A Report on the Faunal Remains from the Maurice Clark Site (44ST174) D. Brad Hatch University of Tennessee, Knoxville

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Introduction

This report presents the analysis and interpretation of the faunal remains excavated from the Maurice Clark site (44ST174) from 2002 to 2003 and again in 2010 and 2013 in Stafford County, Virginia. The site, which was occupied during the first three decades of the 18th century was the home to a succession of small planters and their families and provides a unique opportunity to better understand the material conditions of life on the early-18th-century Northern Neck frontier. The assemblage was drawn only from features associated with the early-18th-century occupation of the site since the site area was occupied almost continuously for two hundred years, meaning that bones from the plowzone could not be readily attributed to a single distinct occupation (Table 1). In addition to the Maurice Clark period assemblage, the faunal remains from a subfloor pit associated with a mid-18th-century slave quarter and a Civil War trench were also analyzed, but not interpreted (see tables 2 and 3). The Maurice Clark assemblage was analyzed both as a whole collection and as two distinct phases focusing on diet preferences, landscape use and change, and social status.

Methods

The assemblage was identified using the comparative zooarchaeological collection at the University of Tennessee, Knoxville. Fragments were identified to the lowest taxonomic level possible. Element, portion and side of the bone was also recorded and all bone was weighed. Fragments that could not be identified to class were counted and weighed as unidentified. Bone modifications such as butchering marks, rodent and carnivore gnawing, burning, and root etching were also noted in order to better understand taphonomy on the site. The assemblage was then

quantified using three standard zooarchaeological measures: number of identified specimens present (NISP), minimum number of individuals (MNI), and biomass.

NISP, number of identified specimens present, is simply a count of fragments. This measure, like all methods for quantifying faunal assemblages has both positive and negative aspects (Grayson 1984). Specifically, NISP has a tendency to be affected by numerous factors, including the ability to identify elements in different animals, laboratory techniques, cultural and natural site formation processes, and recovery methods (Reitz and Wing 1999:192). Despite the biases that come along with these data they are included in the analysis because of their ease of replication and standard use and presentation in zooarchaeological analyses.

MNI, minimum number of individuals, was calculated using the method outlined by White (1953) and taking age of the specimens into consideration, which results in a slightly more accurate estimate. Like NISP, however, this method also has biases that are affected by the same factors (Reitz and Wing 1999:195). In addition, the way in which the data is aggregated in the calculation of MNI can affect the result (Grayson 1984:90-92; Horton 1984:269). First, the data was aggregated based upon each individual site component (Maurice Clark, Washington, and Civil War) in order to present the entirety of the faunal collection as well as an overall view of the fauna present in each period. Then, in the phased analysis, the data was aggregated based upon feature.

Based upon the preliminary report on the FF-02, FF-04, and FF-16 excavations, the depositions for the Maurice Clark period features used in the following analysis seem to be discrete (Muraca et al. 2006). This was confirmed by a minimum vessel analysis performed by the author that revealed no cross-mends between features at the Maurice Clark site (see appendix IV). Therefore, calculations of MNI for the Maurice Clark component were made for each of the

features used in the primary analysis and then aggregated based upon the phases outlined in the preliminary report (Muraca et al. 2006). However, the overall analysis of the site treated all features as one unit. As a result, MNI estimates will appear lower than they might have been if all features were analyzed separately.

The final method used for the quantification of the faunal remains from the FF-02, FF-04, and FF-16 excavations is the biomass measure obtained by using the allometric regression formulae described by Reitz and Wing (1999:72; see also Reitz and Cordier 1983; Reitz et al. 1987). This method relies upon the biological principle that bone weight and meat weight are correlated. In addition, this relationship is the same throughout time; therefore this method of meat weight estimation from bone weight has less potential room for error than other methods (Reitz and Wing 1999:227). However, like MNI, the way in which the units of excavation are grouped can affect the biomass, therefore two biomass calculations were completed, one for each site component and one for the Maurice Clark features used in the primary phased analysis of the site. Additionally, other concerns with the use of biomass have been raised (Jackson 1989), however it is necessary to employ some form of dietary contribution calculation for species in order to conduct intrasite and intersite comparisons of the relative contribution of species to diet. Biomass appears to be the least biased of the methods available and it has the advantage of being comparable to the useable meat calculations employed in previous large-scale faunal analyses in the Chesapeake (Bowen 1980, 1994, 1996, 1999; Miller 1984, 1988).

In addition to the measures of taxonomic abundance discussed above, a skeletal part frequency analysis was performed on the collection in order to address questions of taphonomy and preference for certain cuts of meat (Binford 1978; Reitz and Wing 1999:202-221; Klippel 2001). An analysis of skeletal part frequency, based on NISP, was performed where elements

were assigned to six categories: teeth, head, axial, foot, front quarter, and hind quarter. The archaeological assemblage was then compared to a standard specimen of the same species using percentages. Three species (*Bos taurus, Sus scrofa*, and *Odocoileus virginianus*) were analyzed using this method. First, the skeletal portion analysis was performed for all of the features used in the overall analysis in order to address possible taphonomic processes affecting each assemblage. After this, the faunal remains were then aggregated based upon phase and reanalyzed in order to address changing meat preferences or butchery between the two periods of occupation. The features used in the phased analysis were the original root cellar, the borrow pits, the replacement root cellar, the smokehouse, and the main cellar.

Elements were assigned to the skeletal categories as follows. Teeth accounted for all of the teeth from a typical mature specimen. The head category counted the entire skull as one element and the mandible as two. Hyoid bones were excluded from this category since none were identified in the archaeological assemblage. The axial category included the pelvis and all ribs and vertebrae, with the exception of caudal vertebrae, which were not identified in the archaeological assemblage. The foot category consisted of all elements including and below the metacarpals and metatarsals. The hind quarter category was represented by the femur, tibia, and patella. Finally, the front quarter category consisted of the scapula, humerus, radius, and ulna.

Determining the age at death for specimens in faunal collections can be used to address a variety of questions including herd management, specific harvest strategies, seasonality and production (Reitz and Wing 1999:178-179). In general, determining the age for most mammals is done through the examination of tooth eruption, tooth wear, and epiphyseal fusion. For the purposes of this report, only epiphyseal fusion of individual elements was examined for three taxa present on the site, *Bos taurus*, *Sus scrofa*, and *Odocoileus virginianus*. These elements

included proximal and distal ends of long bones as well as vertebra, pelvis, and calcaneus fragments. The fusion of elements is not as specific as tooth eruption and wear, and often occurs within a time range of a few months and can be affected by various factors (Reitz and Wing 1999:75). For this analysis I relied upon the fusion data generated by Silver (1970), Schmid (1972:75), and Purdue (1983) to age individual specimens. Additionally, fusion ages for sheep were used for the sheep/goat category. Elements were then placed into one of three distinct age classes: early fusing (generally less than 12 months), middle fusing (generally less than 30 months), and late fusing (35-42 months) after Chaplin (1971: Table 10). The age ranges for these groups in months are only estimates, and as a result of the nature of epiphyseal fusion, it should be realized that the ages are relative and the actual age for a specimens to be assigned to a juvenile, subadult, or adult category, which can be useful in understanding harvest strategies and the multiple uses of livestock.

Taphonomy and Recovery

Bone preservation within the features appeared to be excellent, judging from the large quantities of eggshells and fish scales recovered during excavation. Within all of the early-18thcentury features on the site 1,605 fish scales and 1,232 eggshells were excavated, which are not included in the tables summarizing the faunal remains except in cases where species was identifiable. The high proportion of such delicate elements in this assemblage indicates that conditions within the features were favorable to the preservation of bone, likely due to a slightly basic soil pH, which tends to be somewhat common in features in the Chesapeake due to the presence of oyster shell (Miller 1984:204). Therefore, based upon the condition of the faunal remains, preservation bias does not appear to be a major factor affecting the assemblage.

Heat alteration has the potential to significantly impact the analysis of faunal remains on a site. Burning usually occurs at temperatures up to 500°C and alters bone by removing the organic material; it generally changes the color of the bone to brown or black. Calcining of bone occurs at temperatures over 500°C and can shrink the bone and make it more brittle and prone to fragmentation; it usually changes the color of the bone to white or blue-gray (Lyman 1994:384-392; Reitz and Wing 1999:133). Of the 5,430 bone fragments recovered from the early-18thcentury features 599, or roughly 11%, showed evidence of heat alteration. One hundred and sixteen fragments were burned and 483 fragments were calcined. Clearly, heat alteration does not play a significant role in the analysis of this collection.

Recovery strategy is very important in the analysis of this collection, particularly in terms of the richness of the assemblage and the number of identifiable fragments. All artifact-rich features on the site were water-screened through fine window mesh, allowing for the recovery of extremely small artifacts (Muraca et al. 2006:31). While not all of the early-18th-century features were considered artifact-rich and water-screened, all of the features used in the phased analysis of the site were. The more fine-grained recovery of artifacts in features led to a more complete recovery of faunal remains on the site, particularly in terms of small species such as birds and fish.

The increased recovery of smaller fragments can first be seen in the size and identifiability of the collection as a whole. Rather than measure individual fragments, weight is used as a proxy for bone size, with significant results. First of all, the average weight for a bone fragment from this collection was 0.6 g. When this fragment size is compared to a site that was not screened, the Hallowes site (44WM6) in Westmoreland County, for instance, the discrepancy is apparent. At Hallowes, the average weight for a fragment was 2.25 g., clearly

showing the effect recovery strategy has on fragment size in faunal assemblages (Hatch et al. 2013). The small bones recovered from the Maurice Clark site account for the high richness within the assemblage, which contains no fewer than eight fish species, seven bird species, as well as small mammals and amphibians that would likely not have been recovered in 1/4" screen.

However, the use of fine screen at the site has also led to a higher proportion of unidentifiable bones in the collection. Only 1,161 fragments were identified below the class level, accounting for 21% of the total assemblage. When the size of the fragments is taken into account, it is obvious that extremely small fragments make up the majority of unidentified bone. On average, fragments identified below the class level in this assemblage weighed 2.39 g., while unidentified fragments weighed 0.12 g. This illustrates that fine-screening, while extremely important in the full recovery of faunal remains, also significantly decreases the proportion of the assemblage that is identifiable.

Overview of Results

The faunal assemblage from the FF-02, FF-04, and FF-16 excavations consisted of 6,875 fragments, the majority of which (5,430) came from features associated with the early-18th-century occupation of the site (Tables 1, 2, and 3). The remaining 1,445 fragments came from a mid-to-late-18th-century subfloor pit associated with a Washington period slave quarter (1,082 fragments) and a portion of a Civil War trench (363 fragments). While the assemblages from these two later-dating features have been identified and analyzed (Tables 2 and 3), the interpretations and discussions in this report will focus on the remains associated with the early-18th-century occupation of the site (Table 1).

The analysis of the faunal remains from all of the early-18th-century features on the site revealed that the top five most abundant non-commensal species, based upon NISP, were *Sus*

scrofa, Gallus gallus, Bos taurus, Odocoileus virginianus, and Sylvilagus floridanus. The most abundant species, based upon MNI were Sus scrofa, Gallus gallus, Odocoileus virginianus, Morone americana, and Bos taurus. The biomass calculation showed Bos taurus, Sus scrofa, Odocoileus virginianus, and Gallus gallus to be the top contributors to diet on the site. Clearly, these three different measures of taxonomic abundance show variation in terms of the most important dietary contributors in the assemblage (Table 1). As discussed above, all three of these measures have advantages and disadvantages stemming from aggregation, post-depositional processes, and variation in calculation. Therefore, while all of these data are presented, the following discussions will rely mainly on biomass when addressing dietary contribution as it is one of the least biased measures of the three.

At least 30 distinct species were identified in the faunal assemblage from the Maurice Clark site. From the overall analysis of the faunal assemblage it appears that residents of the site relied primarily upon beef, pork, and venison for their meat diet, with chicken as an important supplement. Indeed, beef and pork account for more than 78% of the total biomass if unidentified and commensal species are removed (Table 1). While domestic species account for more than 80% of the total biomass in the assemblage, wild game still makes an important contribution of almost 20% of the assemblage biomass (Figure 1). Most of the wild biomass stems from the venison represented in the collection, but at least eight fish species, five birds, and five other mammals contribute to non-domestic biomass. The richness of the wild assemblage indicates that the occupants of the site took full advantage of the available local resources, particularly fish in the nearby Rappahannock River.

A skeletal part frequency analysis for the entire assemblage was performed for identified fragments from *Bos taurus, Sus scrofa*, and *Odocoileus virginianus*. As explained above, this

analysis quantified fragments from different portions of the skeleton and compared their occurrence on the site with what should be expected from a typical specimen. The skeletal part frequency analysis for *Bos taurus* showed that most portions of this species occurred on the site at or near the expected percentages (Table 6). However, the front and hind quarter portions did show a slight positive increase from the expected proportions and the feet portions were slightly lower than expected. The analysis for *Sus scrofa* revealed teeth and head portions to be much more prevalent than expected with foot portions being significantly less common (Table 7). Finally, the analysis of skeletal parts from *Odocoileus virginianus* showed that teeth were twice the expected level with foot and axial portions being far beneath the expected values (Table 8). Additionally, the proportions of front and hind quarter portions were much greater than expected.

In order to examine change over time at the Maurice Clark site, the faunal assemblage was phased in accordance with the pre-renovation and post-renovation phases described in the preliminary report (Muraca et al. 2006:41-50). As a result, only the features identified in the report as belonging to each phase were used in this analysis. The pre-renovation phase, which encompasses the construction and first occupation of the site from c. 1700-1710/11 by John Hamilton and/or Maurice Clark, is represented by the original root cellar and the borrow pit features. These two features contained a total of 2,708 bone fragments (Table 4). The post-renovation phase, which includes the final years of the site's occupation by Thomas Harwood and/or John Hartshorn from c. 1711-c. 1725, is represented by the main cellar, the replacement root cellar, and the smokehouse. These three features contained a total of 1,873 bone fragments (Table 5).

Before the results of the phased analysis are presented it is first necessary to address the discrepancy in sample size between the two assemblages. The faunal assemblage from the prerenovation phase is almost one and a half times larger than that of the post-renovation phase. This is interesting to note, considering the similarity in the types and number of features from both the phases, as well as the time span represented in both phases. The pre-renovation phase features represent approximately a decade of occupation, yet contain significantly more faunal remains than the post-renovation features, which represent nearly twice the amount of time. Indeed, the main cellar feature contained only 97 bone fragments, indicating the comparative scarcity of faunal remains in post-renovation deposits.

When two nearly identical features from each phase are compared, the original root cellar and the replacement root cellar, this discrepancy is confirmed. The original root cellar contained 1,413 bone fragments, whereas the replacement root cellar contained 739 fragments, almost half as much. In a general sense, it appears that faunal remains were not deposited as prevalently around the structure during the post-renovation phase, which led to their scarcity in household features (a topic explored in more detail below). This is supported by the fact that the smokehouse feature contains the most fragments from the second phase features and is located away from the dwelling. Despite the biases that arise in comparing these two unequally-sized assemblages they will still be juxtaposed in order to attempt to gain insight into change over time at the site. It should be understood, however, that the differences seen in the assemblages may, in fact, be due to sample size.

The pre-renovation phase faunal assemblage contained a total of 2,708 bone fragments representing at least 14 distinct species. When unidentified and commensal species were removed, the most abundant species, based on NISP, were *Sus scrofa, Odocoileus virginianus,*

Bos taurus, Gallus gallus, and *Lepisosteus osseus*. The most abundant species, based on MNI, were *Sus scrofa* and *Odocoileus virginianus*. The biomass calculation revealed the most abundant species in this first phase to be *Bos taurus, Sus scrofa*, and *Odocoileus virginianus* (Table 4).

Based upon these measures, it is clear that beef, pork, and venison made up the majority of the diet during the pre-renovation phase, excluding commensal and unidentified species. Relying on biomass, which is arguably the most accurate indicator of taxonomic abundance among the three measures, reveals that beef accounted for more than 50% of the meat diet on the site with pork and venison making up another 48% of the meat diet. The residents of the site during the first phase relied heavily on large mammals for meat, but also supplemented their diet with small wild mammals, domestic and wild fowl, and fish. Fully 79% of the meat diet during the first phase of occupation came from three domestic species, while the remaining 21% came from at least 10 wild species, including at least five species of fish (Figure 2). These numbers indicate that although the majority of the pre-renovation phase diet was domestic, wild game provided important diversity to the table more than one fifth of the time.

In addition to measures of taxonomic abundance, skeletal part frequency analyses were also performed for *Bos taurus, Sus scrofa*, and *Odocoileus virginianus* within the two phased assemblages. As mentioned above, it should be kept in mind that the sample sizes for these phased analyses are smaller and unequal, but provide the only opportunity for examining change in the faunal assemblages over time. The analysis of *Bos taurus* in this earlier phase revealed foot portions to be about half the value expected, with front and hind quarter portions being three times or more than the expected values (Table 9). Both tooth and skull portions for *Sus scrofa* were much higher than expected with foot and axial portions being significantly lower (Table

10). Front and hind quarter portions were slightly higher than expected, though not to a great degree. The analysis of *Odocoileus virginianus* showed teeth to be much more prevalent than expected with foot and axial portions being significantly lower (Table 11). The front and hind quarter portions, however, were significantly higher than expected.

An age distribution analysis for the pre-renovation phase assemblage was also performed for identified fragments from *Bos taurus*, *Sus scrofa*, and *Odocoileus virginianus*. The age distribution analysis for *Bos taurus* showed that there were no juvenile specimens present in the assemblage and that while there was some evidence of sub-adult specimens, the majority were fully mature (Table 12 and Table 13). The analysis for *Sus scrofa* showed that all of pigs in the pre-renovation assemblage were likely fully mature specimens (Table 14 and Table 15). The analyses for *Odocoileus virginianus* also showed that all of the deer in the pre-renovation assemblage were likely fully mature specimens (Table 16 and Table 17). The results from the age distributions for all of these taxa, however, should be seen as impressionistic rather than solid evidence for age categories since the sample sizes are quite small, numbering no more than 19 elements for each taxon.

The post-renovation phase faunal assemblage contained a total of 1,873 bone fragments representing at least 21 distinct species. Having removed unidentified and commensal species from the assemblage, the most abundant species, based upon NISP, were *Sus scrofa, Gallus gallus, Scalopus aquaticus, Sylvilagus floridanus*, and *Bos taurus*. The MNI calculation revealed *Sus scrofa, Gallus gallus, Bos taurus*, and *Morone americana* to be the most abundant species in the assemblage. However, biomass showed that the residents of the site during the second phase relied primarily upon *Sus scrofa, Bos taurus, Odocoileus virginianus*, and *Gallus gallus* (Table 5).

