ZMD70	60	4	Mam	4	R	37	6	8	8	3	12	8	2	6
1261	6	35	5	1	ZMZ04	90	0	Mam	4	M	0	0	8	8	1	12	8	2	7
1262	6	35	5	1	ZMZ04	39	1	Mam	3	U	0	0	8	8	1	12	8	2	0
1263	6	35	5	1	ZMD60	100	4	Mam	3	U	43	4	8	8	3	12	8	2	0
1264	6	35	5	1	ZMD70	91	1	Mam	4	R	52	4	8	8	1	12	8	2	7
1265	6	35	6	1	ZMD70	51	1	Mam	4	L	4	2	8	8	5	12	8	2	7
1266	6	35	7	1	ZMD60	62	4	Mam	6	L	26	4	8	8	5	12	8	2	6
1267	6	35	6	1	ZMD70	51	0	Mam	4	L	2	4	8	8	5	12	8	2	7
1268	6	35	7	1	ZMD60	51	0	Mam	4	R	25	3	8	8	1	12	8	2	1
1269	6	35	7	1	ZMD60	51	0	Mam	4	L	25	3	8	8	1	12	8	2	7
1270	6	35	6	1	ZMD70	100	0	Mam	3	U	10	3	8	8	5	12	8	2	5
1271	6	35	6	1	ZMZ04	60	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1272	6	35	6	1	ZMD60	91	8	Mam	3	R	29	2	7	10	1	12	8	2	0
1273	6	35	1,2	1	ZMD60	111	4	Mam	2	L	27	6	8	8	1	12	8	2	0
1274	6	35	6	1	ZMD70	94	1	Mam	4	R	52	4	8	8	1	12	8	2	7
1275	6	35	6	1	ZMD70	94	1	Mam	4	U	52	4	8	8	1	12	8	2	7
1276	6	35	6	1	ZMD70	61	1	Mam	10	L	3	6	8	8	1	12	8	2	0
1277	6	35	6	1	ZMZ05	100	0	Mam	4	U	10	3	7	10	1	12	8	2	7
1278	6	35	6	1	ZMZ04	120	0	Mam	4	U	0	0	7	10	1	12	8	2	7
1279	6	35	6	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1280	6	35	6	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1281	6	35	6	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1282	6	35	6	1	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1283	6	35	6	1	ZMD70	101	1	Mam	5	L	35	6	8	8	1	12	8	2	0
1284	6	35	6	1	ZMD70	51	0	Mam	4	L	2	4	8	8	1	12	8	2	6
1285	6	35	5	1	ZMD60	12	1	Mam	2	R	40	6	8	8	1	12	8	2	0
1286	6	35	6	1	ZMD60	12	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1287	6	35	7	1	ZMD60	12	11	Mam	2	R	40	6	8	8	1	12	8	2	0
1288	6	35	6	1	ZMD60	13	11	Mam	1	L	40	6	8	8	1	12	8	2	0
1289	6	35	6	1	ZMD60	13	11	Mam	1	U	40	6	8	8	1	12	8	2	0
1290	6	35	7	1	ZMD60	13	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1291	6	35	1,2	2	ZMD60	14	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1292	6	35	6	1	ZMD60	14	11	Mam	1	L	40	6	8	8	1	12	8	2	0
1293	6	35	6	1	ZMD60	14	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1294	6	35	6	4	ZMZ04	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1295	6	35	6	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	6
1296	6	35	6	4	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1297	6	35	6	1	ZMZ04	51	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1298	6	35	6	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1299	6	35	7	1	ZMD70	94	1	Mam	4	R	52	4	8	8	7	10	8	2	7
1300	6	35	7	1	ZMD60	60	4	Mam	10	R	25	3	8	8	5	12	8	2	5
1301	6	35	6	1	ZMD60	60	4	Mam	2	R	25	3	5	9	5	12	8	2	0
1302	6	35	7	1	ZMD70	51	1	Mam	3	U	2	2	8	8	1	12	8	2	0

1303	6	35	7	1	ZMD32	100	1	Mam	2	L	45	4	5	10	1	12	8	2	5
1304	6	35	7	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	1	2	8
1305	6	35	7	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	2	1
1306	6	35	7	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	2	6
1307	6	35	4	1	ZMD60	62	1	Mam	3	R	26	4	8	8	1	12	8	2	2
1308	6	35	6	1	ZMD60	62	1	Mam	4	R	26	4	8	8	1	12	8	2	6
1309	6	35	7	1	ZMD70	60	1	Mam	11	L	37	6	8	8	5	12	8	2	9
1310	6	35	7	1	ZMD60	100	4	Mam	6	R	31	1	8	8	6	12	1	2	0
1311	6	35	3	1	ZMD60	100	4	Mam	11	L	31	1	8	8	1	12	8	2	8
1312	6	35	7	1	ZMD60	100	0	Mam	3	L	31	1	6	10	1	12	8	2	5
1313	6	35	7	1	ZMD32	91	0	Mam	4	L	45	4	7	10	1	12	8	2	3
1314	6	35	6	1	ZMD60	60	0	Mam	2	R	25	3	8	8	1	12	8	2	5
1315	6	35	6	1	ZMD60	39	1	Mam	5	R	42	2	8	8	1	12	1	2	0
1316	6	35	7	1	ZMD70	39	1	Mam	4	L	2	4	8	8	1	12	8	2	1
1317	6	35	7	1	ZMD70	60	1	Mam	5	U	37	6	8	8	1	12	8	4	0
1318	6	35	7	1	ZMD70	33	1	Mam	4	M	44	7	8	8	5	12	8	2	1
1319	6	35	7	1	ZMD60	101	0	Mam	3	L	43	4	8	8	1	12	8	2	5
1320	6	35	7	1	ZMD60	60	4	Mam	4	R	25	3	8	8	1	12	8	2	0
1321	6	35	7	1	ZMD70	60	1	Mam	4	R	37	6	8	8	1	12	8	4	0
1322	6	35	7	1	ZMD70	62	4	Mam	6	L	3	6	8	8	1	12	8	2	0
1323	6	35	7	1	ZMD60	100	0	Mam	3	R	31	1	8	8	5	12	8	2	5
1324	6	35	7	1	ZMD60	100	0	Mam	3	L	31	1	8	8	5	12	8	2	5
1325	6	35	7	1	ZMD70	36	1	Mam	4	M	2	4	8	8	5	12	8	2	7
1326	6	35	7	1	ZMD70	38	0	Mam	4	M	9	2	8	8	1	12	8	2	1
1327	6	35	7	1	ZMD70	100	0	Mam	4	U	10	3	8	8	5	12	8	2	7
1328	6	35	3	1	ZMD60	101	4	Mam	3	R	31	1	8	8	1	12	8	2	0
1329	6	35	7	1	ZMD60	100	4	Mam	5	L	31	1	8	8	1	12	8	2	0
1330	6	35	7	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	11	8	2	1
1331	6	35	7	1	ZMD32	36	4	Mam	4	M	19	2	8	8	1	12	8	2	1
1332	6	35	7	1	ZMD32	33	1	Mam	3	M	51	6	8	8	1	12	8	2	0
1333	6	35	7	1	ZMD32	33	1	Mam	4	M	51	6	8	8	1	12	8	2	1
1334	6	35	7	1	ZMD32	33	1	Mam	3	M	51	6	8	8	1	12	8	2	0
1335	6	35	7	1	ZMD32	60	1	Mam	4	L	47	7	8	8	1	12	8	2	1
1336	6	35	7	1	ZMD32	51	1	Mam	4	R	50	4	8	8	1	12	8	2	1
1337	6	35	6	1	ZMD60	14	12	Mam	1	L	40	6	8	8	1	12	8	2	0
1338	6	35	5	1	ZMD60	21	1	Mam	3	M	40	6	8	8	1	12	8	2	0
1339	6	35	6	1	ZMD60	21	1	Mam	3	U	40	6	8	8	1	12	8	2	0
1340	6	35	1,2	1	ZMD60	22	4	Mam	3	U	40	6	8	8	5	12	1	2	0
1341	6	35	6	1	ZMD60	22	0	Mam	3	U	40	6	8	8	1	12	8	2	0
1342	6	35	4	1	ZMD60	22	4	Mam	3	L	40	6	7	10	3	12	8	4	0
1343	6	35	3	1	ZMD60	101	5	Mam	11	R	31	1	8	8	1	12	8	2	1
1344	6	35	7	1	ZMD70	94	1	Mam	4	L	52	4	8	8	1	12	8	2	7
1345	6	35	7	1	ZMD70	61	0	Mam	4	R	3	6	8	8	5	12	8	2	5
1346	6	35	1,2	1	ZMD60	23	4	Mam	4	U	40	6	8	8	2	2	8	2	3
1347	6	35	1,2	1	ZMD60	23	0	Mam	3	U	40	6	8	8	1	12	1	2	0
1348	6	35	7	1	ZMD70	93	0	Mam	4	L	52	4	8	8	1	12	8	2	6
1349	6	35	3	1	ZMD60	101	5	Mam	10	L	31	1	8	8	1	12	8	2	0
1350	6	35	7	1	ZMD70	36	0	Mam	4	M	2	4	8	8	1	12	8	2	3
1351	6	35	7	1	ZMD60	101	4	Mam	6	L	31	1	8	8	1	12	8	3	0
1352	6	35	7	1	ZMD60	101	4	Mam	5	R	43	4	8	8	3	12	8	2	0
1353	6	35	7	1	ZMD70	36	0	Mam	4	M	2	4	8	8	1	12	8	2	1

1354	6	35	7	1	ZMD70	90	1	Mam	4	U	9	2	8	8	1	12	8	2	7
1355	6	35	7	1	ZMD70	33	1	Mam	4	M	44	7	8	8	6	12	8	2	3
1356	6	35	7	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	5	12	8	2	3
1357	6	35	7	1	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1358	6	35	7	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1359	6	35	7	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1360	6	35	7	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1361	6	35	7	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1362	6	35	7	1	ZMZ04	51	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1363	6	35	7	1	ZMZ04	33	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1364	6	35	7	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1365	6	35	7	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1366	6	35	7	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1367	6	35	7	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1368	6	35	7	1	ZMZ04	94	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1369	6	35	7	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1370	6	35	7	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1371	6	35	7	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1372	6	35	7	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1373	6	35	7	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1374	6	35	7	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1375	6	35	7	1	ZMD70	36	1	Mam	3	M	2	4	8	8	1	12	8	2	0
1376	6	35	7	1	ZMZ05	30	1	Mam	3	M	0	0	8	8	1	12	8	2	0
1377	6	35	7	6	ZMZ04	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1378	6	35	7	7	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	3
1379	6	35	7	12	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1380	6	35	4	1	ZMD60	111	4	Mam	1	L	27	6	7	10	1	12	8	2	0
1381	6	35	3	1	ZMD60	111	1	Mam	3	R	27	6	8	8	1	12	8	2	0
1382	6	35	3	1	ZMD32	110	1	Mam	1	L	47	7	8	8	5	12	8	2	0
1383	6	35	1,2	1	ZMD60	111	4	Mam	4	L	27	6	8	8	1	12	8	2	6
1384	6	35	3	1	ZMD60	111	4	Mam	3	R	27	6	8	8	3	12	8	2	0
1385	6	35	4	3	ZMD60	209	4	Mam	1	R	27	6	8	8	1	12	8	2	1
1386	6	35	1,2	1	ZBZ00	30	0	BIRD	1	M	0	0	8	8	1	12	8	2	0
1387	6	35	5	1	ZBD01	20	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
1388	6	35	7	1	ZBD01	20	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
1389	6	35	7	1	ZBD01	26	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
1390	6	35	4	1	ZBD01	41	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
1391	6	35	1,2	1	ZBD01	51	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
1392	6	35	5	1	ZBD01	51	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
1393	6	35	1,2	1	ZBD01	53	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
1394	6	35	1,2	1	ZBD01	53	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
1395	6	35	1,2	1	ZBD01	53	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
1396	6	35	3	1	ZBD01	53	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
1397	6	35	3	1	ZBD01	53	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
1398	6	35	7	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
1399	6	35	1,2	1	ZBE03	60	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
1400	6	35	1,2	1	ZBE03	60	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
1401	6	35	1,2	1	ZBZ00	21	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
1402	6	35	1,2	1	ZBZ00	39	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
1403	6	35	7	1	ZBD02	51	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
1404	6	35	1,2	1	ZBD02	53	0	BIRD	5	L	0	0	8	8	1	12	8	2	0

1405	6	35	4	1	ZBD02	60	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
1406	6	35	7	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
1407	6	35	7	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
1408	6	35	7	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
1409	6	35	1,2	1	ZBD01	60	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
1410	6	35	1,2	1	ZBD01	60	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
1411	6	35	3	1	ZBD01	60	0	BIRD	2	L	0	0	8	8	1	12	1	2	0
1412	6	35	3	1	ZBD01	60	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
1413	6	35	4	1	ZBD01	60	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
1414	6	35	4	1	ZBD01	60	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
1415	6	35	3	1	ZBE03	107	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
1416	6	35	3	1	ZBE03	53	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
1417	6	35	3	1	ZBE06	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
1418	6	35	3	1	ZBE05	107	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
1419	6	35	3	1	ZBZ00	60	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
1420	6	35	3	1	ZBZ00	51	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
1421	6	35	3	1	ZBZ00	30	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
1422	6	35	3	3	ZBZ00	54	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
1423	6	35	3	2	ZBZ00	39	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
1424	6	35	3	6	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
1425	6	35	5	1	ZBD01	60	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
1426	6	35	5	1	ZBD01	60	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
1427	6	35	5	1	ZBD01	60	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
1428	6	35	5	1	ZBD01	60	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
1429	6	35	6	1	ZBD01	60	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
1430	6	35	6	1	ZBD01	60	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
1431	6	35	7	1	ZBD01	60	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
1432	6	35	4	1	ZBD02	60	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
1433	6	35	4	1	ZBD02	60	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
1434	6	35	5	1	ZBD02	60	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
1435	6	35	7	1	ZBD02	60	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
1436	6	35	5	1	ZBD02	61	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
1437	6	35	4	1	ZBD02	62	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
1438	6	35	4	2	ZBZ00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
1439	6	35	4	1	ZBZ00	30	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
1440	6	35	4	5	ZBZ00	39	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
1441	6	35	4	5	ZBZ00	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
1442	6	35	7	1	ZBD01	60	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
1443	6	35	7	1	ZBD01	60	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
1444	6	35	6	1	ZBD01	60	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
1445	6	35	7	1	ZBD01	61	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
1446	6	35	3	1	ZBD01	62	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
1447	6	35	4	1	ZBD01	62	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
1448	6	35	6	1	ZBD01	62	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3500	6	35	7	1	ZBD01	62	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
3501	6	35	1,2	1	ZBD01	66	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
3502	6	35	1,2	1	ZBD01	66	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
3503	6	35	5	1	ZBD02	62	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
3504	6	35	4	1	ZBD02	66	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
3505	6	35	6	1	ZBD02	66	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
3506	6	35	1,2	1	ZBD02	77	0	BIRD	1	U	0	0	8	8	1	12	8	2	0

3507	6	35	1,2	1	ZBD02	100	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
3508	6	35	5	1	ZBE06	60	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
3509	6	35	5	1	ZBE05	60	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
3510	6	35	5	1	ZBE05	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
3511	6	35	5	1	ZBE03	60	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3512	6	35	5	16	ZBZ00	39	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
3513	6	35	5	4	ZBZ00	50	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3514	6	35	5	8	ZBZ00	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3515	6	35	5	1	ZBZ00	30	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3516	6	35	5	1	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3517	6	35	3	1	ZBD01	66	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
3518	6	35	7	1	ZBD01	66	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
3519	6	35	7	1	ZBD01	66	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
3520	6	35	1,2	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
3521	6	35	1,2	1	ZBD01	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3522	6	35	5	1	ZBD01	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3523	6	35	6	1	ZBD01	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3524	6	35	6	1	ZBD01	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3525	6	35	3	1	ZBD01	100	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
3526	6	35	4	1	ZBD02	100	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3527	6	35	6	1	ZBD02	100	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3528	6	35	7	1	ZBD02	100	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
3529	6	35	5	1	ZBD02	107	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3530	6	35	5	1	ZBD02	107	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3531	6	35	6	1	ZBD02	107	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
3532	6	35	6	1	ZBD02	107	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3533	6	35	6	1	ZBE03	60	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3534	6	35	6	1	ZBE03	60	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3535	6	35	6	1	ZBZ00	54	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
3536	6	35	6	7	ZBZ00	39	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
3537	6	35	6	2	ZBZ00	102	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
3538	6	35	6	1	ZBD00	30	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
3539	6	35	6	3	ZBZ00	120	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
3540	6	35	6	1	ZBZ00	100	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3541	6	35	6	1	ZBZ00	61	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3542	6	35	6	2	ZBZ00	51	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
3543	6	35	6	7	ZBZ00	98	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3544	6	35	3	1	ZBD01	100	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3545	6	35	4	1	ZBD01	100	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
3546	6	35	4	1	ZBD01	100	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3547	6	35	4	1	ZBD01	100	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
3548	6	35	5	1	ZBD01	100	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3549	6	35	5	1	ZBD01	100	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3550	6	35	6	1	ZBD01	100	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
3551	6	35	6	1	ZBD01	100	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3552	6	35	7	1	ZBD01	100	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3553	6	35	7	1	ZBD01	100	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3554	6	35	1,2	1	ZBD01	107	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
3555	6	35	1,2	1	ZBD01	107	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
3556	6	35	3	1	ZBD01	107	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3557	6	35	5	1	ZBD01	107	0	BIRD	10	R	0	0	8	8	1	12	8	2	0

3558	6	35	6	1	ZBD01	107	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
3559	6	35	7	1	ZBD01	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
3560	6	35	7	1	ZBD01	107	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
3561	6	35	7	1	ZBD01	107	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3562	6	35	7	1	ZBD01	107	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3563	6	35	7	1	ZBD01	107	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3564	6	35	6	1	ZBD01	108	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3565	6	35	7	1	ZBD01	108	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
3566	6	35	7	1	ZBD01	108	5	BIRD	1	L	0	0	8	8	1	12	8	2	0
3567	6	35	7	1	ZBD01	108	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
3568	6	35	7	1	ZBD01	108	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3569	6	35	1,2	1	ZBD02	108	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
3570	6	35	6	1	ZBD02	108	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3571	6	35	7	1	ZBE03	107	0	BIRD	2	L	0	0	8	8	5	12	8	2	0
3572	6	35	7	1	ZBE06	66	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3573	6	35	7	1	ZBE06	107	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3574	6	35	7	2	ZBZ00	21	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3575	6	35	7	2	ZBZ00	30	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3576	6	35	7	7	ZBZ00	98	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3577	6	35	7	6	ZBZ00	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3578	6	35	7	4	ZBZ00	51	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3579	6	35	6	1	ZBD02	108	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3580	6	35	7	2	ZBZ00	54	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3581	6	35	7	2	ZBZ00	39	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3582	6	35	7	5	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3583	6	35	7	1	ZBZ00	60	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3584	6	35	7	1	ZBZ00	53	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3585	6	35	1,2	1	MRM18	101	1	Mam	1	L	0	0	8	8	1	12	8	2	0
3586	6	35	1,2	1	MRM18	101	1	Mam	1	R	0	0	8	8	1	12	8	2	0
3587	6	35	1,2	1	ZMD10	101	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3588	6	35	1,2	1	ZMD10	77	1	Mam	1	L	0	0	8	8	1	12	8	2	0
3589	6	35	1,2	1	ZMZ03	120	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3590	6	35	1,2	1	ZMZ03	120	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3591	6	35	1,2	4	ZMZ03	39	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3592	6	35	6	1	ZBD02	109	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
3593	6	35	3	1	MRM18	90	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3594	6	35	3	1	MRM18	90	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3595	6	35	3	1	MRM18	101	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3596	6	35	3	1	ZMD20	51	5	Mam	3	L	0	0	8	8	1	12	8	2	0
3597	6	35	3	1	ZMD20	101	5	Mam	1	R	0	0	8	8	1	12	8	2	0
3598	6	35	3	1	ZMD20	85	1	Mam	3	U	0	0	8	8	1	12	8	2	0
3599	6	35	3	1	ZMD32	94	0	Mam	3	R	21	0	8	8	1	12	6	2	0
3600	6	35	3	5	ZMZ03	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3601	6	35	4	1	MRM18	101	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3602	6	35	4	1	ZMD20	60	5	Mam	2	R	0	0	8	8	1	12	8	2	0
3603	6	35	4	1	ZMD10	6	11	Mam	3	L	0	0	8	8	1	12	8	2	0
3604	6	35	4	1	ZMD10	77	1	Mam	1	U	0	0	8	8	1	12	8	2	0
3605	6	35	4	1	ZMZ02	120	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3606	6	35	4	1	ZMD60	39	0	Mam	5	L	42	0	8	8	1	12	8	2	0
3607	6	35	4	1	ZMD60	39	0	Mam	5	R	42	0	8	8	1	12	2	3	0
3608	6	35	4	1	ZMZ03	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0

3609	6	35	5	1	MRM18	100	1	Mam	1	R	0	0	8	8	1	12	8	2	0
3610	6	35	5	1	MRM18	11	0	Mam	1	U	0	0	8	8	1	12	8	2	0
3611	6	35	5	1	ZMD10	90	1	Mam	1	R	0	0	8	8	1	12	8	2	0
3612	6	35	5	1	ZMD10	90	1	Mam	1	R	0	0	8	8	1	12	8	2	0
3613	6	35	5	1	ZBD00	30	1	BIRD	1	M	0	0	8	8	1	12	8	2	0
3614	6	35	5	2	ZBZ00	77	1	BIRD	2	U	0	0	8	8	1	12	8	2	0
3615	6	35	5	3	ZMZ02	120	0	Mam	1	U	0	0	8	8	1	12	8	2	0
3616	6	35	6	1	MRM18	90	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3617	6	35	6	1	MRM18	90	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3618	6	35	6	1	MRM18	100	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3619	6	35	6	1	MLL	36	0	Mam	1	M	0	0	8	8	1	12	8	2	0
3620	6	35	6	1	ZMD10	31	1	Mam	1	M	0	0	8	8	1	12	8	2	0
3621	6	35	6	1	ZMD10	33	1	Mam	1	M	0	0	8	8	1	12	8	2	0
3622	6	35	6	1	ZMD10	36	1	Mam	1	M	0	0	8	8	1	12	8	2	0
3623	6	35	6	1	ZMD10	51	1	Mam	1	L	0	0	8	8	1	12	8	2	0
3624	6	35	6	1	ZMD20	7	11	Mam	3	R	0	0	8	8	1	12	8	2	0
3625	6	35	6	1	ZMD20	14	11	Mam	1	U	0	0	8	8	1	12	8	2	0
3626	6	35	6	3	ZMZ02	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3627	6	35	6	1	ZBZ00	120	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
3628	6	35	7	1	MRM18	100	1	Mam	1	L	0	0	8	8	1	12	8	2	0
3629	6	35	7	1	MRM18	100	1	Mam	1	L	0	0	8	8	1	12	8	2	0
3630	6	35	7	1	MRM18	100	1	Mam	1	R	0	0	8	8	1	12	8	2	0
3631	6	35	7	1	MRM18	60	1	Mam	1	L	0	0	8	8	1	12	8	2	0
3632	6	35	7	1	MRM18	90	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3633	6	35	7	1	MRM18	101	1	Mam	1	L	0	0	8	8	1	12	8	2	0
3634	6	35	7	1	ZMD10	60	8	Mam	1	L	0	0	8	8	1	12	8	2	0
3635	6	35	7	1	ZMZ02	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3636	6	35	7	1	ZMZ02	100	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3637	6	35	7	1	ZBD01	108	0	BIRD	10	R	0	0	8	8	1	12	4	2	0
3638	6	35	7	1	ZBZ00	77	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3639	6	35	7	1	ZBZ00	77	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3640	6	35	7	1	ZBZ00	39	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3641	6	35	3	1	ZMD60	39	0	Mam	5	L	42	2	8	8	1	12	8	2	0
3642	6	35	3	2	ZMZ03	120	0	Mam	4	U	0	0	8	8	1	12	8	2	0
3643	6	35	3	1	ZBZ00	50	0	BIRD	0	U	0	0	8	8	1	12	8	2	4
3644	6	35	7	1	ZMD60	23	0	Mam	4	L	40	6	8	8	1	12	8	2	1
3645	6	35	4	1	ZMD70	60	1	Mam	5	L	37	6	8	8	1	12	8	2	0
3646	6	35	6	1	ZMD70	33	1	Mam	4	R	44	7	8	8	1	12	8	2	1
3647	6	35	6	1	ZMD60	90	1	Mam	3	M	31	1	8	8	1	12	8	2	4
3648	6	35	6	1	ZMZ03	39	1	Mam	2	U	0	0	8	8	1	12	8	2	3
3649	6	35	6	1	ZBZ00	120	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
3650	6	35	6	1	ZBZ00	50	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3651	6	35	7	1	ZMD32	39	1	Mam	2	R	19	2	8	8	1	12	8	2	3
3652	6	35	7	1	ZMD32	51	0	Mam	4	L	50	4	8	8	1	12	8	2	7
3653	6	35	7	1	ZMZ03	120	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3654	6	35	7	1	ZBZ00	77	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
3655	6	35	7	1	ZBZ00	98	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3656	6	35	7	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
3657	6	35	7	1	ZMD10	6	11	Mam	3	U	0	0	8	8	1	12	8	2	0
3658	6	35	1,2	1	ZMD60	65	0	Mam	2	L	28	6	8	8	1	12	8	2	0
3659	6	35	3	1	ZMD60	65	1	Mam	2	R	28	6	8	8	1	12	8	2	0

3660	6	35	3	1	ZMD60	65	8	Mam	1	R	28	6	8	8	1	12	8	2	0
3661	6	35	5	1	ZMD60	65	8	Mam	1	L	28	6	8	8	1	12	8	2	0
3662	6	35	6	1	ZMD60	65	8	Mam	1	R	28	6	8	8	1	12	8	2	0
3663	6	35	7	1	ZMD60	65	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3664	6	35	7	1	ZMD60	65	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3665	6	35	1,2	1	ZMD60	74	1	Mam	1	L	28	6	8	8	1	12	8	2	0
3666	6	35	1,2	1	ZMD60	74	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3667	6	35	1,2	1	ZMD60	74	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3668	6	35	3	1	ZMD60	74	1	Mam	2	U	28	6	8	8	1	12	8	2	0
3669	6	35	1,2	1	ZMD70	64	1	Mam	1	R	3	6	8	8	1	12	8	2	0
3670	6	35	1,2	1	ZMD70	64	1	Mam	1	R	3	6	8	8	1	12	8	2	0
3671	6	35	1,2	1	ZMD70	64	1	Mam	1	R	3	6	8	8	1	12	8	2	0
3672	6	35	1,2	1	ZMD70	64	1	Mam	1	L	3	6	8	8	1	12	8	2	0
3673	6	35	3	1	ZMD60	74	1	Mam	2	U	28	6	8	8	1	12	8	2	0
3674	6	35	4	1	ZMD60	74	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3675	6	35	5	1	ZMD60	74	1	Mam	1	L	28	6	8	8	1	12	8	2	0
3676	6	35	5	1	ZMD60	74	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3677	6	35	7	1	ZMD60	74	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3678	6	35	7	1	ZMD60	74	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3679	6	35	7	1	ZMD60	74	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3680	6	35	7	1	ZMD60	74	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3681	6	35	7	1	ZMD60	74	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3682	6	35	7	1	ZMD60	74	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3683	6	35	7	1	ZMD60	74	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3684	6	35	1,2	1	ZMD60	75	4	Mam	2	U	28	6	8	8	1	12	8	2	0
3685	6	35	4	1	ZMD60	75	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3686	6	35	6	1	ZMD60	75	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3687	6	35	4	1	ZMD70	75	1	Mam	1	R	41	7	8	8	1	12	8	2	6
3688	6	35	4	1	ZMD70	64	1	Mam	1	R	3	6	8	8	1	12	8	2	0
3689	6	35	7	1	ZMD60	75	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3690	6	35	7	1	ZMD60	75	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3691	6	35	3	1	ZMD60	75	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3692	6	35	3	1	ZMD60	75	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3693	6	35	1,2	1	ZMD60	76	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3694	6	35	1,2	1	ZMD60	76	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3695	6	35	3	1	ZMD60	76	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3696	6	35	5	1	ZMD60	76	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3697	6	35	5	1	ZMD60	76	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3698	6	35	6	1	ZMD60	76	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3699	6	35	7	1	ZMD60	76	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3700	6	35	5	2	ZMD60	79	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3701	6	35	5	1	ZMD70	64	1	Mam	1	L	3	6	8	8	1	12	8	2	0
3702	6	35	3	1	ZMD60	85	1	Mam	2	U	28	6	8	8	1	12	8	2	0
3703	6	35	5	1	ZMD60	85	1	Mam	3	U	28	6	8	8	1	12	8	2	5
3704	6	35	5	1	ZMD60	85	1	Mam	4	U	28	6	8	8	1	12	8	2	3
3705	6	35	6	1	ZMD60	85	0	Mam	3	U	28	6	8	8	1	12	8	2	0
3706	6	35	6	1	ZMD60	85	0	Mam	3	U	28	6	8	8	1	12	8	2	0
3707	6	35	7	1	ZMD60	85	0	Mam	3	U	28	6	8	8	1	12	8	2	0
3708	6	35	7	1	ZMD60	85	0	Mam	3	U	28	6	8	8	1	12	8	2	0
3709	6	35	6	1	ZMD70	64	1	Mam	1	R	3	6	8	8	1	12	8	2	0
3710	6	35	6	1	ZMD70	64	1	Mam	1	L	41	6	8	8	1	12	8	2	0

3711	6	35	6	1	ZMD60	85	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3712	6	35	6	1	ZMD60	85	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3713	6	35	7	1	ZMD60	85	0	Mam	3	U	28	6	8	8	1	12	8	2	0
3714	6	35	4	1	ZMD60	85	1	Mam	2	U	28	6	8	8	1	12	8	2	0
3715	6	35	5	1	ZMD60	85	0	Mam	3	U	28	6	8	8	1	12	8	2	0
3716	6	35	7	1	ZMD60	85	1	Mam	3	U	28	6	8	8	5	12	8	2	0
3717	6	35	7	1	ZMD60	85	1	Mam	3	U	28	6	8	8	5	12	8	2	0
3718	6	35	3	1	ZMD60	86	1	Mam	2	U	28	6	8	8	1	12	8	2	0
3719	6	35	1,2	1	ZMD60	105	1	Mam	2	L	28	6	8	8	5	12	8	2	0
3720	6	35	1,2	1	ZMD60	105	4	Mam	2	L	28	6	8	8	1	12	8	2	0
3721	6	35	1,2	1	ZMD60	105	8	Mam	1	L	28	6	8	8	1	12	8	2	0
3722	6	35	1,2	1	ZMD60	105	4	Mam	1	R	28	6	8	8	1	12	8	2	0
3723	6	35	1,2	1	ZMD60	105	1	Mam	5	R	28	6	8	8	1	12	8	2	0
3724	6	35	3	1	ZMD60	105	1	Mam	1	L	28	6	8	8	1	12	8	2	0
3725	6	35	3	1	ZMD60	105	1	Mam	1	L	28	6	8	8	1	12	8	2	0
3726	6	35	3	1	ZMD60	105	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3727	6	35	7	1	ZMD70	64	1	Mam	1	L	3	6	8	8	1	12	8	2	0
3728	6	35	7	1	ZMD70	64	1	Mam	1	L	3	6	8	8	1	12	8	2	0
3729	6	35	7	1	ZMD70	105	1	Mam	1	R	35	6	8	8	1	12	8	2	0
3730	6	35	7	1	ZMD70	106	1	Mam	1	R	35	6	8	8	1	12	8	2	0
3731	6	35	3	1	ZMD60	105	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3732	6	35	3	1	ZMD60	105	1	Mam	1	R	28	6	8	8	5	12	8	2	0
3733	6	35	1,2	2	ZMCO1	208	0	Moll	1	U	0	0	8	8	0	0	8	2	0
3734	6	35	1,2	1	ZMCO1	208	0	Moll	2	U	0	0	8	8	0	0	8	2	0
3735	6	35	1,2	7	ZMM01	208	0	Moll	3	U	0	0	8	8	0	0	8	2	0
3736	6	35	3	1	ZMCO1	208	0	Moll	1	U	0	0	8	8	0	0	8	2	0
3737	6	35	4	1	ZMM01	208	0	Moll	3	U	0	0	8	8	0	0	8	2	0
3738	6	35	5	1	ZMM01	208	0	Moll	3	U	0	0	8	8	0	0	8	2	0
3739	6	35	6	1	ZMCO1	208	0	Moll	1	U	0	0	8	8	0	0	8	2	0
3740	6	35	6	1	ZMM01	208	0	Moll	3	U	0	0	8	8	0	0	8	2	0
3741	6	35	7	3	ZMCO1	208	0	Moll	1	U	0	0	8	8	0	0	8	2	0
3742	6	35	1,2	2	ZFZ00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
3743	6	35	7	18	ZFZ00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
3744	6	35	7	1	ZMD70	21	0	Mam	3	M	39	7	8	8	1	12	8	2	2
3745	6	35	1,2	4	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3746	6	35	1,2	6	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3747	6	35	1,2	2	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3748	6	35	1,2	4	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3749	6	35	1,2	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3750	6	35	1,2	3	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3751	6	35	1,2	7	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
3752	6	35	1,2	55	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3753	6	35	1,2	5	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3754	6	35	1,2	4	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3755	6	35	1,2	3	ZBZ00	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3756	6	35	3	2	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3757	6	35	3	4	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3758	6	35	3	1	ZMZ04	30	0	Mam	4	U	0	0	8	8	1	12	8	2	1
3759	6	35	3	2	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
3760	6	35	3	57	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3761	6	35	3	1	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0