All of the calculations indicate that domesticated mammals were of primary dietary importance. Approximately 85% of the biomass, excluding commensal and unidentified species, from the second phase came from four species of domestic animals, including pigs, cows, sheep/goats, and chickens (Figure 3). The remaining 15% of the diet was composed of four mammal species, four bird species, and at least five fish species. The primary difference between wild diet in this phase and the pre-renovation phase is the increased, albeit still small, reliance on small mammals such as rabbits, squirrels, and possums and the increased reliance on fish. The domestic diet shows a heavier reliance on pork than beef, compared to the earlier phase, as well as the presence of sheep or goats for consumption.

The post-renovation phase skeletal portion analysis revealed several differences from the earlier phase, but was defined by generally small sample sizes for all three species. The analysis for *Bos taurus* showed foot, axial, and teeth portions to be essentially equal to the expected values, however, skull and quarter portions were absent from the assemblage (Table 18). For *Sus scrofa*, tooth and skull portions were higher than expected with foot portions being lower than expected, and quarter portions were near expected levels (Table 19). Finally, the analysis for *Odocoileus virginianus* revealed front quarter portions to be astronomically higher than expected, but this was due to the fact that only three fragments were identified and all were front quarter portions (Table 20). While the post-renovation phase skeletal portions do show some differences from the earlier phase, the results derived from this analysis likely reflect the paucity of bones recovered from latter phase contexts than actual animal use on the site. This general lack of faunal remains in the second phase assemblage, however, acts as an important aspect in the interpretation of both assemblages.

An age distribution analysis for the post-renovation phase assemblage was also performed for identified fragments from *Bos taurus* and *Sus scrofa*. The age distribution analysis for *Bos taurus* showed that all specimens were fully mature (Table 21 and Table 22). The analysis for *Sus scrofa* showed that the majority of specimens were fully mature, but that there was some evidence for at least one sub-adult (Table 23 and Table 24). The sample sizes for both taxa were exceedingly small, however, and should not be taken as accurate reflections of age profiles in this assemblage.

General Discussion of Diet

In the overall analysis of the faunal assemblage beef was shown to be the meat that contributed most to diet at the Maurice Clark site, followed by pork and venison. Generally, the reliance on these three mammal species, in that order, for the majority of the meat diet fits in with pre-defined patterns of Chesapeake subsistence (Miller 1984, 1988; Bowen 1996). However, the proportions of cow, pig, and deer biomass in the assemblage are more akin to sites dating from the 1620-1660 period than sites from the 1700-1740 period. On average, sites in the Chesapeake dating to the 1700-1740 period contain around 65% beef, 25% pork, and 5% venison. Clearly, the Maurice Clark site, with 44% beef, 34% pork, and 16% venison, is an outlier for its time and reveals evidence of subsistence practices that hearken back to the earliest settlement period of the Chesapeake region. In order to determine why the faunal assemblage from this site is so aberrant, geographical and social context of the inhabitants must be examined.

The first variable that needs to be addressed in order to understand the composition of this faunal assemblage is geography. As other zooarchaeologists have shown, the location of sites during the historic period can play a significant role in the diet of the inhabitants and the archaeological signature of that diet (Reitz and Honerkamp 1983; Reitz 1986; Miller 1988). The

Maurice Clark site is located on a terrace above the Rappahannock River a few miles from the fall line. Being so far upriver, the Rappahannock is a freshwater river in all but the driest years when the water can become slightly brackish. Location on the river played a large role in the fish species used at the site, seven of which are common in freshwater environments. The mackerel fragment was likely imported to the site in a preserved state via maritime shipping routes that included the Rappahannock.

In general, these lower salinity fish tend to be smaller than marine species more common nearer the bay such as sheepshead and black drum (Miller 1988:184). It appears that fish played a relatively small role in the diet of the site inhabitants perhaps because smaller freshwater species require more time and effort to harvest in significant amounts compared to larger-bodied marine species. The extra time and effort required to harvest fish in large quantities would have been particularly constraining for small planters, like the people who lived at the Maurice Clark site, because so much of their time would have been focused on raising tobacco with their small labor force. The minimal amount of food acquired from fishing did not outweigh the time lost in tobacco cultivation.

Geography, however, not only affected the marine life available on site, but the presence of wild mammals and feasibility of domestic species as well. At the beginning of the 18th century the area in which the Maurice Clark site is located was still very much a frontier, evidenced by the fact that the parcel had changed hands between land speculators for about 30 years before it was finally seated (Muraca et al. 2006:21-22). The fact that the land was settled by a recently freed indentured servant also speaks to the frontier nature of the area. By about 1700 the opportunity for advancement available to freedmen a half century earlier had virtually vanished (Carr and Menard 1979). Therefore, the only place where land was both cheap and

available for such people was either on the frontier or in the less fertile interior areas, as has been shown in 17th-century Surry County (Kelly 1979). The relatively unsettled nature of the area meant that the impact on deer herds and other wild mammals was minimal compared to the longer-settled areas, where deer populations had been depleted due to over-hunting and destruction of habitat through agricultural practices (Miller 1988:187). The comparative abundance of deer around the site would have led to increased hunting opportunities and may explain the higher than average proportion of deer remains in this collection.

The location of the Maurice Clark site on the frontier may also provide a reason for the proportions of pork and beef that appear more akin to a site dating 50 years earlier. Phases for change in meat diet within the Chesapeake region were first recognized and quantified by Henry Miller (1984). In his work, which relied primarily on sites from the St. Mary's City and Jamestown/Williamsburg areas, he showed that these changes in diet were strongly tied to colonization and frontier processes. Taking into account the fact that most of the sites he used in his analysis were tightly clustered in two rapidly growing areas during the 17th century, it seems reasonable that these processes could have occurred at differing rates depending upon the intensity of settlement in any given area. Therefore, a site located along the frontier around 1700 may, in fact, show some aspects of sites that had been settled in frontier areas around 1650.

The degree to which people on the site relied on beef, pork, and venison may be explained by the frontier landscape that they encountered. As discussed above, deer would have likely been more plentiful in the region compared to longer-settled areas of the colony, leading to more venison in the diet. The increase in venison created greater diversity in the diet and may have led to a lower reliance on domestic animals. The lower than expected amount of beef, coupled with the higher than expected proportion of pork, may reveal how aspects of the

Chesapeake husbandry system favored certain species in frontier situations. While both cows and pigs roamed the forests of the Chesapeake during this period, cows tended to have a slightly higher mortality rate and lower reproduction rate than pigs (Anderson 2004:111-123). Coupled with the fact that pork was easier to preserve than beef, it appears rational that people living on the frontier would rely slightly less on beef and slightly more on pork than their counterparts in more settled areas. However, the environment encountered by the settlers at the Maurice Clark site provides only a narrow set of explanations for diet on the site. In order to more completely understand their dietary choices, their social context must be examined.

With as many as four distinct household groups residing at the Maurice Clark site during its approximately 30 year occupation no experience of any single group can account for all of the faunal remains. Indeed, even the phased analysis of the assemblage represents up to two different occupants within each phase (as discussed below). One aspect that unites all of the households, however, is the fact that they were all small planters (Muraca et al. 2006:21-23). Despite their relatively light impact upon the historical record, the experience of contemporary planters within the same social class can be used to help better understand a more generalized experience for the people at the Maurice Clark site. By about 1680 the opportunities for advancement available to small planters in the Chesapeake had significantly declined (Carr and Menard 1979). As the distance between social classes began to increase at an accelerated rate at the end of the 17th century, the ability to accumulate wealth significantly declined and was all but gone by the first quarter of the 18th century.

Although determining social status based upon faunal remains is fraught with troubles, the interpretation of an assemblage based upon the known social status of the inhabitants can illuminate unexamined aspects of a site (Reitz 1987; Bowen 1996:109). With this in mind, the

assessment of the faunal assemblage, combined with the knowledge that the people on the site were small planters, may reveal some constraints to dietary choice that go beyond environmental reasons. Miller states that the number of cattle tenants could own was likely restricted due to population growth, since their small parcels would not provide enough pasturage for them and, thus, they relied more on smaller livestock like swine and chickens (1988:192-193). However, lack of pasturage was likely not a problem for the people at the Maurice Clark site, particularly early on, considering that the area was not yet densely settled. Indeed, the capital investment in livestock may go further to explain dietary choice on the site in light of the social status of the residents.

In the 17th and early-18th century the acquisition and raising of livestock was not only a means of providing food or labor on a plantation, but a capital investment for the future (Morgan 1975:138-139; Carr and Menard 1979:217; Carr et al. 1991:50-51). In general, however, livestock as a capital investment mainly applied to larger species, such as cattle and horses. This is clearly illustrated in Maurice Clark's 1711 will where he only mentions cows, horses, and land, showing that these three forms of capital were most highly valued. The high price of cattle along with their potential to increase wealth may have led the people on the site to be more sparing in their consumption of these animals. The higher than expected reliance on pork supports this argument since swine were much cheaper than cattle and more plentiful due to their hardiness and high reproductive rate. The prominence of venison in the diet also supports this, since it acts as a significant supplement to diet, possibly replacing the protein lost from a lower reliance on beef. Whether less beef was consumed as an investment strategy or because the inhabitants simply could not afford as much of it as pork is difficult to determine. What is evident, however,

is that diet on the site was constrained and shaped not only by the environment, but also by social status and economy.

Certain cuts of meat, particularly head portions, have been interpreted as possible markers of high-status cuisine in the late-18th-century Chesapeake (Bowen 1996:116-118). What are often considered undesirable parts today, such as heads and feet, were perfectly acceptable on the tables of both the rich and poor during the 18th century and before. Therefore, using skeletal portions and meat cuts to discuss status is problematic. The proportions of skeletal parts present on the Maurice Clark site for cows and pigs suggest that the animals were being slaughtered and used on the site. All portions of the carcasses of these two species are present in the assemblage, and all occur in roughly expected amounts. Teeth and head portions for pigs appear higher than expected, but this is likely due more to the ease of identification for these two pig parts or preservation than an actual over-representation.

The data for deer, however, do represent a strong preference for meatier cuts, particularly the front and hind quarters. While it still appears that this species was butchered on site due to the presence of other skeletal portions, it may be that case that some deer were quartered at the kill site and only the best parts were carried away. A somewhat similar preference for meaty cuts of venison at the Hallowes site in Westmoreland County has been interpreted as evidence of trade with local Indians (Hatch 2012; Hatch et al. 2013). However, there was ample historical evidence showing that the residents of that site participated in trade with Indians and it was occupied about 50 years earlier. By the time that the Maurice Clark site was occupied around 1700, the Native American presence in the area was not nearly as prominent or organized as it had been in previous decades (Rountree and Turner 2002:172-175). Thus, it is more likely that

the preference for meatier cuts of venison at the Maurice Clark site is related to differential carcass transportation by the site residents rather than Native American interaction.

Diet Change Over Time

Comparing the pre-renovation and post-renovation faunal assemblages to one another must be done with extreme care considering the differences in assemblage size. Therefore, in evaluating the two collections explanations other than simple diet preference or change must be explored in order to better understand why the assemblages are not the same. However, before comparing the phases they should be discussed independently. The bones from the prerenovation features comprise a moderately large collection that can be taken as representative of diet on the site during the early phase of occupation. The bones from the post-renovation phase number almost 1,000 fragments less and, while it is still a moderately large collection, the difference in sample size may mask differences or similarities between the two phases.

In a general sense, measures of taxonomic abundance for the pre-renovation phase are not very different from the overall analysis, which is not surprising since this phase contains over 2,700 bones, or about 50% of the total collection. In terms of the proportions of biomass for cattle (51%), swine (27%), and deer (20%) this phase falls between Miller's early phase, 1620-1660, and his middle phase, 1660-1700 (Miller 1984; Bowen 1996). Although, the proportions of deer and swine are much closer to the earlier phase, likely because of reasons mentioned above, including frontier environmental conditions and the low social status of the early residents of the site. Indeed, both John Hamilton and Maurice Clark, whose households are likely represented by the first phase, were both freed indentured servants and both probably very poor considering their small amount of acreage and limited impact upon the historical record (Muraca et al. 2006:21-23).

Skeletal part analyses for the pre-renovation material suggest that the three main mammals in the collection, cows, pigs, and deer, were butchered and consumed on the site. Cow skeletal portions are very close to the expected values, with some slight preference shown for meatier front and hind quarters, perhaps indicating that these parts were consumed at a slightly higher rate and more likely to end up in the archaeological record as food refuse. The portions for pigs are less clear with few axial and foot parts, roughly expected quarters, and high amounts of skull and teeth portions. This pattern is probably due to preservation and the identifiability of pig teeth. While the early site residents could have, and likely did, consume pig heads they would probably have not eaten them to the exclusion of the other parts, skewing the portions heavily toward skull and teeth portions. Perhaps the greater proportions of head parts indicates butchery waste and the bias from preserving pork by smoking it. If large amounts of pork were preserved through smoking then a larger proportion of head fragments and lower proportions of meatier parts would be expected, since pig heads were not smoked. Finally, the analysis for deer also indicates that whole carcasses were processed at the site, with a preference for quarter portions. As discussed above, this preference for deer quarters may be an indication of some butchery at the kill site.

The faunal remains recovered from the post-renovation phase contexts are vastly different from those in the first phase. Based upon biomass proportions, the assemblage is dominated by swine, followed by cattle and venison. Wild meat makes up roughly 15% of the total amount of biomass in this collection, placing it somewhere between Miller's first and second phases for Chesapeake subsistence (Miller 1984; Bowen 1996). This assemblage also contains evidence for the presence of sheep or goat remains, which is significant because these animals require more attention and a more controlled landscape to be successful, compared to

cows and pigs (Miller 1988:183; Bowen 1996:106). Therefore, goats or sheep on the site in addition to a slightly lower reliance on wild species may indicate a more highly controlled landscape shifting away from a frontier. The presence of such a large proportion of pig bones is more difficult to address. Indeed, this may be due to a bias in the data due to assemblage size, or perhaps due to the greater survivability and ease of identification for certain pig elements. Judging from the size of this assemblage and its atypical composition it appears that there may be depositional problems skewing the analysis. The possible sources for these biases will be addressed below.

The skeletal part analysis for this phase is extremely skewed due to small sample sizes. Only the pig analysis contains more than ten fragments. As such, the analysis of the skeletal portions for pigs appears to only primarily indicate butchery waste during this phase, since there are few quarter portions present. This is a pattern echoed in the analysis of cow portions, but with far fewer bones. These analyses almost certainly do not represent actual diet preference on the site but some depositional bias. The fact that so few bones were found in comparable features between the two phases indicates that factors other than diet preference affected the assemblages, particularly since the first phase accounted for about half the time of the second. Indeed, the differences in these assemblages are more likely explained by landscape rearrangements stemming from shifting frontiers and/or family formation.

While comparing changes in diet over time at the site using measures of taxonomic abundance are probably not strongly biased, the skeletal parts likely misrepresent the realities of life in the early 18th century due to their small sample size. In a general sense, diet did not significantly change between the two phases, considering that the same major species were present in each assemblage, with the exception of the presence of sheep/goats in the latter phase.

The most important differences between the assemblages include the increase in pork and fish in the post-renovation phase. What will be addressed here, however, is the discrepancy in assemblage sizes and spatial aspects of faunal deposition. An explanation for the changes between the two assemblages in terms of deposition may in fact reveal important aspects of how people engaged with the landscape at the site during the two phases.

The pre-renovation phase bones were contained in two features (a root cellar and two borrow pits excavated as one) and comprised 2,708 bone fragments deposited from around 1700-1710/11. The post-renovation phase bones came from three features (a replacement root cellar, a large cellar, and a smokehouse) and accounted for 1,873 fragments deposited from about 1710/11-1725. For the most part, the features themselves are comparable between phases in terms of size and function. All are pit features that ended their lives as repositories for refuse. The only conceivable outliers would be the borrow pit and smokehouse features because of their location outside the dwelling, but there is nothing in the composition of these faunal assemblages that make them appear vastly different from the other contemporary features. Therefore, differences in assemblage size between the two phases cannot be wholly attributed to feature type.

The most logical explanation for the differing assemblage sizes between phases is that similar amounts of bone were not deposited in features from both phases because residents of the site were disposing of refuse in different areas. During the first phase, refuse, particularly food refuse, was probably disposed of near the house, which allowed greater quantities of bone to enter the archaeological record when features were filled. After Maurice Clark died and the house was renovated, however, food refuse may have been deposited in a different area further

away from the house, leading to its scarcity in feature fill from the post-renovation phase features near the house.

This hypothesis is supported by the fact that the majority of faunal remains from the postrenovation phase come from the smokehouse feature, which is located away from the dwelling. This seems to be the most likely case because it is doubtful that significantly less food was consumed and bone discarded during the longer post-renovation phase than the pre-renovation phase. Secondly, judging from the condition of the faunal remains from each phase, it does not appear that bone preservation was vastly different between the two assemblages, which rules out preservation bias as an explanation. Finally, bone fragments from the first phase were significantly larger than fragments from the second phase, weighing on average .88g compared to .31g. The weight differential may indicate that residents during the second phase were attempting to keep the surrounding yard cleaner and free of large fragments of refuse by disposing of it in different areas.

The changing landscape and the effect that it had on faunal remains recovered from each phase is likely a combination of two broader processes at work on the site. The first process is that of the shift in the Chesapeake landscape from an organic, less-formal layout to a more formalized arrangement. This change is tied to the idea of shifting frontiers and increased settlement over time and was first proposed and tested in the Chesapeake by Robert Keeler (Keeler 1978; Miller 1994). While Keeler places this shift from organic to organized around the last quarter of the 17th century, his data primarily come from the St. Mary's and Jamestown areas, which had been settled prior to 1650. Based upon its distinctly unsettled nature in the first decade of the 18th century, it is conceivable that these same landscape processes occurred at the Maurice Clark site and at an accelerated rate due to the demographic differences between the

mid-17th century and the early 18th century, including lower mortality and an increase in families (Carr et al. 1991:151-166). While there is no evidence for yard organization in the form of fencelines at the site (Muraca et al. 2006:52), the decrease in the amount of food refuse in the post-renovation features near the house seems to indicate that deposition was taking place further from the house, leading to a decreased possibility of bones making it into the features and leading to a smaller average size for bone fragments.

In addition to the broader frontier processes that helped lead to changes in the way space was used at the Maurice Clark site, the more localized process of household succession was also taking place and facilitating change between the two phases. Household succession, or the transfer of a site from one owner/family to another was an extremely important catalyst for landscape and material culture change at sites during the entirety of the historic period (Groover 2004). The fact that the landscape change hypothesized from the faunal remains occurred during one of these household cycles is significant, particularly when the demography of the households is taken into account. The shift that took place between the pre-renovation phase and postrenovation phase not only represented a change in owners, from Clark to Harwood/Hartshorn, but also represented a shift in household types, or family groups, living at the site.