3762	6	35	3	11	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3763	6	35	3	2	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
3764	6	35	3	3	ZMZ02	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3765	6	35	3	5	ZBZ00	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3766	6	35	3	1	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	2	2	0
3767	6	35	3	3	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3768	6	35	3	5	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3769	6	35	7	1	ZMD32	61	4	Mam	5	L	47	7	7	10	1	12	8	2	6
3770	6	35	7	1	ZMD32	101	4	Mam	5	L	46	3	5	10	5	12	8	2	0
3771	6	35	3	1	ZMD32	90	0	Mam	3	R	21	4	8	8	1	12	8	2	0
3772	6	35	3	1	ZTZ00	208	0	Rept	3	U	0	0	8	8	1	12	8	2	4
3773	6	35	3	1	ZTZ00	208	0	Rept	3	U	0	0	8	8	1	12	8	2	0
3774	6	35	3	1	ZTZ00	208	0	Rept	3	U	0	0	8	8	1	12	8	2	0
3775	6	35	3	1	ZMD70	62	4	Mam	10	U	3	6	8	8	1	12	8	2	0
3776	6	35	3	1	ZMD70	62	4	Mam	11	U	3	6	8	8	1	12	8	2	1
3777	6	35	5	1	ZMD70	36	0	Mam	3	M	5	2	8	8	5	12	8	2	0
3778	6	35	5	1	ZMD70	104	0	Mam	3	U	35	6	8	8	1	12	8	1	0
3779	6	35	5	1	ZMD70	64	0	Mam	1	U	3	6	8	8	1	12	8	3	0
3780	6	35	3	1	ZMD60	105	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3781	6	35	7	1	ZMZ04	51	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3782	6	35	3	1	ZMZ04	30	0	Mam	4	U	0	0	8	8	1	12	8	2	1
3783	6	35	3	1	ZMD60	105	1	Mam	3	U	28	6	8	8	1	12	8	2	0
3784	6	35	5	1	ZMD60	105	1	Mam	1	L	28	6	8	8	1	12	8	2	0
3785	6	35	6	1	ZMD60	39	8	Mam	1	L	30	5	8	8	1	12	8	2	0
3786	6	35	6	1	ZMZ02	90	0	Mam	2	R	0	0	8	8	1	12	8	2	0
3787	6	35	5	1	ZMD60	105	1	Mam	2	R	28	6	8	8	1	12	8	2	0
3788	6	35	7	1	ZMZ04	33	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3789	6	35	3	1	ZMZ04	51	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3790	6	35	7	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3791	6	35	6	1	ZMD32	39	0	Mam	5	R	19	2	8	8	1	12	8	2	0
3792	6	35	6	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3793	6	35	3	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	7
3794	6	35	6	1	ZMD60	102	8	Mam	1	L	43	4	8	8	1	12	8	2	0
3795	6	35	6	1	ZMD60	60	4	Mam	5	R	25	3	8	8	1	12	8	2	0
3796	6	35	6	2	ZFZ00	200	0	FISH	3	U	0	0	8	8	1	12	8	2	0
3797	6	35	6	1	ZMD10	60	5	Mam	2	U	0	0	8	8	1	12	8	2	0
3798	6	35	6	1	ZMD20	90	5	Mam	2	U	0	0	8	8	1	12	8	2	0
3799	6	35	6	3	ZMZ03	120	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3800	6	35	6	1	ZMZ03	30	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3801	6	35	7	1	ZBD01	108	5	BIRD	1	R	0	0	8	8	1	12	8	2	0
3802	6	35	6	1	ZBZ00	77	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
3803	6	35	3	1	ZMD10	60	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3804	6	35	3	1	ZMZ03	33	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3805	6	35	3	1	ZMZ03	30	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3806	6	35	3	1	ZMZ03	39	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3807	6	35	3	1	ZBD00	77	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3808	6	35	3	1	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3809	6	35	3	1	MRM18	100	0	Mam	1	U	0	0	8	8	1	12	8	2	0
3810	6	35	6	1	ZMD60	105	1	Mam	1	L	28	6	8	8	1	12	8	2	4
3811	6	35	1,2	1	ZMD10	60	4	Mam	1	L	0	0	8	8	1	12	8	2	0
3812	6	35	1,2	1	ZMD10	60	4	Mam	1	R	0	0	8	8	1	12	8	2	0

3813	6	35	1,2	1	ZMD10	101	4	Mam	2	L	0	0	8	8	1	12	8	2	0
3814	6	35	4	3	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3815	6	35	4	1	ZMD10	100	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3816	6	35	6	1	ZMD60	105	1	Mam	1	L	28	6	8	8	1	12	8	2	0
3817	6	35	4	1	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3818	6	35	5	1	ZMD10	100	5	Mam	1	R	0	0	8	8	1	12	8	2	0
3819	6	35	5	1	ZMD60	39	8	Mam	1	R	30	5	8	8	1	12	8	2	0
3820	6	35	7	1	ZMD60	105	1	Mam	1	L	28	6	8	8	1	12	8	2	0
3821	6	35	5	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3822	6	35	5	1	ZMZ03	120	0	Mam	3	U	0	0	8	8	5	12	8	2	0
3823	6	35	7	1	ZMZ03	33	0	Mam	1	U	0	0	8	8	5	12	8	2	0
3824	6	35	7	1	ZMZ03	100	4	Mam	2	U	0	0	8	8	5	12	8	2	0
3825	6	35	7	1	ZMZ03	120	0	Mam	3	U	0	0	8	8	5	12	8	2	0
3826	6	35	7	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	5	12	8	2	0
3827	6	35	7	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	5	12	8	2	0
3828	6	35	7	1	ZMD60	105	8	Mam	1	R	28	6	8	8	1	12	8	2	0
3829	6	35	4	1	ZMD60	106	0	Mam	1	U	28	6	8	8	1	12	8	2	0
3830	6	35	4	1	ZMD60	106	0	Mam	1	U	28	6	8	8	1	12	8	2	0
3831	6	35	1	1	ZMD70	100	0	Mam	11	U	35	6	8	8	1	12	8	2	1
3832	6	35	2	1	ZMD70	36	0	Mam	4	M	5	2	8	8	1	12	8	2	1
3833	6	35	6	1	ZMD32	38	0	Mam	4	M	45	4	8	8	1	12	8	2	1
3834	6	35	5	1	ZBZ00	90	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3835	6	35	4	1	ZMD32	61	0	Mam	4	R	47	7	6	10	1	12	8	2	5
3836	6	35	5	1	ZBZ00	77	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3837	6	35	1	1	ZMD70	51	0	Mam	4	U	2	4	8	8	1	12	8	2	7
3838	6	35	4	1	ZMD70	38	4	Mam	4	M	9	2	8	8	1	12	8	2	1
3839	6	35	5	1	ZMD70	100	0	Mam	6	U	10	3	8	8	5	12	8	2	8
3840	6	35	5	1	ZMD32	90	0	Mam	4	L	45	4	8	8	1	12	8	3	1
3841	6	35	4	1	ZMD32	62	4	Mam	5	L	47	7	8	8	1	12	8	1	0
3842	6	35	7	1	ZMD60	61	1	Mam	11	L	25	3	8	8	5	12	8	2	6
3843	6	35	7	1	ZMD70	36	0	Mam	4	M	2	4	8	8	1	12	8	2	1
3844	6	35	7	1	ZMZ03	39	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3845	6	35	4	2	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3846	6	35	4	8	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	1
3847	6	35	4	6	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3848	6	35	4	3	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3849	6	35	5	68	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3850	6	35	5	1	ZMZ05	30	0	Mam	4	U	0	0	8	8	1	12	8	2	0
3851	6	35	5	1	ZMZ04	36	0	Mam	3	U	0	0	8	8	1	12	8	2	5
3852	6	35	5	14	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3853	6	35	5	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3854	6	35	5	1	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	5
3855	6	35	5	5	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3856	6	35	5	15	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	0
3857	6	35	5	2	ZMZ03	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3858	6	35	5	5	ZMZ02	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3859	6	35	5	3	ZBZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3860	6	35	5	2	ZTZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	4
3861	6	35	6	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
3862	6	35	6	49	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3863	6	35	6	7	ZMZ05	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0

3864	6	35	6	1	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3865	6	35	6	38	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3866	6	35	6	7	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3867	6	35	6	1	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3868	6	35	6	3	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3869	6	35	6	9	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3870	6	35	6	1	ZMZ03	200	0	Mam	3	U	0	0	8	8	1	12	8	2	4
3871	6	35	6	1	ZMZ02	200	0	Mam	3	U	0	0	8	8	1	12	8	2	4
3872	6	35	6	3	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	4
3873	6	35	6	1	ZMD70	38	0	Mam	4	U	9	10	8	8	1	12	8	2	1
3874	6	35	7	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3875	6	35	7	1	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3876	6	35	7	63	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3877	6	35	7	6	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3878	6	35	7	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3879	6	35	7	2	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3880	6	35	7	73	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3881	6	35	7	11	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3882	6	35	7	15	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3883	6	35	7	6	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3884	6	35	7	3	ZMZ03	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3885	6	35	7	1	ZMZ02	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3886	6	35	7	2	ZMZ05	30	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3887	6	35	7	1	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3888	6	35	7	1	ZMD70	33	0	Mam	4	U	44	7	8	8	1	12	8	2	3
500	4	10	1	1	ZMD32	93	1	Mam	1	L	45	3	8	8	5	12	8	2	3
501	4	10	2	1	ZMD32	60	1	Mam	11	R	47	7	8	8	1	12	1	2	1
502	4	10	2	1	ZMD32	36	1	Mam	3	M	50	4	8	8	1	12	6	2	0
503	4	10	4	1	ZMD32	60	1	Mam	3	L	47	7	8	8	1	12	8	2	5
504	4	10	1	1	ZMD32	101	4	Mam	5	R	46	3	8	8	5	12	8	2	0
505	4	10	5	1	ZMD32	61	1	Mam	11	L	47	5	8	8	1	12	8	2	6
506	4	10	1	1	ZMD32	34	0	Mam	4	M	21	1	8	8	5	12	8	2	3
507	4	10	1	1	ZMD32	36	0	Mam	2	M	19	2	8	8	1	12	8	2	0
508	4	10	1	1	ZMD32	36	0	Mam	4	M	19	2	8	8	1	12	8	2	3
509	4	10	1	1	ZMD32	36	0	Mam	4	M	19	2	8	8	5	12	8	2	3
510	4	10	2	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	2	3
511	4	10	1	1	ZMD70	34	1	Mam	4	M	7	1	8	8	5	12	8	2	3
512	4	10	1	1	ZMD70	100	1	Mam	4	U	10	3	8	8	1	12	8	2	7
513	4	10	1	1	ZMD70	60	1	Mam	10	U	3	6	8	8	5	12	4	4	0
514	4	10	2	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	2	1
515	4	10	3	1	ZMD70	36	1	Mam	3	M	2	4	8	8	1	12	8	2	0
516	4	10	2	1	ZMD70	100	1	Mam	11	L	35	6	8	8	1	12	1	2	3
517	4	10	4	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	2	1
518	4	10	2	1	ZMD70	60	1	Mam	11	R	3	6	8	8	6	12	2	2	6
519	4	10	3	1	ZMD70	60	1	Mam	4	L	3	6	8	8	5	12	8	4	5
520	4	10	5	1	ZMD60	60	5	Mam	11	R	27	6	8	8	1	12	8	2	6
521	4	10	1	1	ZMD60	31	0	Mam	4	M	25	3	8	8	5	12	8	2	1
522	4	10	1	1	ZMD60	31	0	Mam	3	M	25	3	8	8	5	12	8	2	1
533	4	10	1	1	ZMD60	31	0	Mam	4	M	25	3	8	8	5	12	1	2	3
534	4	10	5	1	ZMD60	61	0	Mam	3	L	43	5	8	8	6	12	8	2	5
525	4	10	1	1	ZMD60	39	0	Mam	1	L	30	5	8	8	1	12	8	2	0

526	4	10	1	1	ZMD60	12	11	Mam	2	R	40	6	8	8	1	12	8	2	0
527	4	10	1	1	ZMD60	12	11	Mam	2	L	40	6	8	8	1	12	8	2	0
528	4	10	1	1	ZMD60	13	11	Mam	2	U	40	6	8	8	1	12	8	2	0
529	4	10	1	1	ZMD60	14	11	Mam	2	U	40	6	8	8	1	12	8	2	0
530	4	10	3	1	ZMD60	90	1	Mam	3	U	31	1	8	8	5	12	1	2	5
531	4	10	1	1	ZMD60	100	4	Mam	3	R	43	4	10	7	1	12	1	2	0
532	4	10	1	1	ZMD60	77	4	Mam	1	U	28	6	8	8	5	12	8	2	0
533	4	10	3	1	ZMD60	31	1	Mam	4	M	25	3	8	8	1	12	8	2	3
534	4	10	4	1	ZMD60	33	5	Mam	3	M	42	2	8	8	1	12	8	2	0
535	4	10	4	1	ZMD60	33	5	Mam	3	M	42	2	8	8	1	12	8	2	0
536	4	10	1	1	ZMD32	34	4	Mam	3	M	21	1	8	8	1	12	8	2	0
537	4	10	1	1	ZMD32	34	4	Mam	4	M	21	1	8	8	1	12	8	2	2
538	4	10	3	1	ZMD32	31	1	Mam	3	M	51	6	8	8	1	12	8	2	0
539	4	10	3	1	ZMD32	31	1	Mam	3	M	51	6	8	8	1	12	8	2	0
540	4	10	1	1	ZMD32	36	4	Mam	4	M	19	2	8	8	1	12	8	2	2
541	4	10	1	1	ZMD70	34	0	Mam	4	M	7	1	8	8	5	12	8	2	1
542	4	10	1	1	ZMD70	34	4	Mam	4	M	7	1	8	8	1	12	2	2	7
543	4	10	1	1	ZMD70	34	4	Mam	4	M	7	1	8	8	5	12	2	2	1
544	4	10	1	1	ZMD70	34	4	Mam	4	M	7	1	8	8	3	12	8	2	1
545	4	10	1	1	ZMD70	33	0	Mam	3	M	44	7	8	8	1	12	1	2	0
546	4	10	4	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	1	7
547	4	10	4	1	ZMD70	60	1	Mam	11	R	3	6	7	10	6	12	2	2	8
548	4	10	1	1	ZMD70	34	0	Mam	4	M	7	1	8	8	5	12	8	2	3
549	4	10	1	1	ZMD70	34	0	Mam	4	M	7	1	8	8	5	12	2	2	7
550	4	10	1	1	ZMD60	4	0	Mam	3	U	40	6	8	8	1	12	8	2	4
551	4	10	1	1	ZMD60	24	1	Mam	3	M	29	2	8	8	1	12	8	2	0
552	4	10	1	1	ZMD60	85	1	Mam	4	U	28	6	8	8	5	12	8	2	1
553	4	10	1	1	ZMD32	94	0	Mam	3	L	45	4	8	8	5	12	8	2	0
554	4	10	1	1	ZMD32	94	0	Mam	4	L	45	4	8	8	5	12	8	2	9
555	4	10	1	1	ZMD32	94	0	Mam	4	L	45	4	8	8	5	12	8	2	2
556	4	10	3	1	ZMD60	90	0	Mam	4	R	31	1	8	8	1	12	8	2	6
557	4	10	1	1	ZBD02	17	1	BIRD	1	L	0	0	8	8	5	12	8	2	4
558	4	10	4	1	ZBD01	20	1	BIRD	1	M	0	0	8	8	1	12	8	2	0
559	4	10	3	2	ZBD01	20	1	BIRD	2	U	0	0	8	8	1	12	8	2	0
560	4	10	1	1	ZBD01	20	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
561	4	10	1	1	ZBD01	30	1	BIRD	2	M	0	0	8	8	1	12	8	2	0
562	4	10	1	1	ZBD01	30	1	BIRD	2	M	0	0	8	8	1	12	8	2	0
563	4	10	1	1	ZBD01	50	1	BIRD	3	M	0	0	8	8	1	12	8	2	0
564	4	10	1	1	ZBD01	51	1	BIRD	3	R	0	0	8	8	1	12	8	2	0
565	4	10	4	1	ZBD01	51	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
566	4	10	1	1	ZBD01	53	1	BIRD	3	L	0	0	8	8	1	12	8	2	0
567	4	10	5	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
568	4	10	5	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
569	4	10	5	1	ZBD01	53	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
570	4	10	5	1	ZBD01	53	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
571	4	10	5	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
572	4	10	5	1	ZBD01	53	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
573	4	10	5	1	ZBD01	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
574	4	10	5	1	ZBD01	53	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
575	4	10	5	1	ZBD01	53	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
576	4	10	5	1	ZBD01	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0

577	4	10	5	1	ZBD01	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
578	4	10	5	1	ZBD01	53	0	BIRD	3	L	0	0	8	8	1	12	6	2	0
579	4	10	4	1	ZBD01	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
580	4	10	4	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
581	4	10	1	1	ZBE06	66	1	BIRD	1	R	0	0	8	8	1	12	8	2	0
582	4	10	4	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
583	4	10	1	1	ZBE03	62	1	BIRD	2	L	0	0	8	8	1	12	8	2	4
584	4	10	1	1	ZBE03	62	1	BIRD	2	R	0	0	8	8	1	12	8	2	0
585	4	10	1	1	ZBE03	61	1	BIRD	2	L	0	0	8	8	1	12	8	2	0
586	4	10	1	1	ZBE03	36	1	BIRD	1	M	0	0	8	8	1	12	8	2	0
587	4	10	1	1	ZBE03	36	1	BIRD	1	M	0	0	8	8	1	12	8	2	0
588	4	10	1	1	ZBE03	36	1	BIRD	1	M	0	0	8	8	1	12	8	2	0
589	4	10	1	1	ZBE03	36	1	BIRD	1	M	0	0	8	8	1	12	8	2	0
590	4	10	1	1	ZBE03	36	1	BIRD	1	M	0	0	8	8	1	12	8	2	0
591	4	10	5	1	ZMD32	61	1	Mam	6	R	47	5	8	8	5	12	8	2	3
592	4	10	2	1	ZMD32	34	4	Mam	4	M	21	1	8	8	1	12	8	2	3
593	4	10	4	1	ZMD60	33	5	Mam	4	M	42	2	8	8	1	12	8	2	3
653	4	10	4	1	ZMD60	91	8	Mam	3	U	31	1	8	8	5	12	1	2	0
654	4	10	5	1	ZMD60	91	8	Mam	3	L	31	1	8	8	1	12	8	2	0
655	4	10	2	1	ZMD32	34	4	Mam	4	M	21	1	8	8	5	12	8	2	3
656	4	10	2	1	ZMD32	61	1	Mam	5	L	47	7	8	8	1	12	8	2	0
657	4	10	2	1	ZMD60	93	5	Mam	3	L	31	1	8	8	6	12	8	2	4
658	4	10	4	1	ZMD60	93	0	Mam	3	R	31	1	8	8	1	12	8	2	0
659	4	10	2	1	ZMD60	34	0	Mam	3	M	29	2	8	8	1	12	8	2	3
660	4	10	2	1	ZMD60	39	0	Mam	3	L	30	5	7	10	1	12	8	2	4
661	4	10	3	1	ZMD60	60	1	Mam	5	L	27	6	8	8	6	12	8	5	4
662	4	10	2	1	ZMD60	61	4	Mam	3	R	27	6	8	8	3	12	8	2	0
663	4	10	3	1	ZMD60	60	1	Mam	10	R	26	4	8	8	5	12	8	2	0
664	4	10	4	1	ZMD70	60	1	Mam	11	L	3	6	8	8	5	12	4	2	3
665	4	10	2	1	ZMD70	100	1	Mam	6	L	9	2	8	8	5	12	2	2	6
666	4	10	2	1	ZMD70	100	4	Mam	11	L	35	6	8	8	5	12	8	2	6
667	4	10	4	1	ZMD70	36	1	Mam	3	M	2	4	8	8	1	12	8	2	0
668	4	10	2	1	ZMD70	39	1	Mam	10	U	6	5	8	8	3	12	2	2	0
669	4	10	5	1	ZMD70	36	1	Mam	3	M	2	4	8	8	1	12	8	2	0
670	4	10	3	1	ZMD70	100	4	Mam	10	L	35	6	8	8	3	12	1	2	2
671	4	10	3	1	ZMD70	100	0	Mam	10	L	35	6	8	8	3	12	8	2	0
672	4	10	5	1	ZMD70	100	1	Mam	4	R	35	6	8	8	1	12	8	2	1
673	4	10	5	1	ZMD70	36	1	Mam	3	M	2	4	8	8	6	12	2	2	0
674	4	10	2	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	2	7
675	4	10	2	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	1
676	4	10	2	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	1
677	4	10	2	1	ZMD70	101	1	Mam	11	L	35	6	8	8	5	12	1	2	6
678	4	10	2	1	ZMD70	51	4	Mam	4	R	37	6	8	8	6	12	8	2	10
679	4	10	1	1	ZMD70	61	1	Mam	4	R	3	6	7	10	6	12	8	2	1
680	4	10	2	1	ZMD70	101	1	Mam	11	R	35	6	8	8	5	12	8	2	6
681	4	10	4	1	ZMD60	60	4	Mam	11	L	26	3	8	8	6	12	8	2	10
682	4	10	2	1	ZMD60	34	1	Mam	3	M	29	2	8	8	1	12	1	2	0
683	4	10	4	1	ZMD60	93	4	Mam	3	L	31	1	8	8	1	12	8	2	0
684	4	10	5	1	ZMD32	61	1	Mam	10	L	47	7	8	8	1	12	2	2	0
518	4	10	1	1	ZMD70	61	1	Mam	4	L	3	6	8	8	5	12	8	2	1
519	4	10	5	1	ZMD60	61	4	Mam	12	L	27	6	8	8	1	12	8	2	0

520	4	10	5	1	ZMD60	61	4	Mam	3	L	27	6	8	8	1	12	6	2	0
521	4	10	3	1	ZMD70	34	0	Mam	3	M	7	1	8	8	5	12	8	2	0
522	4	10	3	1	ZMD60	31	1	Mam	3	M	25	3	8	8	1	12	1	2	0
523	4	10	2	1	ZMD70	61	0	Mam	4	L	3	6	8	8	5	12	8	2	1
524	4	10	2	1	ZMD32	39	1	Mam	3	L	50	4	8	8	1	12	1	2	0
530	4	10	1	1	ZMD60	94	0	Mam	4	R	31	1	8	8	5	12	8	2	1
531	4	10	3	1	ZMD20	9	1	Mam	1	L	8	0	8	8	6	12	8	2	0
532	4	10	3	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
533	4	10	5	1	ZMD70	51	4	Mam	4	L	37	6	8	8	1	12	8	2	6
534	4	10	2	1	ZMD70	101	6	Mam	6	L	35	6	8	8	3	12	8	2	6
535	4	10	3	1	ZMD70	90	0	Mam	4	U	9	2	8	8	1	12	8	2	7
536	4	10	3	1	ZMD70	39	0	Mam	3	R	6	5	8	8	6	12	8	2	4
537	4	10	3	1	ZMD70	39	0	Mam	4	U	6	5	8	8	1	12	8	2	1
538	4	10	3	1	ZMD70	39	1	Mam	3	R	5	2	8	8	1	12	8	2	0
539	4	10	3	1	ZMD70	60	1	Mam	11	L	37	6	8	8	5	12	8	2	2
540	4	10	4	1	ZMD60	100	4	Mam	10	L	43	4	8	8	3	12	8	2	0
541	4	10	4	1	ZMD60	60	0	Mam	6	R	26	4	7	10	6	12	8	2	6
542	4	10	5	1	ZMD60	60	1	Mam	11	R	26	4	8	8	1	12	8	2	7
543	4	10	5	1	ZMD60	60	0	Mam	11	L	26	4	8	8	1	12	8	2	1
544	4	10	1	1	ZMD60	94	5	Mam	4	L	31	1	8	8	5	12	1	2	9
545	4	10	3	1	ZMD70	62	4	Mam	5	R	4	5	8	8	1	12	8	2	0
546	4	10	4	2	ZMD60	31	5	Mam	1	M	25	3	8	8	1	12	8	2	0
547	4	10	2	1	ZMD60	60	1	Mam	3	R	26	4	8	8	1	12	8	2	0
548	4	10	3	1	ZMD60	94	0	Mam	3	R	31	1	8	8	6	12	6	2	0
549	4	10	4	1	ZMD60	61	5	Mam	10	L	27	6	8	8	1	12	8	2	6
550	4	10	4	1	ZMD60	94	1	Mam	4	L	31	1	8	8	5	12	8	4	1
551	4	10	3	1	ZMD60	94	1	Mam	3	L	31	1	8	8	5	12	8	2	0
552	4	10	5	1	ZMD60	94	4	Mam	3	R	31	1	7	10	1	12	8	2	0
553	4	10	5	1	ZMD60	94	0	Mam	4	R	31	1	8	8	1	12	8	2	1
554	4	10	3	1	ZMD60	60	0	Mam	11	L	26	4	8	8	6	12	8	2	5
555	4	10	4	1	ZMD60	77	1	Mam	1	U	28	6	8	8	1	12	8	2	0
556	4	10	2	1	ZMD32	61	0	Mam	4	R	47	7	8	8	1	12	8	2	2
557	4	10	2	1	ZMD32	39	1	Mam	3	L	50	4	8	8	1	12	8	2	0
558	4	10	5	1	ZMD70	61	1	Mam	11	R	3	6	8	8	5	12	8	2	9
559	4	10	5	1	ZMD70	61	4	Mam	10	L	3	6	8	8	5	12	8	2	0
560	4	10	4	1	ZMD70	62	1	Mam	6	R	4	6	8	8	1	12	8	2	6
561	4	10	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	6
562	4	10	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	5	12	8	2	7
563	4	10	5	1	ZMD60	4	0	Mam	3	M	40	6	8	8	6	12	8	2	0
564	4	10	5	1	ZMD60	4	0	Mam	3	U	40	6	8	8	1	12	8	2	4
565	4	10	5	1	ZMD60	4	0	Mam	3	U	40	6	8	8	1	12	8	2	0
566	4	10	4	1	ZMD60	6	11	Mam	3	L	40	6	8	8	1	12	8	2	0
567	4	10	4	1	ZMD60	6	13	Mam	3	R	40	6	8	8	1	12	8	2	0
568	4	10	2	1	ZMD60	6	11	Mam	3	R	40	6	8	8	5	12	8	2	0
569	4	10	2	1	ZMD60	6	11	Mam	3	R	40	6	8	8	5	12	8	2	0
570	4	10	5	1	ZMD60	6	12	Mam	3	R	40	6	8	8	1	12	8	2	0
571	4	10	4	1	ZMD32	9	1	Mam	4	L	49	6	8	8	5	12	8	2	3
572	4	10	4	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
573	4	10	4	1	ZBE03	20	1	BIRD	1	M	0	0	8	8	1	12	1	2	0
574	4	10	4	4	ZBD00	21	1	BIRD	3	M	0	0	8	8	1	12	8	2	0
575	4	10	4	1	MRZ02	20	1	Mam	1	M	0	0	8	8	1	12	8	2	0

576	4	10	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
577	4	10	4	1	ZMD70	39	1	Mam	4	M	6	5	8	8	5	12	1	2	8
578	4	10	4	1	ZMD70	7	0	Mam	4	U	39	7	8	8	5	12	8	2	3
579	4	10	5	1	ZMD70	9	1	Mam	3	L	39	7	8	8	1	12	8	2	0
580	4	10	4	1	ZMD70	61	1	Mam	4	R	4	6	8	8	5	12	8	2	1
581	4	10	4	1	ZMD70	60	1	Mam	4	U	4	6	8	8	1	12	8	2	7
582	4	10	5	1	ZMD60	60	1	Mam	10	R	26	4	8	8	1	12	1	2	0
583	4	10	3	1	MRZ02	20	1	Mam	2	M	0	0	8	8	1	12	8	2	0
584	4	10	3	1	MRZ02	7	1	Mam	1	U	0	0	8	8	1	12	8	2	0
585	4	10	3	2	ZMD20	7	10	Mam	3	M	0	0	8	8	1	12	8	2	0
586	4	10	3	2	ZBD00	21	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
587	4	10	5	1	ZMD60	6	12	Mam	3	L	40	6	8	8	1	12	8	2	0
588	4	10	5	1	ZMD60	6	0	Mam	3	L	40	6	8	8	1	12	8	2	0
589	4	10	4	1	ZBD01	53	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
590	4	10	3	2	ZMD00	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
591	4	10	5	1	ZMD60	6	13	Mam	3	L	40	6	8	8	1	12	8	2	0
592	4	10	3	1	ZMD60	7	11	Mam	2	U	40	6	8	8	5	12	1	2	3
593	4	10	5	1	ZMD60	7	0	Mam	3	U	40	6	8	8	1	12	8	2	0
594	4	10	2	1	ZMD70	101	0	Mam	4	R	35	6	8	8	5	12	8	2	9
595	4	10	2	1	ZMD70	34	1	Mam	3	M	7	1	8	8	5	12	8	2	1
596	4	10	2	1	ZMD70	90	1	Mam	4	U	9	2	8	8	5	12	2	2	8
597	4	10	5	1	ZMD70	61	1	Mam	10	L	3	6	8	8	1	12	8	2	0
598	4	10	2	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	2	6
599	4	10	4	1	ZMD70	101	1	Mam	4	L	35	6	8	8	5	12	8	2	6
600	4	10	5	1	ZMD70	61	4	Mam	3	L	3	6	8	8	1	12	8	2	0
601	4	10	5	1	ZMD32	62	1	Mam	5	L	47	5	8	8	1	12	8	2	0
602	4	10	2	1	ZMD32	39	1	Mam	3	R	50	4	8	8	1	12	8	2	0
603	4	10	5	1	ZMD60	94	0	Mam	4	R	31	1	8	8	1	12	8	2	7
604	4	10	2	1	ZMD60	8	12	Mam	3	R	40	6	8	8	5	12	8	2	0
605	4	10	5	1	ZMD60	9	10	Mam	4	L	40	6	8	8	1	12	8	2	1
606	4	10	5	1	ZMD60	9	0	Mam	4	L	40	6	8	8	1	12	8	2	7
607	4	10	5	1	ZMD60	9	13	Mam	3	L	40	6	8	8	1	12	8	2	0
608	4	10	5	2	ZMD60	10	12	Mam	2	U	40	6	8	8	1	12	8	2	0
609	4	10	2	1	ZMD60	11	11	Mam	1	U	40	6	8	8	1	12	8	2	0
610	4	10	5	1	ZMD60	11	11	Mam	1	U	40	6	8	8	1	12	8	2	0
611	4	10	5	1	ZMD60	11	11	Mam	1	U	40	6	8	8	1	12	8	2	0
612	4	10	5	1	ZMD60	11	11	Mam	1	U	40	6	8	8	1	12	8	2	0
613	4	10	2	1	ZMD60	77	1	Mam	1	U	28	6	8	8	1	12	1	2	0
614	4	10	2	1	ZMD60	77	4	Mam	1	U	28	6	8	8	1	12	8	2	0
615	4	10	2	1	ZMD60	77	4	Mam	3	U	28	6	8	8	1	12	8	2	0
616	4	10	2	1	ZMD60	85	0	Mam	1	U	28	6	8	8	1	12	8	2	0
617	4	10	2	1	ZMD60	77	5	Mam	1	U	28	6	8	8	1	12	1	2	0
618	4	10	2	1	ZMZ05	120	1	Mam	4	U	0	0	8	8	5	12	8	2	6
619	4	10	2	1	ZMZ05	120	1	Mam	4	U	0	0	8	8	5	12	8	2	7
620	4	10	2	1	ZMZ05	120	1	Mam	4	U	0	0	8	8	5	12	8	2	7
621	4	10	2	1	ZMD70	39	0	Mam	3	U	6	5	8	8	5	12	8	2	0
622	4	10	2	1	ZMZ04	51	0	Mam	4	U	0	0	8	8	5	12	8	2	7
623	4	10	4	1	ZMD70	39	1	Mam	4	R	5	2	7	10	3	12	8	2	8
624	4	10	4	1	ZMD70	39	1	Mam	4	R	5	2	8	8	5	12	8	2	8
625	4	10	4	1	ZMD70	90	1	Mam	4	U	9	2	8	8	1	12	8	2	7
626	4	10	4	1	ZMD70	101	1	Mam	4	L	35	6	8	8	5	12	1	2	3

627	4	10	4	1	ZMD70	101	1	Mam	4	L	35	6	8	8	5	12	8	2	7
628	4	10	5	1	ZMD70	101	1	Mam	11	R	35	6	8	8	1	12	8	2	10
629	4	10	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	5	12	2	3	7
630	4	10	2	1	ZMD60	100	5	Mam	5	R	31	1	8	8	1	12	1	2	0
631	4	10	2	1	ZMD60	100	6	Mam	6	R	31	1	8	8	5	12	8	2	1
632	4	10	5	1	ZMD60	100	5	Mam	6	L	43	1	8	8	1	12	8	2	8
633	4	10	3	1	ZMD60	100	0	Mam	4	U	31	1	8	8	5	12	8	2	7
634	4	10	3	1	ZMD60	61	4	Mam	10	R	27	6	8	8	1	12	5	2	0
635	4	10	2	1	ZMD60	101	4	Mam	10	R	27	6	8	8	5	12	8	2	5
636	4	10	4	1	ZMD60	101	0	Mam	10	L	27	6	8	8	5	12	8	2	0
637	4	10	5	1	ZMD60	100	4	Mam	6	L	43	1	7	10	3	12	8	2	6
638	4	10	2	1	ZMD32	39	1	Mam	3	R	50	4	8	8	1	12	8	2	0
639	4	10	4	1	ZMD32	39	1	Mam	5	L	50	4	8	8	5	12	8	2	0
640	4	10	5	1	ZMD60	60	4	Mam	10	R	26	4	8	8	1	12	8	2	0
641	4	10	5	1	ZMD70	101	0	Mam	4	U	35	6	8	8	5	12	8	2	7
642	4	10	5	1	ZMD70	94	1	Mam	3	R	52	2	8	8	5	12	8	2	0
643	4	10	5	1	ZMD70	85	4	Mam	3	U	41	8	8	8	5	12	8	2	0
644	4	10	3	1	ZMD70	60	1	Mam	4	U	37	6	8	8	6	12	8	2	7
645	4	10	5	1	ZMD70	61	4	Mam	11	L	3	6	8	8	3	12	8	2	7
646	4	10	5	1	ZMD70	61	1	Mam	11	L	3	6	8	8	6	12	8	2	3
647	4	10	5	1	ZMD70	61	0	Mam	4	L	3	6	8	8	5	12	8	2	7
648	4	10	5	1	ZMD70	61	1	Mam	11	R	3	6	8	8	1	12	8	2	6
649	4	10	5	1	ZMD60	100	4	Mam	5	R	43	1	8	8	5	12	8	2	4
650	4	10	5	1	ZMD60	100	4	Mam	10	R	43	4	8	8	1	12	8	2	0
651	4	10	5	1	ZMD60	100	4	Mam	10	R	43	4	8	8	3	12	8	2	0
652	4	10	5	1	ZMD60	100	4	Mam	4	R	43	3	8	8	1	12	8	2	1
653	4	10	5	1	ZMD60	101	4	Mam	12	R	27	6	8	8	1	12	8	2	0
654	4	10	5	1	ZMD60	31	0	Mam	3	M	25	3	8	8	1	12	8	3	0
655	4	10	5	1	ZMD60	60	1	Mam	10	R	26	4	8	8	5	12	8	2	0
656	4	10	2	1	ZMD60	60	4	Mam	5	R	26	4	8	8	1	12	8	4	0
657	4	10	4	1	ZMD60	101	4	Mam	10	U	27	6	8	8	1	12	8	2	0
658	4	10	5	1	ZMD60	100	4	Mam	4	R	43	3	8	8	1	12	8	2	7
520	4	10	1	1	ZMD60	110	0	Mam	1	R	27	6	8	8	3	12	8	2	0
521	4	10	2	1	ZMD60	31	0	Mam	3	M	25	3	8	8	5	12	8	2	0
522	4	10	5	1	ZMD60	110	1	Mam	4	L	27	6	8	8	1	12	8	2	6
654	4	10	4	1	ZMD60	100	5	Mam	1	R	31	1	7	9	5	12	1	2	4
655	4	10	2	1	ZMD60	61	8	Mam	1	R	26	4	8	8	5	12	8	2	0
656	4	10	5	1	ZMD60	100	4	Mam	5	L	43	4	8	8	1	12	8	2	4
524	4	10	1	1	ZMD60	101	4	Mam	3	R	43	4	8	8	1	12	8	2	0
525	4	10	4	1	ZMD60	33	5	Mam	3	M	42	2	8	8	1	12	2	2	0
526	4	10	5	1	ZMD60	31	0	Mam	4	M	24	3	8	8	1	12	8	2	1
527	4	10	3	1	ZMD60	61	1	Mam	5	L	26	4	8	8	6	12	8	2	0
528	4	10	5	1	ZMD32	101	1	Mam	5	L	46	3	8	8	5	12	8	2	2
529	4	10	4	1	ZMD32	62	0	Mam	3	U	47	7	5	9	1	12	8	1	0
530	4	10	5	1	ZMD32	62	0	Mam	5	R	47	7	8	8	1	12	1	2	0
531	4	10	5	3	ZMD32	208	1	Mam	6	R	47	5	8	8	1	12	8	2	1
532	4	10	2	1	ZMD32	100	1	Mam	11	R	47	7	8	8	5	12	8	3	3
533	4	10	5	1	ZMD10	8	1	Mam	1	R	0	0	8	8	1	12	8	2	0
534	4	10	5	1	MRZ02	9	1	Mam	1	L	0	0	8	8	2	2	8	2	0
535	4	10	5	1	MRZ02	9	1	Mam	1	L	0	0	8	8	2	2	8	2	0
536	4	10	5	1	MRS15	100	1	Mam	1	R	0	0	8	8	1	12	8	2	0

537	4	10	5	1	MRZ02	90	1	Mam	1	R	0	0	8	8	2	2	8	2	0
538	4	10	3	1	ZMD70	36	4	Mam	4	M	2	4	8	8	1	12	8	2	6
539	4	10	4	1	ZMD70	36	1	Mam	3	M	2	4	8	8	1	12	8	2	0
540	4	10	5	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	2	3
541	4	10	2	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	1	2	7
542	4	10	2	1	ZMD70	39	1	Mam	3	U	6	5	8	8	5	12	8	2	0
543	4	10	2	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	2
544	4	10	2	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	7
545	4	10	2	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	2
546	4	10	2	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	2
547	4	10	2	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	2
548	4	10	2	1	ZMD70	34	1	Mam	4	M	9	2	8	8	5	12	8	2	1
549	4	10	2	1	ZMD70	34	1	Mam	4	M	9	2	8	8	6	12	8	2	1
550	4	10	2	1	ZMD70	34	1	Mam	4	M	9	2	8	8	5	12	8	2	7
551	4	10	2	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	8	2	7
552	4	10	2	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	8	2	7
553	4	10	2	1	ZMD70	34	1	Mam	4	M	9	2	8	8	5	12	8	2	1
554	4	10	2	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	1	2	1
555	4	10	2	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	8	2	3
556	4	10	2	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	3
557	4	10	4	1	ZMD60	33	1	Mam	4	M	42	2	8	8	1	12	8	2	1
558	4	10	4	1	ZMD60	34	4	Mam	3	M	42	4	8	8	1	12	8	2	0
559	4	10	1	1	ZMD60	36	4	Mam	3	M	42	2	8	8	1	12	8	2	0
534	4	10	1	1	ZMD60	36	0	Mam	3	M	42	2	8	8	5	12	8	2	0
535	4	10	1	1	ZMD60	36	0	Mam	4	M	42	2	8	8	5	12	1	2	2
536	4	10	2	1	ZMD60	36	0	Mam	3	M	42	2	8	8	5	12	1	2	0
537	4	10	2	1	ZMD60	34		Mam	3	M	29	2	8	8	1	12	8	2	0
538	4	10	2	1	ZMD60	34	1	Mam	3	M	29	2	8	8	1	12	5	2	0
539	4	10	3	1	ZMD60	34	1	Mam	3	M	29	2	8	8	1	12	8	2	0
540	4	10	5	1	ZMD60	32	4	Mam	4	M	25	3	8	8	1	12	8	2	3
541	4	10	5	1	ZMD60	32	0	Mam	3	M	25	3	8	8	1	12	8	2	0
542	4	10	2	1	ZMD60	36	1	Mam	3	M	42	2	8	8	1	12	8	2	0
543	4	10	2	1	ZMD60	36	1	Mam	4	M	42	2	8	8	1	12	8	2	3
544	4	10	4	1	ZMD32	39	1	Mam	6	R	50	4	8	8	1	12	8	2	6
545	4	10	4	1	ZMD32	39	1	Mam	5	R	50	4	8	8	1	12	8	2	0
546	4	10	4	1	ZMD32	39	1	Mam	6	R	50	4	8	8	1	12	8	2	3
547	4	10	4	1	ZMD32	39	1	Mam	5	R	50	4	8	8	1	12	8	2	0
548	4	10	5	1	ZMD32	31	1	Mam	3	M	51	6	8	8	5	12	8	2	0
549	4	10	1	1	ZMD32	33	0	Mam	4	M	51	3	8	8	1	12	8	2	2
550	4	10	4	1	ZMD32	39	1	Mam	5	R	50	4	8	8	1	12	8	2	0
551	4	10	5	1	ZMD70	36	0	Mam	3	M	2	4	8	8	5	12	8	2	0
552	4	10	4	1	ZMD70	36	0	Mam	3	M	2	4	8	8	1	12	8	2	1
553	4	10	2	1	ZMZ04	30	1	Mam	3	M	0	0	8	8	1	12	6	2	0
554	4	10	2	3	ZMZ04	30	1	Mam	4	M	0	0	8	8	1	12	8	2	1
555	4	10	2	1	ZMZ04	36	1	Mam	3	M	0	0	8	8	1	12	8	2	0
556	4	10	2	1	ZMZ04	30	1	Mam	3	M	0	0	8	8	1	12	8	2	0
557	4	10	2	8	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	6	2	0
558	4	10	2	2	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	2	2	0
559	4	10	2	43	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
560	4	10	2	2	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	2	2	3
561	4	10	2	9	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	3

562	4	10	3	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	8	2	1
563	4	10	3	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	8	2	1
564	4	10	3	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	4	2	3
565	4	10	3	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	8	2	1
566	4	10	3	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	1	2	1
567	4	10	3	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	8	2	1
568	4	10	3	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	8	2	1
569	4	10	3	1	ZMD70	34	4	Mam	4	M	9	2	8	8	1	12	8	2	3
570	4	10	3	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	8	2	1
571	4	10	3	1	ZMD70	34	1	Mam	4	M	9	2	8	8	1	12	8	2	1
572	4	10	4	1	ZMD70	36	0	Mam	4	M	2	4	8	8	3	12	8	2	0
573	4	10	5	1	ZMD70	36	1	Mam	4	M	2	4	8	8	5	12	8	2	7
574	4	10	1	1	ZMD70	39	1	Mam	3	L	2	4	8	8	6	12	8	2	0
517	4	10	1	1	ZMD70	39	1	Mam	3	R	2	4	8	8	6	12	8	2	0
518	4	10	3	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	1	2	1
519	4	10	3	1	ZMD70	39	1	Mam	3	U	6	5	8	8	5	12	8	2	1
520	4	10	3	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	0
521	4	10	3	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	0
522	4	10	3	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	7
523	4	10	3	1	ZMD70	39	1	Mam	4	U	6	5	7	10	1	12	8	2	7
524	4	10	3	1	ZMD60	34	4	Mam	3	M	29	2	8	8	1	12	8	2	0
525	4	10	3	1	ZMD60	34	4	Mam	4	M	29	2	8	8	1	12	8	2	3
526	4	10	3	1	ZMD60	34	4	Mam	4	M	29	2	8	8	1	12	8	2	1
527	4	10	3	1	ZMD60	34	4	Mam	4	M	29	2	8	8	1	12	8	2	1
528	4	10	4	1	ZMD60	34	5	Mam	3	M	29	2	8	8	5	12	8	2	0
529	4	10	2	1	ZMD60	33	1	Mam	4	M	25	3	8	8	1	12	8	2	2
530	4	10	3	1	ZMD60	36	4	Mam	3	M	42	2	8	8	1	12	8	2	0
531	4	10	3	1	ZMD60	36	4	Mam	3	M	42	2	8	8	1	12	8	2	0
532	4	10	3	1	ZMD60	36	4	Mam	3	M	42	2	8	8	1	12	5	2	0
533	4	10	3	1	ZMD60	36	4	Mam	3	M	42	2	8	8	1	12	8	2	0
534	4	10	3	1	ZMD60	36	1	Mam	3	M	42	2	8	8	5	12	8	2	0
535	4	10	2	1	ZMD60	33	1	Mam	4	M	25	3	8	8	1	12	8	2	7
536	4	10	3	1	ZMD60	33	4	Mam	4	M	25	3	8	8	1	12	8	2	3
537	4	10	5	1	ZMD60	36	1	Mam	4	M	42	2	8	8	1	12	8	2	3
538	4	10	5	1	ZMD60	36	5	Mam	4	M	42	2	8	8	1	12	8	2	3
539	4	10	5	1	ZMD60	36	5	Mam	4	M	42	2	8	8	1	12	8	2	1
540	4	10	5	1	ZMD60	36	1	Mam	3	M	42	2	8	8	1	12	8	2	0
541	4	10	3	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	3
542	4	10	3	1	ZMD32	34	1	Mam	3	M	21	1	8	8	1	12	8	2	0
543	4	10	3	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	1
544	4	10	3	1	ZMD32	34	1	Mam	3	M	21	1	8	8	1	12	8	2	0
545	4	10	3	1	ZMD32	34	4	Mam	4	M	21	1	8	8	5	12	8	2	3
546	4	10	3	1	ZMD32	36	1	Mam	3	M	19	2	8	8	1	12	8	2	0
547	4	10	1	1	ZMD32	33	0	Mam	4	M	51	3	8	8	1	12	8	2	2
548	4	10	2	1	ZMD32	33	1	Mam	4	M	51	6	8	8	1	12	8	2	3
549	4	10	3	1	ZMD32	39	1	Mam	3	R	19	2	8	8	1	12	8	2	0
550	4	10	3	2	ZMZ04	39	1	Mam	4	U	0	0	8	8	1	12	8	2	3
551	4	10	3	13	ZMZ04	39	1	Mam	3	U	0	0	8	8	1	12	8	2	0
552	4	10	3	6	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
553	4	10	3	2	ZMZ04	30	0	Mam	4	M	0	0	8	8	1	12	8	2	3
554	4	10	4	1	ZMD60	34	5	Mam	4	M	29	2	8	8	1	12	8	2	3

555	4	10	4	1	ZMD60	34	5	Mam	3	M	29	2	8	8	1	12	8	2	0
556	4	10	5	1	ZMD60	34	4	Mam	3	M	29	2	8	8	1	12	8	2	3
557	4	10	5	1	ZMD60	36	1	Mam	4	M	42	2	8	8	1	12	8	2	1
558	4	10	5	1	ZMD60	36	4	Mam	4	M	42	2	8	8	3	12	8	2	6
559	4	10	2	1	ZMD60	36	5	Mam	3	M	42	4	8	8	1	12	1	2	0
560	4	10	3	1	ZMD60	36	4	Mam	3	M	42	2	8	8	1	12	8	2	0
561	4	10	3	1	ZMD60	36	1	Mam	3	M	42	2	8	8	1	12	8	2	0
562	4	10	5	1	ZMD60	33	4	Mam	2	M	25	3	8	8	1	12	8	2	0
563	4	10	5	1	ZMD60	33	4	Mam	2	M	25	3	8	8	1	12	8	2	3
564	4	10	5	1	ZMD60	33	5	Mam	3	M	25	3	8	8	1	12	8	2	0
565	4	10	5	1	ZMD60	33	5	Mam	4	M	25	3	8	8	1	12	1	2	3
566	4	10	5	1	ZMD60	33	4	Mam	3	M	25	3	8	8	1	12	8	2	0
567	4	10	5	1	ZMD60	33	5	Mam	3	M	25	3	8	8	1	12	1	2	0
568	4	10	4	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	1
569	4	10	4	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	3
570	4	10	2	1	ZMD32	33	1	Mam	3	M	51	6	8	8	1	12	3	2	0
571	4	10	4	1	ZMD32	33	1	Mam	4	M	51	6	8	8	1	12	8	2	1
572	4	10	4	1	ZMD32	36	0	Mam	3	M	19	2	8	8	1	12	8	2	0
573	4	10	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	3	1
574	4	10	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	7
575	4	10	4	1	ZMD70	34	4	Mam	4	M	7	1	8	8	1	12	8	2	3
576	4	10	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
577	4	10	4	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
578	4	10	4	1	ZMD70	33	0	Mam	4	M	44	7	8	8	1	12	8	2	3
579	4	10	1	1	ZMD70	39	1	Mam	5	R	2	4	8	8	5	12	8	2	1
580	4	10	2	1	ZMD70	39	1	Mam	6	R	2	4	8	8	1	12	8	2	6
581	4	10	2	1	ZMD70	39	1	Mam	5	R	2	4	8	8	5	12	8	2	0
582	4	10	5	1	ZMD60	36	4	Mam	4	M	42	2	8	8	1	12	8	2	1
583	4	10	4	3	ZMZ05	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
584	4	10	4	4	ZMZ05	30	0	Mam	4	M	0	0	8	8	1	12	8	2	3
585	4	10	4	1	ZMZ04	30	0	Mam	4	M	0	0	8	8	1	12	3	2	3
586	4	10	4	7	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
587	4	10	2	1	ZMD70	39	1	Mam	3	L	2	4	8	8	5	12	8	2	0
588	4	10	2	1	ZMD70	39	1	Mam	3	R	2	4	8	8	5	12	8	2	0
589	4	10	2	1	ZMD70	39	1	Mam	4	R	2	4	8	8	5	12	8	2	1
590	4	10	3	1	ZMD70	39	1	Mam	3	L	2	4	8	8	5	12	8	2	2
591	4	10	3	1	ZMD70	39	1	Mam	4	R	2	4	8	8	5	12	8	2	1
592	4	10	4	1	ZMD70	39	1	Mam	3	M	6	5	8	8	1	12	8	2	0
593	4	10	4	1	ZMD70	39	1	Mam	3	M	5	2	8	8	1	12	8	2	0
594	4	10	4	1	ZMD70	39	1	Mam	4	M	5	2	8	8	1	12	8	2	6
595	4	10	4	1	ZMD70	39	1	Mam	4	M	5	2	8	8	6	12	8	2	6
596	4	10	4	1	ZMD70	39	1	Mam	3	M	5	2	8	8	1	12	8	2	0
597	4	10	4	1	ZMD70	39	1	Mam	4	M	5	2	8	8	1	12	8	2	7
598	4	10	4	1	ZMD70	39	1	Mam	3	M	5	2	8	8	1	12	8	2	0
599	4	10	4	1	ZMD70	39	1	Mam	3	M	5	2	8	8	1	12	8	2	0
600	4	10	4	1	ZMD70	39	1	Mam	4	M	5	2	8	8	6	12	8	2	6
601	4	10	3	1	ZMD70	39	1	Mam	4	R	2	4	8	8	1	12	8	2	1
602	4	10	4	1	ZMD70	39	1	Mam	4	M	5	2	8	8	6	12	8	2	6
603	4	10	4	1	ZMD70	39	1	Mam	4	M	5	2	8	8	1	12	8	2	6
604	4	10	4	1	ZMD70	39	1	Mam	4	M	5	2	8	8	1	12	8	2	7
605	4	10	5	1	ZMD60	37	4	Mam	2	M	42	4	8	8	1	12	8	2	0

606	4	10	2	1	ZMD60	39	1	Mam	4	L	42	2	8	8	1	12	8	2	3
607	4	10	2	1	ZMD60	39	1	Mam	4	L	42	2	8	8	1	12	8	2	6
608	4	10	2	1	ZMD60	39	1	Mam	3	L	42	2	8	8	1	12	8	2	0
609	4	10	2	1	ZMD60	39	1	Mam	4	R	42	2	8	8	1	12	8	2	3
610	4	10	2	1	ZMD60	39	1	Mam	3	R	42	2	8	8	1	12	8	2	0
611	4	10	2	1	ZMD60	39	1	Mam	3	R	42	2	8	8	1	12	8	2	0
612	4	10	3	1	ZMD60	39	1	Mam	3	L	42	2	8	8	1	12	8	2	0
613	4	10	5	1	ZMD32	39	1	Mam	5	L	50	4	8	8	1	12	8	2	0
614	4	10	5	1	ZMD32	39	4	Mam	5	L	50	4	8	8	1	12	8	2	0
615	4	10	5	1	ZMD32	39	4	Mam	5	R	50	4	8	8	1	12	8	2	0
616	4	10	5	1	ZMD32	39	4	Mam	5	R	50	4	8	8	1	12	8	2	0
617	4	10	5	1	ZMD32	39	1	Mam	5	R	50	4	8	8	1	12	8	2	0
618	4	10	1	1	ZMD32	51	0	Mam	3	R	50	3	8	8	6	12	8	2	5
619	4	10	4	5	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	5	2	0
620	4	10	4	78	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
621	4	10	4	10	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	3
622	4	10	3	1	ZMD32	51	1	Mam	3	R	50	4	8	8	1	12	1	2	1
623	4	10	4	1	ZMD32	51	0	Mam	4	R	50	3	8	8	3	12	8	2	2
624	4	10	1	1	ZMD32	51	0	Mam	3	R	50	4	8	8	1	12	8	2	0
625	4	10	1	1	ZMD32	51	0	Mam	3	R	50	4	8	8	1	12	8	2	0
626	4	10	5	1	ZMD32	51	0	Mam	3	U	50	5	8	8	1	12	8	2	0
627	4	10	5	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	1
628	4	10	5	1	ZMD32	34	1	Mam	3	M	21	1	8	8	5	12	8	2	0
629	4	10	4	1	ZMD32	33	1	Mam	4	M	51	6	8	8	1	12	1	2	1
630	4	10	5	1	ZMD32	33	4	Mam	3	M	51	6	8	8	1	12	8	2	0
631	4	10	5	1	ZMD32	33	4	Mam	4	M	51	6	8	8	5	12	8	2	1
632	4	10	5	1	ZMD32	36	4	Mam	4	M	19	2	8	8	1	12	8	2	1
633	4	10	5	1	ZMD60	34	4	Mam	3	M	29	2	8	8	1	12	8	2	0
634	4	10	5	1	ZMD60	34	4	Mam	4	M	29	2	8	8	1	12	8	2	1
635	4	10	5	1	ZMD60	34	4	Mam	4	M	29	2	8	8	1	12	8	2	1
636	4	10	5	1	ZMD60	34	4	Mam	3	M	29	2	8	8	3	12	8	2	0
637	4	10	5	1	ZMD60	34	4	Mam	3	M	29	2	8	8	1	12	8	2	0
638	4	10	5	1	ZMD60	33	8	Mam	4	M	25	3	8	8	1	12	8	2	3
639	4	10	5	1	ZMD60	33	4	Mam	4	M	25	3	8	8	1	12	8	2	3
640	4	10	4	1	ZMD60	36	5	Mam	3	M	25	3	8	8	1	12	8	2	0
641	4	10	4	1	ZMD60	36	5	Mam	4	M	25	3	8	8	1	12	8	2	1
642	4	10	4	1	ZMD60	36	0	Mam	4	M	25	3	8	8	1	12	8	2	1
643	4	10	4	1	ZMD60	36	0	Mam	3	M	25	3	8	8	1	12	8	2	0
644	4	10	3	1	ZMD60	39	1	Mam	3	L	42	2	8	8	1	12	8	2	0
645	4	10	3	1	ZMD60	39	1	Mam	4	R	42	2	8	8	1	12	8	2	3
646	4	10	3	1	ZMD60	39	1	Mam	3	R	42	2	8	8	1	12	8	2	0
647	4	10	4	1	ZMD60	39	1	Mam	5	L	42	2	8	8	1	12	8	2	0
648	4	10	4	1	ZMD60	39	1	Mam	5	L	42	2	8	8	1	12	8	2	0
649	4	10	4	1	ZMD60	36	0	Mam	4	M	25	3	8	8	1	12	8	2	1
650	4	10	5	1	ZMD60	51	4	Mam	4	L	25	3	8	8	5	12	8	2	0
651	4	10	4	1	ZMD60	39	1	Mam	5	L	42	2	8	8	1	12	8	2	0
652	4	10	5	1	ZMD60	39	5	Mam	10	L	30	5	8	8	1	12	8	2	0
653	4	10	4	1	ZMD60	39	1	Mam	5	L	42	2	5	10	1	12	8	2	0
654	4	10	4	1	ZMD60	39	1	Mam	5	R	42	2	8	8	1	12	8	2	0
655	4	10	4	1	ZMD60	39	1	Mam	2	R	42	2	8	8	1	12	8	2	0
656	4	10	4	1	ZMD60	39	1	Mam	2	R	42	2	8	8	1	12	8	2	4

657	4	10	4	1	ZMD60	39	1	Mam	5	L	42	2	8	8	1	12	8	2	0
658	4	10	5	1	ZMD60	39	4	Mam	5	L	42	2	8	8	1	12	8	2	0
659	4	10	5	1	ZMD60	39	1	Mam	6	L	42	2	8	8	1	12	1	2	3
660	4	10	5	1	ZMD60	39	1	Mam	6	L	42	2	8	8	1	12	8	2	3
661	4	10	5	1	ZMD60	39	4	Mam	5	L	42	2	8	8	1	12	8	2	5
662	4	10	5	1	ZMD60	39	0	Mam	3	R	42	2	8	8	1	12	8	2	5
663	4	10	5	1	ZMD60	39	1	Mam	2	R	42	2	8	8	1	12	8	2	0
664	4	10	5	1	ZMD60	39	0	Mam	10	U	30	5	8	8	1	12	8	2	0
665	4	10	5	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	1
666	4	10	5	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
667	4	10	5	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
668	4	10	5	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
669	4	10	5	1	ZMD70	34	4	Mam	4	M	7	1	8	8	1	12	8	2	1
670	4	10	5	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
671	4	10	5	1	ZMD70	34	4	Mam	3	M	7	1	8	8	1	12	8	2	0
1500	4	10	5	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
1501	4	10	5	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
1502	4	10	5	1	ZMD70	34	1	Mam	3	M	7	1	8	8	1	12	8	2	0
1503	4	10	5	1	ZMD70	36	1	Mam	3	M	5	2	8	8	1	12	8	2	0
1504	4	10	5	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	1
1505	4	10	5	1	ZMD70	36	1	Mam	3	M	5	2	8	8	1	12	8	2	0
1506	4	10	5	1	ZMD70	36	1	Mam	3	M	5	2	8	8	1	12	8	2	0
1507	4	10	4	1	ZMD70	39	1	Mam	11	L	2	4	8	8	5	12	8	2	6
1508	4	10	5	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	1
1509	4	10	5	1	ZMD70	36	4	Mam	4	M	5	2	8	8	1	12	8	2	1
1510	4	10	4	1	ZMD70	39	1	Mam	10	L	2	4	8	8	5	12	8	2	6
1511	4	10	4	1	ZMD70	39	1	Mam	11	L	2	4	8	8	6	12	8	2	6
1512	4	10	4	1	ZMD70	39	1	Mam	11	L	2	4	8	8	6	12	8	2	0
1513	4	10	5	1	ZMD70	39	1	Mam	4	L	5	2	8	8	1	12	8	2	1
1514	4	10	4	1	ZMD70	39	1	Mam	10	R	2	4	8	8	1	12	8	2	6
1515	4	10	5	1	ZMD70	39	1	Mam	4	L	5	2	8	8	6	12	8	2	7
1516	4	10	5	1	ZMD70	39	1	Mam	4	R	5	2	8	8	6	12	8	2	7
1517	4	10	5	1	ZMD70	39	1	Mam	2	R	5	2	8	8	6	12	8	2	5
1518	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	7
1519	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1520	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	3
1521	4	10	5	1	ZMD70	39	1	Mam	3	U	6	5	8	8	6	12	8	2	0
1522	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	7	10	3	12	8	2	3
1523	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1524	4	10	5	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	0
1525	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1526	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	3
1527	4	10	5	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	0
1528	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	6	12	8	2	5
1529	4	10	5	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	0
1530	4	10	5	1	ZMD70	39	1	Mam	3	U	6	5	8	8	5	12	8	2	0
1531	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	0
1532	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1533	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1534	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1535	4	10	5	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	0

1536	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1537	4	10	5	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	0
1538	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1539	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1540	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
1541	4	10	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	3
1542	4	10	4	1	ZMD70	39	1	Mam	4	M	2	2	7	10	1	12	8	2	8
1543	4	10	5	3	ZMZ04	39	1	Mam	4	U	0	0	8	8	1	12	5	2	3
1544	4	10	5	3	ZMZ04	39	1	Mam	3	U	0	0	8	8	1	12	2	2	0
1545	4	10	5	92	ZMZ04	39	1	Mam	3	U	0	0	8	8	1	12	8	2	0
1546	4	10	5	25	ZMZ04	39	1	Mam	4	U	0	0	8	8	1	12	8	2	3
1547	4	10	5	1	ZMD60	39	1	Mam	5	R	42	2	8	8	1	12	8	2	0
1548	4	10	5	4	ZMD60	34	0	Mam	3	M	29	2	8	8	1	12	8	2	0
1549	4	10	5	2	ZMZ04	30	0	Mam	4	M	0	0	8	8	1	12	8	2	6
1550	4	10	5	7	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
1551	4	10	5	4	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	2	2	0
1552	4	10	5	4	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	6
1553	4	10	5	1	ZMD32	33	1	Mam	4	M	51	6	8	8	1	12	8	2	1
1554	4	10	2	1	ZMD60	34	4	Mam	4	M	29	2	8	8	1	12	8	2	1
1555	4	10	1	1	ZMD70	100	0	Mam	4	U	10	3	8	8	5	9	8	2	7
1556	4	10	1	1	ZMD70	100	0	Mam	4	U	10	3	8	8	1	12	8	2	7
1557	4	10	5	1	ZMD70	60	1	Mam	6	R	37	6	8	8	5	12	1	2	6
1558	4	10	1	1	ZMD70	39	0	Mam	3	U	6	5	8	8	3	12	8	2	6
1559	4	10	1	1	ZMD70	90	0	Mam	4	U	9	2	8	8	1	12	2	2	7
1560	4	10	3	1	ZMD60	101	4	Mam	6	R	43	4	8	8	1	12	8	2	0
1561	4	10	5	1	ZMD32	51	1	Mam	3	U	50	4	8	8	1	12	8	2	0
1562	4	10	4	1	ZMD32	53	1	Mam	3	L	50	3	8	8	1	12	8	2	0
1563	4	10	1	1	ZMZ05	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1564	4	10	1	1	ZMD70	90	0	Mam	4	U	9	2	8	8	1	12	8	2	7
1565	4	10	1	2	ZMZ04	39	1	Mam	4	U	0	0	8	8	1	12	8	2	7
1566	4	10	3	1	ZMD60	34	4	Mam	4	M	29	2	8	8	1	12	8	2	7
1567	4	10	5	1	ZMD60	39	1	Mam	5	R	42	2	8	8	1	12	8	2	0
1568	4	10	1	1	ZBD00	21	1	BIRD	3	M	0	0	8	8	1	12	8	2	0
1569	4	10	2	1	ZMD32	100	0	Mam	4	R	46	3	8	8	5	12	8	2	5
1570	4	10	5	1	ZMD60	34	4	Mam	4	M	29	2	8	8	1	12	8	2	6
1571	4	10	5	1	ZMD70	39	1	Mam	5	L	2	4	8	8	5	12	2	2	6
1572	4	10	5	1	ZMD70	39	1	Mam	5	L	2	4	8	8	1	12	8	2	3
1573	4	10	5	1	ZMD70	39	1	Mam	6	L	2	4	8	8	1	12	8	2	8
1574	4	10	5	1	ZMD70	39	1	Mam	5	L	2	4	8	8	1	12	8	2	0
1575	4	10	2	1	ZMD70	91	1	Mam	4	R	9	2	8	8	5	12	8	2	7
1576	4	10	5	1	ZMD60	39	1	Mam	5	R	42	2	8	8	1	12	8	2	0
1577	4	10	3	1	ZMD60	61	1	Mam	5	L	26	4	8	8	6	12	8	2	0
1578	4	10	2	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	6
1579	4	10	4	1	ZMD60	101	1	Mam	5	R	43	4	8	8	5	12	8	2	0
1580	4	10	5	1	ZMD60	39	4	Mam	5	R	42	2	8	8	1	12	8	2	0
1581	4	10	1	1	ZMD32	101	3	Mam	11	R	47	3	8	8	5	12	8	2	2
1582	4	10	1	1	ZMD70	100	1	Mam	4	U	10	3	8	8	1	12	8	2	7
1583	4	10	2	1	ZMD70	100	1	Mam	4	U	10	3	8	8	5	12	8	2	7
1584	4	10	2	1	ZMD70	100	1	Mam	4	U	10	3	8	8	5	12	8	2	7
1585	4	10	2	1	ZMD70	100	1	Mam	4	U	10	3	8	8	5	12	8	2	7
1586	4	10	2	6	ZMZ05	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0