The first phase inhabitants included Maurice Clark, a single and newly-freed servant, living with his male servant (Muraca et al. 2006:22). Prior to Maurice Clark's tenure it is likely that John Hamilton constructed the main house and lived on the site after 1694 (Muraca et al. 2006:21). After these first two residents, the site entered the post-renovation phase around 1710/11 and the occupation of the site was taken up by the Harwood/Hartshorn families. Both Harwood and Hartshorn are known to have been married and likely had children at the site (Muraca et al. 2006:52). The presence of a family or families on the site may have necessitated

the rearrangement of the landscape in order to segregate, or perhaps create, distinct task areas, since the increased number of people would have allowed the opportunity for multiple tasks to be performed on the site at once. The creation of these task areas may have moved the primary butchery or disposal area further from the site and made it less likely for bone to be deposited in features around the dwelling. The change in household types that took place between the phases arguably stemmed from the frontier settlement process, but both of these factors worked in conjunction with one another to create the archaeological remains recovered at the Maurice Clark site.

Conclusion

Overall, the faunal remains recovered from the Maurice Clark site represent a diverse diet dominated by domestic animals, but also significantly supplemented by wild species. This diversity and the degree to which people on the site relied on certain species over others was strongly influenced by both environment and social status and does not neatly fit with predefined dietary patterns for the Chesapeake in the early-18th century (Miller 1984, 1988; Bowen 1996). The residents of the site clearly took advantage of the natural surroundings they encountered judging from the several species of fish in the collection all but one of which were almost certainly harvested from the Rappahannock. The small size of the fish species, coupled with the amount of time and energy necessary to collect enough to appreciably impact dietary proportions, likely led to fish not being nearly as prominent at the site as they would have been for sites with access to large marine species. Despite the somewhat lowered reliance on wild marine resources, wild terrestrial species played an important role in the diet at the site, particularly deer. Deer would have been more abundant around the site in the early-18th century

due to the unsettled nature of the region, unlike the longer-populated areas around St. Mary's and Jamestown, where deer populations had been depleted (Miller 1988:187).

The pre-renovation and post-renovation assemblages offered challenges in interpretation and comparison due to their differing sizes. While both phases probably serve as representative samples of diet at the site for each period, the post-renovation phase collection showed some problems with sample size in terms of skeletal portion and age distribution analysis. What the phase comparisons did reveal, however, was what appears to be a change in the landscape that led to the deposition of fewer bones in the latter phase contexts near the dwelling. The analysis of the separate phases revealed important changes that took place between the two different types of households that occupied the site. Namely, single freed servants in the first phase and one or two families in the second phase. While the social status of the occupants did not significantly change, the demographic composition on the site did, which can play an important role in understanding how people interacted with one another on an everyday basis. Determining whether there was lighter deposition for all artifacts in post-renovation phase contexts would be an important avenue of future inquiry in order to establish if all refuse was disposed of differently between phases or if only food refuse was.

The faunal assemblage from the Maurice Clark site is a unique collection in many ways due to its geographical location, time period, fine-grained recovery, social context, and temporal resolution. It provides an important glimpse into the material conditions of life on the early-18thcentury Northern Neck frontier and helps to illuminate the histories of the less well-known people who settled in the area. The roughly 30 year occupation of the site encompasses the period from the initial settlement of the Fredericksburg area by people like the newly-freed servant John Hamilton to the establishment of the City in 1728. It has been suggested here that

improving demography in the Chesapeake region led to the acceleration and punctuation of frontier processes first identified in the faunal assemblages and landscapes of the St. Mary's City and Jamestown areas in the mid-17th century (Keeler 1978; Miller 1984). While a significantly larger synthesis would be required to solidify this argument, the hypothesis put forth does seem to gain support from the Maurice Clark faunal assemblage and help to explain its unique patterns. This faunal assemblage has offered important insights into the lives of poor, small planters on the early-18th-century Chesapeake frontier, people who are still poorly understood from an archaeological perspective, particularly on the Northern Neck.

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Таха	NISP	NISP%	MNI	MNI%	Weight (g)	Weight%	Biomass (kg)	Biomass%
<u>Mammalia</u>								
Bos taurus	43	0.79%	2	5.26%	1062.32	32.46%	14.34	31.89%
cf. Bos taurus	2	0.04%			12.93	0.40%	0.26	0.58%
Sus scrofa	249	4.59%	5	13.16%	773.06	23.62%	10.86	24.15%
cf. Sus scrofa	5	0.09%			9.93	0.30%	0.22	0.49%
Ovis/Capra	1	0.02%	1	2.63%	0.77	0.02%	0.02	0.04%
cf. Ovis/Capra	1	0.02%	1	2.63%	2.92	0.09%	0.02	0.04%
cf. Felis domesticus	1	0.02%	1	2.63%	0.05	0.00%	0.001	0.00%
Odocoileus virginianus	36	0.66%	3	7.89%	342.64	10.47%	5.03	11.18%
cf. Odocoileus virginianus	4	0.07%			22.69	0.69%	0.44	0.98%
Didelphis marsupialis	2	0.04%	1	2.63%	5.98	0.18%	0.13	0.29%
Sylvilagus floridanus	13	0.24%	1	2.63%	4.03	0.12%	0.09	0.20%
Sciurus niger	2	0.04%	1	2.63%	0.78	0.02%	0.02	0.04%
Sciurus carolinensis	1	0.02%	1	2.63%	0.96	0.03%	0.03	0.07%
Scalopus aquaticus	13	0.24%	1	2.63%	0.33	0.01%	0.01	0.02%
Rattus sp.	1	0.02%	1	2.63%	0.31	0.01%	0.01	0.02%
Bovidae	2	0.04%			0.74	0.02%	0.02	0.04%
Artiodactyla	469	8.64%			466.45	14.25%	6.83	15.19%
Rodentia	1	0.02%			0.01	0.00%	0.0004	0.00%
Peromyscus	13	0.24%			0.21	0.01%	0.006	0.01%
Insectivora	1	0.02%			0.11	0.00%	0.004	0.01%
UID Mammalia	1558	28.69%			317.8	9.71%	4.9	10.90%
Aves								
Gallus gallus	101	1.86%	4	10.53%	36.4	1.11%	0.57	1.27%
Cf. Gallus gallus	34	0.63%			11.25	0.34%	0.19	0.42%
Meleagris gallopavo	2	0.04%	1	2.63%	0.61	0.02%	0.013	0.03%
Branta canadensis	1	0.02%	1	2.63%	0.98	0.03%	0.02	0.04%

Tables

Таха	NISP	NISP%	MNI	MNI%	Weight (g)	Weight%	Biomass (kg)	Biomass%
Anas platyrhynchos	2	0.04%	2	5.26%	1.27	0.04%	0.029	0.06%
Cf Aix Sponsa	1	0.02%	1	2.63%	0.18	0.01%	0.004	0.01%
cf. Anas crecca	1	0.02%	1	2.63%	0.37	0.01%	0.01	0.02%
Anatidae	4	0.07%			2.04	0.06%	0.044	0.10%
Passeriformes	5	0.09%			0.13	0.00%	0.003	0.01%
UID Aves	115	2.12%			15.45	0.47%	0.263	0.58%
<u>Osteichthyes</u>								
cf. Acipenser oxyrhynchus	2	0.04%	1	2.63%	1.45	0.04%	0.04	0.09%
Lepisosteus Osseus	10	0.18%	1	2.63%	0.58	0.02%	0.02	0.04%
Scomber scombrus	1	0.02%	1	2.63%	0.1	0.00%	0.005	0.01%
Ameiurus sp.	8	0.15%	1	2.63%	1.48	0.05%	0.03	0.07%
Morone americana	14	0.26%	3	7.89%	0.99	0.03%	0.027	0.06%
cf. Morone americana	1	0.02%			0.16	0.00%	0.006	0.01%
Perca flavescens	4	0.07%	1	2.63%	0.3	0.01%	0.01	0.02%
cf. Lepomis sp.	1	0.02%	1	2.63%	0.01	0.00%	0.0007	0.00%
Cyprinidae	4	0.07%			0.17	0.01%	0.007	0.02%
UID Osteoichthyes	511	9.41%			20.69	0.63%	0.39	0.87%
<u>Reptilia</u>								
Testudines	3	0.06%			2.1	0.06%	0.05	0.11%
<u>Amphibia</u>								
Anura	102	1.88%			2.39	0.07%		
<u>Unidentified</u>								
Indeterminate	2085	38.40%			149.04	4.55%		
Total	5430		38		3273.16		44.9731	

Table 1: Measures of Taxonomic Abundance for the Maurice Clark Component.

Taxa	NISP	NISP%	MNI	MNI%	Weight (g)	Weight%	Biomass (kg)	Biomass%
<u>Mammalia</u>								
Bos taurus	3	0.3%	1	7%	25.48	10.2%	0.49	11.83%
cf. Bos taurus	1	0.1%			9.58	3.9%	0.2	4.83%
Sus scrofa	26	2.4%	1	7%	54.4	21.9%	0.96	23.18%
cf. Sus scrofa	1	0.1%			0.3	0.1%	0.009	0.22%
Didelphis marsupialis	8	0.7%	1	7%	3.58	1.4%	0.083	2.00%
Vulpes fulva	1	0.1%	1	7%	0.56	0.2%	0.02	0.48%
Cf. Neotoma floridana	1	0.1%	1	7%	0.09	0.0%	0.003	0.07%
Artiodacyla	103	9.5%			91.54	36.8%	1.53	36.94%
Peromyscus	5	0.5%			0.15	0.1%	0.005	0.12%
UID Mammalia	81	7.5%			21.68	8.7%	0.42	10.14%
Aves								
Gallus gallus	19	1.8%	2	14%	8.77	3.5%	0.15	3.62%
Anatidae	1	0.1%	1	7%	1.11	0.4%	0.02	0.48%
Passeriformes	1	0.1%	1	7%	0.01	0.0%	0.0003	0.01%
cf. Passeriformes	1	0.1%			0.01	0.0%	0.0003	0.01%
UID Aves	12	1.1%			1.26	0.5%	0.03	0.72%
<u>Osteoichthyes</u>								
Morone americana	11	1.0%	2	14%	0.46	0.2%	0.02	0.48%
cf. Morone americana	1	0.1%			0.01	0.0%	0.0007	0.02%
Perca flavescens	1	0.1%	1	7%	0.03	0.0%	0.002	0.05%
Ameiurus sp.	5	0.5%	1	7%	1.89	0.8%	0.04	0.97%
Centrarchidae	9	0.8%			0.27	0.1%	0.01	0.24%
UID Osteoichthyes	217	20.1%			4.41	1.8%	0.098	2.37%
<u>Reptilia</u>								
Testudines	3	0.3%	1	7%	1.98	0.8%	0.05	1.21%
Taxa	NISP	NISP%	MNI	MNI%	Weight (g)	Weight%	Biomass (kg)	Biomass%
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Indeterminate								
UID	571	52.8%			21.26	8.5%		
Total	1082		14		248.83		4.1413	

Table 2: Measures of Taxonomic Abundance for the Washington Slave Quarter Component.

Таха	NISP	NISP%	MNI	MNI%	Weight (g)	Weight%	Biomass (kg)	Biomass%
<u>Mammalia</u>								
Bos taurus	10	2.8%	1	14%	82.42	29.9%	1.39	28.9%
Sus scrofa	32	8.8%	2	29%	30.74	11.2%	0.57	11.9%
Ovis/Capra	1	0.3%	1	14%	0.98	0.4%	0.03	0.6%
cf. Ovis/Capra	1	0.3%			1.33	0.5%	0.03	0.6%
Felis domesticus	24	6.6%	1	14%	4.92	1.8%	0.11	2.3%
Didelphis marsupialis	1	0.3%	1	14%	1.29	0.5%	0.03	0.6%
Bovidae	4	1.1%			2.77	1.0%	0.07	1.5%
Artiodactyla	12	3.3%			41	14.9%	0.74	15.4%
Canidae	1	0.3%			3.34	1.2%	0.08	1.7%
UID Mammalia	261	71.9%			105.15	38.2%	1.74	36.2%
Aves								
Gallus gallus	1	0.3%	1	14%	0.22	0.1%	0.005	0.1%
UID Aves	2	0.6%			0.25	0.1%	0.006	0.1%
<u>Osteoichthyes</u>								
UID Osteoichthyes	1	0.3%			0.09	0.0%	0.004	0.1%
Indeterminate								
UID	12	3.3%			0.85	0.3%		
Total	363		7		275.35		4.805	

Table 3: Measures of Taxonomic Abundance for the Civil War Trench Component.

Таха	NISP	NISP%	MNI	MNI%	Weight (g)	Weight%	Biomass (kg)	Biomass%
<u>Mammalia</u>								
Bos taurus	32	1.18%	1	5%	966.21	40.31%	12.78	38.65%
cf. Bos taurus	2	0.07%			12.93	0.54%	0.26	0.79%
Sus scrofa	138	5.10%	4	19%	468.02	19.53%	6.82	20.62%
cf. Sus scrofa	2	0.07%			4.82	0.20%	0.11	0.33%
Odocoileus virginianus	36	1.33%	4	19%	342.64	14.30%	5.11	15.45%
cf. Odocoileus virginianus	1	0.04%			2.05	0.09%	0.05	0.15%
Sylvilagus floridanus	1	0.04%	1	5%	1.91	0.08%	0.05	0.15%
Sciurus niger	1	0.04%	1	5%	0.12	0.01%	0.004	0.01%
Sciurus carolinensis	1	0.04%	1	5%	0.96	0.04%	0.03	0.09%
Bovidae	2	0.07%			0.74	0.03%	0.001	0.00%
Artiodactyla	395	14.59%			378.72	15.80%	5.57	16.84%
Rodentia	1	0.04%			0.01	0.00%	0.0004	0.00%
Peromyscus	2	0.07%	1	5%	0.03	0.00%	0.001	0.00%
UID Mammalia	814	30.06%			113.84	4.75%	2	6.05%
Aves								
Gallus gallus	12	0.44%	1	5%	2.09	0.09%	0.04	0.12%
Cf. Gallus gallus	3	0.11%			1.06	0.04%	0.02	0.06%
Branta canadensis	1	0.04%	1	5%	0.98	0.04%	0.02	0.06%
Anatidae	2	0.07%			1.1	0.05%	0.02	0.06%
Passeriformes	1	0.04%	1	5%	0.01	0.00%	0.0003	0.00%
UID Aves	7	0.26%			2.65	0.11%	0.047	0.14%
<u>Osteichthyes</u>								
cf. Acipenser oxyrhynchus	2	0.07%	1	5%	1.45	0.06%	0.04	0.12%
Lepisosteus Osseus	8	0.30%	1	5%	0.41	0.02%	0.02	0.06%
Morone americana	2	0.07%	1	5%	0.02	0.00%	0.001	0.00%
Perca flavescens	2	0.07%	1	5%	0.17	0.01%	0.006	0.02%
Cyprinidae	4	0.15%	1	5%	0.17	0.01%	0.007	0.02%
UID Osteoichthyes	138	5.10%			2.43	0.10%	0.06	0.18%
<u>Unidentified</u>								

Таха	NISP	NISP%	MNI	MNI%	Weight (g)	Weight%	Biomass (kg)	Biomass%
Indeterminate Total	1098 2708	40.55%	21		91.17 2396.71	3.80%	33.0677	

Table 4: Measures of Taxonomic Abundance for the Pre-Renovation Maurice Clark Phase.

Таха	NISP	NISP%	MNI	MNI%	Weight (g)	Weight%	Biomass (kg)	Biomass%
<u>Mammalia</u>								
Bos taurus	8	0.43%	3	9%	87.8	14.88%	1.6	17.08%
Sus scrofa	54	2.88%	5	15%	190.84	32.33%	2.92	31.16%
cf. Sus scrofa	2	0.11%			4.04	0.68%	0.09	0.96%
Ovis/Capra	1	0.05%	1	3%	0.77	0.13%	0.02	0.21%
cf. Ovis/Capra	1	0.05%	1	3%	2.92	0.49%	0.02	0.21%
cf. Felis domesticus	1	0.05%	1	3%	0.05	0.01%	0.001	0.01%
cf. Odocoileus virginianus	3	0.16%	2	6%	20.64	3.50%	0.42	4.48%
Didelphis marsupialis	1	0.05%	1	3%	2.39	0.40%	0.06	0.64%
Sylvilagus floridanus	11	0.59%	1	3%	1.83	0.31%	0.05	0.53%
Sciurus niger	1	0.05%	1	3%	0.66	0.11%	0.02	0.21%
Scalopus aquaticus	13	0.69%	1	3%	0.33	0.06%	0.01	0.11%
Artiodactyla	65	3.47%			64.4	10.91%	1.22	13.02%
Peromyscus	7	0.37%	2	6%	0.13	0.02%	0.0048	0.05%
UID Mammalia	386	20.61%			115.56	19.58%	2.11	22.52%
Aves								
Gallus gallus	42	2.24%	4	12%	17.16	2.91%	0.29	3.10%
Cf. Gallus gallus	9	0.48%			1.91	0.32%	0.02	0.21%
Meleagris gallopavo	1	0.05%	1	3%	0.36	0.06%	0.01	0.11%
Anas platyrhynchos	1	0.05%	1	3%	0.33	0.06%	0.01	0.11%
cf. Anas crecca	1	0.05%	1	3%	0.37	0.06%	0.01	0.11%
Anatidae	2	0.11%	1	3%	0.94	0.16%	0.024	0.26%

Таха	NISP	NISP%	MNI	MNI%	Weight (g)	Weight%	Biomass (kg)	Biomass%
Passeriformes	1	0.05%			0.06	0.01%	0.001	0.01%
UID Aves	96	5.13%			11.67	1.98%	0.2	2.13%
<u>Osteichthyes</u>								
Scomber scombrus	1	0.05%	1	3%	0.1	0.02%	0.005	0.05%
Ameiurus sp.	1	0.05%	1	3%	0.04	0.01%	0.0009	0.01%
Morone americana	11	0.59%	3	9%	0.92	0.16%	0.025	0.27%
cf. Morone americana	1	0.05%			0.16	0.03%	0.006	0.06%
Perca flavescens	1	0.05%	1	3%	0.03	0.01%	0.001	0.01%
cf. Lepomis sp.	1	0.05%	1	3%	0.01	0.00%	0.0008	0.01%
UID Osteoichthyes	252	13.45%			9.83	1.67%	0.22	2.35%
<u>Amphibia</u>								
Anura	1	0.05%			0.06	0.01%		
<u>Unidentified</u>								
Indeterminate	897	47.89%			53.9	9.13%		
Total	1873		34		590.21		9.3695	

Table 5: Measures of Taxonomic Abundance for the Post-Renovation Maurice Clark Phase.