1587	4	10	2	3	ZMZ05	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1588	4	10	2	3	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	6
1589	4	10	2	1	ZMD70	90	0	Mam	4	U	9	2	8	8	5	12	8	2	7
1590	4	10	2	1	ZMD70	90	0	Mam	4	U	9	2	8	8	5	12	8	2	7
1591	4	10	3	3	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	6
1592	4	10	3	1	ZMD70	90	0	Mam	4	U	9	2	8	8	5	12	8	2	7
1593	4	10	3	1	ZMD70	90	0	Mam	4	U	9	2	8	8	5	12	8	2	7
1594	4	10	3	1	ZMD70	90	0	Mam	4	U	9	2	8	8	1	12	8	2	7
1595	4	10	3	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	5	12	8	2	7
1596	4	10	3	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	5	12	2	2	7
1597	4	10	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	3	12	8	2	7
1598	4	10	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	5	12	8	2	7
1599	4	10	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1600	4	10	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1601	4	10	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	5	12	8	2	7
1602	4	10	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1603	4	10	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1604	4	10	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1605	4	10	3	1	ZMZ05	120	1	Mam	4	U	0	0	8	8	1	12	8	2	9
1606	4	10	3	1	ZMD70	38	1	Mam	4	U	9	2	8	8	1	12	8	2	7
1607	4	10	5	1	ZMD70	39	1	Mam	7	R	2	4	8	8	6	12	8	2	3
1608	4	10	5	1	ZMD70	39	1	Mam	6	L	2	4	8	8	1	12	8	2	0
1609	4	10	3	1	ZMD70	100	1	Mam	4	U	10	3	8	8	1	12	8	2	7
1610	4	10	5	1	ZMD70	39	1	Mam	11	R	2	4	8	8	5	12	8	2	6
1611	4	10	5	1	ZMD60	11	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1612	4	10	5	1	ZMD60	11	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1613	4	10	5	1	ZMD60	11	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1614	4	10	4	1	ZMD70	39	1	Mam	3	L	2	4	8	8	1	12	8	2	0
1615	4	10	3	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	7
1616	4	10	3	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	6
1617	4	10	3	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	6
1618	4	10	3	1	ZMD70	39	0	Mam	11	U	6	5	8	8	1	12	8	2	6
1619	4	10	3	1	ZMD70	39	0	Mam	11	U	6	5	8	8	1	12	1	2	3
1620	4	10	3	1	ZMD70	39	0	Mam	11	U	6	5	8	8	1	12	8	2	6
1621	4	10	3	1	ZMD70	39	0	Mam	10	U	6	5	8	8	3	12	2	2	0
1622	4	10	5	1	ZMD60	34	1	Mam	3	M	29	2	8	8	1	12	8	2	0
1623	4	10	5	1	ZMD60	39	1	Mam	5	R	42	2	8	8	1	12	8	2	0
1624	4	10	3	3	ZMZ04	21	0	Mam	3	M	0	0	8	8	1	12	8	2	0
1625	4	10	4	1	ZMD60	100	5	Mam	10	R	31	1	7	9	5	12	8	2	6
1626	4	10	4	1	ZMD60	100	5	Mam	11	L	31	1	7	10	5	12	8	2	6
1627	4	10	3	1	ZMD70	36	1	Mam	3	M	5	2	8	8	1	12	8	2	0
1628	4	10	3	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	6
1629	4	10	5	1	ZMD60	39	1	Mam	5	R	42	2	8	8	1	12	2	2	0
1630	4	10	3	1	ZMD60	61	1	Mam	5	L	26	4	8	8	1	12	8	2	0
1631	4	10	3	1	ZMD70	34	1	Mam	3	M	7	1	8	8	5	12	8	2	0
1632	4	10	3	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
1633	4	10	3	1	ZMD60	39	0	Mam	11	U	30	5	8	8	3	12	8	2	0
1634	4	10	2	1	ZMD60	39	0	Mam	4	L	42	2	8	8	5	12	8	2	6
1635	4	10	4	1	ZMD60	61	3	Mam	10	R	26	4	5	8	6	12	2	2	5
1636	4	10	5	1	ZMD70	39	0	Mam	4	L	2	4	8	8	1	12	8	2	7
1637	4	10	4	1	ZMD70	38	1	Mam	4	M	9	2	8	8	1	12	8	2	7

1638	4	10	5	1	ZMD70	39	1	Mam	6	L	2	4	8	8	1	12	8	2	7
1639	4	10	4	2	ZMZ05	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1640	4	10	4	1	ZMD70	39	1	Mam	4	L	5	2	8	8	1	12	8	2	7
1641	4	10	4	1	ZMD70	39	1	Mam	4	L	5	2	8	8	5	12	8	2	0
1642	4	10	4	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	7
1643	4	10	4	5	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1644	4	10	2	1	ZMD60	100	1	Mam	10	R	31	1	8	8	5	12	8	2	1
1645	4	10	4	1	ZMD70	33	1	Mam	4	M	44	7	8	8	1	12	8	2	1
1646	4	10	4	1	ZMD60	39	0	Mam	3	U	30	5	8	8	1	12	8	2	0
1647	4	10	4	1	ZMD32	53	1	Mam	3	L	50	3	8	8	1	12	8	2	6
1648	4	10	2	1	ZMD32	101	4	Mam	12	L	47	7	8	8	1	12	8	2	0
1649	4	10	5	1	ZMD32	94	1	Mam	4	L	45	4	8	8	1	12	8	2	7
1650	4	10	4	1	ZMD60	61	4	Mam	10	L	26	4	8	8	6	12	8	2	5
1651	4	10	4	1	ZMD70	90	0	Mam	4	U	9	2	8	8	1	12	6	0	1
1652	4	10	3	1	ZMD60	111	1	Mam	10	R	27	6	8	8	5	12	8	2	0
1653	4	10	4	2	ZMZ04	21	0	Mam	3	M	0	0	8	8	1	12	8	2	0
1654	4	10	4	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1655	4	10	4	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	6
1656	4	10	4	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
1657	4	10	4	1	ZMZ05	200	0	Mam	4	U	0	0	7	10	5	12	8	2	7
1658	4	10	4	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	6	2	7
1659	4	10	4	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	3
1660	4	10	4	1	ZMD70	10	11	Mam	3	U	39	7	8	8	1	12	8	2	0
1661	4	10	5	1	ZMD70	11	11	Mam	1	U	39	7	8	8	1	12	8	2	0
1662	4	10	4	1	ZMD32	14	11	Mam	2	U	49	7	8	8	1	12	8	2	0
1663	4	10	5	1	ZMD60	11	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1664	4	10	4	2	ZMD60	11	11	Mam	2	L	40	0	8	8	1	12	8	2	0
1665	4	10	5	1	ZMD70	11	11	Mam	2	L	39	7	8	8	1	12	8	2	0
1666	4	10	1	1	ZMD60	12	11	Mam	2	L	40	6	8	8	6	12	8	2	0
1667	4	10	3	1	ZMD60	12	11	Mam	2	R	40	6	8	8	1	12	8	2	0
1668	4	10	4	23	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1669	4	10	3	1	ZMD60	39	4	Mam	3	R	42	2	8	8	5	12	8	2	0
1670	4	10	4	1	ZMD60	39	4	Mam	5	L	42	2	8	8	1	12	8	2	0
1671	4	10	4	15	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	5	2	0
1672	4	10	4	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	6	2	0
1673	4	10	4	5	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	6
1674	4	10	5	1	ZMD70	90	1	Mam	4	L	52	4	8	8	1	12	8	2	7
1675	4	10	2	1	ZMD60	12	11	Mam	2	R	40	6	8	8	1	12	8	2	0
1676	4	10	2	1	ZMD60	12	11	Mam	2	L	40	6	8	8	1	12	8	2	0
1677	4	10	2	1	ZMD32	60	1	Mam	5	R	50	3	8	8	5	12	8	2	0
1678	4	10	5	1	ZMD70	11	11	Mam	2	L	39	7	8	8	1	12	8	2	0
1679	4	10	5	1	ZMD70	11	11	Mam	2	L	39	7	8	8	1	12	8	2	0
1680	4	10	4	1	ZMD60	12	11	Mam	2	U	40	6	8	8	1	12	8	2	0
1681	4	10	5	1	ZMD60	12	11	Mam	2	R	40	6	8	8	1	12	8	2	0
1682	4	10	5	1	ZMD60	12	11	Mam	2	L	40	6	8	8	1	12	8	2	0
1683	4	10	5	1	ZMD60	12	11	Mam	2	R	40	6	8	8	1	12	8	2	0
1684	4	10	5	1	ZMD60	12	11	Mam	2	R	40	6	8	8	1	12	8	2	0
1685	4	10	5	5	ZMZ04	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1686	4	10	5	1	ZMD32	34	1	Mam	4	L	21	1	8	8	1	12	8	2	1
1687	4	10	5	1	ZMD60	101	4	Mam	5	R	43	4	8	8	3	12	8	2	0
1688	4	10	5	1	ZMD60	101	4	Mam	5	L	43	4	8	8	1	12	8	2	0

1689	4	10	3	1	ZMD60	111	4	Mam	2	R	27	6	8	8	5	12	8	2	0
1690	4	10	4	1	ZMD60	51	1	Mam	4	R	25	3	8	8	1	12	8	2	7
1691	4	10	4	1	ZMD60	39	4	Mam	5	R	42	2	8	8	1	12	8	2	0
1692	4	10	3	1	ZMD32	94	1	Mam	4	R	45	4	8	8	1	12	8	2	6
1693	4	10	5	1	ZMD60	61	4	Mam	5	L	26	4	8	8	3	12	8	2	5
1694	4	10	5	1	ZMD60	62	4	Mam	5	R	26	4	8	8	6	12	8	2	5
1695	4	10	3	1	ZMD60	60	6	Mam	6	R	25	3	8	8	1	12	1	2	6
1696	4	10	2	1	ZMD70	104	1	Mam	2	L	35	6	8	8	3	12	8	2	0
1697	4	10	4	1	ZMD60	100	1	Mam	3	R	31	1	8	8	1	12	8	2	4
1698	4	10	4	1	ZMD60	100	4	Mam	5	R	31	1	8	8	4	12	8	2	0
1699	4	10	5	1	ZMD70	61	1	Mam	11	R	3	6	8	8	3	12	6	2	6
1700	4	10	4	1	ZMD70	106	0	Mam	2	R	35	6	8	8	5	12	2	2	0
1701	4	10	5	1	ZMD70	36	4	Mam	3	M	5	2	8	8	1	12	8	2	0
1702	4	10	1	1	ZMD70	60	0	Mam	4	U	37	6	8	8	5	12	8	2	7
1703	4	10	3	1	ZMD70	39	1	Mam	5	L	2	4	8	8	1	12	6	2	0
1704	4	10	5	1	ZMD70	34	4	Mam	4	M	7	1	8	8	1	12	8	2	7
1705	4	10	5	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	1
1706	4	10	5	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	7
1707	4	10	1	1	ZMD70	39	0	Mam	3	U	2	4	8	8	1	12	8	2	0
1708	4	10	5	1	ZMD70	39	0	Mam	3	U	2	4	8	8	1	12	8	2	0
1709	4	10	5	1	ZMD70	61	1	Mam	4	U	3	6	8	8	5	12	8	2	7
1710	4	10	5	1	ZMD70	62	4	Mam	11	R	3	6	8	8	1	12	8	2	3
1711	4	10	5	1	ZMD70	39	1	Mam	6	L	5	2	8	8	6	12	8	2	3
1712	4	10	5	1	ZMD70	39	0	Mam	4	U	6	5	8	8	5	12	2	2	6
1713	4	10	5	1	ZMD60	60	4	Mam	3	R	25	3	8	8	1	12	8	2	0
1714	4	10	5	1	ZMD70	62	1	Mam	10	U	3	6	8	8	1	12	8	2	0
1715	4	10	1	1	ZMD70	51	0	Mam	4	U	2	4	8	8	5	12	8	2	7
519	4	10	1	1	ZMD70	64	0	Mam	1	R	3	6	8	8	1	12	8	2	0
520	4	10	5	1	ZMD70	36	1	Mam	4	M	5	2	8	8	5	12	8	2	1
521	4	10	5	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	1
522	4	10	2	1	ZMD70	64	0	Mam	2	L	3	6	8	8	5	12	8	2	0
523	4	10	5	1	ZMD70	60	1	Mam	4	R	37	6	7	10	1	12	8	2	9
524	4	10	3	1	ZMD60	62	1	Mam	4	R	26	4	8	8	1	12	8	2	6
525	4	10	5	1	ZMZ04	21	0	Mam	3	M	0	0	8	8	1	12	8	2	0
516	4	10	1	1	ZMD70	110	1	Mam	1	L	35	6	8	8	5	12	8	2	3
517	4	10	4	1	ZMD60	100	4	Mam	4	R	31	1	7	10	1	12	8	2	10
518	4	10	5	1	ZMD60	50	4	Mam	1	M	30	5	8	8	1	12	8	2	0
519	4	10	5	1	ZMD60	12	11	Mam	2	L	40	6	8	8	1	12	8	2	0
520	4	10	4	1	ZMD60	62	1	Mam	3	R	26	4	8	8	1	12	2	2	1
521	4	10	5	1	ZMD60	101	4	Mam	4	L	43	4	8	8	1	12	8	2	6
522	4	10	5	1	ZMD70	100	0	Mam	4	U	10	3	7	10	1	12	8	2	7
523	4	10	5	1	ZMD70	60	0	Mam	4	U	37	6	8	8	1	12	8	2	7
524	4	10	5	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	6
525	4	10	5	1	ZMD60	100	4	Mam	7	L	31	1	8	8	1	12	8	2	0
526	4	10	5	1	ZMD60	34	0	Mam	3	M	29	2	8	8	1	12	1	2	0
527	4	10	5	1	ZMD60	60	5	Mam	5	R	25	3	8	8	1	12	8	2	0
528	4	10	5	1	ZMD70	100	0	Mam	4	U	10	3	8	8	5	12	8	2	7
529	4	10	2	1	ZMD70	64	1	Mam	4	L	3	6	8	8	5	12	8	2	3
530	4	10	4	1	ZMD70	13	11	Mam	2	U	39	7	8	8	1	12	8	2	0
531	4	10	5	2	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
532	4	10	5	1	ZMD60	12	12	Mam	2	L	40	6	8	8	1	12	8	2	0

533	4	10	5	1	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
534	4	10	5	1	ZMD60	35	1	Mam	4	M	29	2	8	8	1	12	8	2	1
535	4	10	5	1	ZMD60	62	1	Mam	2	R	26	4	8	8	6	12	8	2	0
515	4	10	1	1	ZMD70	51	1	Mam	4	R	2	4	8	8	5	12	1	2	7
516	4	10	5	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	8
517	4	10	5	1	ZMZ04	200	0	Mam	4	U	0	0	8	8	5	12	8	2	7
518	4	10	5	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
519	4	10	5	1	ZMZ04	120	0	Mam	4	U	0	0	7	10	1	12	8	2	7
520	4	10	5	1	ZMZ04	120	0	Mam	4	U	0	0	7	10	1	12	8	2	7
521	4	10	3	2	ZMD60	13	11	Mam	2	U	40	6	8	8	1	12	8	2	0
522	4	10	2	1	ZMD70	51	0	Mam	4	U	2	4	8	8	5	12	2	2	7
523	4	10	5	1	ZMD60	60	0	Mam	4	L	25	3	6	10	1	12	8	2	2
524	4	10	5	3	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
525	4	10	5	1	ZMD70	36	0	Mam	4	M	7	1	8	8	1	12	8	2	8
526	4	10	5	1	ZMZ04	34	5	Mam	3	M	0	0	8	8	1	12	8	2	0
527	4	10	2	1	ZMD70	51	0	Mam	4	U	2	4	8	8	5	12	2	2	7
528	4	10	5	1	ZMD70	33	1	Mam	3	M	44	7	8	8	1	12	8	2	0
529	4	10	4	1	ZMD70	64	0	Mam	2	U	3	6	8	8	5	12	5	2	0
530	4	10	4	1	ZMD32	100	4	Mam	3	R	45	4	8	8	1	12	5	2	0
531	4	10	2	1	ZMD60	13	11	Mam	2	U	40	6	8	8	1	12	8	2	0
532	4	10	2	1	ZMD70	51	1	Mam	4	U	2	4	8	8	5	12	8	2	7
533	4	10	5	1	ZMD60	100	5	Mam	7	R	31	1	8	8	1	12	8	2	0
534	4	10	1	1	ZMD60	101	0	Mam	4	L	43	3	8	8	6	12	8	2	6
535	4	10	2	1	ZMD60	101	4	Mam	4	R	43	4	8	8	1	12	8	2	3
536	4	10	5	1	ZMD60	62	0	Mam	3	R	26	4	8	8	1	12	8	2	0
537	4	10	4	1	ZMD32	60	1	Mam	3	L	50	4	8	8	5	12	8	2	0
652	4	10	4	1	ZMD60	111	4	Mam	1	R	27	6	8	8	1	12	8	2	4
653	4	10	5	1	ZMD60	101	0	Mam	3	L	43	4	8	8	6	12	8	2	5
654	4	10	5	1	ZMD60	100	5	Mam	7	L	31	1	8	8	1	12	8	2	0
655	4	10	5	1	ZMD32	101	1	Mam	3	R	46	3	8	8	1	12	8	2	0
656	4	10	5	1	ZMD32	60	1	Mam	3	R	50	4	8	8	1	12	5	2	0
657	4	10	5	1	ZMD60	100	0	Mam	3	R	31	1	8	8	5	12	8	2	5
658	4	10	5	1	ZMD70	13	11	Mam	2	R	39	7	8	8	1	12	8	2	0
659	4	10	4	1	ZMD70	14	11	Mam	3	M	39	7	8	8	1	12	8	2	0
660	4	10	5	1	ZMD70	14	11	Mam	1	L	39	7	8	8	1	12	8	2	0
661	4	10	5	1	ZMD70	14	11	Mam	2	L	39	7	8	8	1	12	8	2	0
662	4	10	5	1	ZMD70	14	11	Mam	2	L	39	7	8	8	1	12	8	2	0
663	4	10	5	1	ZMD70	14	11	Mam	2	L	39	7	8	8	1	12	8	2	0
664	4	10	4	1	ZMD70	21	0	Mam	3	M	39	7	8	8	1	12	8	2	0
665	4	10	4	1	ZMD70	21	0	Mam	3	M	39	7	8	8	1	12	8	2	0
666	4	10	5	1	ZMD60	13	11	Mam	2	U	40	6	8	8	1	12	8	2	0
667	4	10	3	6	ZMD60	14	11	Mam	2	U	40	6	8	8	1	12	8	2	0
668	4	10	2	6	ZMD60	14	11	Mam	3	U	40	6	8	8	1	12	8	2	0
669	4	10	4	1	ZMD60	14	12	Mam	2	U	40	6	8	8	1	12	8	2	0
670	4	10	4	1	ZMD60	14	11	Mam	2	L	40	6	8	8	1	12	8	2	0
671	4	10	5	1	ZMD60	14	11	Mam	2	U	40	6	8	8	1	12	8	2	0
672	4	10	5	1	ZMD60	14	11	Mam	2	U	40	6	8	8	1	12	8	2	0
673	4	10	5	1	ZMD60	14	11	Mam	2	U	40	6	8	8	1	12	8	2	0
674	4	10	4	1	ZMD60	21	4	Mam	3	U	40	6	8	8	1	12	8	2	0
675	4	10	4	1	ZMD60	21	4	Mam	3	U	40	6	8	8	1	12	8	2	0
676	4	10	4	1	ZMD60	21	0	Mam	3	U	40	6	8	8	1	12	8	2	0

677	4	10	4	1	ZMD60	21	4	Mam	3	U	40	6	8	8	1	12	8	2	0
678	4	10	4	1	ZMD60	21	4	Mam	3	U	40	6	8	8	1	12	8	2	0
679	4	10	3	2	ZMD60	21	4	Mam	3	M	40	6	8	8	5	12	8	2	0
680	4	10	3	1	ZMD60	21	4	Mam	3	M	40	6	8	8	1	12	8	2	0
681	4	10	3	1	ZMD60	21	0	Mam	3	M	40	6	8	8	1	12	8	2	0
682	4	10	3	1	ZMD60	21	0	Mam	3	M	40	6	8	8	1	12	8	2	0
683	4	10	2	1	ZMD70	51	0	Mam	4	U	2	4	8	8	1	12	2	2	7
684	4	10	4	1	ZBE05	51	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
685	4	10	5	1	ZBE05	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
686	4	10	2	1	ZBD01	53	0	BIRD	2	L	0	0	8	8	1	12	5	2	0
687	4	10	2	1	ZBD01	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
688	4	10	2	1	ZBD01	53	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
689	4	10	2	1	ZBD01	53	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
690	4	10	1	1	ZBD01	60	1	BIRD	2	L	0	0	8	8	1	12	8	2	0
691	4	10	5	1	ZBD01	60	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
692	4	10	5	1	ZBD01	60	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
693	4	10	5	1	ZBD01	60	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
694	4	10	5	1	ZBD01	60	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
695	4	10	5	1	ZBD01	60	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
696	4	10	4	1	ZBD02	51	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
697	4	10	5	1	ZBD01	60	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
698	4	10	5	1	ZBD01	60	0	BIRD	2	L	0	0	8	8	5	12	8	2	0
699	4	10	5	1	ZBD01	60	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
700	4	10	5	1	ZBD01	60	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
701	4	10	5	1	ZBD02	60	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
702	4	10	5	1	ZBD01	60	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
703	4	10	4	1	ZBD01	60	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
704	4	10	4	1	ZBD01	60	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
705	4	10	2	1	ZBD01	60	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
706	4	10	4	1	ZBD02	60	0	BIRD	2	L	0	0	8	8	1	11	8	2	0
707	4	10	5	1	ZBE05	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
708	4	10	5	1	ZBE05	54	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
709	4	10	2	1	ZBD01	60	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
710	4	10	2	1	ZBD01	60	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
711	4	10	2	1	ZBD01	60	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
712	4	10	1	1	ZBD01	61	1	BIRD	1	L	0	0	8	8	1	12	8	2	0
713	4	10	1	1	ZBD01	61	1	BIRD	1	R	0	0	8	8	1	12	8	2	0
714	4	10	1	1	ZBD01	61	1	BIRD	2	R	0	0	8	8	1	12	8	2	0
715	4	10	5	1	ZBD01	61	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
716	4	10	5	1	ZBD01	61	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
717	4	10	5	1	ZBD01	61	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
718	4	10	5	1	ZBD01	61	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
719	4	10	5	1	ZBD01	61	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
720	4	10	5	1	ZBD02	100	0	BIRD	3	L	0	0	8	8	5	12	8	2	0
721	4	10	5	1	ZBD01	61	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
722	4	10	5	1	ZBD01	61	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
723	4	10	5	1	ZBD01	61	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
724	4	10	5	1	ZBD01	61	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
725	4	10	2	1	ZBD01	61	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
726	4	10	2	1	ZBD01	61	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
727	4	10	1	1	ZBD01	62	1	BIRD	3	L	0	0	8	8	1	12	8	2	0

728	4	10	1	1	ZBD01	62	1	BIRD	2	L	0	0	8	8	1	12	8	2	0
729	4	10	1	1	ZBD01	62	1	BIRD	3	R	0	0	8	8	1	12	8	2	0
730	4	10	1	1	ZBD01	62	1	BIRD	2	R	0	0	8	8	1	12	8	2	0
731	4	10	5	1	ZBD01	62	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
732	4	10	5	1	ZBD01	62	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
733	4	10	5	1	ZBD01	62	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
734	4	10	5	1	ZBD01	62	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
735	4	10	5	1	ZBD01	62	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
736	4	10	5	1	ZBD01	62	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
737	4	10	5	1	ZBD02	100	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
738	4	10	2	1	ZBD02	100	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
739	4	10	5	1	ZBD02	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
740	4	10	5	1	ZBD01	62	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
741	4	10	5	1	ZBD01	62	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
742	4	10	5	1	ZBD01	62	0	BIRD	4	R	0	0	8	8	1	12	8	2	0
743	4	10	5	1	ZBD01	62	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
744	4	10	4	1	ZBD01	62	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
745	4	10	4	1	ZBD01	62	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
746	4	10	4	1	ZBD01	62	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
747	4	10	4	1	ZBD01	62	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
748	4	10	2	1	ZBD01	62	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
749	4	10	1	1	ZBD01	66	1	BIRD	1	R	0	0	8	8	1	12	8	2	0
750	4	10	1	1	ZBD01	66	1	BIRD	1	L	0	0	8	8	1	12	8	2	0
751	4	10	1	1	ZBD01	66	1	BIRD	2	L	0	0	8	8	1	12	8	2	0
752	4	10	5	1	ZBD01	66	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
753	4	10	5	1	ZBD01	66	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
754	4	10	5	1	ZBD01	66	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
755	4	10	5	1	ZBD01	66	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
756	4	10	5	1	ZBD01	66	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
757	4	10	5	1	ZBD01	66	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
758	4	10	5	1	ZBD01	66	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
759	4	10	5	1	ZBD01	66	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
760	4	10	5	1	ZBD01	66	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
761	4	10	4	1	ZBD01	66	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
762	4	10	2	1	ZBD01	66	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
763	4	10	2	1	ZBD01	66	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
764	4	10	2	1	ZBD01	66	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
765	4	10	1	1	ZBD01	77	1	BIRD	1	U	0	0	8	8	1	12	8	2	0
766	4	10	1	1	ZBD01	98	1	BIRD	3	M	0	0	8	8	5	12	8	2	0
767	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
768	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
769	4	10	5	1	ZBD00	62	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
770	4	10	5	1	ZBE05	60	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
771	4	10	5	1	ZBE05	60	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
772	4	10	5	1	ZBE05	62	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
773	4	10	5	1	ZBE05	62	0	BIRD	3	R	0	0	8	8	1	12	6	2	0
774	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
775	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
776	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
777	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
778	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0

779	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
780	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
781	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
782	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
783	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
784	4	10	5	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
785	4	10	2	1	ZBD01	98	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
786	4	10	5	1	ZBD01	98	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
787	4	10	1	1	ZBD01	100	1	BIRD	3	R	0	0	8	8	1	12	6	2	0
788	4	10	1	1	ZBD01	100	1	BIRD	5	R	0	0	8	8	1	12	8	2	0
789	4	10	1	1	ZBD01	100	1	BIRD	1	R	0	0	8	8	1	12	8	2	0
790	4	10	1	1	ZBD01	100	1	BIRD	1	L	0	0	8	8	1	12	8	2	0
791	4	10	5	1	ZBD01	100	0	BIRD	6	L	0	0	8	8	1	12	5	2	3
792	4	10	5	1	ZBD01	100	0	BIRD	5	L	0	0	8	8	5	12	8	2	0
793	4	10	5	1	ZBD01	100	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
794	4	10	5	1	ZBE05	66	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
795	4	10	5	1	ZBE05	66	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
796	4	10	5	1	ZBD00	51	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
797	4	10	5	1	ZBD00	51	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
798	4	10	5	1	ZBD00	51	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
799	4	10	5	1	ZBD00	51	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
800	4	10	5	1	ZBD00	51	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
801	4	10	5	1	ZBD00	51	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
802	4	10	5	1	ZBE03	51	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
803	4	10	5	1	ZBD00	77	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
804	4	10	5	4	ZBD00	54	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
805	4	10	5	2	ZBD00	51	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
806	4	10	5	31	ZBD00	39	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
807	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
808	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
809	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
810	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
811	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
812	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
813	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
814	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
815	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
816	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
817	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
818	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
819	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
820	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
821	4	10	5	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
822	4	10	5	1	ZBD01	100	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
823	4	10	5	1	ZBD01	100	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
824	4	10	5	1	ZBD01	100	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
825	4	10	5	1	ZBD01	100	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
826	4	10	5	1	ZBD01	100	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
827	4	10	4	1	ZBD01	100	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
828	4	10	4	1	ZBD01	100	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
829	4	10	2	1	ZBD01	100	0	BIRD	5	L	0	0	8	8	1	12	8	2	0

830	4	10	2	1	ZBD01	100	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
831	4	10	2	1	ZBD01	100	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
832	4	10	2	1	ZBD01	100	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
833	4	10	2	1	ZBD01	100	0	BIRD	5	R	0	0	8	8	1	12	5	2	0
834	4	10	5	1	ZBD01	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
835	4	10	5	3	ZBD00	50	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
836	4	10	5	11	ZBD00	30	0	BIRD	1	M	0	0	8	8	1	12	8	2	0
837	4	10	5	1	ZBD00	21	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
838	4	10	5	7	ZBZ00	21	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
839	4	10	5	23	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
840	4	10	5	19	ZBZ00	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
841	4	10	5	1	ZBD01	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
842	4	10	5	1	ZBD02	107	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
843	4	10	5	1	ZBE03	60	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
844	4	10	5	1	ZBD01	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
845	4	10	5	1	ZBD01	107	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
846	4	10	5	1	ZBD01	107	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
847	4	10	5	1	ZBD01	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
848	4	10	2	1	ZBD02	107	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
849	4	10	5	1	ZBD01	107	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
850	4	10	5	1	ZBD01	107	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
851	4	10	5	1	ZBD01	107	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
852	4	10	5	1	ZBD01	107	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
853	4	10	2	1	ZBD01	107	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
854	4	10	2	1	ZBD01	107	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
855	4	10	1	1	ZBD01	108	1	BIRD	10	R	0	0	8	8	1	12	8	2	0
856	4	10	1	1	ZBD01	108	1	BIRD	5	L	0	0	8	8	1	12	8	2	0
857	4	10	4	1	ZBE06	108	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
858	4	10	4	1	ZBE06	108	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
859	4	10	4	1	ZBZ00	108	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
860	4	10	4	1	ZBZ00	108	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
861	4	10	5	1	ZBD01	108	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
862	4	10	5	1	ZBD01	108	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
863	4	10	5	1	ZBD01	108	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
864	4	10	5	1	ZBD01	108	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
865	4	10	5	1	ZBD01	108	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
866	4	10	4	1	ZBE06	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
867	4	10	5	1	ZBD01	108	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
868	4	10	5	1	ZBD01	108	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
869	4	10	5	1	ZBD01	108	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
870	4	10	5	1	ZBD01	108	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
871	4	10	5	1	ZBD01	108	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
872	4	10	5	1	ZBD02	108	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
873	4	10	2	1	ZBE05	107	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
874	4	10	5	1	ZBD01	108	8	BIRD	1	L	0	0	8	8	1	12	8	2	0
875	4	10	4	3	ZBZ00	54	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
876	4	10	4	6	ZBZ00	21	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
877	4	10	4	3	ZBZ00	30	0	BIRD	1	M	0	0	8	8	1	12	8	2	0
878	4	10	4	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
879	4	10	4	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
880	4	10	4	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0

881	4	10	4	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
882	4	10	4	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
883	4	10	4	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
884	4	10	4	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
885	4	10	4	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3000	4	10	4	1	ZBD00	108	0	BIRD	3	U	0	0	8	8	1	12	6	2	0
3001	4	10	4	1	ZBD00	108	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3002	4	10	4	1	ZBD00	51	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3003	4	10	4	1	ZBD00	51	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3004	4	10	4	1	ZBD00	51	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3005	4	10	4	1	ZBD00	52	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3006	4	10	4	1	ZBD00	52	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3007	4	10	4	1	ZBZ00	108	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3008	4	10	4	20	ZBZ00	39	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3009	4	10	4	8	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3010	4	10	5	1	ZBD01	108	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3011	4	10	5	1	ZBD01	108	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3012	4	10	5	1	ZBD01	108	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
3013	4	10	5	1	ZBD01	108	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3014	4	10	5	1	ZBD01	108	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3015	4	10	5	1	ZBD01	108	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3016	4	10	5	1	ZBD01	108	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3017	4	10	5	1	ZBD01	108	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3018	4	10	5	1	ZBD01	108	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3019	4	10	5	1	ZBD01	108	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3020	4	10	5	1	ZBD01	108	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3021	4	10	5	1	ZBD01	108	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3022	4	10	5	1	ZBD01	108	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3023	4	10	5	1	ZBD01	108	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3024	4	10	5	1	ZBD02	109	1	BIRD	10	R	0	0	8	8	1	12	8	2	0
3025	4	10	5	1	ZBD01	108	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3026	4	10	4	1	ZBD01	108	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
3027	4	10	5	1	ZBD02	109	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
3028	4	10	2	1	ZBE05	107	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3029	4	10	5	1	ZBE05	108	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3030	4	10	4	1	ZBD01	108	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
3031	4	10	4	1	ZBD01	108	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3032	4	10	4	1	ZBD01	108	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3033	4	10	4	1	ZBD01	108	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3034	4	10	4	1	ZBD01	108	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3035	4	10	4	1	ZBD01	108	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3036	4	10	2	1	ZBE06	62	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
3037	4	10	4	1	ZBD01	108	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3038	4	10	2	1	ZBD01	108	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
3039	4	10	2	1	ZBD01	108	0	BIRD	10	L	0	0	8	8	1	12	8	2	0
3040	4	10	2	1	ZBD01	108	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
3041	4	10	2	1	ZBD00	54	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
3042	4	10	2	12	ZBZ00	39	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3043	4	10	2	1	ZBD00	21	0	BIRD	1	M	0	0	8	8	1	12	8	2	0
3044	4	10	2	17	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3045	4	10	2	6	ZBZ00	30	0	BIRD	1	M	0	0	8	8	1	12	5	2	0

3046	4	10	2	1	ZBZ00	30	0	BIRD	1	M	0	0	8	8	1	12	8	2	0
3047	4	10	2	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3048	4	10	2	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3049	4	10	2	1	ZBD01	108	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
3050	4	10	2	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3051	4	10	2	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3052	4	10	1	1	MRM18	100	4	Mam	2	L	0	0	8	8	1	12	8	2	0
3053	4	10	1	1	MRM18	100	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3054	4	10	1	1	MRM18	101	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3055	4	10	1	1	MRM18	90	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3056	4	10	1	1	MLL	90	1	Mam	3	R	0	0	8	8	1	12	3	2	0
3057	4	10	1	1	ZMD10	62	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3058	4	10	1	1	ZMZ01	39	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3059	4	10	1	6	ZMZ01	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3060	4	10	3	1	ZBD01	108	0	BIRD	5	R	0	0	8	8	1	12	8	2	0
3061	4	10	1	3	ZBZ00	120	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3062	4	10	1	2	ZBZ00	39	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3063	4	10	1	1	ZMZ04	39	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3064	4	10	1	1	ZMZ04	30	0	Mam	4	U	0	0	8	8	1	12	6	2	6
3065	4	10	1	1	ZMZ04	7	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3066	4	10	2	1	MRM18	62	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3067	4	10	2	3	MRM18	60	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3068	4	10	2	2	MRM18	60	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3069	4	10	2	4	MRM18	90	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3070	4	10	2	2	MRM18	90	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3071	4	10	2	2	MRM18	101	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3072	4	10	2	3	MRM18	101	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3073	4	10	2	2	MRM18	100	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3074	4	10	2	2	MRM18	100	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3075	4	10	2	1	MLL	101	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3076	4	10	2	1	ZMD10	101	8	Mam	1	L	0	0	8	8	1	12	8	2	0
3077	4	10	2	1	ZMD10	101	8	Mam	1	R	0	0	8	8	1	12	8	2	0
3078	4	10	2	1	ZMD10	62	8	Mam	1	L	0	0	8	8	1	12	8	2	0
3079	4	10	2	1	ZMD10	60	8	Mam	1	L	0	0	8	8	1	12	8	2	0
3080	4	10	2	4	ZMZ02	120	0	Mam	1	U	0	0	8	8	1	12	8	2	0
3081	4	10	2	2	ZMZ02	39	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3082	4	10	2	2	ZMZ00	39	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
3083	4	10	2	3	ZMZ00	77	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
3084	4	10	3	1	MRM18	7	1	Mam	1	M	0	0	8	8	1	12	8	2	0
3085	4	10	3	1	MRM18	100	1	Mam	1	L	0	0	8	8	1	12	8	2	0
3086	4	10	3	3	MRM18	100	1	Mam	1	R	0	0	8	8	1	12	8	2	0
3087	4	10	3	2	MRM18	101	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3088	4	10	3	2	MRM18	101	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3089	4	10	3	1	MRM18	60	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3090	4	10	3	1	MRM18	60	1	Mam	1	R	0	0	8	8	1	12	8	2	0
3091	4	10	3	2	MRM18	90	1	Mam	3	L	0	0	8	8	1	12	8	2	0
3092	4	10	3	1	MRM18	90	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3093	4	10	3	1	ZMD10	90	0	Mam	3	L	0	0	8	8	1	12	8	2	0
3094	4	10	3	1	ZMD10	111	5	Mam	1	L	0	0	8	8	1	12	8	2	0
3095	4	10	3	1	ZMD10	51	5	Mam	2	L	0	0	8	8	1	12	8	2	0
3096	4	10	3	1	ZMD10	51	5	Mam	2	R	0	0	8	8	1	12	8	2	0

3097	4	10	3	8	ZMZ01	39	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3098	4	10	3	11	ZMZ01	120	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3099	4	10	3	1	ZBZ00	39	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
3100	4	10	5	1	ZBD01	109	1	BIRD	1	R	0	0	8	8	1	12	8	2	0
3101	4	10	3	3	ZBZ00	77	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
3102	4	10	3	1	ZBZ00	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3103	4	10	3	3	ZBZ00	21	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3104	4	10	4	2	MRM18	90	0	Mam	2	L	0	0	8	8	1	12	8	2	0
3105	4	10	4	2	MRM18	90	0	Mam	2	R	0	0	8	8	1	12	8	2	0
3106	4	10	4	1	MRM18	51	0	Mam	2	L	0	0	8	8	1	12	8	2	0
3107	4	10	4	1	MRM18	62	0	Mam	1	L	0	0	8	8	1	12	8	2	0
3108	4	10	4	1	MRM18	62	0	Mam	1	R	0	0	8	8	1	12	8	2	0
3109	4	10	4	6	MRM18	100	0	Mam	2	L	0	0	8	8	1	12	8	2	0
3110	4	10	4	5	MRM18	100	0	Mam	2	R	0	0	8	8	1	12	8	2	0
3111	4	10	4	4	MRM18	101	0	Mam	2	L	0	0	8	8	1	12	8	2	0
3112	4	10	4	4	MRM18	101	0	Mam	2	R	0	0	8	8	1	12	8	2	0
3113	4	10	4	5	MRM18	60	0	Mam	1	L	0	0	8	8	1	12	8	2	0
3114	4	10	4	2	MRM18	60	0	Mam	1	R	0	0	8	8	1	12	8	2	0
3115	4	10	4	2	MRM18	11	0	Mam	1	M	0	0	8	8	1	12	8	2	0
3116	4	10	4	1	MRM18	7	0	Mam	2	L	0	0	8	8	1	12	8	2	0
3117	4	10	4	1	ZMD10	7	13	Mam	2	R	0	0	8	8	1	12	8	2	0
3118	4	10	4	1	ZMD10	9	13	Mam	2	L	0	0	8	8	1	12	8	2	0
3119	4	10	4	1	ZMD10	9	13	Mam	2	L	0	0	8	8	1	12	8	2	0
3120	4	10	4	1	ZMD20	6	11	Mam	3	L	0	0	8	8	1	12	8	2	0
3121	4	10	4	3	ZBZ00	77	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
3122	4	10	4	2	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3123	4	10	4	2	ZMZ01	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3124	4	10	4	13	ZMZ01	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3125	4	10	5	2	MRM18	90	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3126	4	10	5	4	MRM18	90	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3127	4	10	5	2	MRM18	9	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3128	4	10	5	2	MRM18	11	1	Mam	2	U	0	0	8	8	1	12	8	2	0
3129	4	10	5	1	MRM18	62	1	Mam	2	U	0	0	8	8	1	12	8	2	0
3130	4	10	5	1	MRM18	51	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3131	4	10	5	3	MRM18	100	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3132	4	10	5	4	MRM18	100	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3133	4	10	5	1	MRM18	60	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3134	4	10	5	4	MRM18	101	1	Mam	2	L	0	0	8	8	1	12	8	2	0
3135	4	10	5	3	MRM18	101	1	Mam	2	R	0	0	8	8	1	12	8	2	0
3136	4	10	5	1	MLL	90	0	Mam	2	R	0	0	8	8	1	12	8	2	0
3137	4	10	5	1	MRS18	100	0	Mam	3	L	0	0	8	8	1	12	8	2	0
3138	4	10	5	1	MRS18	90	0	Mam	3	R	0	0	8	8	1	12	8	2	0
3139	4	10	5	1	ZMD10	51	8	Mam	2	L	0	0	8	8	1	12	8	2	0
3140	4	10	5	1	ZMD10	90	8	Mam	3	U	0	0	8	8	1	12	8	2	0
3141	4	10	5	1	ZMD10	14	11	Mam	1	U	0	0	8	8	1	12	8	2	0
3142	4	10	5	1	ZMD20	101	5	Mam	1	L	0	0	8	8	1	12	8	2	0
3143	4	10	5	1	ZMD20	62	5	Mam	1	U	0	0	8	8	1	12	8	2	0
3144	4	10	5	1	ZMD20	51	5	Mam	2	L	0	0	8	8	1	12	8	2	0
3145	4	10	5	1	ZMD20	100	5	Mam	1	R	0	0	8	8	1	12	8	2	0
3146	4	10	5	1	ZMD20	101	5	Mam	1	R	0	0	8	8	1	12	8	2	0
3147	4	10	5	1	ZMD20	33	5	Mam	1	M	0	0	8	8	1	12	8	2	0

3148	4	10	5	1	ZMZ02	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3149	4	10	5	1	ZMZ02	7	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3150	4	10	5	2	ZMZ02	30	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3151	4	10	5	5	ZMZ02	61	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3152	4	10	5	7	ZMZ02	77	0	Mam	1	U	0	0	8	8	1	12	8	2	0
3153	4	10	5	12	ZMZ02	120	0	Mam	1	U	0	0	8	8	1	12	8	2	0
3154	4	10	2	1	ZBD01	109	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
3155	4	10	5	2	ZBZ00	77	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
3156	4	10	5	3	ZBZ00	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3157	4	10	1	1	ZMZ04	36	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3158	4	10	1	1	ZBZ00	50	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3159	4	10	1	1	ZMZ04	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3160	4	10	1	1	ZMZ04	33	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3161	4	10	1	1	ZMD32	110	0	Mam	1	R	47	3	8	8	5	12	8	2	0
3162	4	10	2	1	ZMD60	39	0	Mam	3	L	30	5	8	8	1	12	8	2	0
3163	4	10	5	1	ZMD60	62	1	Mam	4	L	26	4	8	8	1	12	2	4	6
3164	4	10	2	1	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	5
3165	4	10	5	1	ZMD70	110	0	Mam	4	L	35	6	8	8	1	12	8	2	3
3166	4	10	5	1	ZMD32	100	0	Mam	3	R	45	4	8	8	5	12	8	2	5
3167	4	10	3	1	ZMD60	38	1	Mam	4	M	29	2	8	8	1	12	8	2	7
3168	4	10	3	1	ZMZ05	30	0	Mam	4	M	0	0	8	8	1	12	8	2	6
3169	4	10	3	1	ZMZ04	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3170	4	10	3	1	ZMZ03	101	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3171	4	10	2	1	ZMD70	21	0	Mam	3	M	39	7	8	8	1	12	8	2	0
3172	4	10	4	1	ZMD70	34	0	Mam	4	M	7	1	8	8	5	12	8	2	7
3173	4	10	4	1	ZMD70	38	0	Mam	3	M	9	2	8	8	1	12	8	2	7
3174	4	10	2	1	ZMD70	51	0	Mam	4	U	2	4	8	8	1	12	2	2	2
3175	4	10	3	1	ZMD70	51	0	Mam	4	U	2	4	8	8	5	12	8	2	7
3176	4	10	4	1	ZMD70	33	0	Mam	4	M	44	7	8	8	1	12	8	2	7
3177	4	10	4	1	ZMD60	50	5	Mam	2	M	30	5	8	8	1	12	8	2	0
3178	4	10	4	1	ZMZ05	30	0	Mam	4	M	0	0	8	8	1	12	8	2	3
3179	4	10	4	1	ZMD10	60	5	Mam	2	L	0	0	8	8	1	12	8	2	0
3180	4	10	4	1	ZMZ03	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3181	4	10	4	1	ZBZ00	120	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
3182	4	10	2	1	ZMD60	21	0	Mam	3	M	40	6	8	8	1	12	8	2	0
3183	4	10	4	1	ZMD70	51	0	Mam	4	R	2	4	8	8	1	12	8	2	7
3184	4	10	5	1	ZMD70	51	0	Mam	4	U	2	4	8	8	5	12	8	2	7
3185	4	10	5	1	ZMD70	51	0	Mam	4	R	2	4	8	8	1	12	8	2	7
3186	4	10	5	1	ZMD70	33	1	Mam	4	M	44	7	8	8	1	12	8	2	1
3187	4	10	5	4	ZMD32	33	0	Mam	3	M	51	6	8	8	1	12	2	2	0
3188	4	10	1	1	ZMD60	38	1	Mam	4	M	29	2	8	8	1	12	8	2	7
3189	4	10	5	1	ZMD60	62	0	Mam	3	L	26	4	8	8	1	12	8	2	0
3190	4	10	5	1	ZMD60	90	8	Mam	4	L	29	2	8	8	1	12	8	2	1
3191	4	10	5	1	ZMZ04	100	0	Mam	4	U	0	0	8	8	1	12	8	2	1
3192	4	10	5	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3193	4	10	5	1	ZMZ04	21	0	Mam	3	M	0	0	8	8	1	12	8	2	0
3194	4	10	5	1	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	1
3195	4	10	5	1	ZMD32	34	0	Mam	4	M	19	2	8	8	1	12	8	2	1
3196	4	10	5	1	MRM18	62	1	Mam	1	R	0	0	8	8	1	12	8	2	0
3197	4	10	5	1	MLL	100	1	Mam	1	R	0	0	8	8	1	12	8	2	0
3198	4	10	5	1	MLL	101	1	Mam	2	R	0	0	8	8	1	12	8	2	0

3199	4	10	5	1	ZMD60	61	4	Mam	5	L	25	3	8	8	3	12	8	2	0
3200	4	10	5	1	ZMZ03	120	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3201	4	10	5	1	ZMZ03	39	0	Mam	1	U	0	0	8	8	1	12	8	2	0
3202	4	10	5	1	ZMZ03	30	0	Mam	1	U	0	0	8	8	1	12	8	2	0
3203	4	10	5	1	ZBZ00	50	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3204	4	10	5	1	ZBZ00	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3205	4	10	5	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3206	4	10	5	2	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	1
3207	4	10	4	1	ZMD60	77	1	Mam	1	U	28	6	8	8	1	12	5	2	0
3208	4	10	4	1	ZMD60	74	4	Mam	1	R	28	6	8	8	1	12	8	2	0
3209	4	10	4	1	ZMD60	74	4	Mam	1	R	28	6	8	8	1	12	8	2	0
3210	4	10	3	1	ZMD70	111	1	Mam	6	L	35	6	8	8	5	12	8	2	7
3211	4	10	4	1	ZMD70	64	0	Mam	2	U	3	6	8	8	5	12	8	2	0
3212	4	10	5	1	ZMD70	111	1	Mam	1	R	35	6	8	8	5	12	8	2	0
3213	4	10	5	1	ZMD70	64	0	Mam	3	U	3	6	8	8	5	12	8	2	0
3214	4	10	5	1	ZMD70	64	0	Mam	1	L	3	6	8	8	5	12	8	2	0
3215	4	10	4	1	ZMD70	117	0	Mam	1	L	35	6	8	8	5	12	8	2	0
3216	4	10	5	1	ZMD70	64	0	Mam	1	L	3	6	8	8	1	12	8	2	0
3217	4	10	5	1	ZMD70	64	0	Mam	1	R	3	6	8	8	5	12	8	2	0
3218	4	10	4	1	ZMD70	64	0	Mam	3	U	3	6	8	8	1	12	2	2	0
3219	4	10	2	1	ZMD70	64	0	Mam	3	U	3	6	8	8	5	12	8	2	0
3220	4	10	3	1	ZMD70	65	0	Mam	2	U	3	6	8	8	1	12	1	2	0
3221	4	10	5	1	ZMD70	74	1	Mam	2	U	3	6	8	8	5	12	2	2	0
3222	4	10	5	1	ZMD70	74	1	Mam	2	U	3	6	8	8	5	12	2	2	0
3223	4	10	5	1	ZMD60	85	4	Mam	2	R	28	6	8	8	1	12	8	2	0
3224	4	10	5	1	ZMD60	85	4	Mam	3	U	28	6	8	8	1	12	8	2	0
3225	4	10	5	1	ZMD60	85	4	Mam	2	U	28	6	8	8	1	12	8	2	0
3226	4	10	5	1	ZMD60	74	1	Mam	2	R	28	6	8	8	1	12	8	2	0
3227	4	10	5	1	ZMD60	74	1	Mam	1	R	28	6	8	8	1	12	8	2	0
3228	4	10	5	1	ZMD60	77	4	Mam	1	U	28	6	8	8	1	12	5	2	0
3229	4	10	3	1	ZMC01	208	0	Moll	1	U	0	0	0	0	0	0	8	2	0
3230	4	10	4	1	ZMC01	208	0	Moll	1	U	0	0	0	0	0	0	8	2	0
3231	4	10	4	1	ZMM00	208	0	Moll	1	U	0	0	0	0	0	0	8	2	0
3232	4	10	1	6	ZFZ00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
3233	4	10	2	34	ZFZ00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
3234	4	10	3	14	ZFZ00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
3235	4	10	4	23	ZFZ00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
3236	4	10	5	93	ZFZ00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
3237	4	10	5	1	ZMD60	21	0	Mam	3	M	40	6	8	8	1	12	8	2	0
3238	4	10	4	1	ZMD70	21	0	Mam	3	U	39	7	8	8	1	12	8	2	0
3239	4	10	1	1	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
3240	4	10	3	1	ZMD60	91	5	Mam	4	R	29	2	8	8	6	12	8	2	7
3241	4	10	4	1	ZMD70	39	0	Mam	4	U	6	5	8	8	5	12	8	2	1
3242	4	10	4	1	ZMD60	65	4	Mam	2	U	28	6	8	8	1	12	8	2	0
3243	4	10	4	1	ZBZ00	51	1	BIRD	3	U	0	0	8	8	2	2	8	2	0
3244	4	10	5	1	ZMD60	61	5	Mam	5	R	25	3	8	8	5	12	8	2	0
3245	4	10	4	1	ZMD60	51	1	Mam	3	U	42	2	8	8	1	12	8	2	0
3246	4	10	5	1	ZMD70	51	0	Mam	4	R	2	4	8	8	1	12	8	2	7
3247	4	10	4	1	ZMD60	111	4	Mam	3	R	27	6	8	8	5	12	8	2	0
3248	4	10	5	1	ZMZ05	39	1	Mam	4	U	0	0	8	8	5	12	8	2	8
3249	4	10	4	1	ZFZ00	200	1	FISH	2	U	0	0	8	8	2	2	8	2	0

3250	4	10	5	1	ZMZ03	33	1	Mam	2	M	0	0	8	8	1	12	8	2	0
3251	4	10	5	4	ZMZ03	34	1	Mam	2	M	0	0	8	8	1	12	8	2	0
3252	4	10	5	1	ZBZ00	33	1	BIRD	2	M	0	0	8	8	1	12	8	2	0
3253	4	10	5	1	ZMD60	65	1	Mam	1	U	28	6	8	8	1	12	8	2	0
3254	4	10	5	1	ZMD32	33	1	Mam	3	M	51	6	8	8	1	12	8	2	0
3255	4	10	5	1	ZMD20	100	4	Mam	2	R	0	0	8	8	1	12	8	2	0
3256	4	10	5	1	ZMD70	38	0	Mam	4	M	9	2	8	8	5	12	8	2	1
3257	4	10	2	1	ZMD60	21	0	Mam	4	M	40	6	8	8	1	12	2	2	3
3258	4	10	5	1	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3259	4	10	5	2	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	1
3260	4	10	5	1	ZMZ05	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3261	4	10	5	1	ZMD10	60	5	Mam	1	R	0	0	8	8	1	12	8	2	0
3262	4	10	5	1	ZMD60	62	0	Mam	5	R	26	4	8	8	5	12	8	2	0
3263	4	10	5	1	ZMZ03	36	0	Mam	3	M	0	0	8	8	1	12	8	2	0
3264	4	10	5	1	ZMD60	91	0	Mam	3	L	29	2	8	8	5	12	8	2	0
3265	4	10	1	1	ZMD60	94	0	Mam	4	R	29	2	5	10	5	12	1	2	1
3266	4	10	5	1	ZMD60	38	0	Mam	3	M	30	5	8	8	1	12	8	2	0
3267	4	10	4	1	ZMD60	22	4	Mam	4	M	40	6	8	8	1	12	8	2	3
3268	4	10	5	1	ZBZ00	120	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
3269	4	10	5	1	ZBE05	108	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
3270	4	10	5	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3271	4	10	5	1	ZMD60	101	4	Mam	3	U	43	4	8	8	3	12	8	2	0
3272	4	10	5	1	ZMD70	38	0	Mam	4	M	9	2	8	8	1	12	8	2	7
3273	4	10	5	1	ZMD60	85	4	Mam	1	U	28	6	8	8	1	12	8	2	0
3274	4	10	5	1	ZMD60	85	4	Mam	1	U	28	6	8	8	1	12	8	2	0
3275	4	10	5	1	ZMD60	85	1	Mam	2	U	28	6	8	8	1	12	8	2	0
3276	4	10	4	1	ZMD60	111	4	Mam	2	R	27	6	8	8	5	12	8	2	0
3277	4	10	2	1	ZMD60	101	6	Mam	5	R	31	1	8	8	5	12	8	2	5
3278	4	10	4	1	ZMD60	64	0	Mam	1	U	28	6	8	8	1	12	8	2	0
3279	4	10	4	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3280	4	10	4	1	ZMZ05	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3281	4	10	4	1	ZMZ05	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3282	4	10	4	1	ZMD60	85	0	Mam	3	U	28	6	8	8	5	12	8	2	0
3283	4	10	4	1	ZMD60	77	0	Mam	2	U	28	6	8	8	5	12	8	2	0
3284	4	10	4	1	ZMD60	75	0	Mam	2	U	28	6	8	8	5	12	8	2	0
3285	4	10	5	1	ZMD70	75	1	Mam	3	U	3	6	8	8	5	12	8	2	0
3286	4	10	4	1	ZMD70	31	1	Mam	4	M	44	7	8	8	5	12	8	2	3
3287	4	10	4	1	ZMD70	38	0	Mam	3	M	9	2	8	8	1	12	8	2	0
3288	4	10	4	2	ZMD10	101	5	Mam	2	U	0	0	8	8	1	12	8	2	0
3289	4	10	4	1	ZMD10	60	5	Mam	2	U	0	0	8	8	1	12	8	2	0
3290	4	10	4	3	ZMD10	62	1	Mam	2	U	0	0	8	8	1	12	8	2	0
3291	4	10	4	5	ZMZ03	36	0	Mam	1	U	0	0	8	8	1	12	8	2	0
3292	4	10	2	6	ZMZ03	100	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3293	4	10	2	4	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3294	4	10	2	4	ZMZ03	30	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3295	4	10	2	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3296	4	10	2	2	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3297	4	10	2	1	ZBZ00	50	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
3298	4	10	5	1	ZMD70	76	0	Mam	2	U	3	6	8	8	5	12	8	2	0
3299	4	10	3	1	ZMZ05	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3300	4	10	3	1	ZFZ00	30	0	FISH	2	U	0	0	8	8	1	12	8	2	0

3301	4	10	3	1	ZMZ04	36	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3302	4	10	3	1	ZMZ02	39	0	Mam	1	U	0	0	8	8	1	12	8	2	0
3303	4	10	3	2	ZMZ03	30	0	Mam	2	U	0	0	8	8	1	12	8	2	0
3304	4	10	3	1	ZMZ03	100	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3305	4	10	1	1	ZBZ00	120	0	Mam	5	U	0	0	8	8	1	12	8	2	0
3306	4	10	5	1	ZMD60	22	0	Mam	3	L	40	6	8	8	1	12	8	2	0
3307	4	10	1	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3308	4	10	3	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3309	4	10	4	1	ZMD70	22	4	Mam	3	M	39	7	8	8	1	12	1	2	0
3310	4	10	5	1	ZMZ05	30	0	Mam	4	U	0	0	8	8	5	12	8	2	1
3311	4	10	5	1	ZMD60	22	0	Mam	3	L	40	6	8	8	1	12	8	2	0
3312	4	10	2	100	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3313	4	10	2	4	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	3	2	0
3314	4	10	2	2	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3315	4	10	2	9	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3316	4	10	2	2	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3317	4	10	2	10	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3318	4	10	2	100	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3319	4	10	2	8	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	3
3320	4	10	2	3	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3321	4	10	2	17	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
3322	4	10	2	5	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3323	4	10	2	26	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3324	4	10	2	70	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	3
3325	4	10	2	14	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3326	4	10	2	4	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3327	4	10	2	2	ZMZ05	39	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3328	4	10	2	14	ZMZ05	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3329	4	10	2	1	ZBZ00	120	0	BIRD	3	U	0	0	8	8	1	12	3	2	0
3330	4	10	1	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	6	2	6
3331	4	10	1	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	2	2	0
3332	4	10	1	2	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3333	4	10	1	5	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3334	4	10	4	1	ZMD70	51	0	Mam	4	U	2	4	8	8	5	12	8	2	6
3335	4	10	1	1	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	3	2	3
3336	4	10	1	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	3	2	0
3337	4	10	1	1	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3338	4	10	1	11	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3339	4	10	1	2	ZMZ00	200	0	Mam	4	U	0	0	8	8	1	12	8	2	6
3340	4	10	1	5	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3341	4	10	1	2	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	2	2	0
3342	4	10	1	38	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3343	4	10	1	20	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3344	4	10	1	8	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3345	4	10	1	1	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
3346	4	10	1	2	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	2	2	0
3347	4	10	1	95	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3348	4	10	3	3	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	2	2	0
3349	4	10	3	8	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
3350	4	10	3	10	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3351	4	10	3	55	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0

3352	4	10	3	43	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3353	4	10	3	2	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	2	2	0
3354	4	10	3	2	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
3355	4	10	3	2	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3356	4	10	3	13	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3357	4	10	3	1	ZMZ00	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3358	4	10	3	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3359	4	10	3	2	ZMZ05	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3360	4	10	3	7	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3361	4	10	3	3	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3362	4	10	3	14	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
3363	4	10	3	100	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3364	4	10	3	4	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3365	4	10	3	3	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3366	4	10	3	2	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	2	2	0
3367	4	10	3	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
3368	4	10	4	2	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	2	2	0
3369	4	10	4	2	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	3	2	0
3370	4	10	4	10	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3371	4	10	4	100	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3372	4	10	4	4	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	2	2	0
3373	4	10	4	5	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3374	4	10	4	16	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3375	4	10	4	3	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	3	2	0
3376	4	10	4	1	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	4	2	0
3377	4	10	4	2	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	6	2	3
3378	4	10	4	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	3	2	3
3379	4	10	4	44	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3380	4	10	4	31	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3381	4	10	4	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	5	2	3
3382	4	10	4	11	ZMZ05	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3383	4	10	4	17	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3384	4	10	4	2	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3385	4	10	4	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	3	2	0
3386	4	10	4	1	ZMZ05	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3387	4	10	4	3	ZMZ04	33	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3388	4	10	4	1	ZMD32	110	0	Mam	1	L	47	3	8	8	5	12	8	2	0
3389	4	10	5	1	ZMD70	51	0	Mam	4	U	2	4	8	8	6	12	8	2	7
3390	4	10	5	1	ZMD70	22	1	Mam	3	L	39	7	8	8	1	12	8	2	0
3391	4	10	5	9	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3392	4	10	5	6	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	4	2	0
3393	4	10	5	5	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
3394	4	10	5	2	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	2	2	0
3395	4	10	5	2	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
3396	4	10	5	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	2	2	1
3397	4	10	5	100	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3398	4	10	5	49	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
3399	4	10	5	200	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3400	4	10	5	12	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	4	2	0
3401	4	10	5	5	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3402	4	10	5	3	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7

3403	4	10	5	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	5	2	7
3404	4	10	5	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3405	4	10	5	9	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
3406	4	10	5	59	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3407	4	10	5	4	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	6	2	0
3408	4	10	5	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	3	2	0
3409	4	10	5	1	ZMZ03	39	0	Mam	3	U	0	0	8	8	1	12	3	2	0
3410	4	10	5	17	ZMZ05	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3411	4	10	5	1	ZMZ04	36	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3412	4	10	5	1	ZMZ04	36	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3413	4	10	5	1	ZMZ04	36	0	Mam	4	U	0	0	8	8	1	12	8	2	1
3414	4	10	5	2	ZMZ05	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3415	4	10	5	1	ZMZ05	30	0	Mam	4	U	0	0	8	8	1	12	8	2	1
3416	4	10	5	1	ZMZ04	33	0	Mam	3	U	0	0	8	8	1	12	8	2	0
3417	4	10	5	1	ZMZ04	51	0	Mam	4	U	0	0	8	8	1	12	8	2	1
3418	4	10	3	1	ZMD70	60	1	Mam	3	R	2	4	8	8	1	12	2	2	3
3419	4	10	5	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	1
3420	4	10	3	1	ZMD70	60	1	Mam	4	R	2	4	8	8	1	12	2	2	7
3421	4	10	5	1	ZMZ04	21	0	Mam	3	M	0	0	8	8	1	12	8	2	0
3422	4	10	5	1	ZMD60	22	0	Mam	3	L	40	6	8	8	1	12	8	2	0
3423	4	10	5	1	ZMZ04	36	1	Mam	3	U	0	0	8	8	1	12	8	2	0
3424	4	10	5	7	ZMZ02	120	0	Mam	2	U	0	0	8	8	1	12	8	2	0
523	4	10	1	1	ZMD60	62	4	Mam	10	R	25	3	8	8	5	12	8	2	0
524	4	10	2	1	ZMD32	110	1	Mam	3	L	47	7	8	8	5	12	8	2	0
525	4	10	5	2	ZMZ03	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
526	4	10	5	1	MRM18	8	0	Mam	1	R	0	0	8	8	1	12	8	2	0
527	4	10	5	1	MRM18	101	0	Mam	2	R	0	0	8	8	1	12	8	2	0
528	4	10	5	1	MRM18	90	0	Mam	3	R	0	0	8	8	1	12	8	2	0
529	4	10	5	17	ZMZ02	39	0	Mam	2	U	0	0	8	8	1	12	8	2	0
530	4	10	5	13	ZFZ00	200	0	FISH	1	U	0	0	8	8	1	12	8	2	0
531	4	10	5	1	ZMZ03	90	0	Mam	3	R	0	0	8	8	1	12	8	2	0
532	4	10	4	1	ZMD60	23	4	Mam	3	U	40	6	8	8	1	12	8	2	2
533	4	10	2	1	ZMD60	23	1	Mam	4	M	40	6	8	8	3	12	8	2	3
534	4	10	5	1	ZMD70	36	4	Mam	4	M	5	3	8	8	5	12	8	2	1
535	4	10	5	1	ZMD70	38	0	Mam	4	M	9	2	8	8	1	12	8	2	7
536	4	10	5	1	ZMD70	38	0	Mam	4	M	9	2	8	8	1	12	8	2	7
537	4	10	5	1	ZMD70	38	0	Mam	4	M	9	2	8	8	1	12	8	2	7
538	4	10	5	1	ZMD70	33	0	Mam	4	M	44	7	8	8	1	12	8	2	1
539	4	10	5	1	ZMZ04	120	0	Mam	4	M	0	0	8	8	1	12	8	2	1
540	4	10	5	1	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	6	2	0
541	4	10	5	1	ZMZ04	33	0	Mam	3	M	0	0	8	8	1	12	8	2	0
542	4	10	1	1	ZMD32	111	1	Mam	4	L	47	3	8	8	5	12	8	2	0
543	4	10	5	1	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
544	4	10	5	1	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
545	4	10	5	1	ZMD70	117	0	Mam	2	L	35	6	8	8	6	12	8	2	0
546	4	10	5	1	ZMD70	100	0	Mam	4	U	10	3	8	8	5	12	8	2	7
547	4	10	5	1	ZMD70	100	0	Mam	4	U	10	3	8	8	1	12	8	2	7
548	4	10	5	1	ZMD70	100	0	Mam	4	U	10	3	8	8	1	12	8	2	7
549	4	10	5	1	ZMD70	90	0	Mam	4	U	7	1	8	8	5	12	8	2	7
550	4	10	5	2	ZBD00	77	0	Mam	2	U	0	0	8	8	1	12	8	2	0
551	4	10	5	1	ZBZ00	51	0	Mam	2	U	0	0	8	8	1	12	8	2	0