Bos taurus	Teeth	Head	Foot	Axial	Front Quarter	Hind Quarter
Observed Count	7	1	8	20	6	3
Observed %	16%	2%	18%	44%	13%	7%
Expected %	16%	1%	39%	38%	3%	3%

Table 6: Table Showing Skeletal Part Frequency for Bos taurus in the Overall Maurice Clark Assemblage.

Sus scrofa	Teeth	Head	Foot	Axial	Front Quarter	Hind Quarter
Observed Count	130	34	20	43	14	9
Observed %	52%	14%	8%	17%	6%	4%
Expected %	17%	1%	52%	25%	2%	2%

Table 7: Table Showing Skeletal Part Frequency for Sus scrofa in the Overall Maurice Clark Assemblage.

Odocoileus virginianus	Teeth	Head	Foot	Axial	Front Quarter	Hind Quarter
Observed Count	12	0	4	4	12	8
Observed %	30%	0%	10%	10%	30%	20%
Expected %	14%	1%	46%	32%	4%	3%

Table 8: Table Showing Skeletal Part Frequency for Odocoileus virginianus in the Overall Maurice Clark Assemblage.

Bos taurus	Tooth	Skull	Foot	Axial	Front Quarter	Hind Quarter
Observed Count	4	1	6	14	6	3
Observed%	12%	3%	18%	41%	18%	9%
Expected %	16%	1%	39%	38%	3%	3%

Table 9: Table Showing Skeletal Part Frequency for Bos taurus in the Pre-Renovation Assemblage.

Sus scrofa	Tooth	Skull	Foot	Axial	Front Quarter	Hind Quarter
Observed Count	86	26	5	7	9	7
Observed%	61%	19%	4%	5%	6%	5%
Expected %	17%	1%	52%	25%	2%	2%

Table 10: Table Showing Skeletal Part Frequency for Sus scrofa in the Pre-Renovation Assemblage.

Odocoileus virginianus	Tooth	Skull	Foot	Axial	Front Quarter	Hind Quarter
Observed Count	12	0	4	4	6	8
Observed%	35%	0%	12%	12%	18%	24%
Expected %	14%	1%	46%	32%	4%	3%

Table 11: Table Showing Skeletal Part Frequency for Odocoileus virginianus in the Pre-Renovation Assemblage.

Bos taurus, n=14	Early	Middle	Late
%Fused	29%	29%	29%
%Unfused	0%	7%	7%

Table 12: Table Showing Age Distribution for *Bos taurus* in the Pre-Renovation Phase Assemblage.

Element	Fused	Unfused	Age at Fusion
Acetabulum	2		6-10
Proximal Femur		1	42
Vertebral Centrum	3		84-108
Distal Metapodium	3	1	24-36
Proximal Metapodium	2		Fused Before Birth
Distial Tibia	1		24-30
Proximal Ulna	1		42-48

 Table 13: Table Showing Elements Used in the Age Distribution Analysis of *Bos taurus* in the Pre-Renovation Assemblage.

<i>Sus scrofa</i> , n=19	Early	Middle	Late
%Fused	32%	11%	47%
%Unfused	0%	0%	11%

Table 14: Table Showing Age Distribution for Sus scrofa in the Pre-Renovation Assemblage.

Element	Fused	Unfused	Age at Fusion
First Phalanx	2		24
Proximal Metapodium	1		Fused Before Birth
Vertebral Centrum	2	1	48-84
Distal Femur	1		42
Proximal Femur	1		42
Calcaneus	1		24-30
Distal Radius	1		42
Proximal Radius	2		12
Distal Scapula	2		12
Proximal Tibia		4	42
Proximal Ulna	1		36-42

Table 15: Table Showing Elements Used in the Age Distribution Analysis of Sus scrofa in the Pre-Renovation Assemblage.

Odocoileus virginianus, n=11	Early	Middle	Late
%Fused	27%	64%	9%
%Unfused	0%	0%	0%

Table 16: Table Showing Age Distribution Analysis for Odocoileus virginianus in the Pre-Renovation Assemblage.

Element	Fused	Unfused	Age at Fusion
Calcaneus	3		26-29
Distal Humerus	2		12-20
Vertebral Centrum	2		35-42
Proximal Radius	1		5-8
Distal Tibia	3		20-23

Table 17: Table Showing Elements Used in Age Distribution Analysis of *Odocoileus virginianus* in the Pre-Renovation Phase Assemblage.

Bos taurus	Tooth	Skull	Foot	Axial	Front Quarter	Hind Quarter
Observed Count	2	0	2	4	0	0
Observed%	25%	0%	25%	50%	0%	0%
Expected %	16%	1%	39%	38%	3%	3%

Table 18: Table Showing Skeletal Part Frequency for Bos taurus in the Post-Renovation Assemblage.

Sus scrofa	Tooth	Skull	Foot	Axial	Front Quarter	Hind Quarter
Observed Count	22	2	12	10	4	2
Observed%	42%	4%	23%	19%	8%	4%
Expected %	17%	1%	52%	25%	2%	2%

Table 19: Table Showing Skeletal Part Frequency for Sus scrofa in the Post-Renovation Assemblage.

Odocoileus virginianus	Tooth	Skull	Foot	Axial	Front Quarter	Hind Quarter
Observed Count	0	0	0	0	3	0
Observed%	0%	0%	0%	0%	100%	0%
Expected %	14%	1%	46%	32%	4%	3%

Table 20: Table Showing Skeletal Part Frequency for Odocoileus virginianus in the Post Renovation Assemblage.

<i>Bos taurus</i> , n=3	Early	Middle	Late
%Fused	33%	0%	67%
%Unfused	0%	0%	0%

Table 21: Table Showing Age Distribution Analysis of Bos taurus in the Post-Renovation Assemblage.

Element	Fused	Unfused	Age at Fusion
Second Phalanx	1		18-24
Vertebral Centrum	2		84-108

Table 22: Table Showing Elements Used in Age Distribution Analysis of Bos taurus in the Post-Renovation Assemblage.

Sus scrofa, n=6	Early	Middle	Late
%Fused	33%	0%	33%
%Unfused	0%	17%	17%

Table 23: Table Showing Age Distribution Analysis of *Sus scrofa* in the Post-Renovation Assemblage.

Element	Fused	Unfused	Age at Fusion
Second Phalanx	1		12
Vertebral Centrum	1	1	48-84
Distal Humerus	1		12-18
Distal Metapodium		1	24-27
Distal Radius	1		42

Table 24: Table Showing Elements Used in Age Distribution Analysis of Sus scrofa in the Post-Renovation Assemblage.

Figures



Figure 1: Domestic vs. Wild Biomass from the Maurice Clark Component.



Figure 2: Domestic vs. Wild Biomass for the Pre-Renovation Maurice Clark Phase.



Figure 3: Domestic vs. Wild Biomass in the Post-Renovation Maurice Clark Phase.

Context #	Artifact #	species	NISP	element	portion	side	weight
1	25	sus scrofa	35	femur	shaft	right	23.6
1	26	UID Mammal	9				2.7
2	25	UID Mammal	5				2.3
2	25	UID Bird	1				0.2
3	28	UID Mammal	3				0.8
5	29	UID Mammal	1				0.4
5	29	Artiodactyla	1	rib	shaft		0.3
6	27	UID Mammal	1				0.5
7	29	UID Mammal	12				9.5
7	29	UID Mammal	1				0.4
7	30	Artiodactyla	2	rib	shaft		1.2
7	30	UID Mammal	5				1.66
8	8	UID Mammal	6				6.2
8	8	UID Mammal	2				0.7
9	34	UID Mammal	3				1
11	2	sus scrofa	1	maxilla	anterior		3.7
11	2	sus scrofa	1	maxilla	posterior		2.46
11	2	sus scrofa	1	maxilla			0.8
11	2	UID Mammal	9				4.6
11	2	UID Mammal	6				0.8
11	2	UID Mammal	1				0.4
12	68	UID Mammal	1				0.5
13	10	UID Mammal	1				0.8
13	10	cf. bos taurus	2	molar/premolar	-		0.7
15	46	UID Mammal	3				2.2
16	22	UID Mammal	2				2.8
16	23	Artiodactyla	1	rib	shaft		0.7

Appendix I: Abbreviated FF-02 Faunal Catalog

17	2	UID Mammal	1				0.2
17	15	UID Bird	1				0.4
18	22	sus scrofa	2	tibia	proximal	right	6.2
19	10	UID Mammal	5				2.1
19	10	UID Mammal	7				5.5
20	2	UID Mammal	1				0.5
23	13	Ovis/Capra	1	humerus	distal	left	13.2
23	13	Artiodactyla	1	rib	proximal		1.3
23	13	sus scrofa	1	premolar			0.2
23	13	UID Mammal	7				3.6
23	13	UID Mammal	1				2.9
23	13	UID Mammal	1				0.1
23	13	UID Mammal	2				2
24	14	UID Mammal	4				1.9
25	3	UID Mammal	1				<0.1
26	21	bos taurus	1	second phalanx	complete		14.56
26	21	bos taurus	1	intermediate carpal		left	10.28
26	21	sus scrofa	1	thoracic vertebra	spinous process		5.82
26	21	bos taurus	2	rib	cartilage		4.7
26	21	sus scrofa	1	rib	proximal		1.03
26	21	meleagris gallopavo	1	radius	shaft	right	0.36
26	21	UID Mammal	7				13.44
26	21	sus scrofa	1	Fibula	shaft	left	0.83
26	21	sus scrofa	1	Fibula	shaft	left	0.23
26	23	sus scrofa	1	vertebra	spinous process		0.82
26	24	UID Mammal	1				1.23
26	24	UID Mammal	1				2.05
28	2	sus scrofa	1	rib	proximal		0.88
28	2	UID Mammal	6				6.83
28	2	UID Mammal	4				1.14

28	2	Stone	1				0.09
31	3	Ovis/Capra	1	thoracic vertebra	spinous process		0.77
31	3	UID Mammal	2				0.69
31	3	UID Fish	1	spine			0.36
32	23	UID Mammal	1				1.59
32	23	sus scrofa	1	incisor			0.48
32	23	sus scrofa	1	canine			0.4
32	23	decapod	2	claw			0.19
33	37	UID Mammal	1				0.28
34	25	UID Mammal	1				0.39
34	26	UID Fish	1				0.15
35	29	Artiodactyla	1	scapula	articular surface	left	1.47
35	29	UID Mammal	1				0.42
35	30	UID Mammal	1				0.25
36	1	UID Mammal	1				0.72
36	1	UID Mammal	16				28.14
37	7	UID Mammal	2				0.65
38	2	UID Mammal	1				4.03
39	1	sus scrofa	1	humerus	distal	right	5.18
39	1	UID Mammal	16				29.53
40	23	UID Mammal	4				1.61
40	24	UID Mammal	9				6.75
41	6	UID Mammal	1				0.29
49	4	UID Mammal	17				20.18
49	4	Artiodactyla	2				7.35
49	4	UID Mammal	1				0.56
49	4	UID Mammal	2				1.12
49	4	Lepisosteus osseus	1	vertebra	caudal		0.15
49	47	UID Mammal	1				0.3
50	3	UID Mammal	1				0.39

50	3	UID Fish	1				0.25
52	10	UID Mammal	2				0.68
52	10	UID Mammal	1				2.07
53	1	Sus scrofa	6	femur	proximal and shaft	right	40.23
53	1	sus scrofa	1	maxilla	posterior	right	12.54
53	1	sus scrofa	42	skull			34.63
53	1	sus scrofa	1	internal auditory meatus		left	1.29
53	1	UID Mammal	128				4.88
55	3	UID Mammal	7				1.88
55	3	UID Fish	1				0.26
55	3	UID Mammal	1				1.34
55	3	UID Bird	5	eggshell			< 0.01
55	3	UID Fish	1	scale			< 0.01
55	3	UID Shell	2				0.1
55	3	Gallus gallus	1	ferculum			0.09
56	3	Sus scrofa	1	rib	shaft		0.57
56	3	UID Mammal	6				3.73
56	3	UID Mammal	1				0.09
57	5	UID Mammal	5				1.6
57	5	Sus scrofa	1	metacarpal	distal		0.21
57	5	UID Bird	1				0.16
59	2	UID Mammal	3				1.92
59	2	UID Fish	1	spine			0.09
59	2	Gallus gallus	1	mandible	lower		0.28
64	34	UID Mammal	3				1.28
66	14	UID Mammal	1				0.22
66	14	UID Mammal	1				0.25
68	8	UID Mammal	1				1.46
69	44	UID Mammal	1				1.12
72	30	sus scrofa	1	radius	distal		2.96

72	30	UID Mammal	4				0.88
72	31	UID Mammal	1				0.48
72	31	UID Mammal	1				0.72
73	30	UID Mammal	2				1.05
73	31	UID Mammal	1				1.29
77	7	UID Mammal	7				5.25
77	7	UID Mammal	8				4.05
77	7	bos taurus	2	Tooth			1.46
77	7	Pipe bowl fragment	1				0.3
77	7	Metal fragment	1				0.13
78	4	UID Mammal	1				2.42
78	4	UID Mammal	1				1.03
80	2	UID Mammal	1				0.63
80	3	UID Mammal	1				0.45
80	3	UID Mammal	5				1.44
80	3	Sus scrofa	1	Tooth			0.21
81	5	UID Mammal	1				0.61
81	5	bos taurus	1	Tooth			0.45
82	8	Gallus gallus	1	tibiotarsus	distal	right	0.68
82	8	UID Bird	5				0.5
82	8	UID Mammal	7				1.89
82	8	UID Mammal	3				0.91
85	2	UID Mammal	1				0.18
92	4	UID Mammal	3				0.8
95	2	UID Mammal	8				0.18
26	19	Didelphis marsupialis	1	mandible	lower	right	2.39
53	3	Sus scrofa	3	mandible	lower	right	24.01
26	25	UID Fish	1	scale			0.14
82	7	UID Bird	20	eggshell			0.23
82	10	UID Fish	17	scale			0.38

1	27	Bovidae	1	Tooth			0.22
3	29	bos taurus	1	Tooth			0.53
7	31	bos taurus	1	P3 premolar	upper	left	8.24
8	9	sus scrofa	1	molar			1.43
8	9	sus scrofa	1	premolar			0.3
11	3	sus scrofa	1	mandible			1.09
11	3	sus scrofa	4	premolar			3.02
14	3	bos taurus	1	Tooth			0.38
14	3	bos taurus	1	premolar	upper	right	2.89
23	15	sus scrofa	1	premolar			0.1
25	6	sus scrofa	1	M3 molar	lower	left	3.25
26	20	sus scrofa	1	M3 molar	lower	right	5.43
27	32	Bovidae	1	Tooth			0.2
28	7	sus scrofa	1	Tooth			0.25
29	21	Artiodactyla	1	Tooth			0.73
31	1	sus scrofa	1	I1 incisor	upper	right	1.39
31	1	Artiodactyla	1	Tooth			0.04
36	2	cf. Odocoileus virginianus	1	molar/premolar	upper		0.91
36	2	sus scrofa	2	canine	lower		1.14
37	2	UID Mammal	1	Tooth			0.38
37	2	sus scrofa	2	Tooth			0.25
41	5	sus scrofa	1	molar/premolar			0.58
49	3	sus scrofa	1	I1 incisor	lower	left	0.9
49	3	sus scrofa	1	canine	lower	left	2.79
49	3	sus scrofa	1	canine	lower	right	0.7
49	3	sus scrofa	2	canine			0.63
49	3	sus scrofa	2	molar/premolar			1.65
52	13	sus scrofa	1	P3 premolar	lower	left	1.11
53	2	sus scrofa	1	I1 incisor	upper	left	1.48
53	2	sus scrofa	1	P2 premolar	upper	right	0.69

53	2	Artiodactyla	1	Tooth			< 0.01
57	2	Sus scrofa	1	molar/premolar			0.53
59	7	Sus scrofa	1	P2 premolar	lower	right	0.69
66	15	Sus scrofa	1	molar/premolar			1.65
77	5	Bovidae	1	molar/premolar			0.23
80	4	Sus scrofa	1	molar/premolar			2.11
82	11	Peromyscus sp.	1	incisor			0.02
87	24	Sus scrofa	2	molar			2.83
87	24	Sus scrofa	2	molar/premolar	·		0.38
95	3	Sus scrofa	2	I3 incisor	lower	left	0.47
95	3	UID Mammal	1				< 0.01
38	2	cf. bos taurus	1	rib	proximal		2.77

Context#	Artifact#	species	NISP	element	portion	side	weight
0	16	UID Mammal	1				0.91
0	16	UID Mammal	2				0.86
3	8	UID Mammal	7				0.32
3	8	UID Bird	2	eggshell			< 0.01
5	6	UID Mammal	19				1.79
7	2	UID Mammal	3				1.86
7	2	UID Fish	1				0.08
7	3	Bos taurus	1	I4 Incisor	Lower	left	2.05
7	3	UID Mammal	1	Tooth			0.08
7	4	UID Bird	4	Eggshell			< 0.01
11	7	UID Mammal	2				4.05
11	6	Sus scrofa	1	Molar/Premolar			0.78
15	12	Didelphis marsupialis	1	Humerus	Complete	right	3.59
15	12	Meleagris gallopavo	1	Rib	proximal		0.25
15	12	Anas platyrhynchos	1	Tarsometatarsus	Complete	left	0.94
15	12	Gallus gallus	1	Humerus	Complete	left	2.55
15	12	Gallus gallus	1	Coracoid	Complete	left	0.69
15	12	Gallus gallus	1	Fibula	Proximal and shaft	right	0.42
15	12	Gallus gallus	1	Radius	Distal and shaft	right	0.3
15	12	Gallus gallus	1	Tarsometatarsus	Distal and shaft	left	0.63
15	12	Gallus gallus	1	Tarsometatarsus	Shaft	right	0.51
15	12	Gallus gallus	1	Tibiotarsus	Shaft	right	0.74
15	12	Gallus gallus	1	Ferculum	Shaft		0.25
15	12	Gallus gallus	1	Phalange	Complete		0.06
15	12	Sus scrofa	1	1st Phlange	Complete		3.91