552	4	10	5	1	ZBZ00	50	0	Mam	2	U	0	0	8	8	1	12	8	2	0
553	4	10	5	2	ZBZ00	54	0	Mam	2	U	0	0	8	8	1	12	8	2	0
554	4	10	5	1	ZBZ00	109	0	Mam	2	U	0	0	8	8	1	12	8	2	0
555	4	10	5	6	ZBZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
556	4	10	5	16	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
557	4	10	5	1	ZMD60	23	1	Mam	3	M	40	6	8	8	1	12	1	2	0
558	4	10	2	1	ZMZ05	30	0	Mam	4	M	0	0	8	8	1	12	8	2	1
559	4	10	2	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	3	2	0
560	4	10	3	1	ZMD60	62	0	Mam	3	R	25	3	8	8	1	12	8	2	0
561	4	10	2	1	ZMD32	60	0	Mam	10	R	50	4	8	8	1	12	8	2	5
562	4	10	2	1	ZMD60	101	4	Mam	5	R	43	4	8	8	1	12	8	2	0
563	4	10	3	1	ZMD32	111	0	Mam	2	R	47	7	8	8	1	12	8	3	0
564	4	10	2	1	ZMD60	101	3	Mam	5	L	43	4	8	8	5	12	8	2	1
565	4	10	2	1	ZMZ04	21	0	Mam	3	M	0	0	8	8	1	12	8	2	0
566	4	10	3	1	ZMD32	60	0	Mam	10	R	50	4	8	8	5	12	8	3	5
567	4	10	5	1	ZMD60	111	4	Mam	2	R	27	6	8	8	1	12	8	2	0
568	4	10	3	1	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
569	4	10	3	1	ZMZ03	21	0	Mam	3	M	0	0	8	8	1	12	8	2	0
570	4	10	4	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	1
571	4	10	4	1	ZMZ05	200	0	Mam	3	M	0	0	8	8	1	12	8	2	0
572	4	10	4	1	ZMZ05	36	0	Mam	4	M	0	0	8	8	1	12	8	2	7
573	4	10	4	1	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
574	4	10	5	230	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
575	4	10	4	176	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
576	4	10	3	100	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
577	4	10	1	100	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
578	4	10	2	100	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
579	4	10	5	1	ZMD70	38	0	Mam	4	U	9	2	8	8	1	12	8	2	1
580	4	10	5	2	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
581	4	10	3	4	ZMZ05	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
582	4	10	3	2	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
583	4	10	3	1	ZBD00	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
584	4	10	3	1	ZMZ04	94	0	Mam	3	U	0	0	8	8	1	12	8	2	0
585	4	10	5	4	ZMZ03	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
586	4	10	4	3	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
1	7	45	2	1	ZMD60	76	0	Mam	1	L	28	6	8	8	3	12	8	2	0
2	7	45	2	2	ZMZ00	0	0	Moll	2	U	0	0	0	0	0	0	8	2	0
203	7	45	3	1	ZBD01	30	0	BIRD	3	U	0	0	8	8	2	12	5	2	0
341	7	45	4	1	ZBD01	30	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
5	7	45	2	1	ZBD02	107	0	Bird	11	U	0	0	8	8	1	8	5	2	5
6	7	45	2	1	ZMD70	36	0	Mam	2	U	5	2	8	8	1	12	8	2	8
7	7	45	2	1	MLL	9	11	Mam	2	L	0	0	8	8	2	2	8	2	0
8	7	45	2	1	ZMD60	34	0	Mam	2	U	29	2	8	8	3	9	5	1	0
262	7	45	4	1	ZMD60	61	7	Mam	2	L	27	6	8	8	5	12	8	2	0
10	7	45	2	1	ZMD70	34	0	Mam	11	L	9	2	8	8	1	12	8	2	7
11	7	45	2	1	ZMD32	39	0	Mam	2	R	19	2	5	8	1	12	8	2	0
279	7	45	4	1	ZMD70	62	0	Mam	10	R	3	6	8	8	1	12	1	2	0
13	7	45	2	1	ZMD70	60	3	Mam	10	L	3	6	8	8	1	12	5	2	2
14	7	45	2	1	ZMD70	90	0	Mam	4	U	9	2	9	9	6	12	8	2	8
15	7	45	2	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	5	2	7
16	7	45	2	1	ZMD60	34	0	Mam	2	U	29	2	8	8	1	12	8	2	0

342	7	45	4	1	ZBD01	30	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
18	7	45	2	1	MLL	101	0	Mam	6	U	36	0	5	8	1	12	8	6	0
343	7	45	4	1	ZBD01	30	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
270	7	45	4	1	ZBD01	33	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
271	7	45	4	1	ZBD01	33	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
27	7	45	2	1	ZMD60	31	0	Mam	3	L	25	3	8	8	1	12	1	0	4
23	7	45	2	1	ZMD32	60	0	Mam	11	R	47	3	7	8	1	12	5	2	5
24	7	45	2	1	ZMD70	39	0	Mam	11	U	6	5	8	8	3	12	1	2	7
25	7	45	2	1	ZMD70	39	0	Mam	4	U	6	5	8	8	6	12	8	2	8
26	7	45	2	1	ZMD70	94	1	Mam	4	R	52	2	8	8	1	12	8	2	8
260	7	45	4	1	ZMD60	31	1	Mam	4	U	25	3	8	8	5	12	8	2	2
31	7	45	2	1	ZMD60	101	0	Mam	10	R	27	6	5	8	5	12	8	4	2
29	7	45	2	1	ZMD70	60	0	Mam	5	U	2	4	8	8	1	12	6	4	4
235	7	45	3	1	ZMD60	32	0	Mam	3	U	25	3	8	8	5	12	8	2	0
129	7	45	4	1	ZMD60	101	4	Mam	11	R	27	6	8	8	5	12	8	2	5
32	7	45	2	1	ZMZ05	60	0	Mam	3	U	0	0	8	8	1	12	6	4	4
33	7	45	2	1	MLL	60	3	Mam	10	L	0	0	8	8	1	12	8	6	0
34	7	45	2	1	ZMD60	77	0	Mam	1		28	6	8	8	5	12	8	2	0
308	7	45	4	1	ZMD70	62	4	Mam	10	R	3	5	8	8	5	12	8	2	0
30	7	45	2	1	ZMD60	33	8	Mam	4	U	25	3	5	8	1	12	6	2	5
37	7	45	1	1	ZMD70	33	0	Mam	3	U	44	7	8	8	6	12	4	2	3
38	7	45	3	1	ZMD70	64	0	Mam	1	L	3	6	8	8	6	12	8	2	0
40	7	45	3	1	ZMD70	90	0	Mam	4	U	9	2	8	8	1	12	8	2	7
119	7	45	2	1	ZMD70	90	1	Mam	4	U	9	2	8	8	5	12	8	2	7
41	7	45	3	1	ZMD60	77	0	Mam	1	L	28	6	8	8	5	12	8	2	0
344	7	45	4	1	ZBD01	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
43	7	45	3	1	ZBD02	60	1	Bird	2	R	33	0	5	8	1	12	8	2	0
196	7	45	3	1	ZBD01	39	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
142	7	45	1	1	ZBD01	51	0	BIRD	2	U	34	0	8	8	1	12	8	2	0
46	7	45	3	1	MLL	100	1	Mam	1	R	36	0	8	8	1	12	8	2	0
47	7	45	4	1	ZMD70	100	0	Mam	11	R	35	0	8	8	5	12	8	2	2
105	7	45	4	1	ZMD70	101	2	Mam	6	R	35	6	8	8	5	12	1	2	3
49	7	45	4	1	ZMD70	60	6	Mam	6	L	2	4	7	8	3	12	1	2	3
50	7	45	4	1	ZMD70	60	3	Mam	11	L	3	6	8	8	5	12	8	2	6
51	7	45	4	1	ZMD70	60	3	Mam	11	R	3	6	8	8	5	12	6	2	6
52	7	45	4	18	ZMZ04	39	0	Mam	3	U	0	0	5	8	1	12	8	2	0
53	7	45	4	1	ZMZ04	39	0	Mam	3	U	0	0	5	8	6	9	8	2	4
54	7	45	4	1	ZMZ04	39	0	Mam	3	U	0	0	5	8	5	12	5	2	0
55	7	45	4	11	ZMZ04	200	0	Mam	3	U	0	0	5	8	1	12	8	2	0
56	7	45	4	1	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	3
57	7	45	4	1	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	3	3
58	7	45	4	6	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	4	2	0
59	7	45	4	1	ZMZ05	120	0	Mam	4	U	0	0	7	9	1	12	8	2	8
60	7	45	4	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	10
61	7	45	4	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	8
62	7	45	4	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	6	12	4	2	1
63	7	45	4	15	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
64	7	45	4	7	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	6
65	7	45	4	2	ZMZ05	200	0	Mam	4	U	0	0	8	8	5	12	8	2	2
66	7	45	4	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	5	12	1	2	7
67	7	45	4	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	6	12	8	2	8

68	7	45	4	5	ZMZ05	200	0	Mam	3	U	0	0	8	8	5	12	6	2	0
69	7	45	4	3	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	2	2	0
70	7	45	4	11	ZMZ05	200	0	Mam	3	U	0	0	8	8	6	12	5	2	0
71	7	45	4	4	ZMZ05	200	0	Mam	3	U	0	0	8	8	5	12	5	2	0
72	7	45	4	11	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	3	2	0
73	7	45	4	35	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	4	2	0
74	7	45	4	7	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	3	2	0
75	7	45	4	8	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
76	7	45	4	3	ZMZ02	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
77	7	45	4	6	ZMZ02	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
78	7	45	4	157	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
79	7	45	3	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	8
80	7	45	3	2	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	5
81	7	45	3	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	7	2	0
82	7	45	3	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	6	12	5	2	4
83	7	45	3	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	6	12	4	2	9
84	7	45	3	7	ZMZ05	200	0	Mam	3	U	0	0	8	8	5	12	5	2	0
85	7	45	3	3	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	11	6	2	0
86	7	45	3	7	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
87	7	45	3	3	ZMZ05	200	0	Mam	3	U	0	0	8	8	5	12	8	2	0
88	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	1
89	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	2	2	1
90	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	3	12	1	2	7
91	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	1
92	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	6	12	5	2	7
93	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	1
94	7	45	3	1	ZMZ04	200	0	Mam	4	U	0	0	8	8	6	12	4	2	3
95	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	5	12	8	2	1
96	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	4
97	7	45	3	1	ZMZ05	39	0	Mam	4	U	0	0	7	10	1	12	8	2	8
98	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
99	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	3	0
100	7	45	4	1	ZMD60	9	12	Mam	3	L	40	6	8	8	1	12	8	2	0
101	7	45	4	3	ZMD60	14	12	Mam	3	U	40	6	8	8	1	12	8	2	0
102	7	45	4	1	ZMD60	12	12	Mam	3	U	40	6	8	8	1	12	8	2	0
103	7	45	4	1	ZMD60	11	12	Mam	3	U	40	6	8	8	1	12	8	2	0
147	7	45	1	1	ZMD60	34	4	Mam	2	U	29	2	8	8	5	12	4	2	0
109	7	45	4	1	ZMD70	101	3	Mam	11	L	35	6	8	8	5	12	4	2	9
106	7	45	4	1	ZMD32	60	3	Mam	10	R	47	0	8	8	1	12	8	2	5
424	7	45	4	1	ZMD32	60	0	Mam	10	L	47	4	8	8	1	12	6	2	0
122	7	45	4	1	ZMD32	61	1	Mam	1	R	47	3	8	8	5	12	8	2	0
272	7	45	4	1	ZMD70	101	1	Mam	2	L	35	6	8	8	6	12	8	2	2
110	7	45	4	1	ZMD70	62	1	Mam	6	R	4	5	8	8	1	12	8	4	8
111	7	45	4	1	ZMD70	33	0	Mam	4	U	44	7	8	8	1	12	8	2	3
112	7	45	4	1	ZMD32	91	1	Mam	4	L	45	4	8	8	1	12	8	2	8
123	7	45	4	1	ZMD32	61	1	Mam	5	L	47	3	5	10	5	12	8	2	0
242	7	45	3	1	ZMD60	90	0	Mam	4	U	31	1	8	8	1	12	8	2	7
115	7	45	1	1	ZMD70	51	1	Mam	4	U	2	4	8	8	5	12	8	1	7
116	7	45	2	1	ZMD70	94	1	Mam	3	U	52	2	8	8	1	12	8	2	3
120	7	45	3	1	ZMD70	90	1	Mam	4	U	9	2	8	8	1	12	8	2	7
315	7	45	4	1	ZMD70	90	0	Mam	4	U	9	2	8	8	1	12	8	2	7

374	7	45	4	1	ZMD70	90	0	Mam	4	U	9	2	8	8	5	12	8	2	7
39	7	45	3	1	ZMD70	91	0	Mam	4	U	9	2	8	8	5	12	8	2	7
121	7	45	3	1	ZMD32	51	0	Mam	4	R	50	3	8	8	1	12	8	2	7
286	7	45	4	1	ZMD32	61	1	Mam	3	R	47	3	8	8	5	12	8	2	0
314	7	45	4	1	ZMD32	61	1	Mam	10	R	47	3	8	8	5	12	8	2	0
107	7	45	4	1	ZMD32	62	0	Mam	3	R	47	0	8	8	5	12	8	4	0
125	7	45	4	1	ZMD60	74	4	Mam	1	L	28	6	8	8	1	12	8	2	0
126	7	45	4	1	ZMD60	85	4	Mam	1	L	28	6	8	8	6	12	8	2	0
127	7	45	4	1	ZMD60	85	4	Mam	2	U	28	6	8	8	6	12	8	2	0
319	7	45	4	1	ZMD60	101	4	Mam	10	R	27	6	8	8	5	12	8	2	0
9	7	45	2	1	ZMD60	110	0	Mam	2	u	27	6	8	8	1	12	4	2	0
130	7	45	4	1	ZMD70	51	0	Mam	4	L	37	6	8	8	1	12	1	2	1
131	7	45	4	1	ZMD70	51	0	Mam	4	L	37	6	5	8	5	12	2	2	6
132	7	45	1	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	1	2	8
211	7	45	3	1	ZMD60	33	0	Mam	3	U	25	3	8	8	1	12	8	2	4
134	7	45	1	1	ZMD70	100	0	Mam	4	U	10	3	7	10	5	10	8	2	8
135	7	45	1	3	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	11	8	2	0
136	7	45	1	9	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
137	7	45	1	2	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	5	2	0
138	7	45	1	1	ZBZOO	120	0	BIRD	3	U	0	0	8	8	1	12	3	2	0
139	7	45	1	2	ZBZOO	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	4
143	7	45	1	1	ZBD01	51	0	BIRD	2	U	34	0	8	8	1	12	8	2	0
3	7	45	2	1	ZBD01	60	1	Bird	2	L	33	0	8	8	2	0	8	2	4
202	7	45	3	1	ZBD01	51	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
228	7	45	3	1	ZBD01	51	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
254	7	45	3	1	ZBD01	51	1	BIRD	3	U	0	0	8	8	5	12	8	2	0
17	7	45	2	1	ZBD01	53	0	Bird	2	U	34	0	8	8	1	12	8	2	0
146	7	45	1	1	MLL	100	1	Mam	3	L	0	0	8	8	2	2	8	2	0
236	7	45	3	1	ZMD60	34	0	Mam	4	U	29	2	8	8	1	12	8	2	3
258	7	45	4	1	ZMD60	60	1	Mam	3	L	26	4	8	8	5	12	8	3	0
149	7	45	1	1	ZMD32	39	0	Mam	5	L	19	2	8	8	1	12	8	8	0
150	7	45	1	1	ZMD70	51	0	Mam	4	U	2	4	8	8	5	12	8	1	8
151	7	45	1	1	ZMD10	85	0	Mam	1	U	0	0	8	8	1	12	8	8	0
152	7	45	1	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	5	12	2	2	8
153	7	45	1	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	6	2	6
154	7	45	1	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	5	12	8	2	5
155	7	45	1	4	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
156	7	45	1	5	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
157	7	45	1	10	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
158	7	45	1	4	ZMZ00	200	0	Mam	4	U	0	0	8	8	1	12	5	2	3
159	7	45	1	45	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
160	7	45	1	3	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	1	2	0
161	7	45	1	1	ZFZ00	30	0	Fish	3	U	0	0	8	8	5	12	8	2	0
162	7	45	3	24	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
163	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	1
164	7	45	3	48	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
165	7	45	3	11	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	4	2	0
166	7	45	3	4	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	3	2	0
167	7	45	3	21	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
168	7	45	3	2	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	5	2	0
169	7	45	3	7	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	1	2	0

170	7	45	3	200	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
171	7	45	3	8	ZMZ00	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
172	7	45	3	20	ZBZOO	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
173	7	45	3	5	ZBZOO	120	0	BIRD	3	U	0	0	8	8	1	12	5	2	0
174	7	45	3	1	ZBZOO	200	0	BIRD	3	U	0	0	8	8	1	12	5	2	0
175	7	45	3	11	ZBZOO	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
176	7	45	3	29	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
177	7	45	3	3	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	6	2	0
178	7	45	3	14	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	5	2	0
179	7	45	3	1	MRS18	9	11	Mam	1	L	0	0	8	8	1	12	8	2	0
180	7	45	3	1	MRS18	62	1	Mam	1	U	0	0	8	8	1	12	8	2	0
181	7	45	3	1	MLL	94	1	Mam	3	L	0	0	8	8	5	12	7	2	0
182	7	45	3	1	MLL	85	0	Mam	1	U	0	0	8	8	1	12	8	2	0
183	7	45	3	1	ZBZOO	62	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
145	7	45	1	1	ZBD01	53	0	BIRD	5	U	36	0	8	8	1	12	8	2	4
187	7	45	3	1	ZBD01	53	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
188	7	45	3	1	ZBD01	53	0	BIRD	3	U	0	0	8	8	1	12	1	2	0
200	7	45	3	1	ZBD01	53	0	BIRD	2	U	0	0	8	8	1	12	8	2	3
338	7	45	4	1	ZBD01	53	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
339	7	45	4	1	ZBD01	53	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
340	7	45	4	1	ZBD01	53	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
4	7	45	2	1	ZBD01	60	1	Bird	2	L	33	0	8	8	2	0	8	2	0
192	7	45	3	1	ZBD02	33	0	BIRD	3	U	0	0	8	8	1	12	1	2	0
193	7	45	3	1	ZBD00	39	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
194	7	45	3	1	ZBD00	30	0	BIRD	3	U	0	0	8	8	6	12	4	2	0
195	7	45	3	1	ZBD00	30	0	BIRD	3	U	0	0	8	8	6	12	5	2	0
21	7	45	2	1	ZBD01	60	0	Bird	6	U	0	0	8	8	1	12	7	2	0
42	7	45	3	1	ZBD01	60	1	Bird	1	L	33	0	5	8	1	12	8	2	4
44	7	45	3	1	ZBD01	60	1	Bird	5	R	33	0	5	8	1	12	8	2	0
45	7	45	3	1	ZBD01	60	1	Bird	10	R	33	0	5	8	1	12	8	2	0
20	7	45	2	1	ZBD01	61	0	Bird	6	U	0	0	8	8	0	2	8	2	0
198	7	45	3	1	ZBD01	60	0	BIRD	11	L	0	0	8	8	1	12	8	2	3
201	7	45	3	1	ZBD01	60	0	BIRD	5	L	0	0	8	8	1	12	5	2	0
253	7	45	3	1	ZBD01	60	1	BIRD	3	L	0	0	8	8	6	12	5	2	0
204	7	45	3	1	ZMD70	51	0	Mam	4	U	2	4	8	8	5	12	8	2	8
277	7	45	4	1	ZMD60	60	1	Mam	10	L	26	4	8	8	5	12	8	2	0
206	7	45	3	1	ZMD60	85	1	Mam	3	U	28	6	8	8	1	12	8	2	0
207	7	45	3	1	ZMD60	85	1	Mam	2	U	28	6	8	8	1	12	8	2	0
208	7	45	3	1	ZMD60	76	0	Mam	2	U	28	6	8	8	1	12	8	2	0
299	7	45	4	1	ZMD60	60	1	Mam	11	L	26	4	8	8	5	12	8	2	10
212	7	45	3	1	ZMD60	36	0	Mam	3	U	42	2	8	8	5	12	4	2	0
291	7	45	4	1	ZMD60	33	0	Mam	3	M	25	3	8	8	1	12	8	2	0
256	7	45	3	1	ZMD60	36	1	Mam	3	U	42	4	8	8	6	12	8	2	0
213	7	45	3	1	ZMD32	39	0	Mam	3	L	19	2	8	8	5	12	8	2	0
214	7	45	3	1	ZMD32	36	0	Mam	3	M	19	2	8	8	5	12	8	2	4
215	7	45	3	1	MLL	62	0	Mam	2	L	0	0	8	8	1	12	8	2	0
216	7	45	3	1	MRS18	61	0	Mam	2	U	0	0	8	8	1	12	8	2	0
217	7	45	3	1	MRZ02	103	0	Mam	2	R	0	0	8	8	1	11	8	2	0
218	7	45	3	6	ZBD00	120	0	BIRD	3	U	0	0	8	8	1	12	5	2	0
219	7	45	3	11	ZBD00	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
220	7	45	3	1	ZBD00	120	0	BIRD	3	U	0	0	8	8	1	12	3	2	0

221	7	45	3	1	ZBD00	120	0	BIRD	3	U	0	0	8	8	1	12	4	2	0
222	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	5	2	7
223	7	45	3	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	5	12	6	2	7
224	7	45	3	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
225	7	45	3	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	5	12	4	2	3
226	7	45	3	7	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
227	7	45	3	2	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	4	2	0
330	7	45	4	1	ZBD01	60	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
229	7	45	3	1	ZMD70	39	0	Mam	4	R	2	4	8	8	5	12	8	2	1
230	7	45	3	1	ZMD70	39	0	Mam	4	U	6	4	8	8	1	12	8	2	8
231	7	45	3	1	ZMD70	39	0	Mam	3	R	2	5	8	8	3	12	8	2	0
232	7	45	3	1	ZMD70	33	0	Mam	3	U	44	7	8	8	3	12	8	2	0
233	7	45	3	1	ZMD70	100	0	Mam	4	U	10	0	8	8	5	12	8	2	6
234	7	45	3	1	ZMZ05	120	0	Mam	4	U	0	0	7	8	5	12	8	2	7
292	7	45	4	1	ZMD60	33	0	Mam	3	M	25	3	8	8	5	12	8	2	0
237	7	45	3	1	ZMD60	34	0	Mam	2	U	29	2	8	8	5	12	8	2	0
264	7	45	4	1	ZMD60	34	0	Mam	3	M	29	2	8	8	5	12	8	2	0
266	7	45	4	1	ZMD60	36	0	Mam	3	M	42	2	8	8	3	12	8	2	0
296	7	45	4	1	ZMD60	36	0	Mam	4	M	42	2	8	8	3	12	8	2	3
328	7	45	4	1	ZMD60	36	0	Mam	3	M	42	2	8	8	5	12	8	2	0
210	7	45	3	1	ZMD60	39	0	Mam	3	L	42	2	8	8	5	12	8	2	0
114	7	45	1	1	ZMD60	94	1	Mam	4	R	31	1	5	8	5	12	8	2	4
293	7	45	4	1	ZMD60	33	0	Mam	3	M	25	3	8	8	1	12	8	2	0
244	7	45	3	1	ZMD60	11	0	Mam	1	U	40	6	8	8	1	12	8	2	0
245	7	45	3	1	ZMD60	85	0	Mam	2	U	28	6	8	8	1	12	8	2	0
246	7	45	3	1	ZMD32	33	0	Mam	3	U	51	3	8	8	1	12	5	2	0
247	7	45	3	1	ZMD32	33	0	Mam	3	U	51	3	8	8	1	12	6	2	0
248	7	45	3	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	5	2	0
249	7	45	3	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	6	2	0
250	7	45	3	1	ZMD32	39	0	Mam	3	L	19	2	8	8	1	11	4	2	0
251	7	45	3	1	ZMD20	101	1	Mam	3	R	0	0	5	10	1	12	8	2	0
331	7	45	4	1	ZBD01	60	0	BIRD	3	R	0	0	8	8	6	12	8	2	0
332	7	45	4	1	ZBD01	60	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
140	7	45	1	1	ZBD01	61	0	BIRD	3	R	33	0	8	8	1	12	8	2	4
141	7	45	1	1	ZBE06	63	0	BIRD	2	R	33	0	8	8	1	12	8	2	0
238	7	45	3	1	ZMD60	39	0	Mam	5	L	42	2	8	8	5	12	8	2	0
257	7	45	3	1	ZMZ04	39	1	Mam	3	U	0	0	8	8	1	12	8	2	0
324	7	45	4	1	ZMD60	60	1	Mam	11	R	26	4	8	8	5	12	8	2	6
259	7	45	4	1	ZMD60	86	1	Mam	3	U	28	6	8	8	5	12	8	2	0
294	7	45	4	1	ZMD60	33	0	Mam	3	M	25	3	8	8	1	12	8	2	0
325	7	45	4	1	ZMD60	60	1	Mam	11	R	26	4	8	8	5	12	8	2	6
28	7	45	2	1	ZMD60	111	0	Mam	6	L	27	6	8	8	1	12	8	2	8
363	7	45	3	1	ZMD60	60	0	Mam	3	R	26	4	8	8	1	12	8	2	4
265	7	45	4	1	ZMD60	34	0	Mam	3	M	29	2	8	8	1	12	8	2	0
297	7	45	4	1	ZMD60	34	0	Mam	3	M	29	2	8	8	5	12	8	2	0
239	7	45	3	1	ZMD60	39	0	Mam	5	L	42	2	8	8	1	12	8	2	0
295	7	45	4	1	ZMD60	33	0	Mam	3	M	25	3	8	8	1	12	8	2	0
268	7	45	4	1	ZMD60	100	7	Mam	2	L	43	4	7	10	5	12	8	2	4
108	7	45	4	1	ZMD32	62	1	Mam	3	R	47	0	8	8	5	12	8	2	0
189	7	45	3	1	ZBD01	61	0	BIRD	2	U	0	0	8	8	1	11	8	2	0
184	7	45	3	1	ZBD01	62	0	BIRD	3	U	0	0	8	8	1	12	8	2	0

280	7	45	4	1	ZMD70	101	0	Mam	4	U	35	6	8	8	6	12	8	2	7
273	7	45	4	1	ZMD70	33	0	Mam	5	M	44	7	8	8	5	12	8	2	3
274	7	45	4	1	ZMD70	111	0	Mam	4	R	35	8	8	8	5	12	4	2	2
275	7	45	4	1	ZMD70	62	4	Mam	3	R	4	5	8	8	5	12	8	3	0
276	7	45	4	1	ZMD70	60	1	Mam	11	L	37	6	8	8	5	12	2	2	3
364	7	45	3	1	ZMD60	60	1	Mam	3	L	26	4	8	8	1	12	8	2	0
430	7	45	4	1	ZMD60	94	0	Mam	4	U	31	1	8	8	1	12	8	2	1
307	7	45	4	1	ZMD70	101	4	Mam	11	R	35	6	8	8	5	12	4	2	2
419	7	45	7	1	ZMD70	101	1	Mam	4	L	35	6	8	8	5	12	8	2	1
281	7	45	4	1	ZMD70	39	0	Mam	4	R	5	2	8	8	5	12	8	2	6
282	7	45	4	1	ZMD70	39	0	Mam	4	R	5	2	8	8	5	12	8	2	6
283	7	45	4	1	ZMD70	39	0	Mam	4	L	6	5	8	8	5	12	8	2	7
284	7	45	4	1	ZMD70	39	0	Mam	4	U	5	2	8	8	1	12	8	2	8
285	7	45	4	1	ZMD70	39	0	Mam	4	U	6	5	8	8	5	11	8	2	6
269	7	45	4	1	ZMD32	62	0	Mam	3	L	47	2	8	8	1	12	8	4	4
287	7	45	4	1	ZMD70	34	0	Mam	4	M	7	1	8	8	5	12	8	2	3
288	7	45	4	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	3
289	7	45	4	1	ZMD70	34	0	Mam	4	M	7	1	8	8	6	12	8	2	2
290	7	45	4	1	ZMD70	34	0	Mam	3	M	7	1	8	8	5	12	8	2	0
36	7	45	1	1	ZMD60	51	0	Mam	3	L	25	3	5	8	6	12	8	2	3
243	7	45	3	1	ZMD60	51	0	Mam	4	U	25	3	8	8	5	12	8	2	7
267	7	45	4	1	ZMD60	51	0	Mam	3	R	25	3	7	10	6	12	8	2	4
323	7	45	4	1	ZMD60	51	0	Mam	3	L	25	3	8	8	5	12	8	2	4
357	7	45	4	1	ZMD60	51	0	Mam	3	L	25	3	8	8	6	12	6	2	0
240	7	45	3	1	ZMD60	39	0	Mam	5	L	42	2	8	8	5	12	8	2	0
298	7	45	4	1	ZMD60	34	0	Mam	4	M	29	2	8	8	5	12	8	2	3
401	7	45	4	1	ZMD60	34	0	Mam	4	M	29	1	8	8	5	12	8	2	7
376	7	45	4	1	ZMD60	60	1	Mam	3	R	26	4	8	8	1	12	8	2	0
300	7	45	4	1	ZMD60	85	1	Mam	2	U	28	6	8	8	6	12	8	2	0
377	7	45	4	1	ZMD60	60	0	Mam	3	R	26	4	8	8	1	12	8	2	0
302	7	45	4	1	ZMD32	31	1	Mam	4	M	51	3	8	8	1	12	3	2	3
303	7	45	4	1	ZMD32	34	1	Mam	4	M	21	1	8	8	1	12	8	2	3
304	7	45	4	1	ZMD32	34	1	Mam	3	M	21	1	8	8	5	12	8	2	0
305	7	45	4	1	ZMD32	65	1	Mam	6	R	47	3	8	8	6	12	8	2	0
306	7	45	4	1	ZMD32	101	1	Mam	3	R	46	3	8	8	6	12	8	2	5
48	7	45	4	1	ZMD70	110	0	Mam	4	L	35	6	8	8	1	12	8	2	2
12	7	45	2	1	ZMD70	111	6	Mam	2	R	35	6	5	8	3	12	8	2	5
309	7	45	4	1	ZMD70	101	1	Mam	11	L	4	6	8	8	5	11	8	2	2
278	7	45	4	1	ZMD60	100	0	Mam	2	L	31	1	8	8	5	12	8	2	0
311	7	45	4	1	ZMD60	85	5	Mam	10	U	28	6	8	8	1	12	8	2	0
378	7	45	4	1	ZMD60	60	1	Mam	3	R	26	4	8	8	1	12	8	2	0
427	7	45	4	1	ZMD60	60	0	Mam	10	L	26	4	8	8	5	12	8	2	0
124	7	45	4	1	ZMD32	101	1	Mam	10	L	47	3	7	10	1	12	8	2	5
117	7	45	2	1	ZMD70	91	1	Mam	4	U	9	2	8	8	1	12	8	2	7
316	7	45	4	1	ZMD70	100	0	Mam	4	R	10	3	8	8	1	12	1	2	7
310	7	45	4	1	ZMD60	100	4	Mam	10	R	31	1	8	8	3	11	8	2	0
322	7	45	4	1	ZMD60	100	4	Mam	11	R	31	1	8	8	5	11	4	2	6
128	7	45	4	1	ZMD60	111	4	Mam	2	R	27	6	8	8	6	12	1	2	0
317	7	45	4	1	ZMD60	101	4	Mam	5	R	31	1	8	8	1	12	8	2	0
321	7	45	4	1	ZMD60	111	0	Mam	3	L	27	6	8	8	5	12	1	2	0
318	7	45	4	1	ZMD60	101	4	Mam	11	R	31	1	8	8	3	12	1	2	3

22	7	45	2	1	ZMD60	60	0	Mam	11	R	25	3	5	9	5	12	8	2	5
148	7	45	1	1	ZMD60	61	1	Mam	4	L	26	4	7	10	5	12	1	4	10
205	7	45	3	1	ZMD60	61	1	Mam	5	L	26	4	5	10	5	12	8	2	0
326	7	45	4	1	ZMD70	34	0	Mam	4	M	7	1	8	8	5	12	8	2	6
327	7	45	4	1	ZMD70	34	0	Mam	4	M	7	1	8	8	5	12	8	2	3
241	7	45	3	1	ZMD60	39	0	Mam	5	R	42	2	8	8	1	12	8	2	0
199	7	45	3	1	ZBD01	62	0	BIRD	1	L	0	0	8	8	1	12	8	2	4
334	7	45	4	1	ZBD01	62	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
335	7	45	4	1	ZBD01	62	0	BIRD	3	L	0	0	8	8	1	11	5	2	0
185	7	45	3	1	ZBD01	66	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
337	7	45	4	1	ZBD01	66	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
186	7	45	3	1	ZBD01	108	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
333	7	45	4	1	ZBD01	100	0	BIRD	3	R	0	0	8	8	1	12	8	2	4
19	7	45	2	1	ZBD01	107	0	Bird	2	U	36	0	8	8	1	12	8	2	0
144	7	45	1	1	ZBD01	107	0	BIRD	3	L	36	0	8	8	1	12	8	2	0
190	7	45	3	1	ZBD01	107	0	BIRD	3	U	0	0	8	8	1	12	8	2	4
191	7	45	3	1	ZBD01	107	0	BIRD	3	U	0	0	8	8	1	12	1	2	4
197	7	45	3	1	ZBD01	107	0	BIRD	10	R	0	0	8	8	1	12	3	2	0
329	7	45	4	1	ZBD01	107	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
252	7	45	3	1	ZBD01	108	1	BIRD	3	R	0	0	8	8	5	12	8	2	4
255	7	45	3	1	ZBD01	120	1	BIRD	3	U	0	0	8	8	1	12	8	2	0
336	7	45	4	14	ZBD01	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
345	7	45	4	1	ZBD02	53	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
346	7	45	4	1	ZBD02	107	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
347	7	45	4	1	ZMD60	85	1	Mam	2	U	28	6	8	8	1	12	8	2	0
348	7	45	4	1	MLL	90	0	Mam	3	L	0	0	8	8	1	12	8	2	0
349	7	45	4	1	MLL	90	0	Mam	3	R	0	0	8	8	1	12	8	2	0
350	7	45	4	1	MRZ02	101	0	Mam	2	U	0	0	8	8	1	12	8	2	0
351	7	45	4	1	ZMZ01	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
352	7	45	4	1	ZMZ01	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
353	7	45	4	1	ZMD70	39	0	Mam	4	L	6	5	8	8	5	12	8	2	1
354	7	45	4	1	ZMD70	39	0	Mam	3	U	5	2	8	8	6	12	5	2	0
355	7	45	4	1	ZMD70	39	0	Mam	3	R	5	2	8	8	6	12	8	2	0
356	7	45	4	1	ZMD70	51	0	Mam	4	R	2	4	8	8	6	12	8	2	6
133	7	45	1	1	ZMD60	60	1	Mam	4	R	25	3	7	10	5	12	1	2	5
358	7	45	4	1	ZMD32	39	0	Mam	3	L	19	2	8	8	6	12	8	2	4
359	7	45	4	1	ZMD32	39	0	Mam	3	L	19	2	8	8	1	11	8	2	0
360	7	45	3	1	ZMD70	100	0	Mam	4	U	10	0	8	8	6	12	8	2	7
361	7	45	3	1	ZMD70	100	0	Mam	4	U	10	0	8	8	6	12	8	2	7
362	7	45	3	1	ZMD60	60	0	Mam	3	R	25	3	8	8	1	12	8	2	0
209	7	45	3	1	ZMD60	61	5	Mam	11	R	26	4	8	8	3	12	8	2	0
263	7	45	4	1	ZMD60	61	7	Mam	10	L	26	4	8	8	5	12	8	2	4
365	7	45	3	1	ZMD70	33	1	Mam	4	M	44	7	8	8	1	12	8	2	6
366	7	45	3	1	ZMD70	100	0	Mam	4	U	10	3	8	8	1	12	8	2	7
367	7	45	3	1	ZMD70	64	0	Mam	3	U	3	6	8	8	6	12	8	2	0
368	7	45	3	1	ZMD70	64	0	Mam	3	U	3	6	8	8	6	12	8	2	0
369	7	45	3	1	ZMD70	64	0	Mam	3	U	3	6	8	8	6	12	8	2	0
370	7	45	3	2	ZBZOO	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
371	7	45	3	1	ZMD60	21	0	Mam	3	M	40	6	8	8	1	12	8	2	0
372	7	45	4	1	ZMZ04	100	0	Mam	4	U	0	0	8	8	1	12	8	2	7
373	7	45	4	1	ZMD60	39	0	Mam	3	U	30	5	8	8	1	12	8	2	7

118	7	45	2	1	ZMD70	91	1	Mam	4	U	9	2	8	8	5	12	8	2	7
375	7	45	4	1	ZMD60	60	0	Mam	3	L	25	3	8	8	6	12	8	2	0
261	7	45	4	1	ZMD60	62	1	Mam	4	L	26	4	8	8	5	12	8	2	1
301	7	45	4	1	ZMD60	62	4	Mam	5	L	26	4	8	8	5	12	8	2	0
312	7	45	4	1	ZMD60	62	0	Mam	4	R	26	4	8	8	5	12	8	2	4
379	7	45	4	1	ZMD60	60	0	Mam	3	R	25	3	8	8	5	12	8	2	5
380	7	45	4	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	5	12	8	2	0
381	7	45	4	1	ZMZ05	120	0	Mam	3	U	0	0	6	10	5	12	8	2	5
382	7	45	4	1	ZMD32	38	1	Mam	4	M	45	4	8	8	1	12	8	2	0
383	7	45	4	4	ZMZ04	10	0	Mam	3	U	0	0	8	8	1	12	8	2	0
384	7	45	4	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	5	12	8	2	7
385	7	45	4	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
386	7	45	4	1	ZMD60	8	0	Mam	3	R	40	6	8	8	1	12	8	2	0
387	7	45	4	1	ZMD60	14	12	Mam	2	U	40	6	8	8	1	12	8	2	0
388	7	45	4	1	ZMD60	14	12	Mam	2	U	40	6	8	8	1	12	8	2	0
389	7	45	4	1	ZMD60	14	12	Mam	2	U	40	6	8	8	1	12	8	2	0
390	7	45	4	1	ZMD70	14	11	Mam	2	U	39	7	8	8	1	12	8	2	0
391	7	45	4	1	ZMD70	33	1	Mam	3	M	44	7	8	8	1	12	8	2	0
392	7	45	4	1	ZMD70	33	1	Mam	4	M	44	7	8	8	5	12	8	2	6
393	7	45	4	1	ZMD70	60	1	Mam	11	R	37	6	8	8	1	12	6	2	7
394	7	45	4	1	ZMD70	100	0	Mam	4	U	10	3	8	8	5	12	8	2	7
395	7	45	4	1	ZMD60	21	0	Mam	4	M	40	6	8	8	1	12	8	2	6
396	7	45	4	2	ZMZ04	21	0	Mam	3	M	0	0	8	8	1	12	8	2	0
397	7	45	4	1	ZMZ05	39	0	Mam	10	U	0	0	8	8	1	12	8	2	0
398	7	45	4	1	ZMD60	85	4	Mam	3	U	28	6	8	8	1	12	8	2	0
399	7	45	4	1	ZMD60	85	4	Mam	3	U	28	6	8	8	1	12	8	2	0
400	7	45	3	1	ZMD60	64	0	Mam	2	U	28	6	8	8	1	12	5	2	0
408	7	45	4	1	ZMD60	38	0	Mam	4	M	29	2	8	8	6	12	5	2	7
402	7	45	4	1	ZMZ04	36	0	Mam	4	M	0	0	8	8	1	12	6	2	3
403	7	45	4	1	ZMZ04	36	0	Mam	4	M	0	0	8	8	1	12	8	2	1
404	7	45	4	1	ZMD70	34	0	Mam	4	M	7	1	8	8	1	12	8	2	7
405	7	45	4	1	ZMD70	36	0	Mam	3	M	5	2	8	8	1	12	8	2	0
406	7	45	4	1	ZMD70	31	0	Mam	4	M	44	7	5	9	5	12	8	2	0
407	7	45	4	1	ZMD32	33	0	Mam	3	M	51	6	8	8	1	12	5	2	0
409	7	45	4	1	ZMD60	38	0	Mam	4	M	29	2	8	8	1	12	8	2	1
104	7	45	4	1	ZMD60	90	8	Mam	4	L	29	2	8	8	5	12	8	2	8
410	7	45	4	1	ZMZ04	33	0	Mam	3	M	0	0	8	8	1	12	8	2	0
411	7	45	4	1	ZMD32	33	0	Mam	3	M	51	6	8	8	1	12	5	2	0
412	7	45	4	1	ZMZ04	34	0	Mam	4	M	0	0	8	8	1	12	8	2	1
413	7	45	4	1	ZMZ04	34	0	Mam	3	M	0	0	8	8	1	12	8	2	0
414	7	45	4	1	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
415	7	45	4	1	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
416	7	45	4	1	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
417	7	45	4	1	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
418	7	45	4	1	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
35	7	45	1	1	ZMD70	111	0	Mam	2	L	35	6	8	8	5	12	8	4	4
420	7	45	4	4	ZMZ03	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
421	7	45	4	12	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
422	7	45	4	1	ZMZ04	34	0	Mam	3	U	0	0	8	8	1	12	8	2	0
423	7	45	4	4	ZBZOO	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
113	7	45	4	1	ZMD32	110	0	Mam	2	R	47		8	8	1	12	8	2	0

425	7	45	4	2	ZMD60	11	11	Mam	2	U	40	6	8	8	1	12	8	2	0
426	7	45	4	1	ZMD60	77	0	Mam	1	U	28	6	8	8	1	12	3	2	0
313	7	45	4	1	ZMD60	62	0	Mam	3	L	26	4	8	8	5	12	4	2	0
428	7	45	4	1	ZMD32	111	4	Mam	3	R	46	3	8	8	5	12	8	2	0
429	7	45	4	1	ZMD60	61	4	Mam	5	L	26	7	8	8	6	12	4	2	0
320	7	45	4	1	ZMD60	101	4	Mam	5	L	31	1	8	8	3	12	8	2	0
431	7	45	4	67	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
432	7	45	4	2	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	6	2	7
433	7	45	4	184	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
434	7	45	4	15	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
435	7	45	4	54	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
436	7	45	4	3	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	6	2	7
437	7	45	4	44	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
438	7	45	4	34	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
439	7	45	4	1	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	5	2	0
440	7	45	4	3	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	5
441	7	45	4	7	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
442	7	45	4	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
443	7	45	4	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	6
444	7	45	4	1	ZMZ05	39	0	Mam	3	U	0	0	8	8	1	12	5	2	0
445	7	45	4	7	ZMZ05	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
446	7	45	4	20	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	6	2	0
447	7	45	4	29	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
448	7	45	4	200	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
449	7	45	4	20	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
450	7	45	3	3	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
451	7	45	3	1	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
452	7	45	3	7	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	6	2	0
2000	6	29	1	1	ZMD70	60	1	Mam	4	U	37	6	8	8	1	12	8	2	7
2001	6	29	6	1	ZMD60	31	8	Mam	3	M	25	3	8	8	1	12	2	2	0
2002	6	29	1	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	1
2003	6	29	4	1	ZMD70	38	1	Mam	4	M	9	1	8	8	1	12	8	2	7
2004	6	29	1	1	ZMD60	60	4	Mam	5	L	26	4	8	8	1	12	8	2	5
2005	6	29	7	1	ZMD32	51	1	Mam	3	L	50	4	8	8	1	12	8	2	0
2006	6	29	1	1	ZMD60	60	1	Mam	10	R	26	4	8	8	1	12	8	2	5
2007	6	29	4	1	ZMD60	60	1	Mam	11	L	26	4	8	8	5	12	2	2	9
2008	6	29	7	1	ZMD32	61	1	Mam	3	L	47	7	8	8	1	12	8	2	5
2009	6	29	1	1	ZMD60	110	0	Mam	1	L	27	6	8	8	1	12	8	2	0
2010	6	29	1	1	ZMD60	101	4	Mam	10	L	27	6	8	8	1	12	8	2	0
2011	6	29	5	1	ZMD60	90	4	Mam	1	L	31	1	5	10	1	12	8	2	0
2012	6	29	3	1	ZMD70	61	1	Mam	4	L	3	6	8	8	1	12	1	2	7
2013	6	29	2	1	ZMD32	61	1	Mam	10	L	47	7	6	10	1	12	8	2	5
2014	6	29	2	1	ZMD32	61	1	Mam	10	R	47	7	8	8	1	12	8	2	5
2015	6	29	4	1	ZMD32	94	1	Mam	3	L	45	4	8	8	1	12	8	2	3
2016	6	29	4	1	ZMD32	94	1	Mam	3	R	45	4	8	8	1	12	8	2	0
2017	6	29	7	1	ZMD32	61	1	Mam	5	L	47	7	6	10	1	12	8	2	5
2018	6	29	1	1	ZMD32	62	4	Mam	5	L	47	6	8	8	1	12	8	2	4
2019	6	29	7	1	ZMD32	51	1	Mam	3	R	50	4	8	8	1	12	8	2	0
2020	6	29	4	1	ZMD32	101	4	Mam	3	R	46	3	8	8	1	12	8	2	0
2021	6	29	4	1	ZMD32	101	1	Mam	4	R	46	3	8	8	1	12	8	4	3
2022	6	29	4	1	ZMD70	60	1	Mam	6	L	37	6	8	8	1	12	1	2	1

2023	6	29	4	1	ZMD70	60	1	Mam	4	R	37	6	8	8	1	12	8	2	3
2024	6	29	4	1	ZMD70	61	1	Mam	4	L	3	6	8	8	1	12	8	2	9
2025	6	29	2	1	ZMD60	60	1	Mam	10	R	26	4	7	10	1	12	8	2	5
2026	6	29	4	1	ZMD60	101	4	Mam	10	L	27	6	8	8	1	12	8	2	5
2027	6	29	5	1	ZMD70	63	1	Mam	4	L	3	6	7	10	1	12	8	2	8
2028	6	29	5	1	ZMD70	36	1	Mam	4	M	2	4	8	8	1	12	8	2	3
2029	6	29	4	1	ZMD70	36	1	Mam	4	M	2	4	8	8	6	12	8	2	7
2030	6	29	4	1	ZMD60	60	0	Mam	11	R	26	7	8	8	1	12	8	2	9
2031	6	29	1	1	ZMD60	61	0	Mam	4	R	26	4	8	8	1	12	8	4	9
2032	6	29	4	1	ZMD60	61	1	Mam	3	L	26	4	8	8	1	12	8	2	0
2033	6	29	5	1	ZMD60	101	0	Mam	3	R	43	4	8	8	5	12	8	2	5
2034	6	29	5	1	ZMD60	100	4	Mam	3	L	43	4	8	8	3	12	8	2	0
2035	6	29	1	1	ZMD60	94	0	Mam	4	R	31	1	8	8	1	12	8	2	1
2036	6	29	4	1	ZMD60	94	1	Mam	4	L	31	1	8	8	1	12	8	2	1
2037	6	29	5	1	ZMD60	111	0	Mam	2	L	27	6	8	8	3	12	8	2	0
2038	6	29	5	1	ZMD60	111	4	Mam	2	R	27	6	8	8	1	12	8	2	0
2039	6	29	4	1	ZMD32	62	1	Mam	5	L	47	7	8	8	1	12	8	2	0
2040	6	29	5	2	ZMD32	63	1	Mam	5	L	47	7	7	10	1	12	8	2	0
2041	6	29	1	1	ZMD32	60	0	Mam	4	R	50	3	5	10	1	12	8	2	9
2042	6	29	4	1	ZMD32	60	0	Mam	4	L	50	4	8	8	1	12	8	2	9
2043	6	29	5	1	ZMD32	60	1	Mam	10	L	50	4	8	8	1	12	8	2	6
2044	6	29	4	1	ZMD32	65	1	Mam	10	L	47	7	8	8	1	12	8	2	5
2045	6	29	4	1	ZMD70	38	1	Mam	0	M	9	2	8	8	1	12	8	2	0
2046	6	29	6	1	ZMD70	62	0	Mam	4	R	3	6	8	8	5	12	8	2	9
2047	6	29	6	1	ZMD60	101	4	Mam	3	L	43	4	8	8	1	12	8	4	0
2048	6	29	6	1	ZMD32	101	0	Mam	3	R	46	3	8	8	1	12	8	4	5
2049	6	29	4	1	ZMD32	85	4	Mam	10	U	47	7	8	8	1	12	8	2	5
2050	6	29	5	1	ZMD32	101	1	Mam	10	R	47	7	7	10	1	12	8	2	4
2051	6	29	4	1	ZMD32	94	1	Mam	3	L	45	4	8	8	2	2	8	2	0
2052	6	29	5	1	ZMD32	60	1	Mam	1	R	50	4	8	8	1	12	8	2	0
2053	6	29	5	1	ZMD32	60	1	Mam	3	R	50	4	8	8	1	12	8	2	5
2054	6	29	5	1	ZMD32	101	1	Mam	11	R	47	7	8	8	2	2	8	2	6
2055	6	29	5	1	ZMD60	32	4	Mam	3	M	25	3	8	8	1	12	8	2	0
2056	6	29	2	1	ZMZ04	21	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2057	6	29	1	3	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2058	6	29	1	1	ZMD60	36	4	Mam	3	M	42	2	8	8	1	12	8	2	0
2059	6	29	5	1	ZMD60	36	1	Mam	3	M	42	2	8	8	1	12	8	2	0
2060	6	29	1	1	ZMD60	34	4	Mam	4	M	29	2	8	8	1	12	8	2	6
2061	6	29	1	1	ZMD60	34	5	Mam	4	M	29	2	8	8	1	12	8	2	3
2062	6	29	5	1	ZMD60	36	4	Mam	4	M	42	4	8	8	1	12	8	2	7
2063	6	29	1	1	ZMD70	39	1	Mam	10	L	6	4	8	8	1	12	1	2	0
2064	6	29	2	1	ZMD70	36	1	Mam	3	M	5	2	8	8	1	12	8	2	0
2065	6	29	1	1	ZMD70	39	1	Mam	11	R	6	4	8	8	1	12	8	2	6
2066	6	29	1	1	ZMD70	39	1	Mam	4	R	6	4	8	8	1	12	8	2	6
2067	6	29	1	1	ZMD70	39	0	Mam	4	U	6	4	8	8	1	12	8	2	6
2068	6	29	1	1	ZMD70	39	0	Mam	3	U	6	4	8	8	1	12	8	2	0
2069	6	29	1	1	ZMD70	39	0	Mam	4	U	6	4	8	8	1	12	8	2	6
2070	6	29	1	1	ZMD70	39	0	Mam	3	U	6	4	8	8	1	12	8	2	0
2071	6	29	1	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	6
2072	6	29	1	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	6
2073	6	29	2	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	6

2074	6	29	2	1	ZMD70	36	4	Mam	3	M	5	2	8	8	1	12	8	2	0
2075	6	29	6	1	ZMD70	36	1	Mam	4	M	5	2	8	8	1	12	8	2	6
2076	6	29	4	1	ZMD60	33	5	Mam	3	M	25	3	8	8	5	12	8	2	0
2077	6	29	2	1	ZMD32	39	1	Mam	6	R	19	2	8	8	1	12	8	2	3
2078	6	29	3	1	ZMD60	33	1	Mam	3	M	25	3	8	8	1	12	8	2	0
2079	6	29	5	1	ZMD60	61	0	Mam	3	R	26	4	8	8	1	12	8	2	5
2080	6	29	5	2	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	3
2081	6	29	7	1	ZMZ04	30	0	Mam	3	M	0	0	8	8	5	12	8	2	0
2082	6	29	2	1	ZMD70	39	1	Mam	6	L	2	4	7	10	1	12	8	2	2
2083	6	29	2	1	ZMD70	39	1	Mam	4	R	6	5	8	8	5	12	8	2	7
2084	6	29	2	1	ZMD70	39	1	Mam	6	R	6	5	8	8	1	12	8	2	7
2085	6	29	1	1	ZMD70	39	1	Mam	6	R	5	2	8	8	1	12	8	2	3
2086	6	29	2	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	3
2087	6	29	2	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	0
2088	6	29	2	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	1
2089	6	29	2	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
2090	6	29	2	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	6
2091	6	29	2	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	3
2092	6	29	4	1	ZMD32	39	1	Mam	3	R	19	2	8	8	1	12	8	2	0
2093	6	29	4	1	ZMD60	34	5	Mam	3	M	29	2	8	8	1	12	8	2	0
2094	6	29	4	1	ZMD60	34	4	Mam	3	M	29	2	8	8	1	12	8	2	3
2095	6	29	2	1	ZMD60	36	4	Mam	3	M	25	3	8	8	1	12	8	2	0
2096	6	29	6	1	ZMD60	36	0	Mam	3	M	42	2	8	8	1	12	8	2	0
2097	6	29	5	1	ZMD60	94	4	Mam	4	R	31	1	8	8	1	12	8	3	2
2098	6	29	1	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2099	6	29	1	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2100	6	29	4	2	ZMZ05	30	0	Mam	4	U	0	0	8	8	1	12	8	2	1
2101	6	29	4	1	ZMD70	39	1	Mam	4	L	6	5	8	8	1	12	8	2	6
2102	6	29	2	1	ZMD70	39	1	Mam	6	R	5	2	8	8	1	12	8	2	3
2103	6	29	4	1	ZMD70	39	1	Mam	6	L	5	2	8	8	5	12	8	2	3
2104	6	29	4	1	ZMD70	39	1	Mam	5	R	5	2	8	8	1	12	8	2	3
2105	6	29	4	1	ZMD70	39	1	Mam	4	U	6	5	8	8	6	12	1	2	6
2106	6	29	4	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	8
2107	6	29	4	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	7
2108	6	29	4	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
2109	6	29	4	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
2110	6	29	4	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	0
2111	6	29	4	1	ZMD70	34	4	Mam	4	M	7	1	8	8	1	12	8	2	7
2112	6	29	5	1	ZMD70	39	1	Mam	4	L	2	4	8	8	1	12	8	2	7
2113	6	29	6	1	ZMD60	94	0	Mam	3	R	31	1	8	8	1	12	8	2	0
2114	6	29	5	1	ZMD60	34	0	Mam	4	M	29	2	8	8	11	12	8	2	3
2115	6	29	6	1	ZMD60	36	0	Mam	4	M	42	2	8	8	1	12	8	2	6
2116	6	29	1	1	ZMD60	51	1	Mam	4	U	25	3	8	8	2	2	8	2	7
2117	6	29	2	1	ZMZ04	30	0	Mam	4	U	0	0	8	8	1	12	8	2	3
2118	6	29	2	1	ZMZ04	30	0	Mam	4	U	0	0	8	8	1	12	8	2	6
2119	6	29	4	1	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2120	6	29	5	1	ZMD70	39	1	Mam	4	R	2	4	8	8	1	12	8	2	7
2121	6	29	6	1	ZMD70	39	1	Mam	6	L	2	4	8	8	1	12	8	2	6
2122	6	29	5	1	ZMD70	39	1	Mam	4	R	6	5	8	8	1	12	8	2	6
2123	6	29	5	1	ZMD70	39	1	Mam	4	R	6	5	8	8	1	12	8	3	8
2124	6	29	4	1	ZMD70	39	1	Mam	6	R	5	2	8	8	1	12	8	2	3

2125	6	29	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	7
2126	6	29	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	7
2127	6	29	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	8	2	6
2128	6	29	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	7
2129	6	29	5	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
2130	6	29	5	1	ZMD70	39	0	Mam	4	U	6	5	8	8	1	12	8	2	1
2131	6	29	1	1	ZMD60	39	5	Mam	5	L	42	2	8	8	1	12	1	2	0
2132	6	29	5	1	ZMD70	30	0	Mam	4	M	0	0	8	8	1	12	8	2	6
2133	6	29	4	1	ZMD60	94	0	Mam	3	L	31	1	8	8	1	12	8	2	0
2134	6	29	6	1	ZMD60	34	0	Mam	3	M	29	2	8	8	1	12	8	2	0
2135	6	29	1	1	ZMD60	39	4	Mam	5	R	42	2	8	8	1	12	8	3	0
2136	6	29	4	1	ZMD60	39	4	Mam	3	R	42	1	8	8	1	12	8	2	0
2137	6	29	7	1	ZMD60	51	4	Mam	4	R	25	3	8	8	1	12	8	2	6
2138	6	29	6	1	ZMD32	39	1	Mam	4	L	19	2	8	8	1	12	8	2	3
2139	6	29	6	1	ZMD32	39	1	Mam	4	L	19	2	8	8	1	12	8	2	8
2140	6	29	6	1	ZMD32	39	1	Mam	4	R	19	2	8	8	2	2	8	2	3
2141	6	29	5	1	ZMZ04	30	0	Mam	3	M	0	0	8	8	1	12	8	2	0
2142	6	29	6	2	ZMZ05	30	0	Mam	4	U	0	0	8	8	1	12	8	2	6
2143	6	29	4	1	ZMD70	39	1	Mam	4	R	2	4	8	8	1	12	8	2	1
2144	6	29	6	1	ZMD70	39	1	Mam	4	R	6	5	8	8	6	12	8	2	7
2145	6	29	6	1	ZMD70	39	1	Mam	4	M	6	5	5	9	1	12	8	2	7
2146	6	29	6	1	ZMD70	39	1	Mam	4	M	6	5	8	8	6	12	8	2	6
2147	6	29	6	1	ZMD70	39	1	Mam	4	M	6	5	7	10	1	12	8	1	7
2148	6	29	6	1	ZMD70	39	1	Mam	3	M	6	5	8	8	5	12	8	2	0
2149	6	29	6	1	ZMD70	39	1	Mam	4	M	6	5	7	10	1	12	8	2	7
2150	6	29	6	1	ZMD70	39	1	Mam	4	M	6	5	8	8	5	12	8	2	0
2151	6	29	6	1	ZMD70	39	1	Mam	4	M	6	5	8	8	1	12	8	2	7
2152	6	29	6	1	ZMD70	39	1	Mam	4	M	6	5	7	10	1	12	8	2	7
2153	6	29	6	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	7
2154	6	29	6	1	ZMD70	34	1	Mam	3	M	7	1	8	8	2	2	8	2	7
2155	6	29	6	1	ZMD70	34	1	Mam	4	M	7	1	8	8	6	12	8	2	6
2156	6	29	6	1	ZMD70	33	1	Mam	3	M	44	7	8	8	1	12	8	2	0
2157	6	29	5	1	ZMD70	39	1	Mam	4	R	5	2	7	10	1	12	8	2	6
2158	6	29	6	1	ZMD70	30	1	Mam	4	M	0	0	8	8	1	12	8	3	6
2159	6	29	7	1	ZMD60	39	4	Mam	5	L	42	2	8	8	1	12	8	2	0
2160	6	29	7	1	ZMD60	39	4	Mam	5	L	42	2	8	8	1	12	8	2	4
2161	6	29	7	1	ZMD32	36	0	Mam	4	M	19	2	8	8	1	12	8	2	3
2162	6	29	1	2	ZMZ04	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2163	6	29	1	11	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2164	6	29	7	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	8
2165	6	29	7	1	ZMD70	39	1	Mam	4	U	6	5	8	8	5	12	1	2	6
2166	6	29	7	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
2167	6	29	7	1	ZMD70	39	1	Mam	4	U	6	5	8	8	6	12	8	2	6
2168	6	29	7	1	ZMD70	39	1	Mam	4	U	6	5	8	8	1	12	8	2	6
2169	6	29	7	1	ZMD70	39	1	Mam	3	U	6	5	8	8	1	12	8	2	0
2170	6	29	7	1	ZMD70	34	1	Mam	4	M	7	1	8	8	1	12	8	2	6
2171	6	29	7	1	ZMD70	34	4	Mam	4	M	7	1	8	8	1	12	8	2	6
2172	6	29	7	1	ZMD70	33	11	Mam	4	M	44	7	8	8	1	12	8	2	6
2173	6	29	4	1	ZMD60	6	11	Mam	3	R	40	6	8	8	1	12	8	2	0
2174	6	29	5	1	ZMD60	6	11	Mam	3	R	40	6	8	8	1	12	8	2	0
2175	6	29	1	1	ZMD70	100	0	Mam	4	R	10	3	8	8	1	12	8	2	8

2176	6	29	2	5	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2177	6	29	2	3	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	3
2178	6	29	4	12	ZMZ04	39	0	Mam	0	U	0	0	8	8	1	12	8	2	0
2179	6	29	1	1	ZMZ05	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2180	6	29	4	2	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	3
2181	6	29	5	7	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2182	6	29	5	2	ZMZ04	39	0	Mam	4	U	0	0	8	8	1	12	8	2	1
2183	6	29	5	1	ZMD60	62	4	Mam	2	L	26	4	8	8	1	12	8	2	0
2184	6	29	6	1	ZMD70	38	1	Mam	3	R	9	2	8	8	1	12	8	2	4
2185	6	29	5	1	ZMD70	51	1	Mam	4	L	2	4	8	8	5	12	8	2	7
2186	6	29	7	1	ZMD60	8	9	Mam	3	R	40	6	8	8	1	12	8	2	0
2187	6	29	2	1	ZMD60	51	4	Mam	3	L	25	3	7	9	1	12	8	3	4
2188	6	29	2	1	ZMD70	60	0	Mam	4	L	3	6	8	8	1	12	8	2	7
2189	6	29	5	1	ZMD32	94	1	Mam	3	R	45	4	8	8	1	12	8	2	0
2190	6	29	2	1	ZMD60	34	4	Mam	3	M	29	2	8	8	1	12	8	2	0
2191	6	29	6	9	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2192	6	29	7	7	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2193	6	29	1	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	1	2	0
2194	6	29	1	5	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2195	6	29	4	1	ZMD32	105	1	Mam	10	L	47	7	8	8	1	12	8	2	5
2196	6	29	7	1	ZMD32	110	1	Mam	1	L	47	7	8	8	1	12	8	2	0
2197	6	29	2	1	ZMD32	60	4	Mam	10	R	50	4	8	8	1	12	8	2	3
2198	6	29	7	1	ZMD32	100	4	Mam	5	R	45	4	8	8	2	2	8	2	0
2199	6	29	2	1	ZMD70	51	0	Mam	4	L	2	4	8	8	5	12	8	2	7
2200	6	29	1	1	ZMD70	90	1	Mam	4	U	9	2	8	8	5	12	8	2	7
2201	6	29	4	1	ZMD32	111	4	Mam	1	R	47	7	8	8	1	12	8	2	0
2202	6	29	5	1	ZMD60	94	1	Mam	4	R	31	1	8	8	1	12	8	3	6
2203	6	29	2	1	ZMD70	90	0	Mam	4	U	9	2	8	8	1	12	8	2	7
2204	6	29	2	1	ZMD32	100	0	Mam	4	R	45	4	8	8	5	12	8	2	9
2205	6	29	4	1	ZMD60	51	0	Mam	3	R	25	3	8	8	1	12	8	2	0
2206	6	29	5	1	ZMD70	90	0	Mam	4	L	9	2	8	8	5	12	8	2	7
2207	6	29	4	1	ZMD70	60	0	Mam	4	U	37	5	8	8	1	12	8	2	7
2208	6	29	4	1	ZMD70	100	0	Mam	4	U	10	3	7	10	1	12	8	2	7
2209	6	29	4	1	ZMD70	100	0	Mam	4	U	10	3	8	8	1	12	8	2	7
2210	6	29	4	1	ZMD70	100	0	Mam	4	U	10	3	8	8	5	12	8	2	7
2211	6	29	4	1	ZMD70	100	0	Mam	4	U	10	3	8	8	1	12	8	2	7
2212	6	29	4	1	ZMD70	100	0	Mam	4	U	10	3	8	8	1	12	8	2	7
2213	6	29	4	1	ZMD70	51	1	Mam	4	L	2	4	8	8	5	12	8	2	7
2214	6	29	4	1	ZMD70	39	5	Mam	6	L	5	3	8	8	1	12	8	2	1
2215	6	29	4	1	ZMD70	7	1	Mam	4	U	39	7	8	8	1	12	8	3	3
2216	6	29	2	1	ZMD60	60	0	Mam	4	U	25	3	8	8	5	12	8	2	7
2217	6	29	4	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	5	12	8	2	7
2218	6	29	4	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2219	6	29	1	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	5	2	0
2220	6	29	1	5	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2221	6	29	2	2	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2222	6	29	5	1	ZMZ04	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2223	6	29	4	1	ZMZ04	51	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2224	6	29	6	1	ZMZ04	60	1	Mam	4	U	37	6	8	8	1	12	6	2	6
2225	6	29	1	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	5
2226	6	29	5	1	ZMD60	62	0	Mam	3	R	26	4	8	8	5	12	8	2	0