Appendix II: Abbreviated FF-04 Faunal Catalog

15	12	Sus scrofa	1	5th Metacarpal	Proximal and shaft	left	1.14
15	12	Sus scrofa	1	4th Metacarpal	Proximal and shaft	left	5.37
15	12	Bos taurus	1	Cervical vertebra	spinous process	left	2.99
15	12	Sus scrofa	1	Rib	Proximal and shaft		3.1
15	12	Sus scrofa	1	Lumbar vertebra			4.18
15	12	Sus scrofa	1	Lumbar vertebra	Transverse process		0.4
15	12	Sus scrofa	4	Vertebra			3.63
15	12	Sus scrofa	1	Rib	Proximal and shaft		1.11
15	12	Sus scrofa	1	Rib	Shaft		1.04
15	12	Sus scrofa	1	Rib	Shaft		2.13
15	12	Sus scrofa	1	Skull	Lacrimal Bone	right	2.28
15	12	Sus scrofa	1	Skull	Frontal/Orbital		1.47
15	12	Sus scrofa	1	Mandible	Ramus	left	3.01
15	12	Sus scrofa	1	Lumbar vertebra	Transverse process		0.7
15	12	Sus scrofa	1	Sternum	Manubrium		2.95
15	12	UID Mammal	2				1.34
15	12	UID Mammal	1				0.79
15	12	Perca flavescens	1	Parasphenoid	Complete		0.1
15	12	UID Bird	4				0.59
15	12	UID Mammal	24				23.03
15	12	Rock	1				0.7
15	19	cf. Aix sponsa	1	Scapula	Proximal	left	0.18
15	19	Gallus gallus	4	Vertebra			0.82
15	19	Gallus gallus	1	Fibula	Proximal	left	0.19
15	19	Gallus gallus	1	Ferculum			0.2
15	19	Gallus gallus	3	Phalanx			0.17
15	19	Gallus gallus	1	Quadrate		right	0.04
15	19	Cf. Gallus gallus	1	phalanx			0.08
15	19	Cf. Gallus gallus	2	Rib			0.09
15	19	UID Bird	3				0.44

15	19	UID Mammal	53				8.99
15	19	Artiodacyla	1	Rib			0.25
15	19	Rock	1				0.47
15	19	UID Mammal	2				0.15
15	19	UID Shell	1				0.01
15	19	UID Fish	1	Pterygiophore			0.14
15	19	UID Fish	3	Spine			0.46
15	19	UID Fish	2	Rib			0.21
15	19	UID Fish	17				2.73
15	19	UID Fish	1	Rib	Process		< 0.01
15	19	UID Fish	5	Vertebra			0.21
15	19	UID Fish	4	Pterygiophore			0.05
15	19	UID Fish	36	Rib			0.56
15	19	UID Fish	15				0.37
15	19	UID Mammal	96				2
15	19	Gallus gallus	6	Phalanx			0.15
15	19	UID Bird	1				0.02
15	19	Morone americana	1	Prevomar			0.05
15	19	UID Fish	1				0.02
15	19	UID Fish	1	Dentary			< 0.01
15	19	UID Mammal	3				0.28
15	19	UID Fish	1	Spine			< 0.01
15	19	UID Fish	1	Vertebra			< 0.01
15	19	UID Fish	1				0.02
15	13	Sus scrofa	1	Canine	Upper	right	5
15	15	UID Bird	9	Eggshell			< 0.01
15	21	UID Bird	260	Eggshell			2.7
15	14	UID Fish	2	scale			< 0.01
15	22	UID Fish	446	scale			1.8
19	6	UID Mammal	2				0.79

28	30	Gallus gallus	1	Femur	Shaft	left	1.36
28	30	UID Mammal	3				0.83
28	30	UID Mammal	2				0.92
28	31	Ovis/Capra	1	Molar/Premolar			0.64
30	11	UID Mammal	12				5.58
32	28	UID Mammal	2				0.7
34	19	UID Mammal	2				0.98
36	5	Artiodacyla	1				3.97
37	1	Bos taurus	4	UID			21.19
37	1	UID Mammal	1				0.17
38	10	Artiodacyla	1				5.7
38	10	UID Mammal	1				0.52
38	9	Sus scrofa	1	M3 Molar			3.13
38	9	Sus scrofa	1	Tooth			0.29
39	1	UID Mammal	3				1.37
40	42	UID Mammal	6				1.78
40	41	Sus scrofa	1	Canine	Lower		0.42
40	41	Sus scrofa	1	Canine			0.96
42	44	UID Mammal	5				1.6
42	44	UID Mammal	1				0.78
43	2	Bos taurus	1	1st Phalanx			23.42
43	2	Bos taurus	1	Skull			2.61
43	2	UID Mammal	3				4.49
43	2	Artiodacyla	1	Tooth			0.16
43	2	Rock	1				2.45
43	3	Bos taurus	1	M2 Molar	Upper	right	22.61
43	3	Bos taurus	1	Molar/Premolar			0.65
43	3	Sus scrofa	1	Tooth			0.6
43	3	UID Mammal	3	Tooth			0.06
46	44	Artiodacyla	1	Tooth			0.4

49	7	UID Mammal	2				2.88
49	7	Perciformes	1	Preopercular			0.02
50	60	UID Mammal	1				0.75
51	1	Bos taurus	1	Molar/Premolar			2.2
51	1	Bos taurus	1	Molar/Premolar			3.51
51	1	Bovidae	1	Tooth			0.33
52	22	UID Mammal	1				0.76
52	22	Wood/Stone	6				0.65
53	4	Bos taurus	1	Rib	Proximal		4.11
53	4	UID Mammal	4				9.21
53	4	UID Mammal	2				0.9
53	5	Sus scrofa	1	Molar			1.45
54	1	Bos taurus	2	Rib	Shaft		25.55
54	1	Bos taurus	1	Rib	Proximal		8.5
54	1	UID Mammal	17				17.18
54	1	UID Mammal	3				0.8
54	9	Sus scrofa	1	M3 Molar			1.28
54	9	Sus scrofa	1	Premolar			0.29
54	9	Bovidae	1	Molar/Premolar			0.28
56	11	Sus scrofa	1	M3 Molar			0.82
63	41	UID Mammal	1				0.75
66	27	Sus scrofa	1	M3 Molar			0.76
67	31	Bos taurus	1	Rib	Shaft		6.35
67	31	cf. Sus scrofa	1	Skull	Occipital Condyle		3.26
67	31	UID Mammal	6				11.81
67	32	Bos taurus	1	M2 Molar	Lower	left	6.34
68	11	Bos taurus	3	Scapula	Posterior Border	right	74.96
68	12	UID Mammal	13				5.54
69	22	Felis domesticus	1	Fibular Tarsal		left	0.31
69	22	Felis domesticus	1	Femur	Distal	right	0.59

69	22	Felis domesticus	1	Ischium	Acetabulum	right	0.26
69	22	Felis domesticus	1	Phalanx			0.1
69	22	Bovidae	1	Tooth			0.29
69	22	UID Mammal	1				1.04
69	23	Bos taurus	6	Molar/Premolar			10.1
70	2	UID Mammal	5				1.18
72	6	UID Mammal	3				4.54
72	7	Bos taurus	1	Molar			6.85
73	29	UID Mammal	7				3.12
73	29	UID Mammal	1				0.25
74	41	UID Mammal	1				0.61
75	3	UID Mammal	11				7.77
75	3	Bos taurus	1	Fibular Tarsal	Proximal	left	23.49
76	37	Artiodacyla	1	Tooth			0.44
77	34	UID Mammal	2				1.68
77	35	UID Mammal	1				0.15
79	3	Sus scrofa	1	Humerus	Shaft	left	33.14
79	2	Scalopus Aquaticus	1	Humerus		left	0.18
79	2	Scalopus Aquaticus	1	Humerus		right	0.15
79	2	UID Mammal	6				1.35
79	2	UID Mammal	1				0.51
79	2	Bos taurus	2	Molar			3.07
79	2	Sus scrofa	1	Molar			0.56
80	23	UID Mammal	1				0.54
80	23	UID Mammal	1				0.15
81	10	Bos taurus	1	Humerus	Lateral Tuberosity	right	4.17
81	25	Sus scrofa	1	Premolar			0.14
82	8	UID Mammal	2				0.39
82	8	Sus scrofa	1	Mandible	Angle	left	2.63
83	15	Sus scrofa	2	Tibia	Distal	left	2.92

83	15	UID Mammal	9				5.44
83	24	Bos taurus	1	M3 Molar			15.56
84	5	UID Mammal	3				2.37
84	44	Rock	1				1.37
86	14	UID Mammal	3				0.99
86	13	Sus scrofa	1	P3 Premolar	Lower	right	0.57
86	13	Bovidae	1	Molar/Premolar	·		0.49
88	1	UID Mammal	2				< 0.01
91	15	Gallus gallus	2	Coracoid	Proximal and Shaft	right	0.99
91	15	Gallus gallus	1	Rib			0.04
98	2	Sus scrofa	1	Paramastoid Process	·	left	2.42
99	19	UID Mammal	1				0.74
99	20	UID Mammal	1				0.22
102	7	UID Mammal	1	Rib	Shaft		1.43
102	5	Sus scrofa	1	Canine	Upper		0.15
103	11	Bos taurus	1	M1 Molar	Upper	left	6.41
105	49	UID Mammal	4				0.63
105	49	Rock	2				1.23
107	11	UID Mammal	7				5.18
108	4	Sus scrofa	2	Humerus	Shaft	right	2.56
108	4	Sus scrofa	1	Incisor	Lower		0.36
108	4	UID Mammal	9				6.18
109	22	UID Mammal	2				0.26
114	25	Sus scrofa	1	Molar			0.59
114	26	UID Mammal	1				0.18
114	26	UID Mammal	4				6.65
114	61	UID Mammal	1				0.27
115	6	Bovidae	1	Molar/Premolar	·		0.34
116	5	Bos taurus	1	Vertebra			13.9
117	49	UID Mammal	1				0.39

117	49	UID Mammal	2				0.4
118	26	Sus scrofa	1	Molar			0.51
120	9	Sus scrofa	2	Molar			0.9
120	10	Sus scrofa	1	Radius	Proximal and Shaft	left	40.46
120	10	Sus scrofa	1	Rib	Proximal and Shaft		5.49
120	10	Sus scrofa	1	Rib	Shaft		7.18
120	10	Sus scrofa	1	Rib	Shaft		2.97
120	10	Bos taurus	1	Rib	Shaft		4.06
120	10	UID Mammal	5				2.2
120	10	UID Mammal	1				1.11
121	8	Anas platyrhynchos	1	Coracoid		right	0.8
121	8	cf. Anas platyrhynchos	1	Radius	Proximal and Shaft	right	0.2
121	8	UID Bird	2				0.29
121	8	UID Mammal	17				1.71
123	5	Artiodacyla	1				2.48
124	19	Bos taurus	1	M3 Molar	Lower	left	28.31
124	19	Bos taurus	1	M3 Molar	Lower	right	15.61
124	19	Bos taurus	4	Molar/Premolar			8.56
124	19	Sus scrofa	1	M1 Molar	Upper	right	2.05
124	19	Bos taurus	1	Incisor	Lower		1.02
124	19	Sus scrofa	1	Incisor	Lower		0.36
124	19	Sus scrofa	3	Tooth			0.82
124	19	UID Mammal	3	Tooth			0.05
124	18	Bos taurus	1	Radius	Proximal and Shaft	right	50.86
124	18	Sus scrofa	1	Radius	Distal	right	12.68
124	18	Sus scrofa	1	Radius	Distal and shaft	right	35.73
124	18	Sus scrofa	1	Scapula	Shaft	right	19.4
124	18	Sus scrofa	1	Rib	Proximal and Shaft	1	6.75
124	18	Odocoileus virginianus	1	Tibia	Distal	left	3.31
124	18	Bos taurus	1	Metatarsal	Distal		7.87

124	18	Odocoileus virginianus	1	Tibial Tarsal		left	14.39
124	18	Bos taurus	1	Ulnar Carpal		left	7.33
124	18	Bos taurus	1	3rd Phalanx	proximal		5.58
124	18	Bos taurus	1	Mandible			6.66
124	18	Sus scrofa	1	Rib	Shaft		3.93
124	18	Bos taurus	1	Mandible			3.6
124	18	Sus scrofa	1	Mandible		right	11.73
124	18	Artiodacyla	11				27.1
124	18	UID Mammal	108				7.36
124	18	UID Mammal	2				0.48
124	18	Rock	1				5.76
128	12	Sus scrofa	1	Tibia	Shaft	right	4
128	12	Artiodacyla	1				8.74
128	12	UID Mammal	4				1.13
131	2	UID Mammal	1				0.75
134	10	Bos taurus	1	M1 Molar	Lower	right	4.5
134	10	Sus scrofa	2	I2 incisor	Lower	right	0.88
134	9	Sus scrofa	2				3.02
134	9	Sus scrofa	2	Rib	Shaft		1.54
134	9	Sus scrofa	1	Canine	Upper		0.49
134	9	UID Mammal	9				2.26
134	9	UID Mammal	2				1.02
135	3	UID Mammal	3				1.2
135	4	UID Mammal	1				0.84
135	4	UID Mammal	1				1.12
139	8	Sus scrofa	1	Rib	Shaft		2.37
139	8	UID Mammal	8				1.96
141	21	Sus scrofa	1	I3 incisor	Lower	left	0.47
141	16	UID Bird	23	Eggshell			0.2
141	1	Bos taurus	1	Vertebra	Articular process		3.27

141	1	Gallus gallus	1	Scapula	Shaft	left	0.22
141	1	Gallus gallus	1	Radius	Shaft	left	0.47
141	1	UID Mammal	1				1.85
141	1	Artiodacyla	1	Rib	Shaft		0.52
141	1	Lepisosteus Osseus	1	Scale			0.04
141	1	UID Fish	5				0.91
141	1	UID Mammal	20				2.49
141	1	UID Mammal	3				0.11
141	1	Rock	3				0.13
143	23	Artiodacyla	15				14.02
143	23	UID Mammal	1				0.44
145	85	Didelphis marsupialis	1	Maxilla	Upper	right	3.1
145	85	Sus scrofa	1	Mandible	Lower	left	1.97
145	85	Sus scrofa	1	Canine	Lower	left	1.36
145	85	Sus scrofa	1	I3 incisor	Lower	left	0.55
145	85	Bos taurus	1	M3 Molar	Lower	left	7.93
145	85	Didelphis marsupialis	7	Tooth	Upper	right	0.48
145	35	Sus scrofa	1	Premolar			0.19
145	35	Sus scrofa	1	Incisor	Lower		1.22
145	35	Sus scrofa	1	Incisor	Lower		0.08
145	35	Sus scrofa	2	Tooth			0.24
145	35	UID Mammal	1	Molar			< 0.01
145	33	UID Bird	333	Eggshell			3.5
145	81	UID Bird	16	Eggshell			0.1
145	150	UID Fish	70	scale			0.3
145	36	Gallus gallus	1	Sternum			0.27
145	42	UID Mammal	2				0.12
145	42	UID Mammal	1				< 0.01
145	78	UID Mammal	1				0.72
145	78	UID Mammal	1				0.19

145	78	UID Mammal	1				0.21
145	85	Bos taurus	1	3rd Phalanx			12.22
145	85	Gallus gallus	1	Coracoid	Proximal and Shaft	right	0.46
145	85	Gallus gallus	1	Tarsometatarsus	Distal and shaft	left	3.84
145	85	Gallus gallus	1	Tarsometatarsus	Distal and shaft	left	0.56
145	85	Gallus gallus	1	Carpometacarpus	·	left	0.59
145	85	Gallus gallus	1	Scapula	Shaft	left	0.26
145	85	Anatidae	1	Humerus	Shaft	right	1.11
145	36	Morone americana	1	Parasphenoid	·		0.08
145	36	Morone americana	1	Suboperculum			0.02
145	36	Ameiurus sp.	1	Skull Roof			0.48
145	36	UID Fish	1	Dorsal Spine			0.06
145	36	UID Fish	2	Pterygiophore			0.07
145	36	UID Fish	2	Rib			0.1
145	36	UID Fish	1	vertebra			0.18
145	36	UID Fish	3				0.08
145	36	Vulpes fulva	1	Ulna	Proximal	right	0.56
145	36	Cf. Neotoma floridana	1	Humerus		right	0.09
145	36	Artiodacyla	1	Cervical vertebra	spinous process		0.27
145	36	cf. Sus scrofa	1	Petrous process			0.3
145	36	Artiodacyla	6				1.5
145	36	UID Bird	2	Rib			0.12
145	36	UID	29				4.2
145	36	Artiodacyla	1	Fibular Tarsal	distal		1.32
145	36	UID	1				0.14
145	36	UID	1				0.1
145	36	UID Fish	4	Dorsal Spine			0.06
145	36	UID Fish	1	Pectoral spine			0.01
145	36	UID Fish	13	vertebra			0.41
145	36	UID Fish	6	Pterygiophore			0.13

145	36	UID Fish	3	Scale			0.03
145	36	Lepisosteus Osseus	1	Scale			0.01
145	36	UID Fish	41	Rib			0.58
145	36	Morone americana	1	Posttemporal			0.03
145	36	Morone americana	1	Quadrate			0.02
145	36	Lepisosteus Osseus	1	Scale			0.01
145	36	UID Fish	11				0.15
145	36	Peromyscus	3				0.04
145	36	UID	109				1.58
145	36	UID	7				0.06
145	36	UID	4				0.05
145	85	Ameiurus sp.	2	Pectoral spine			0.83
145	85	UID Fish	1	Pterygiophore			0.04
145	85	UID Fish	1	Rib			0.14
145	85	UID Fish	1				0.08
145	85	Gallus gallus	5	Rib			0.57
145	85	Peromyscus	1	Femur			0.1
145	85	Artiodacyla	2	Rib	Shaft		3.63
145	85	Artiodacyla	1	Rib	Shaft		1.47
145	85	Artiodacyla	2	Rib	Shaft		1.9
145	85	Sus scrofa	1	caudal vertebra			0.29
145	85	Testudine	2	Humerus			1.02
145	85	Sus scrofa	2	4th metacarpal		right	7.97
145	85	Sus scrofa	1	3rd metacarpal		right	3.14
145	85	Sus scrofa	1	4th metacarpal			2.85
145	85	Sus scrofa	1	Femur	Shaft	left	16.18
145	85	Sus scrofa	1	Tibia	Shaft	left	2.74
145	85	Sus scrofa	1	Mandible		right	3.61
145	85	Artiodacyla	1	Cervical vertebra	spinous process		1.76
145	85	Bos taurus	1	2nd and 3rd tarsal	·		5.33

145	85	cf. Bos taurus	1	Humerus	Shaft		9.58
145	85	Sus scrofa	1	Canine	upper		0.58
145	85	Artiodacyla	1				2.99
145	85	UID Bird	2				0.68
145	85	Sus scrofa	1	Petrous process			0.41
145	85	Testudine	1	carapace			0.96
145	85	Sus scrofa	1	skull			0.44
145	85	Ameiurus sp.	1	operculum			0.15
145	85	Morone americana	1	Preopercular			0.07
145	85	Artiodacyla	2				6.95
145	85	Artiodacyla	1				0.98
145	85	UID Mammal	2				0.72
145	85	UID Mammal	2				0.55
145	85	Artiodacyla	85				68.77
145	85	UID Fish	1				0.02
145	85	UID Fish	3	vertebra			0.13
145	85	UID Fish	10				0.12
145	85	UID Mammal	21				0.69
145	85	UID Mammal	5				0.15
145	85	UID Bird	1	vertebra			0.08
145	85	UID	12				0.15
147	43	Bos taurus	3	Molar/Premolar			2.05
147	43	Sus scrofa	2	Tooth			0.36
147	43	UID Mammal	3	Tooth			0.42
147	45	UID Mammal	1				0.23
147	44	Felis domesticus	2	Auditory bulla	•		0.46
147	44	Felis domesticus	2	Humerus	Proximal and Shaft	right	0.8
147	44	Felis domesticus	1	Scapula	proximal	right	0.38
147	44	Felis domesticus	8	vertebra			1.21
147	44	Felis domesticus	7	skull			1.75

147	44	Artiodacyla	6				13.26
147	44	UID Mammal	23				5.06
147	44	Felis domesticus	1	vertebra			0.1
147	44	Felis domesticus	2	Rib			0.03
147	44	Felis domesticus	1	Petrous process			0.19
147	44	UID Mammal	41				0.93
149	8	Sus scrofa	1	I2 incisor	Upper	left	0.59
149	9	UID Mammal	4				0.13
150	8	UID Mammal	3				1.85
150	8	UID Bird	3				0.24
151	13	Sus scrofa	1	Premaxilla		right	7.06
151	50	Sus scrofa	1	Incisor	Lower		0.18
151	50	Sus scrofa	3	Premolar	Lower		0.52
151	14	Sus scrofa	2	Premolar	Lower		0.95
151	57	UID Bird	109	Eggshell			0.5
151	17	UID Fish	1	scale			< 0.01
151	49	UID Fish	870	scale			4.1
151	49	UID Mammal	1	Tooth			0.01
151	49	UID Fish	1	Dorsal Spine			0.01
151	49	UID Fish	1	Prevomar			0.02
151	49	cf. Lepomis sp.	1	premaxilla			0.01
151	49	UID Fish	1	maxilla			0.02
151	49	UID Fish	6	Pterygiophore			0.23
151	49	UID Bird	1				< 0.01
151	15	Gallus gallus	1	Tibiotarsus	Distal	right	0.84
151	15	UID Mammal	10				3.5
151	16	Anatidae	1	Ulna	Distal and shaft	right	0.77
151	16	Sus scrofa	1	2nd phalanx	Proximal and Shaft	•	0.97
151	16	Gallus gallus	1	Tibiotarsus	Shaft	left	1.41
151	16	Gallus gallus	1	Ulna	Shaft		1.54

151	16	Gallus gallus	1	Ulna	Shaft	left	0.7
151	16	Sus scrofa	1	Metacarpal	Shaft		0.81
151	16	Sus scrofa	1	Cervical vertebra			2.58
151	16	Artiodacyla	1	Rib	Shaft		1.48
151	16	cf. Odocoileus virginianus	1	Radius	Shaft	left	2.57
151	16	Artiodacyla	1	Rib	Shaft		3.86
151	16	Artiodacyla	1	Rib	Shaft		1.53
151	16	Artiodacyla	37				22
151	16	UID Fish	1	Hyomandibular			0.29
151	16	UID Fish	3				0.14
151	16	Sus scrofa	1	Deciduous tooth			0.16
151	16	UID Mammal	1	Tooth			0.13
151	16	UID Bird	3				0.75
151	16	UID Bird	1				0.24
151	16	UID Mammal	1				0.44
151	16	UID Mammal	1				0.96
151	16	UID Mammal	30				0.32
151	61	UID Fish	5	Rib			0.38
151	61	Morone americana	1	Posttemporal			0.09
151	61	Sus scrofa	2	3rd phalange			0.53
151	61	Sus scrofa	1	Vertebral pad			0.14
151	61	Sus scrofa	1	Incisor			0.16
151	61	Cf. Gallus gallus	3				0.73
151	61	UID Mammal	3				1.57
151	61	UID Mammal	4				0.98
151	61	UID Mammal	126				19.07
151	61	Stone	1				1.42
151	61	Perca flavescens	1	prevomar	-		0.03
151	61	Ameiurus sp.	1	operculum			0.04
151	61	UID Fish	6	vertebra			0.31

151	61	UID Fish	2	Pterygiophore			0.01
151	61	UID Fish	2	Dorsal Spine			0.07
151	61	UID Fish	1	Pectoral spine			0.04
151	61	UID	1				0.02
151	61	Peromyscus	1	Mandible			0.01
151	61	Peromyscus	4				0.09
151	61	Peromyscus	1	vertebra			0.01
151	61	UID Fish	31	Rib			0.66
151	61	Anura	1	vertebra			0.06
151	61	UID Fish	3				0.11
151	61	UID Mammal	35				2.4
151	61	UID	364				13.13
152	28	Sus scrofa	1	Premolar	Lower		0.5
152	28	Sus scrofa	1	Tooth			0.15
152	27	UID Mammal	9				4.07
153	36	Bos taurus	1	Metatarsal	Shaft	left	6.16
153	36	UID Mammal	1				0.2
							0.2
155	8	UID Bird	10	Eggshell			<0.01
155 155	8 9	UID Bird UID Fish	10 31	Eggshell scale			<0.01 0.1
155 155 155	8 9 16	UID Bird UID Fish UID Fish	10 31 1	Eggshell scale Pterygiophore			<0.01
155 155 155 155	8 9 16 16	UID Bird UID Fish UID Fish UID Fish	10 31 1 10	Eggshell scale Pterygiophore			<0.2
155 155 155 155 155 155	8 9 16 16 16	UID Bird UID Fish UID Fish UID Lepisosteus Osseus	10 31 1 10 1	Eggshell scale Pterygiophore Scale			<0.2
155 155 155 155 155 155 155	8 9 16 16 16 16	UID Bird UID Fish UID Fish UID Lepisosteus Osseus UID Fish	10 31 1 10 1 1 1	Eggshell scale Pterygiophore Scale Pterygiophore			<0.2
155 155 155 155 155 155 155 155	8 9 16 16 16 16 16 16	UID BirdUID FishUID FishUIDLepisosteus OsseusUID FishUID FishUID Fish	10 31 1 10 1 1 2	Eggshell scale Pterygiophore Scale Pterygiophore Rib			<0.2
155 155 155 155 155 155 155 155 155	8 9 16 16 16 16 16 16 16 16 16 16 16 16	UID BirdUID FishUID FishUIDLepisosteus OsseusUID FishUID FishUID FishUID Fish	10 31 1 10 1 10 1 2 7	Eggshell scale Pterygiophore Scale Pterygiophore Rib			<0.2
155 155 155 155 155 155 155 155 155 155	8 9 16 16 16 16 16 16 16 16 16 16 16 16 16 16	UID BirdUID FishUID FishUIDLepisosteus OsseusUID FishUID FishUID FishUID FishUID FishUID Fish	10 31 1 10 1 2 7 12	Eggshell scale Pterygiophore Scale Pterygiophore Rib			<0.2
155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 155	8 9 16 16 16 16 16 16 16 16 16 16 16 13	UID BirdUID FishUID FishUIDLepisosteus OsseusUID FishUID FishUID FishUID FishUID Mammal	10 31 1 10 1 10 1 2 7 12 1	Eggshell scale Pterygiophore Scale Pterygiophore Rib			<0.2
155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 157	8 9 16 16 16 16 16 16 16 16 16 16 16 4	UID BirdUID FishUID FishUIDLepisosteus OsseusUID FishUID FishUID FishUID FishUID SishUID FishUID FishUID SishUID Sish<	10 31 1 10 1 10 1 2 7 12 1 4	Eggshell scale Pterygiophore Scale Pterygiophore Rib Rib Molar/Premolar			<0.2
155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 155 157	8 9 16 16 16 16 16 16 16 16 16 16 16 4 6 6	UID BirdUID FishUID FishUIDLepisosteus OsseusUID FishUID FishUID FishUID MammalBos taurusUID Mammal	10 31 1 10 1 10 1 2 7 12 1 4 1	Eggshell scale Pterygiophore Scale Pterygiophore Rib Nolar/Premolar			<0.2

158	16	Sylvilagus floridanus	1	Mandible		left	0.69
158	16	Sylvilagus floridanus	1	Mandible		right	0.3
158	16	Sylvilagus floridanus	1	Tooth	I1 Incisor	left	0.14
158	16	Sylvilagus floridanus	8	Tooth	Molars		0.7
158	24	UID Bird	9	Eggshell			0.1
158	17	Sciurus niger	1	Tibia	Distal and shaft	right	0.66
158	17	Sus scrofa	1	Rib	Proximal		3.26
158	17	Sus scrofa	1	Rib	Shaft		0.56
158	17	UID Mammal	3				0.72
159	6	Bos taurus	1	Metatarsal	Shaft	right	47.57
159	6	UID Mammal	3				0.81
166	3	Sus scrofa	2	Canine	Lower	right	0.93
166	3	UID Mammal	6	Tooth			0.18
166	1	Bos taurus	3	Vertebra			11.21
166	2	Artiodacyla	1	Rib	Proximal		4.21
166	2	UID Mammal	6				0.16
168	5	cf. Bos taurus	1	Ilium		right	12.35
168	5	UID Mammal	3				1.87
172	1	Bos taurus	4	Tibia	Distal and shaft	left	42.4
172	1	UID Mammal	5				5.1
172	2	UID Mammal	1				0.38
176	8	Sus scrofa	1	Maxilla		right	11.88
176	8	Sus scrofa	1	Maxilla		right	10.57
176	8	Sus scrofa	1	M3 Molar	Upper	left	14.22
176	8	Sus scrofa	1	M3 Molar	Lower	right	9.46
176	8	Sus scrofa	1	Maxilla		left	5.05
176	8	Sus scrofa	2	Mandible		right	8.5
176	8	Sus scrofa	1	I2 incisor	Upper	left	2.8
176	8	Sus scrofa	1	Tooth			0.19
176	8	Sus scrofa	17	Tooth			0.44

176	9	Sus scrofa	2	Molar			1.12
176	9	Sus scrofa	3	Premolar	Upper	left	1.69
176	9	Sus scrofa	1	Molar			0.17
176	10	UID Mammal	9	Tooth			0.06
176	11	Gallus gallus	1	Tibia	proximal	right	1.12
176	11	Gallus gallus	1	Tibia	proximal	left	0.73
176	11	Gallus gallus	1	Femur	proximal	left	0.81
176	11	Gallus gallus	1	Femur	distal	right	1.07
176	11	Sus scrofa	3	Petrous process			4.62
176	11	Sus scrofa	63	skull			70.44
176	11	UID Mammal	67				11.57
176	11	Sus scrofa	1	Tooth			0.1
176	11	UID Mammal	160				3.76
179	40	Bos taurus	1	Molar/Premolar	Upper		2.83
179	40	Ovis/Capra	1	Molar/Premolar	Lower		0.98
179	40	Sus scrofa	2	Molar/Premolar			0.85
179	40	Bovidae	2	Tooth			1.07
179	61	UID Mammal	1				1.35
179	61	UID Mammal	2				0.95
179	39	Artiodacyla	1	Rib	Shaft		2.74
179	39	Artiodacyla	1				2.14
179	39	Gallus gallus	1	Ulna	Distal	left	0.22
179	39	UID Bird	2				0.25
179	39	UID Fish	1				0.09
179	39	UID Mammal	42				18.51
179	39	UID Mammal	2				0.34
179	39	UID	3				0.47
179	39	Oyster Shell	1				0.33
179	39	UID	8				0.33
179	39	UID	1				0.05

182	12	Sus scrofa	3	Molar			4.15
182	12	Sus scrofa	4	Molar/Premolar			0.98
182	13	Bos taurus	1	Ilium	Shaft	right	103.01
182	13	Bos taurus	1	Femur	Proximal		19.34
182	13	Sus scrofa	1	Radius	Distal	left	6.46
182	13	Odocoileus virginianus	2	Femur	Shaft	right	18.81
182	13	Odocoileus virginianus	1	Fibular Tarsal		right	11.47
182	13	Odocoileus virginianus	1	Femur	Shaft	right	4.04
182	13	UID Bird	1				0.3
182	13	UID Mammal	100				8.49
182	13	Artiodacyla	5				13.36
184	1	Sus scrofa	1	I1 incisor	Lower	left	1.49
184	1	Sus scrofa	1	I1 incisor	Lower	right	1.45
184	4	Artiodacyla	2				8.04
184	4	UID Mammal	18				1.5
185	41	Sus scrofa	1	Maxilla		right	15.12
185	41	Sus scrofa	1	P3 Premolar	Upper	left	2.71
185	80	Sus scrofa	1	Mandible		right	3.15
185	40	Odocoileus virginianus	1	M2 Molar	Lower	right	1.6
185	40	Odocoileus virginianus	1	M1 Molar	Lower	right	1.41
185	40	Odocoileus virginianus	1	M3 Molar	Lower	right	1.03
185	40	Sus scrofa	4	Canine	Lower	left	6.85
185	40	Sus scrofa	1	I2 incisor	Lower	left	1.38
185	40	Sus scrofa	6	Molar			9.5
185	40	Sus scrofa	5	Premolar			1.07
185	40	Bos taurus	1	M1 Molar	Upper	left	6.74
185	40	Bos taurus	1	P1 Premolar	Upper	left	1.32
185	40	Bos taurus	1	P2 Premolar	Lower	right	1.77
185	40	Bos taurus	1	P3 Premolar	Lower	left	2.05
185	40	Bovidae	2	Tooth			0.74
185	40	UID Mammal	4	Tooth			0.79
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185	40	UID Mammal	11	Tooth			0.81
185	28	Bos taurus	1	Humerus	Distal	right	100.53
185	28	Bos taurus	1	Tibia	Distal	right	104.29
185	28	Bos taurus	1	Rib	Proximal and Shaft		19.3
185	28	Bos taurus	1	Cervical vertebra	spinous process		37.47
185	28	Bos taurus	1	Rib	Proximal and Shaft		18.41
185	28	Bos taurus	1	Metatarsal	Distal and shaft	right	43.72
185	28	Bos taurus	1	Humerus	Shaft	left	52.01
185	28	Bos taurus	1	Metacarpal	Proximal and Shaft	right	20.84
185	28	Odocoileus virginianus	1	Tibia	Distal and shaft	right	35.79
185	28	Odocoileus virginianus	1	Humerus	Distal and shaft	right	19.12
185	28	Sus scrofa	1	Radius	Proximal and Shaft	right	11.97
185	28	Bos taurus	1	Lumbar vertebra			13.12
185	28	Odocoileus virginianus	1	Radius	Shaft	right	23.93
185	28	Sus scrofa	1	Ulna	Shaft	left	14.05
185	28	Odocoileus virginianus	1	Lumbar vertebra			9.19
185	28	Bos taurus	1	Tibia	Shaft	right	21.04
185	28	Sus scrofa	1	Fibular Tarsal		left	9.25
185	28	Bos taurus	1	Metacarpal	Condyle		7.12
185	28	Bos taurus	1	Pubis		left	16.89
185	28	Bos taurus	2	Acetabulum		left	28.84
185	28	Bos taurus	1	Pubis		right	5.58
185	28	Sus scrofa	1	Scapula			5.86
185	28	Bos taurus	1	Vertebra	Articular process	·	6.13
185	28	Artiodacyla	2				15.55
185	28	Sus scrofa	1	Metapodial			2.1
185	28	cf. Odocoileus virginianus	1	Lumbar vertebra			2.05
185	28	Artiodacyla	88				85.93
185	28	Artiodacyla	1				2.89

185	28	UID Mammal	5				2.91
185	28	UID Mammal	2				2.18
185	28	UID Mammal	400				10.09
185	51	Artiodacyla	24				50.4
185	51	Artiodacyla	1				0.33
189	14	Sus scrofa	1	I3 incisor	Lower	right	0.26
189	16	Sus scrofa	3	Canine	Lower	left	1.98
189	16	Sus scrofa	1	I2 incisor	Lower	right	0.89
189	16	Sus scrofa	1	Canine	Lower	right	0.58
189	16	UID Mammal	2				0.04
189	16	UID Mammal	1				0.01
189	2	Sus scrofa	1	Tibia	Distal	left	2.95
189	2	UID Mammal	2				0.41
190	33	UID Mammal	1	Tooth			< 0.01
190	33	Gallus gallus	1	1st Phalanx			< 0.01
190	14	UID Bird	16	Eggshell			< 0.01
190	26	UID Bird	990	Eggshell			11.5
190	27	UID Fish	230	scale			0.7
190	15	UID Mammal	1				0.48
190	17	Ameiurus sp.	1	Pectoral spine			0.43
190	17	Sus scrofa	1	Cervical vertebra	spinous process		3.55
190	17	Sus scrofa	1	Rib	Proximal and Shaft		2.34
190	17	Sus scrofa	1	Rib	Shaft		2.96
190	17	Sus scrofa	1	Maxilla			0.92
190	17	Sus scrofa	1	Tooth			0.25
190	17	Sus scrofa	1	phalanx			0.33
190	17	Gallus gallus	1	Femur	Shaft	right	0.34
190	17	Gallus gallus	1	Ulna	Shaft		0.23
190	17	Gallus gallus	2	Tibiotarsus	Shaft		0.6
190	17	Gallus gallus	1	Femur	Shaft	right	1.03