2227	6	29	7	1	ZMD60	9	9	Mam	3	L	40	6	8	8	1	12	8	2	0
2228	6	29	4	1	ZMD60	11	11	Mam	2	L	40	6	8	8	1	12	8	2	0
2229	6	29	4	1	ZMD70	60	1	Mam	6	U	37	6	8	8	1	12	8	2	3
2230	6	29	4	1	ZMD60	100	0	Mam	4	L	31	4	7	10	1	12	8	2	10
2231	6	29	5	1	ZMD60	62	0	Mam	3	R	26	4	8	8	1	12	8	2	0
2232	6	29	4	1	ZMD70	100	1	Mam	11	L	35	6	8	8	1	12	8	2	6
2233	6	29	2	1	ZMD60	62	1	Mam	2	R	26	4	8	8	1	12	8	2	4
2234	6	29	4	1	ZMD32	111	4	Mam	2	R	47	7	8	8	1	12	8	2	0
2235	6	29	4	1	ZMD60	60	0	Mam	4	R	25	3	8	8	6	12	8	2	6
2236	6	29	4	1	ZMD32	100	0	Mam	3	R	45	4	8	8	1	12	8	2	0
2237	6	29	4	1	ZMD70	51	0	Mam	4	R	2	4	8	8	1	12	8	2	7
2238	6	29	5	1	ZMD70	90	0	Mam	4	L	9	2	8	8	1	12	8	2	7
2239	6	29	5	1	ZMD70	51	0	Mam	4	R	2	4	8	8	1	12	8	3	7
2240	6	29	5	1	ZMD60	100	0	Mam	4	U	31	1	8	8	1	12	8	2	7
2241	6	29	5	1	ZMD32	100	0	Mam	4	U	45	4	8	8	1	12	8	2	7
2242	6	29	5	1	ZMD70	60	1	Mam	11	R	37	6	8	8	1	11	8	2	7
2243	6	29	5	1	ZMD60	11	11	Mam	2	R	40	6	8	8	1	12	8	2	0
2244	6	29	7	1	ZMD60	13	9	Mam	2	L	40	2	8	8	1	12	8	2	0
2245	6	29	5	1	ZMD70	100	0	Mam	4	U	10	3	8	8	5	12	8	2	7
2246	6	29	6	1	ZMD60	100	0	Mam	4	R	31	1	8	8	1	12	8	2	5
2247	6	29	6	1	ZMD70	90	0	Mam	4	R	9	2	7	10	1	12	8	2	7
2248	6	29	1	1	ZMD60	14	11	Mam	2	R	40	6	8	8	1	12	8	2	0
2249	6	29	4	1	ZMD60	62	1	Mam	3	R	26	4	8	8	1	12	8	3	0
2250	6	29	1	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	5
2251	6	29	1	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	6
2252	6	29	1	1	ZMD60	14	11	Mam	2	R	40	6	8	8	3	12	8	2	7
2253	6	29	5	1	ZMD60	14	11	Mam	2	L	40	6	8	8	1	12	8	2	0
2254	6	29	5	1	ZMD60	101	1	Mam	5	R	31	1	8	8	1	12	8	2	5
2255	6	29	4	1	ZMD70	51	1	Mam	4	R	2	4	8	8	1	12	8	2	7
2256	6	29	2	2	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2257	6	29	4	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2258	6	29	4	1	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2259	6	29	6	1	ZMD70	61	0	Mam	4	L	3	6	7	10	5	12	8	2	7
2260	6	29	6	1	ZMD70	90	0	Mam	4	R	9	2	8	8	5	12	8	2	7
2261	6	29	6	1	ZMD70	90	0	Mam	4	L	9	2	7	10	5	12	8	2	7
2262	6	29	6	1	ZMD70	90	0	Mam	4	U	9	2	8	8	1	12	8	2	7
2263	6	29	4	1	ZMD70	91	1	Mam	4	R	9	2	7	10	1	12	8	2	7
2264	6	29	6	1	ZMD70	94	1	Mam	4	R	9	2	8	8	1	12	8	2	1
2265	6	29	6	1	ZMD70	100	0	Mam	4	L	10	3	8	8	5	12	8	2	7
2266	6	29	6	1	ZMD70	61	0	Mam	4	L	3	6	8	8	5	12	8	2	7
2267	6	29	6	1	ZMD70	100	0	Mam	4	U	10	3	8	8	5	12	8	2	7
2268	6	29	7	1	ZMD32	111	1	Mam	1	R	47	7	8	8	1	12	8	2	0
2269	6	29	6	1	ZMD60	14	11	Mam	2	L	40	6	8	8	1	12	8	2	0
2270	6	29	6	1	ZMD60	14	11	Mam	1	R	40	6	8	8	1	12	8	2	0
2271	6	29	6	1	ZMD70	51	0	Mam	4	R	2	4	8	8	5	12	8	2	7
2272	6	29	7	1	ZMD70	51	0	Mam	4	L	2	4	8	8	5	12	8	2	7
2273	6	29	7	1	ZMD70	60	1	Mam	10	U	37	6	8	8	1	12	6	2	0
2274	6	29	7	1	ZMD60	14	9	Mam	2	L	40	2	8	8	1	12	8	2	0
2275	6	29	2	1	ZMD60	21	1	Mam	3	M	40	6	8	8	1	12	8	2	0
2276	6	29	4	1	ZMD60	60	1	Mam	6	U	25	4	8	8	1	12	8	2	6
2277	6	29	7	1	ZMD70	100	0	Mam	4	U	10	3	8	8	1	12	8	2	7

2278	6	29	7	1	ZMD70	100	0	Mam	4	U	10	3	8	8	5	12	8	2	7
2279	6	29	7	1	ZMD70	100	0	Mam	4	U	10	3	8	8	1	12	8	2	7
2280	6	29	4	1	ZMD32	111	4	Mam	3	R	47	7	8	8	1	12	8	2	0
2281	6	29	1	1	ZBD01	20	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
2282	6	29	1	1	ZBD01	20	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
2283	6	29	2	1	ZBD01	51	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2284	6	29	1	1	ZBD01	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
2285	6	29	1	1	ZBE06	108	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
2286	6	29	1	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2287	6	29	2	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2288	6	29	4	1	ZBD01	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
2289	6	29	4	1	ZBD01	53	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
2290	6	29	1	1	ZBZ00	51	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
2291	6	29	4	1	ZBD01	53	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
2292	6	29	1	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
2293	6	29	1	3	ZBD00	77	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
2294	6	29	1	6	ZBD00	30	0	BIRD	1	M	0	0	8	8	1	12	8	2	0
2295	6	29	1	1	ZBD00	50	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
2296	6	29	1	1	ZBE06	66	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
2297	6	29	1	1	ZBE06	61	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2298	6	29	1	1	ZBZ00	39	0	BIRD	1	U	0	0	8	8	1	12	8	2	0
2299	6	29	1	2	ZBZ00	107	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
2300	6	29	1	2	ZBZ00	21	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2301	6	29	1	2	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2302	6	29	5	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2303	6	29	7	1	ZBD01	53	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2304	6	29	1	1	ZBE06	20	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
2305	6	29	1	1	ZBD01	60	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2306	6	29	1	1	ZBD01	60	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2307	6	29	4	1	ZBD01	60	0	BIRD	3	L	0	0	8	8	1	12	8	2	0
2308	6	29	4	1	ZBD01	60	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
2309	6	29	5	1	ZBD01	60	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
2310	6	29	2	1	ZBD02	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2311	6	29	2	1	ZBD02	33	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
2312	6	29	2	1	ZBD02	108	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
2313	6	29	2	3	ZBD00	50	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
2314	6	29	4	2	ZBD00	62	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2315	6	29	5	1	ZBD01	60	0	BIRD	5	L	0	0	8	8	1	12	8	2	0
2316	6	29	5	1	ZBD01	60	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
2317	6	29	6	1	ZBD01	60	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
2318	6	29	1	1	ZBD01	61	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
2319	6	29	2	1	ZBD01	61	0	BIRD	1	L	0	0	8	8	1	12	8	2	0
2320	6	29	6	1	ZBD01	61	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2321	6	29	1	1	ZBD01	62	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2322	6	29	1	1	ZBD01	62	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2323	6	29	4	1	ZBD01	62	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
2324	6	29	4	2	ZBZ00	39	0	BIRD	1	M	0	0	8	8	1	12	8	2	0
2325	6	29	4	1	ZBZ00	54	0	BIRD	2	M	0	0	8	8	1	12	8	2	0
2326	6	29	4	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
2327	6	29	4	1	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
2328	6	29	4	11	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0

2329	6	29	5	1	ZBD01	62	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2330	6	29	4	1	ZBD01	66	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2331	6	29	2	1	ZBD01	100	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2332	6	29	6	1	ZBD01	100	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
2333	6	29	1	1	ZBD01	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2334	6	29	2	1	ZBD01	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2335	6	29	4	1	ZBD01	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2336	6	29	5	1	ZBD01	107	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2337	6	29	5	1	ZBZ00	60	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2338	6	29	5	1	ZBE03	51	0	BIRD	2	R	0	0	8	8	1	12	8	2	0
2339	6	29	5	1	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	5	2	0
2340	6	29	5	5	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2341	6	29	5	3	ZBD00	98	0	BIRD	3	M	0	0	8	8	1	12	8	2	0
2342	6	29	5	1	ZBD02	60	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
2343	6	29	1	1	ZBD01	108	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2344	6	29	4	1	ZBD01	108	0	BIRD	1	R	0	0	8	8	1	12	8	2	0
2345	6	29	5	1	ZBD01	108	0	BIRD	10	R	0	0	8	8	1	12	8	2	0
2346	6	29	5	1	ZBD01	109	0	BIRD	3	R	0	0	8	8	1	12	8	2	0
2347	6	29	6	2	ZBZ00	120	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2348	6	29	6	1	ZBZ00	50	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2349	6	29	6	1	ZBZ00	39	0	BIRD	2	U	0	0	8	8	1	12	8	2	0
2350	6	29	6	1	ZBD01	109	0	BIRD	2	L	0	0	8	8	1	12	8	2	0
2351	6	29	7	4	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2352	6	29	7	1	ZBZ00	98	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2353	6	29	7	1	ZBZ00	54	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2354	6	29	7	1	ZBZ00	61	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2355	6	29	1	1	MRM18	62	1	Mam	2	U	0	0	8	8	1	12	8	2	0
2356	6	29	1	1	MLL	101	1	Mam	3	L	0	0	8	8	1	12	8	2	0
2357	6	29	1	1	ZMZ03	61	1	Mam	3	U	0	0	8	8	2	2	8	2	0
2358	6	29	2	1	MRM18	100	1	Mam	1	L	0	0	8	8	2	2	8	2	0
2359	6	29	2	1	MRM18	60	1	Mam	1	R	0	0	8	8	2	2	8	2	0
2360	6	29	3	1	ZBZ00	120	1	BIRD	3	U	0	0	8	8	1	12	4	2	0
2361	6	29	3	1	ZBZ00	120	1	BIRD	3	U	0	0	8	8	1	12	8	2	0
2362	6	29	3	1	ZMZ03	77	1	Mam	1	U	0	0	8	8	2	2	8	2	0
2363	6	29	7	1	ZMD60	60	0	Mam	4	U	25	3	8	8	5	12	8	2	7
2364	6	29	4	1	ZMZ03	77	1	Mam	1	U	0	0	8	8	2	2	8	2	0
2365	6	29	4	1	MRM18	100	1	Mam	1	L	0	0	8	8	2	2	8	2	0
2366	6	29	5	1	MRM18	101	1	Mam	2	R	0	0	8	8	1	12	8	2	0
2367	6	29	5	1	MRM18	101	1	Mam	2	R	0	0	8	8	1	12	8	2	0
2368	6	29	6	1	MLL	90	1	Mam	3	R	0	0	8	8	1	12	8	2	0
2369	6	29	6	1	MRM18	101	1	Mam	3	U	0	0	8	8	1	12	8	2	0
2370	6	29	1	1	ZMD60	65	1	Mam	1	L	28	6	8	8	1	12	8	2	0
2371	6	29	1	1	ZMD60	65	1	Mam	1	L	28	6	8	8	1	12	8	2	0
2372	6	29	4	1	ZMD60	65	1	Mam	2	L	28	6	8	8	1	12	8	2	0
2373	6	29	2	1	ZMD32	74	1	Mam	1	U	48	10	8	8	1	12	8	2	0
2374	6	29	2	1	ZMD32	74	1	Mam	1	U	48	10	8	8	1	12	8	2	0
2375	6	29	4	1	ZMD60	65	1	Mam	1	L	28	6	8	8	1	12	8	2	0
2376	6	29	4	1	ZMD60	65	1	Mam	1	L	28	6	8	8	1	12	8	2	0
2377	6	29	4	1	ZMD60	65	1	Mam	1	R	28	6	8	8	1	12	8	2	0
2378	6	29	2	1	ZMD70	106	1	Mam	1	R	35	6	8	8	1	12	8	2	0
2379	6	29	2	1	ZMD70	106	1	Mam	2	R	35	6	8	8	1	12	8	2	0

2380	6	29	5	1	ZMD60	65	1	Mam	1	L	28	6	8	8	1	12	8	2	0
2381	6	29	5	1	ZMD60	65	1	Mam	1	R	28	6	8	8	1	12	8	2	4
2382	6	29	7	1	ZMD60	65	1	Mam	1	L	28	6	8	8	1	12	8	2	0
2383	6	29	2	1	ZMD60	74	1	Mam	2	U	28	6	8	8	1	12	8	2	0
2384	6	29	4	1	ZMD60	74	1	Mam	1	U	28	6	8	8	1	12	8	2	0
2385	6	29	5	1	ZMD32	74	1	Mam	2	U	48	6	8	8	1	12	5	2	0
2386	6	29	4	1	ZMD32	75	1	Mam	1	U	48	10	8	8	1	12	8	2	0
2387	6	29	5	1	ZMD32	74	1	Mam	1	U	48	6	8	8	5	12	8	2	0
2388	6	29	7	1	ZMD60	74	0	Mam	1	U	28	6	8	8	1	12	8	2	0
2389	6	29	2	1	ZMD60	75	1	Mam	1	U	28	6	8	8	1	12	8	2	0
2390	6	29	5	1	ZMD60	75	1	Mam	2	U	28	6	8	8	1	12	8	2	0
2391	6	29	6	1	ZMD60	75	1	Mam	1	U	28	6	8	8	1	12	5	2	0
2392	6	29	5	1	ZMD60	76	1	Mam	1	U	28	6	8	8	1	12	8	2	0
2393	6	29	7	1	ZMD60	76	0	Mam	1	U	28	6	8	8	1	12	8	2	0
2394	6	29	7	1	ZMD60	79	0	Mam	1	U	28	6	8	8	1	12	8	2	0
2395	6	29	2	1	ZMD60	85	1	Mam	2	U	28	6	8	8	1	12	8	2	0
2396	6	29	4	1	ZMD60	85	1	Mam	2	U	28	6	8	8	1	12	8	2	0
2397	6	29	4	1	ZMD60	85	1	Mam	2	U	28	6	8	8	1	12	8	2	0
2398	6	29	6	1	ZMD70	106	1	Mam	1	L	35	6	8	8	1	12	8	2	0
2399	6	29	5	1	ZMD60	85	1	Mam	2	U	28	6	8	8	1	12	8	2	0
2400	6	29	5	1	ZMD60	85	1	Mam	3	U	28	6	8	8	1	12	8	2	0
2401	6	29	7	1	ZMD60	85	1	Mam	1	U	28	6	8	8	1	12	8	2	0
2402	6	29	7	1	ZMD60	85	1	Mam	1	U	28	6	8	8	1	12	8	2	0
2403	6	29	7	1	ZMD60	85	1	Mam	1	U	28	6	8	8	1	12	8	2	0
2404	6	29	7	1	ZMD60	85	0	Mam	2	U	28	6	8	8	1	12	8	3	0
2405	6	29	7	1	ZMD60	85	0	Mam	3	U	28	6	8	8	1	12	8	2	0
2406	6	29	1	1	ZMD60	105	1	Mam	2	U	28	6	8	8	1	12	8	2	0
2407	6	29	6	1	ZMD60	105	1	Mam	1	U	28	6	8	8	1	12	5	2	0
2408	6	29	1	12	ZMF00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
2409	6	29	2	10	ZMF00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
2410	6	29	3	2	ZMF00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
2411	6	29	4	5	ZMF00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
2412	6	29	5	4	ZMF00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
2413	6	29	7	2	ZMF00	200	0	FISH	1	U	0	0	8	8	0	0	8	2	0
2414	6	29	7	1	ZMD70	60	0	Mam	4	R	2	4	8	8	5	12	8	2	7
2415	6	29	4	1	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2416	6	29	1	39	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2417	6	29	5	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2418	6	29	1	1	ZMZ04	120	0	Mam	4	U	0	0	8	8	1	12	8	2	1
2419	6	29	5	3	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	5
2420	6	29	6	2	ZMZ04	120	0	Mam	3	U	0	0	8	8	1	12	8	2	5
2421	6	29	1	2	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2422	6	29	1	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	1
2423	6	29	1	2	ZMZ03	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2424	6	29	1	1	ZBZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2425	6	29	2	1	ZMZ04	200	0	Mam	3	U	0	0	8	8	3	12	8	2	0
2426	6	29	4	1	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	0
2427	6	29	4	1	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2428	6	29	6	1	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2429	6	29	1	1	ZBZ00	77	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2430	6	29	2	20	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0

2431	6	29	6	1	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	0
2432	6	29	2	1	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2433	6	29	2	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2434	6	29	1	9	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2435	6	29	1	1	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	1
2436	6	29	2	3	ZBZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2437	6	29	1	3	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2438	6	29	1	1	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
2439	6	29	4	2	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	5
2440	6	29	4	2	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2441	6	29	4	26	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2442	6	29	4	34	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2443	6	29	2	6	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
2444	6	29	4	4	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2445	6	29	4	4	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
2446	6	29	4	4	ZMZ05	39	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2447	6	29	4	2	ZMZ03	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2448	6	29	4	1	ZBZ00	200	0	BIRD	3	U	0	0	8	8	1	12	8	2	0
2449	6	29	4	1	ZMD70	34	0	Mam	4	U	7	1	8	8	1	12	8	2	7
2450	6	29	4	1	ZMD70	33	0	Mam	4	U	44	7	8	8	1	12	8	1	1
2451	6	29	4	1	ZMD70	11	0	Mam	3	U	39	7	8	8	1	12	8	2	0
2452	6	29	5	1	ZMZ05	120	0	Mam	3	U	0	0	8	8	1	12	8	2	5
2453	6	29	5	3	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2454	6	29	3	6	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2455	6	29	5	36	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2456	6	29	3	6	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2457	6	29	4	8	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
2458	6	29	5	2	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2459	6	29	5	1	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	1
2460	6	29	5	28	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2461	6	29	5	2	ZMZ03	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2462	6	29	5	1	ZMZ05	30	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2463	6	29	6	1	ZMZ05	120	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2464	6	29	5	4	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	5	2	0
2465	6	29	6	32	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2466	6	29	6	21	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2467	6	29	6	6	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
2468	6	29	6	2	ZMZ05	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2469	6	29	6	7	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
2470	6	29	6	3	ZMZ05	30	0	Mam	4	U	0	0	8	8	1	12	8	2	3
2471	6	29	7	5	ZMZ00	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2472	6	29	7	20	ZMZ04	200	0	Mam	3	U	0	0	8	8	1	12	8	2	0
2473	6	29	7	2	ZMZ04	200	0	Mam	4	U	0	0	8	8	1	12	8	2	3
2474	6	29	7	2	ZMZ05	200	0	Mam	4	U	0	0	8	8	1	12	8	2	7
2475	6	29	7	1	ZMZ03	120	0	Mam	3	U	0	0	8	8	1	12	8	2	0

C. Chi Square Analyses

I. Beef remains with Saw marks to Undamaged bones by feature

FEATURE	35	10	45	29	Totals
sawed	109	208	47	102	466
undamaged	58	143	37	30	268
totals	167	351	84	132	734

$\chi 2$ - 15.81 df=3 p<.0012

% deviations

2.80%	-6.70%	-11.90%	21.70%
-4.90%	11.60%	20.60%	-37.80%

Standardized Residuals

0.29	-0.99	-0.87	1.99
-0.38	1.31	1.14	-2.62

II. Sheep remains with Saw marks to Undamaged bones by feature

	F35	F10	F45	F29	Totals
sawed	13	21	2	4	40
Undamaged	31	85	29	44	189
totals	44	106	31	48	229

$\chi 2$=10.24, df=3, p<.0166

Standardized Residuals

	F35	F10	F45	F29
sawed	+1.92	+.58	-1.47	-1.51
undamaged	.88	-.27	+.68	+.07

III. Feature 35 Chop marks to Saw marks for species

	Saw	Chopped	Undamaged	Totals
Beef	109	10	47	166
Pork	33	8	170	211
Mutton	13	14	13	40
Totals	155	32	230	417

$\chi 2$ – 156.57, df=4, p=.0001

Standardized residuals

	Saw	Chopped	Undamaged	Totals
Beef	+6.02	-.77	-4.66	
Pork	-5.13	-2.04	+4.97	
Mutton	-.48	+6.24	-1.93	

IV. Feature 10 Chop marks to saw marks for species

	Saw	Chopped	Undamaged	Totals
Beef	208	39	100	347
Pork	59	30	241	330
Mutton	21	23	56	100
Totals	288	82	397	777

$\chi 2$ – 166.71, df=4, p=.0001

Standardized residuals
Feature 10

	Saw	Chopped	Undamaged
Beef	+7	-.33	-5.81
Pork	-5.72	-1.45	+5.57
Mutton	-2.64	+3.24	+.69

V. Feature 45 Saw marks to chop marks for species

	Saw	Chopped	Undamaged	Totals
Beef	47	18	16	81
Pork	14	9	78	101
Mutton	2	2	21	25
Totals	63	29	115	207

$\chi 2$ – 70.8, df=4, p=.0001

STANDARDIZED RESIDUALS

	Saw	Chopped	Undamaged
Beef	+4.5	+1.97	-4.32
Pork	-3.02	-1.37	+2.92
Mutton	-2.03	-.08	+1.91

VI. Feature 29 Saw marks to chop marks for species

	Saw	Chopped	Undamaged	Totals
Beef	102	18	17	137
Pork	17	5	72	94
Mutton	4	7	23	34
Totals	123	30	112	265

$\chi 2$ – 114.51, df=4, p=.0001

STANDARDIZED RESIDUALS

	Saw	Chopped	Undamaged
Beef	+4.82	+0.63	-5.38
Pork	-4.03	-1.73	+5.12
Mutton	-2.97	+1.61	+2.28

VII. Sheep chop marks to undamaged by feature

	F35	F10	F45	F29	Totals
Chopped	14	23	2	7	46
undamaged	30	83	29	41	183
totals	44	106	31	48	229

$\chi 2$ =8.44, df=3, p=.0377

Standardized residuals

	F35	F10	F45	F29
Chopped	+1.74	+.37	-1.69	-.85
Undamaged	-.87	-.19	+.85	+.43

VII. Cut marks total by feature

	F 35	F 10	F45	F 29	Totals
Cutmarks on body	21	25	29	14	89
N cutmarks	417	777	207	265	1666
Totals	438	802	236	279	1755

$\chi 2$ – 31.97, df-3, p<.0001

Standardized Residuals

	F 35	F 10	F45	F 29
Cutmarks on body	-.26	-2.46	+4.92	-.04
N cutmarks	+.06	+.57	-1.14	+0.01

VIII. Spiral Fracture by Species

	F 35	F 10	F45	F 29	Totals
Spiral fracture	25	28	13	25	91
Nisp	431	785	217	261	1694
Totals	456	813	230	286	1785

($\chi 2$=12.73, df=3, p=.0053)

Standardized residuals

	F 35	F 10	F45	F 29
Spiral fracture	+36	-2.09	+.37	+2.73
Nisp	-.08	+.48	-.09	-.63

IX. Spiral Fracture By Species, all Features

	Beef	Pork	Mutton	Totals
Spiral fracture	16	47	28	91
Nisp	594	765	153	1512
Totals	456	813	230	1785

$\chi 2$=43.06, df=2, p<.0001

Standardized residuals

	Beef	Pork	Mutton
Spiral fracture	-3.17	+.13	+5.53
Nisp	+.78	-.03	-1.36

X. Burning by feature

Burning	F 35	F 10	F 45	F 29	Totals
burned	57	326	491	22	896
unburned	426	617	187	274	1504
Totals	483	943	678	296	2400

$\chi 2$ – 607.52, df – 3, p<.0001

Standardized residuals

Burning	F 35	F 10	F 45	F 29
burned	-9.18	-1.39	+14.95	-8.42
unburned	+7.09	+1.07	-11.54	+6.5

XI. Burning type by feature

Burning	F 35	F 10	F 45	F 29	Totals
burned	28	52	12	6	98
Calcined/carbonized	4	29	32	6	71
unburned	424	732	186	274	1616
Totals	456	813	230	286	1785

$\chi 2$ – 82.15, df = 6, p<.0001

Standardized Residuals

Burning	F 35	F 10	F 45	F 29
burned	+.59	+1.1	-.18	-2.45
Calcined/carbonized	-3.32	-.59	+7.56	-1.59
unburned	+.55	-.15	-1.54	+.94

XII. Weathering by Feature

	F 35	F 10	F 45	F 29
Stage 1	15	27	13	3
Stage 2	80	236	122	41
No evidence	361	550	95	242

Standard residuals

Stage 1	+.05	+.11	+2.02	-2.06
Stage 2	-3.83	+1.21	+7.67	-4.08
No evidence	+2.36	-.77	-5.19	+2.97

$\chi 2$ =141.96, df = 6, p<.0001

XIII. Weathering by Species

Weathering	Beef	Pork	Mutton	Totals
Weathering <0	269	174	45	488
Unweathered	475	638	229	1342
Totals	744	812	274	1830

$\chi 2$ =60.35, df = 2, p<.0001

Standardized Residuals

Weathering	Beef	Pork	Mutton
Weathering <0	+5.01	-2.89	-3.28
Unweathered	-3.02	+1.74	+1.98

XIV. Carnivore and rodent, by Feature

	F 35	F 10	F 45	F 29	Totals
Rodent	9	7	3	8	27
Carnivore	8	4	8	4	24
No evidence	439	802	219	274	1734
Totals	456	813	230	286	1785

(χ2=19.23, df = 6, p<.0038).

Standardized residuals

	F 35	F 10	F 45	F 29
Rodent	+.8	-1.51	-.26	+1.77
Carnivore	+.75	-2.1	+2.79	+.08
No evidence	-.19	+.44	-.03	-.24

XV. Large mammals – Species by Feature

	Feature 35	Feature 10	Feature 45	Feature 29	Totals
Pig	235	356	115	106	812
Sheep	44	106	31	48	229
Cow	177	351	84	132	744
	456	813	230	286	1785

χ2 – 21.03, df = 6 p = .0018

Standardized residuals

	Feature 35	Feature 10	Feature 45	Feature 29
Pig	+1.91	-.72	+1.01	-2.11
Sheep	-1.9	+.17	+.27	+1.87
Cow	-.95	+.66	-1.21	+1.17

XVI. Beef Cuts by Feature

Cut	35	10	45	29	total
1	9	7	2	2	20
2	4	3	2	2	11

3	3	11	9	9	32
4	4	13	7	12	36
5	4	14	4	8	30
6	7	2	2	1	12
7	7	6	3	8	24
8	7	22	12	7	48
9	2	7	5	9	23
47	85	46	58	236	

expected: contingency table

	35	10	45	29
1	3.98	7.20	3.90	4.92
2	2.19	3.96	2.14	2.70
3	6.37	11.5	6.24	7.86
4	7.17	13.0	7.02	8.85
5	5.97	10.8	5.85	7.37
6	2.39	4.32	2.34	2.95
7	4.78	8.64	4.68	5.90
8	9.56	17.3	9.36	11.8
9	4.58	8.28	4.48	5.65

chi-square = 41.9 degrees of freedom = 24 probability = 0

D. Kendall's Tau Results

Feature 35

Beef

Kendall tau Rank Correlation	
Kendall tau	-0.296499729156494
2-sided p-value	0.379079699516296
Score	-8
Var(Score)	63.3333320617676
Denominator	26.9814739227295

Pork

Kendall tau Rank Correlation	
Kendall tau	0.552052438259125
2-sided p-value	0.180599629878998
Score	8
Var(Score)	27.3333339691162
Denominator	14.4913768768311

Mutton

Kendall tau Rank Correlation	
Kendall tau	0.214834466576576
2-sided p-value	0.696727395057678
Score	3
Var(Score)	26.3333339691162
Denominator	13.9642400741577

Feature 10

Beef

Kendall tau Rank Correlation	
Kendall tau	-0.254587560892105
2-sided p-value	0.454427301883698
Score	-7
Var(Score)	64.3333358764648
Denominator	27.4954528808594

Pork

Kendall tau Rank Correlation	
Kendall tau	-0.199999988079071
2-sided p-value	0.707114219665527
Score	-3
Var(Score)	28.3333339691162
Denominator	15.0000009536743

Mutton

Kendall tau Rank Correlation	
Kendall tau	0.447213590145111
2-sided p-value	0.314062595367432
Score	6
Var(Score)	24.6666660308838
Denominator	13.4164075851440

Feature 45

Beef

Kendall tau Rank Correlation	
Kendall tau	-0.285714298486710
2-sided p-value	0.386476218700409
Score	-8
Var(Score)	65.3333358764648
Denominator	27.9999980926514

Pork

Kendall tau Rank Correlation	
Kendall tau	0.333333313465118
2-sided p-value	0.452370405197144
Score	5
Var(Score)	28.3333339691162
Denominator	15.0000009536743

Mutton

Kendall tau Rank Correlation	
Kendall tau	0.389249473810196
2-sided p-value	0.410948038101196
Score	5
Var(Score)	23.6666660308838
Denominator	12.845232963562

Feature 29

Beef

Kendall tau Rank Correlation	
Kendall tau	-0.222374796867371
2-sided p-value	0.529819965362549
Score	-6
Var(Score)	63.3333320617676
Denominator	26.9814739227295

Pork

Kendall tau Rank Correlation	
Kendall tau	-0.0716114863753319
2-sided p-value	1
Score	-1
Var(Score)	26.3333339691162
Denominator	13.9642400741577

Mutton

Kendall tau Rank Correlation	
Kendall tau	0.501280426979065
2-sided p-value	0.242312684655190
Score	7
Var(Score)	26.3333339691162
Denominator	13.9642400741577