190	17	UID Bird	1			0.13
190	17	UID Mammal	28			12.8
190	17	UID Mammal	1			1.09
190	17	UID Mammal	1			0.56
190	17	UID	5			0.2
190	30	Morone americana	2	otolith		0.1
190	29	Centrarchidae	1	otolith		0.11
190	28	Morone americana	1	Preopercular	left	0.08
190	28	Morone americana	1	Interoperculum	left	0.02
190	28	Centrarchidae	1	Suboperculum	right	0.01
190	28	Centrarchidae	1	Operculum	right	0.03
190	28	UID Fish	4	Pterygiophore		0.15
190	28	Centrarchidae	1	Parasphenoid		0.03
190	28	cf. Morone Americana	1	Suboperculum	left	0.01
190	28	UID Fish	2	Rib		0.11
190	28	UID Fish	12			0.65
190	28	UID Bird	3			0.21
190	28	UID Mammal	11			3.17
190	28	Sus scrofa	1	Tooth		0.23
190	28	UID	76			8.06
190	28	Perca flavescens	1	Parasphenoid		0.03
190	28	Morone americana	1	Hyomandibular		0.03
190	28	Morone americana	1	Scapula		0.01
190	28	Centrarchidae	1	prevomar		0.01
190	28	Lepisosteus Osseus	1	scale		0.05
190	28	Centrarchidae	4			0.08
190	28	UID Fish	12	vertebra		0.27
190	28	UID Fish	6	spine		0.17
190	28	UID Fish	6	Pterygiophore		0.06
190	28	UID Bird	1	Sclerotic ring		0.01

190	28	Gallus gallus	1	Quadrate			0.01
190	28	Gallus gallus	1	phalanx			0.01
190	28	cf. Passerine	1	Quadrate			0.01
190	28	Passerine	1	ferculum			0.01
190	28	UID Bird	2				0.03
190	28	UID Fish	73	Rib			0.64
190	28	Peromyscus	1	Tibia and Fibula			0.01
190	28	UID	15				0.82
190	28	UID Mammal	1				0.23
190	28	UID	312				5.9
190	28	Oyster Shell	1				0.05
191	1	Scalopus Aquaticus	1	Mandible		right	0.1
191	2	Sus scrofa	1	Canine	Upper	left	8.14
191	3	Talpidae	1	Pelvis			0.15
191	3	UID Mammal	2				1
191	3	UID Mammal	1				1.99
192	7	Sus scrofa	9	Tooth			0.29
192	8	Bos taurus	1	Metatarsal	Proximal	left	59.51
192	8	Odocoileus virginianus	1	Humerus	Distal and shaft	left	39.93
192	8	Bos taurus	1	Radial Carpal		left	7.47
192	8	Bos taurus	1	Metatarsal	Shaft		11.11
192	8	Bos taurus	1	Tooth			0.33
192	8	Artiodacyla	16				59.12
192	8	UID Mammal	31				1.71
192	8	UID Mammal	1				0.11
194	127	Cyprinidae	1	Pharyngeal			0.04
194	24	Sus scrofa	1	I2 incisor	Upper	left	0.91
194	24	Sus scrofa	1	I1 incisor	Lower	left	3.33
194	24	UID Mammal	6	Tooth			0.05
194	78	Lepisosteus Osseus	1	scale			0.07

194	78	Sus scrofa	1	P4 premolar	Lower	right	0.47
194	78	Sus scrofa	1	I3 incisor	Lower	right	0.46
194	78	Sus scrofa	1	Molar			0.16
194	78	UID Mammal	1	Tooth			0.08
194	78	UID Mammal	3	Tooth			0.15
194	78	Cf. Gallus gallus	1	Rib			0.03
194	78	Gallus gallus	1	1st Phalanx	·		< 0.01
194	78	Gallus gallus	1	1st Phalanx			< 0.01
194	78	UID Mammal	2				0.03
194	78	Cyprinidae	1	Pharyngeal			0.05
194	78	Rodentia	1	Incisor			< 0.01
194	92	UID Mammal	1	Tooth			< 0.01
194	95	UID Bird	609	Eggshell			4.3
194	96	UID Fish	232	scale			1.1
194	25	UID Mammal	4				3.52
194	25	UID Mammal	2				1.59
194	27	Sciurus carolinensis	1	Tibia		left	0.96
194	27	Sylvilagus floridanus	1	Pelvis		right	1.91
194	27	Sus scrofa	1	1st Phalanx			3.47
194	27	Sus scrofa	1	1st Phalanx			1.24
194	27	Sus scrofa	1	2nd metararsal	Proximal and Shaft		1.65
194	27	Odocoileus virginianus	1	Rib	Proximal and Shaft		6.92
194	27	Odocoileus virginianus	1	Rib	Shaft		2.25
194	27	Sus scrofa	1	Rib	Proximal and Shaft		1.47
194	27	Sus scrofa	3	Rib	Shaft		5.66
194	27	Artiodacyla	6	Rib	Shaft		8.42
194	27	Sus scrofa	1	Cervical vertebra			0.66
194	27	Sus scrofa	1	Cervical vertebra			0.52
194	27	Sus scrofa	1	Orbital			1.13
194	27	cf. Sus scrofa	1	Tooth			0.4

194	27	Sus scrofa	1	vertebra	vertebral pad		4.25
194	27	Branta canadensis	1	Sternum			0.98
194	27	Cf. Gallus gallus	1	Radius	Shaft	left	0.82
194	27	Anatidae	1	Femur	Shaft		0.39
194	27	Anatidae	1	Radius	Shaft		0.71
194	27	UID Bird	1	Rib			0.04
194	27	UID Bird	3				2.1
194	27	UID Mammal	2				1.51
194	27	UID Mammal	66				43.48
194	27	UID Fish	2	Rib			0.03
194	27	cf. Acipenser sp.	1	Preopercular	right		1.35
194	98	UID Bird	1				0.2
194	98	UID Mammal	2				0.17
194	98	UID Mammal	1				0.17
194	97	Gallus gallus	1	Humerus	Shaft	left	0.48
194	97	Gallus gallus	1	Quadrate		left	0.08
194	97	Gallus gallus	1	Fibula	Proximal and Shaft	left	0.34
194	97	Lepisosteus Osseus	3	scale			0.22
194	97	UID Fish	1	Pterygiophore	·		0.05
194	97	UID Fish	1	Dorsal Spine			0.1
194	97	Perca flavescens	1	Premaxilla		left	0.09
194	97	cf. Acipenser oxyrhynchus	1	Scute			0.1
194	97	Gallus gallus	1	vertebra			0.37
194	97	Sciurus niger	1	vertebra	caudal		0.12
194	97	UID Fish	1				0.08
194	97	UID	1				0.27
194	97	UID Mammal	1				0.23
194	97	UID	7				2.33
194	97	UID	18				8.49
194	97	UID	138				48.32

194	97	Gallus gallus	1	Ulna	Shaft	right	0.39
194	97	UID	1	Bone comb tooth	·		0.01
194	97	Gallus gallus	1	phalanx			0.15
194	97	Gallus gallus	1	Ulna	proximal	left	0.12
194	97	UID Bird	1	Rib			0.01
194	97	Peromyscus	1	Tibia and Fibula		left	0.02
194	97	Peromyscus	1	Metacarpal			0.01
194	97	Lepisosteus Osseus	4	scale			0.12
194	97	UID Fish	18	Vertebra			0.63
194	97	UID Fish	5	Pterygiophore			0.12
194	97	UID Fish	10	Dorsal Spine			0.32
194	97	UID Fish	1	Dorsal Spine			0.01
194	97	UID Fish	60	Rib			0.82
194	97	Perca flavescens	1	Hyomandibular	·		0.08
194	97	Morone americana	1	Preopercular			0.01
194	97	Morone americana	1	operculum			0.01
194	97	Cyprinidae	2	pharyngeal			0.08
194	97	UID Fish	11				0.15
194	97	UID	106				7.19
194	97	UID	35				3.65
194	97	UID	716				18.15
201	1	UID Mammal	1				0.56
205	1	Sus scrofa	1	Canine	Upper		1.55
205	1	Sus scrofa	1	Molar			0.59
205	1	Bovidae	1	Molar/Premolar	·		0.55
205	2	Cf. Ovis/Capra	1	Mandible	Condyle	right	1.33
205	2	Artiodacyla	1				9.63
205	2	UID Mammal	14				3.29
205	2	UID Mammal	2				1.33
207	29	Artiodacyla	1	Rib	Shaft		2.24

207	29	cf. Odocoileus virginianus	1	Scapula		left	5.32
207	29	cf. Odocoileus virginianus	1	Scapula			12.75
207	29	UID Mammal	8				8.63
207	29	UID Mammal	1				1.6
207	42	UID Mammal	3				< 0.01
208	15	Bos taurus	1	M1 Molar	Upper	left	9.59
208	15	Sus scrofa	1	I2 incisor	Lower	right	0.74
208	15	Sus scrofa	2	Premolar			0.77
208	16	Sus scrofa	1	2nd phalanx			1.55
208	16	Didelphis marsupialis	1	Scapula	distal	left	1.29
208	16	Artiodacyla	1	Tooth			0.75
208	16	UID Mammal	26				28.29
208	16	UID Mammal	2				0.15
211	35	Sus scrofa	1	Molar			3.12
211	35	Bos taurus	2	P3 Premolar	Lower	left	5.51
211	35	Sus scrofa	2	Incisor	Lower		0.72
211	35	Bovidae	1	Tooth			1.15
211	35	UID Mammal	1				0.87
211	35	Sus scrofa	1	Molar			0.37
211	35	Sus scrofa	1	Premolar			0.27
211	35	UID Mammal	4	Tooth			0.44
211	34	UID Mammal	46				17.83
211	34	UID Mammal	2				0.49
211	34	Artiodacyla	2				12.48
213	7	Sus scrofa	1	Canine	Lower	left	6.15
213	7	Sus scrofa	1	Canine	Upper	left	4.97
213	7	Sus scrofa	1	M2 Molar	Lower	right	3.9
213	7	Sus scrofa	1	Canine	Upper	left	2.43
213	7	Sus scrofa	1	I2 incisor	Lower	left	2.39
213	7	Sus scrofa	1	I2 incisor	Upper	left	0.48

213	7	Sus scrofa	1	P4 premolar	Lower	right	1.06
213	7	Sus scrofa	1	P3 Premolar	Upper	right	0.62
213	7	Sus scrofa	1	Premolar			0.22
213	7	Sus scrofa	1	Molar			0.44
213	7	Sus scrofa	1	Incisor	Upper		0.15
213	7	Sus scrofa	1	Tooth			0.4
213	7	UID Mammal	8	Tooth			0.15
213	4	Odocoileus virginianus	1	Ulna	semilunar notch	right	8.2
213	4	Odocoileus virginianus	1	Humerus	Distal	right	27.01
213	4	Odocoileus virginianus	1	Radius	proximal	right	13.11
213	4	Sus scrofa	1	Tibia	Shaft	right	16.87
213	4	Sus scrofa	1	Femur	Proximal and Shaft	right	25.97
213	4	Odocoileus virginianus	1	Tibia	Shaft	right	19.14
213	4	Bos taurus	1	Ulna	Shaft	right	17.84
213	4	Bos taurus	1	Cervical vertebra	spinous process		15.55
213	4	Sus scrofa	4	Skull			5.06
213	4	Sus scrofa	1	Skull	Occipital Condyle		3.15
213	4	Sus scrofa	1	Petrous process	·		0.92
213	4	Sus scrofa	1	Ulna	Proximal	right	4.88
213	4	Sus scrofa	4	Tibia	Proximal		7.24
213	4	Artiodacyla	1	Humerus	Distal	right	3.05
213	4	Sus scrofa	1	Femur	Distal		2.52
213	4	Artiodacyla	1				3.12
213	4	Artiodacyla	5				15.49
213	4	UID Mammal	123				29.06
216	1	Sus scrofa	1	Tooth			0.26
216	5	UID Mammal	1				0.2
218	10	Canidae	1	Carnassial	Lower	right	3.34
218	10	Sus scrofa	1	Molar			1.35
218	9	Sus scrofa	1	phalanx			0.79

218	9	Sus scrofa	1	tarsal/carpal			0.44
218	9	UID Mammal	5				1.45
219	4	Sus scrofa	1	P3 Premolar	Upper	left	1.66
219	4	UID Mammal	1	Tooth			0.17
219	5	UID Mammal	4				1.21
219	5	UID Mammal	1				0.46
223	1	UID Mammal	1				0.09
224	19	UID Bird	56	Eggshell			0.2
224	10	UID Fish	11	scale			< 0.01
224	10	UID Fish	11	Preopercular			< 0.01
224	1	Odocoileus virginianus	1	Ulna	Shaft	right	1.81
224	21	Gallus gallus	1	Maxilla			0.09
224	21	Gallus gallus	2	sterno-coracoidal process			0.07
224	21	Cf. Gallus gallus	1	vertebra			0.21
224	21	UID Mammal	4				2.07
224	21	UID	14				1.2
224	21	UID Fish	6	Rib			0.03
224	21	UID Fish	2	Pterygiophore			0.01
224	21	UID Fish	1	Dorsal Spine			0.01
224	21	UID Fish	2				0.03
224	21	UID Mammal	2	vertebra			0.02
224	21	UID Mammal	1	Tooth			0.07
224	21	UID Mammal	2				0.11
224	21	UID	29				0.57
224	21	UID	2				0.06
224	21	Oyster Shell	2				0.05
225	21	Sus scrofa	1	M3 Molar	Lower	right	5.18
225	21	Sus scrofa	1	Premolar			0.59
225	21	UID Mammal	3	Tooth			1.94
225	16	UID Mammal	15				8.11

225	16	UID Mammal	1				3.39
225	16	UID Mammal	1				0.66
226	1	Sus scrofa	1	Maxilla		left	1.22
226	1	Sus scrofa	1	M1 Molar	Upper		1.14
226	4	UID Bird	6	Eggshell			< 0.01
226	5	UID Fish	5	scale			< 0.01
226	2	UID	10				0.67
226	2	Passerine	1	Sclerotic ring			0.01
226	2	UID Fish	1	Dorsal Spine			0.01
226	2	UID Fish	1	Rib			0.01
226	2	UID Fish	1	vertebra			0.01
226	2	UID Fish	3				0.01
226	2	UID	22				0.27
226	2	Oyster Shell	1				0.01
226	2	Ceramic	2				0.11
229	1	Bos taurus	1	M2 Molar	Lower	right	12.13
231	30	Sus scrofa	1	Mandible		right/left	90.85
231	30	Sus scrofa	1	M3 Molar	Lower	right	10.28
231	30	Sus scrofa	1	Mandible		right	22.9
231	30	Sus scrofa	1	Mandible		right	11.94
231	30	Sus scrofa	1	Mandible		right	5.19
231	30	Sus scrofa	1	Mandible		right	8.92
231	30	Sus scrofa	1	Mandible		right	3.63
231	30	Sus scrofa	1	P3 Premolar	Lower	left	2.31
231	30	Sus scrofa	6	Mandible			1.45
231	30	Sus scrofa	1	M2 Molar			3.69
231	30	Sus scrofa	1	P3 Premolar			1.6
231	30	Sus scrofa	15	Tooth			1.64
231	32	Sus scrofa	2	Canine	Lower	right	6.53
231	32	Sus scrofa	3	Canine	Lower	left	9.18

231	32	Sus scrofa	7	Incisor			6.95
231	32	Sus scrofa	4	Premolar			2.3
231	32	Sus scrofa	6	Molar			4.57
231	32	Odocoileus virginianus	9	Molar/Premolar			8.84
231	32	UID Mammal	59	Tooth			3.31
231	44	Sus scrofa	2	Tooth			0.87
231	31	UID Mammal	2				2.8
231	43	Bos taurus	1	Metacarpal		left	121.6
231	43	Bos taurus	1	Metarcarpal/Metatarsal	Distal		16.07
231	43	Bos taurus	1	Scapula		left	69.11
231	43	Sus scrofa	1	Scapula	acetabulum	right	11.79
231	43	Sus scrofa	1	Scapula	acetabulum	left	17.04
231	43	Odocoileus virginianus	1	Tibia	Distal and shaft	right	28.23
231	43	Odocoileus virginianus	1	Fibular Tarsal		right	14.79
231	43	Odocoileus virginianus	1	Fibular Tarsal		left	16.06
231	43	Odocoileus virginianus	1	Tibial Tarsal		right	11.21
231	43	Bos taurus	1	Ulna	Shaft	left	20.84
231	43	Odocoileus virginianus	1	Tibia	Distal	left	4.52
231	43	Odocoileus virginianus	1	Tibia	Shaft	left	11.88
231	43	Bos taurus	1	Ilium	Shaft	left	46.24
231	43	Bos taurus	1	Ulnar Carpal		left	6.19
231	43	Odocoileus virginianus	1	Humerus	Shaft	left	8.56
231	43	Odocoileus virginianus	1	Humerus	Shaft	left	17.36
231	43	Odocoileus virginianus	1	Humerus	Shaft	right	16.36
231	43	Artiodacyla	1	Femur	Shaft	right	18.84
231	43	cf. Bos taurus	1	Cervical vertebra			9.25
231	43	Bos taurus	1	Mandible	angle	left	14.85
231	43	cf. Bos taurus	1	Ulna	olecranon	right	3.68
231	43	Sus scrofa	1	Radius	proximal	left	7.54
231	43	Sus scrofa	3	Skull			20.63

231	43	Bos taurus	1	vertebra			8.4
231	43	cf. Sus scrofa	1	Scapula			4.42
231	43	Artiodacyla	260				161.07
231	43	Sus scrofa	1	Mandible	angle	right	4.06
232	6	Sus scrofa	1	Premolar	Upper		1.61
232	6	Sus scrofa	1	Incisor	Lower		0.68
232	18	Bos taurus	2	Rib	Shaft		14.87
232	18	Sus scrofa	2	Tooth			0.89
232	18	UID Mammal	7				3.59
232	18	UID Mammal	2				1.86
233	4	Sus scrofa	1	M3 Molar	Upper	left	9.91
233	4	Sus scrofa	1	Mandible			1.24
233	4	Sus scrofa	1	Tooth			1.23
233	3	Sus scrofa	6	Pelvis		right	27.03
233	3	Sus scrofa	1	Femur	Head	right	2.41
233	3	UID Mammal	8				1.26
236	3	UID Mammal	1				0.42
238	1	UID Mammal	2				2.75
244	5	Sus scrofa	1	Molar			0.56
244	11	UID Bird	27	Eggshell			0.1
244	10	UID Fish	20	scale			< 0.01
244	10	cf. Lepomis sp.	1	Preopercular			< 0.01
244	3	Sus scrofa	1	Metacarpal		right	10.16
244	3	Sus scrofa	1	1st Phalanx		right	3.93
244	3	Sciurus carolinensis	1	Pelvis		right	0.47
244	3	Gallus gallus	1	Ulna		right	2.77
244	3	Sus scrofa	1	Bulla ossea		right	2.4
244	3	Artiodacyla	1				2.12
244	3	UID Mammal	2				0.02
244	4	Gallus gallus	1	Femur	Shaft	left	0.9

244	4	Gallus gallus	1	Tibiotarsus	Shaft		0.95
244	4	Cf. Gallus gallus	11				1.37
244	4	Gallus gallus	1	vertebra			0.06
244	4	Gallus gallus	1	sacrum			0.13
244	4	UID Fish	1	Pectoral spine			0.92
244	4	UID Fish	10				0.84
244	4	Artiodacyla	6				3.47
244	4	UID Mammal	20				7.28
244	4	UID Mammal	1				0.49
244	4	UID	30				2.83
244	4	Sciurus sp.	5	Metacarpal			0.29
244	4	cf. Sciurus sp.	1	Rib			0.02
244	4	cf. Sciurus sp.	2	Metacarpal			0.02
244	4	Passerine	1	Tarsometatarsus	distal		0.02
244	4	Passerine	1	vertebra			0.02
244	4	UID Fish	3	Pterygiophore			0.05
244	4	UID Fish	10				0.05
244	4	UID	3				0.08
244	4	UID	3				0.37
244	4	Rodentia	1	Incisor			0.06
244	4	UID	93				2.32
245	4	UID Bird	6	Eggshell			< 0.01
245	8	UID Fish	1	scale			< 0.01
245	7	Artiodacyla	1	Skull			3.03
245	7	UID Mammal	1				0.06
245	7	UID Mammal	18				1.98
245	12	Sus scrofa	12	Pelvis	acetabulum	right	7.96
247	47	UID Mammal	1				0.34
247	25	UID Bird	34	Eggshell			< 0.01
247	26	UID Fish	11	scale			< 0.01

247	39	UID Fish	3	scale			< 0.01
247	24	Gallus gallus	1	Femur	Shaft	left	0.63
247	24	Gallus gallus	1	Rib	Shaft		0.06
247	24	Gallus gallus	1	Maxilla			0.28
247	24	Cf. Gallus gallus	7				0.99
247	24	Anura	6				0.4
247	24	UID	21				2.34
247	24	Passerine	1	Tarsometatarsus	distal	right	0.01
247	24	Passerine	1	Tibiotarsus	distal	right	0.04
247	24	UID Bird	4	phalanx			0.09
247	24	Anura	1				0.03
247	24	UID Mammal	2				0.02
247	24	UID Fish	1	Pectoral spine			0.01
247	24	UID Fish	1	Parasphenoid			0.01
247	24	UID Fish	8				0.15
247	24	Passerine	1	Tarsometatarsus	distal	left	0.01
247	24	UID	1				0.01
247	24	UID	25				0.42
247	24	Oyster Shell	1				0.01
247	23	Ameiurus sp.	1	Cleithrum		left	0.44
247	23	Sus scrofa	1	Humerus	Distal and shaft	right	27.65
247	23	Rattus sp.	1	Femur		right	0.31
247	23	Gallus gallus	1	Skull			1.94
247	23	cf. Sus scrofa	1	Lumbar vertebra	anterior articular process		1.07
247	23	Gallus gallus	1	Quadrate			0.09
247	23	Gallus gallus	1	Tarsometatarsus		left	0.35
247	23	Gallus gallus	1	Tarsometatarsus		right	0.36
247	23	Gallus gallus	1	Ulna		left	0.24
247	23	Gallus gallus	1	Rib			0.1
247	23	Cf. Gallus gallus	9				3.7

247	23	Cf. Gallus gallus	1	Humerus	Shaft		0.5
247	23	Testudine	1	Scapula			1.2
247	23	Testudine	2				0.9
247	23	Artiodacyla	2				7.79
247	23	Artiodacyla	1				3.49
247	23	Artiodacyla	1				3.55
247	23	UID Fish	9				1.94
247	23	Cf. Gallus gallus	2				2.92
247	23	UID Mammal	22				8.1
247	23	UID Mammal	2				0.39
247	23	Gallus gallus	1	Quadrate			0.05
247	23	Gallus gallus	3	phalanx			0.08
247	23	Gallus gallus	3				0.21
247	23	Gallus gallus	1	Coracoid	Distal	right	0.11
247	23	UID Mammal	2				0.02
247	23	UID	26				0.69
248	2	UID Bird	83	Eggshell			3.3
248	3	UID Fish	1	scale			< 0.01
248	1	UID Mammal	1				0.47
249	1	Sus scrofa	1	I2 incisor	Lower	right	2.52
249	1	UID Mammal	1	Tooth			0.31
249	2	Artiodacyla	1	Cervical vertebra			3.81
249	2	UID Mammal	11				4.15
250	1	Sus scrofa	1	I1 incisor	Lower	right	1.51
250	2	UID Mammal	1				0.39
251	4	Sus scrofa	1	M3 Molar	Lower	right	7.9
251	4	Sus scrofa	1	M2 Molar	Lower	left	5.06
251	4	Sus scrofa	1	Molar			0.92
251	4	Sus scrofa	1	I1 incisor	Lower	right	1.71
251	4	Sus scrofa	1	Tooth			0.11

251	5	Sus scrofa	1	I1 incisor	Lower	left	2.48
251	5	Sus scrofa	1	I3 incisor	Lower	right	0.98
251	3	Gallus gallus	2	Tibiotarsus		right	4.06
251	3	Gallus gallus	1	Fibula	proximal	right	0.18
251	3	Artiodacyla	1	Rib	proximal		1.16
251	3	Anura	1	Humerus	proximal	right	0.07
251	3	Anura	1				0.03
251	3	UID Mammal	18				15.37
251	3	Anura	1	Pelvis		right	0.06
251	3	Anura	1	Pelvis		left	0.05
251	3	Ameiurus sp.	1	Maxilla	proximal	right	0.13
251	3	Ameiurus sp.	1	Hyomandibular		right	0.16
251	3	Ameiurus sp.	1	Hyomandibular		left	0.13
251	3	Ameiurus sp.	1	Pectoral spine		right	0.21
251	3	Ameiurus sp.	1	Pectoral spine		left	0.27
251	3	UID Fish	5				0.38
251	3	Insectivora	1	Pelvis			0.11
251	3	Lepisosteus Osseus	1	vertebra			0.13
251	3	Ameiurus sp.	1	Posttemporal		left	0.1
251	3	Anura	1	vertebra			< 0.01
251	3	Anura	1	Pelvis		left	< 0.01
251	3	Anura	8				0.15
251	3	UID Fish	2				0.18
251	3	UID Mammal	13				0.27
254	8	UID Bird	2	Eggshell			< 0.01
254	10	UID Fish	4	scale			< 0.01
254	6	Sylvilagus floridanus	1	Ulna	Proximal and Shaft	right	0.29
254	6	Anura	2	Pelvis		right	0.11
254	6	Anura	4				0.23
254	6	Anura	74				1.2

254	6	Peromyscus	1	Tibia and Fibula		0.02
254	6	Peromyscus	1	Incisor		0.01
254	6	Peromyscus	1	Tibia		0.01
254	6	Peromyscus	1	Mandible		0.01
254	6	Stone	1			0.1
254	6	UID	17			0.51
254	6	UID Mammal	11			1.49
259	4	Sus scrofa	1	Maxilla	right	6.25
259	4	Sus scrofa	1	Jaw		0.61
259	4	Sus scrofa	10	Tooth		1.08

Context#	Artifact#	species	NISP	element	portion	side	weight
93	8	Bos taurus	1	Molar			21.51
93	9	UID Mammalia	1	Tooth	Root		0.09
93	9	UID Mammalia	1				0.21
93	9	UID Osteichthyes	1	Ray			0.02
93	9	Shell	2				0.5
93	11	UID Aves	3				0.27
93	56	UID	3				0.08
93	61	UID Mammalia	2				0.38
93	61	UID	5				0.2
93	57	UID	17				0.81
93	57	Stone	1				0.17
93	57	Morone americanus	1	Ceratohyal		Left	0.02
93	57	UID Mammalia	1	Caudal vertebra			0.11
93	10	Artiodactyla	1	Tooth			0.31
93	10	UID Mammalia	12				2.61
93	10	UID Aves	6				0.57
93	10	UID Osteichthyes	1	Ray			0.1
93	10	UID Osteichthyes	1	Spine			0.03
93	10	UID Osteichthyes	1				0.03
93	10	UID Mammalia	2				0.17
98	7	UID Mammalia	1				0.77
98	23	UID Mammalia	3				1.31
98	24	UID	3				0.01

Appendix III: Abbreviated FF-16 Faunal Catalog

98	24	UID Aves	1				0.1
114	4	cf. Sus scrofa	1	Scapula		Right	2.2
114	4	Artiodactyla	1				1.59
114	4	Artiodactyla	1				1.07
114	3	Gallus gallus	1	Scapula	Proximal and Shaft	Left	0.56
114	3	Gallus gallus	1	Ferculum	Shaft	Left	0.19
114	3	UID Aves	3				0.38
114	18	UID Mammalia	1				0.24
114	18	UID Osteichthyes	1	Ray			0.04
114	18	UID	4				0.07
114	19	UID	2				0.13
114	20	UID Mammalia	1				0.13
114	20	UID Aves	1				0.1
114	20	UID	3				0.03
134	22	Bos taurus	1	Vertebra			14.4
134	12	Sus scrofa	1	Humerus	Distal and shaft	Right	30.17
134	12	Sus scrofa	1	Ulna	Shaft	Right	8.63
134	21	UID	2				0.12
134	19	LIID Mommolio	3				0.70
	17	UID Maininana	5				0.58
134	19	Stone	1				0.58
134 140	19 19 29	Stone Anas platyrhynchos	3 1 1	Scapula	Proximal and Shaft	Right	0.58 0.18 0.33
134 140 140	19 29 28	Stone Anas platyrhynchos UID Mammalia	1 1 1	Scapula	Proximal and Shaft	Right	0.58 0.18 0.33 3.42
134 140 140 140	19 29 28 28	Stone Anas platyrhynchos UID Mammalia Artiodactyla	1 1 1 3	Scapula	Proximal and Shaft	Right	0.58 0.18 0.33 3.42 5.25
134 140 140 140 140 140	19 19 29 28 28 28	Stone Anas platyrhynchos UID Mammalia Artiodactyla UID Mammalia	1 1 1 3 1	Scapula	Proximal and Shaft	Right	0.58 0.18 0.33 3.42 5.25 1.1
134 140 140 140 140 140 140	19 29 28 28 28 28 22	Stone Anas platyrhynchos UID Mammalia Artiodactyla UID Mammalia Gallus gallus	1 1 1 3 1 1	Scapula Phalanx	Proximal and Shaft	Right	0.58 0.18 0.33 3.42 5.25 1.1 0.28
134 140 140 140 140 140 140 140	19 19 29 28 28 28 22 22	Stone Anas platyrhynchos UID Mammalia Artiodactyla UID Mammalia Gallus gallus Artiodactyla	1 1 1 3 1 1 1 1 1	Scapula Scapula Phalanx Caudal vertebra	Proximal and Shaft	Right	0.58 0.18 0.33 3.42 5.25 1.1 0.28 0.68
134 140 140 140 140 140 140 140 140	19 19 29 28 28 22 22 22 22	Stone Anas platyrhynchos UID Mammalia Artiodactyla UID Mammalia Gallus gallus Artiodactyla UID Osteichthyes	1 1 1 3 1 1 1 2	Scapula Scapula Phalanx Caudal vertebra	Proximal and Shaft	Right	0.58 0.18 0.33 3.42 5.25 1.1 0.28 0.68 0.09
134 140 140 140 140 140 140 140 140 140 140 140 140 140 140	19 29 28 28 22 22 22 22 22 22	Stone Anas platyrhynchos UID Mammalia Artiodactyla UID Mammalia Gallus gallus Artiodactyla UID Osteichthyes UID	1 1 1 3 1 1 1 2 4	Scapula Scapula Phalanx Caudal vertebra	Proximal and Shaft	Right	0.58 0.18 0.33 3.42 5.25 1.1 0.28 0.68 0.09 0.46
134 140 140 140 140 140 140 140 140 140 140 140 140 140 140 140 140 140	19 19 29 28 28 22 22 22 22 22 22 22 22 22 22 22 22 22 22 22 22	Stone Anas platyrhynchos UID Mammalia Artiodactyla UID Mammalia Gallus gallus Artiodactyla UID Osteichthyes UID UID Mammalia	1 1 1 3 1 1 2 4	Scapula Scapula Phalanx Caudal vertebra	Proximal and Shaft	Right	0.58 0.18 0.33 3.42 5.25 1.1 0.28 0.68 0.09 0.46 1.07

140	20	UID Mammalia	1				0.94
140	20	UID Aves	1				0.07
140	21	Gallus gallus	1	Scapula	Proximal	Right	0.13
140	23	UID Aves	2				0.07
106	62	Sus scrofa	2	Molar/Premolar			2.8
106	62	Sus scrofa	1	Incisor	Lower		0.78
106	99	UID	1				0.06
106	73	Sus scrofa	1	Ulna	Shaft	Right	9.28
106	73	Gallus gallus	1	Coracoid	Proximal and Shaft	Right	0.22
106	73	Gallus gallus	1	Ulna	Distal and shaft	Right	0.53
106	73	UID Aves	1				0.37
106	73	UID Mammalia	1				1.02
106	74	Bos taurus	1	Vertebra			17.85
106	74	Artiodactyla	1				6.75
106	74	Sus scrofa	1	Phalange			3.05
106	74	Sus scrofa	1	Phalange			1.87
106	74	Artiodactyla	1				2.34
106	74	Artiodactyla	4	Rib	Shaft		3.14
106	74	Artiodactyla	1	Rib	Proximal and Shaft	•	1.32
106	74	Gallus gallus	2	Tarsometatarsu	Proximal and Shaft	Right	1.79
106	74	UID	23				2.45
106	75	Gallus gallus	1	Pelvis		Right	0.94
106	75	Gallus gallus	1	Sternum		Right	0.32
106	75	Gallus gallus	1	Femur	Shaft	Right	0.89
106	75	Gallus gallus	1	Radius		Left	0.21
106	75	Gallus gallus	1	Tibiotarsus	Shaft	Left	1.51
106	75	Gallus gallus	1	Tibiotarsus	Shaft	Right	0.45
106	75	Gallus gallus	1	Tibiotarsus	Shaft	Right	0.98
106	75	cf. Gallus gallus	1	Radius	Shaft		0.74
106	75	Gallus gallus	3	Rib			0.13

106	75	Gallus gallus	2	Fibula	Shaft		0.24
106	75	Gallus gallus	1	Humerus	Shaft		0.24
106	75	Gallus gallus	1	Scapula	Distal and shaft	Right	0.19
106	75	Anatidae	1	Scapula	Proximal and Shaft	1	0.17
106	75	cf. Gallus gallus	5				0.44
106	75	UID Aves	16				3.29
106	75	UID Aves	1				0.25
106	75	Sus scrofa	1	Radius	Distal and shaft	Right	14.62
106	75	Sus scrofa	1	Fibula	Shaft	Left	1.75
106	75	Sus scrofa	1	Fibula	Shaft	Right	2.41
106	75	UID Mammalia	13				8
106	75	cf. Morone saxatilis	1	Maxilla		Right	0.16
106	75	Morone americanus	1				0.06
106	75	Morone americanus	1	Post-Cleithrum		Right	0.02
106	75	UID Osteichthyes	1	Spine			0.24
106	75	UID Osteichthyes	2	Pterygiophore			0.17
106	75	UID Osteichthyes	48	Ray			2.14
106	75	UID Osteichthyes	2				0.01
106	75	UID	49				1.73
106	186	Sus scrofa	1	M3 Molar			6.7
106	186	Gallus gallus	1	Phalanx			0.09
106	186	cf. Felis domesticus	1	Premolar			0.05
106	187	Scalopus aquaticus	1	Mandible		Left	0.03
106	187	Scalopus aquaticus	1	Mandible		Right	0.03
106	223	UID	2				1.84
106	185	Sus scrofa	5	Phalange			6
106	185	Sus scrofa	3	Tooth			0.48
106	185	Artiodactyla	1	Rib	Shaft		0.82
106	185	Artiodactyla	1	Rib	Shaft		0.34
106	185	UID Osteichthyes	6	Vertebra			0.1

106	185	UID Osteichthyes	2	Spine		0.11
106	185	UID Osteichthyes	2	Ray		0.14
106	185	Gallus gallus	1	Vertebra		0.38
106	185	Gallus gallus	1	Sternum		0.09
106	185	Gallus gallus	1	Phalanx		0.09
106	185	UID Aves	8			1.44
106	185	Gallus gallus	1	Vertebra		0.38
106	185	Gallus gallus	1			0.05
106	185	UID Mammalia	32			11.16
106	185	UID Mammalia	10			5.01
106	185	Gallus gallus	1	Phalanx		0.1
106	185	UID	1			0.13
106	185	UID	19			1.54
106	185	UID	125			11.24
106	184	UID Osteichthyes	8	Vertebra		0.25
106	184	UID Osteichthyes	4	Vertebra		0.06
106	184	UID Osteichthyes	5	Spine		0.48
106	184	UID Osteichthyes	14	Pterygiophore		0.37
106	184	Morone americanus	1	Cleithrum	Left	0.22
106	184	Morone americanus	1	Ceratohyal	Left	0.21
106	184	Morone americanus	1	Post-Cleithrum	Left	0.06
106	184	Morone americanus	1	Urohyal		0.06
106	184	Morone americanus	2	Parasphenoid		0.15
106	184	Morone americanus	1	Pre-maxilla	Right	0.03
106	184	UID Osteichthyes	18			0.76
106	184	UID Osteichthyes	68	Ray		1.79
106	184	Gallus gallus	3	Phalanx		0.17
106	184	Gallus gallus	2	Scapula	Right	0.58
106	184	Gallus gallus	2	Rib		0.15
106	184	cf. Anas crecca	1	Coracoid	Right	0.37

106	184	Passeriformes	1	Carpometacarpus		Right	0.06
106	184	UID Aves	2	Ferculum			0.18
106	184	UID Aves	2	Rib			0.04
106	184	Gallus gallus	1	Fibula	Proximal	Left	0.11
106	184	UID Aves	39				3.04
106	184	cf. Ovis/Capra	1	Humerus	Distal	Right	2.92
106	184	cf. Sus scrofa	1	Humerus	Shaft	Right	1.84
106	184	Sus scrofa	1	Metacarpal			1.51
106	184	Artiodactyla	1	Rib	Shaft		0.66
106	184	Artiodactyla	1	Tooth			0.18
106	184	UID Mammalia	1	Caudal vertebra			0.27
106	184	Artiodactyla	5				8.8
106	184	UID Mammalia	17				4.73
106	184	Scalopus aquaticus	11				0.27
106	184	UID	4				0.47
106	184	UID	8				0.59
106	184	UID	257				18.79
106	184	Shell	1				0.32
106	184	Scomber scombrus	1	Caudal vertebra	-		0.1