A SUMMARY OF THE ANIMAL REMAINS FROM THE NOBLE-WIETING SITE (IIML28), MCLEAN COUNTY, ILLINOIS

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ABSTRACT

Identifications and analysis of approximately 8100 vertebrate remains and 110 freshwater mussel valves recovered at the Noble-Wieting Site (11ML28), McLean County, Illinois are presented. A minimum of 53 vertebrate species and 302 individuals were represented in the sample. Occupants of this prehistoric Upper Mississippian village utilized a large variety of endemic animals, but the white-tailed deer and elk comprised the major meat resources in the food economy of these people.

INTRODUCTION

Periodically during the years 1966 and 1968-1970 Mr. Fred B. Brian, formerly with the School of Art, Illinois Wesleyan University, Bloomington, and students excavated a portion of a Late Woodland-Early Mississippian village known as the Noble-Wieting Site (11ML28). This site is located approximately one mile (1.6 km) north of Heyworth and one-third mile (.5km) west of the confluens of Little Kickapoo Creek with Kickapoo Creek, McLean County. A total of approximately 2600 bone pieces and 51 freshwater mussel valves were recovered from a shallow fire pit (Fea. A), two trash pits (Feas. B and C), and from a Feature E. Additional excavations were carried out at this site under the supervision of Dr. Edward B. Jelks, Department of Anthropology, Illinois State University, Normal, during the summers of 1972 and 1975-1976. Material recovered in 1976 has yet not been completely processed, so animal bone and shell recovered in 1976 will be analized and reported at some future date. The number of bone pieces examined from all excavations through the 1975 field season totaled 8122; at least 53 vertebrate species and 302 individual animals were represented (Table 1).

From her analyses of lithic and ceramic materials and feature distribution and content, Schilt (1977:177) has inferred that the Noble-Wieting site ". . .was occupied ca. A.D. 1200 by a small community of hunter-gathers and horticulturists in the Upper Mississippian Langford Tradition . . . and the length of occupation is roughly estimated at 60 to 90 years . . ." The village surface area is estimated to have covered ca. 2.75 acres (11,129m^2) and, excluding the former burial mound and possible plaza, 306m^2 have been excavated (Schilt, 1977:182). This represents slightly less than 4% of the total possible faunal bearing area of the site.

ACCOUNTS OF SPECIES

Mollusks

A total of 110 valves of freshwater mussels, representing at least 12 species, were recovered at this site (Table 2). All were typical in size and form of those occurring in creeks and small rivers such as Kickapoo Creek. The meat of these bivalves was probably eaten and certain shells, judging from six that had the posterior margins ground down at an angle, were used on occasion as some form of scraper. A section of one large specifically unidentified valve (probably *Lampsilis ovata*) had been ground and smoothed and was part of shell that probably had served as a spoon or dipper.

Vertebrates

Representatives of all classes of vertebrates were encountered in the sample and at least 5 species of fish, 1 amphibian, 1 snake, 8 turtles, 18 birds and 20 species of mammals were represented (Table 3).

The extent to which fish were utilized in the diet of these people is somewhat problematical, although it appears that the fish fauna of Kickapoo Creek was exploited and that a few species provided at least an occasional supplement to the basic meat staple of deer and elk. However, fewer that 25 individual fish were represented in the sample and the food value derived from these would have been minor compared with that of mammals. A single element of a toad (*Bufo* sp.) and two snake vertebrae were found and may well represent the remains of animals occupying the area naturally; their presence was probably incidental to the human occupation of the site. Turtles, on the other hand, appear to have been of some significance in the food economy of these people compared with other aquatic forms. Only one plastron section of a turtle (pond terrapin) showed evidence of having been cut and none of the carapaces appeared to have been worked. Quite often the carapace of a turtle was used as a bowl or dish and was altered in varying degrees by scraping and cutting. It would appear that the primary use to which turtles were put by the occupants of this village was for food. At least 54 turtles were represented, all of them aquatic except four. Considering the small size of Kickapoo Creek and the probable limited numbers of aquatic forms (mussels, fish, turtles) inhabiting such a small stream, the Noble-Wieting Indians made good use of all aquatic resources that were available to them.

Bird remains accounted for less than 3% of the identified bone pieces. Of the 18 species identified, 4 were raptorial birds (hawks, eagle, and owls) and 2 were corvids; they may well have been taken for use in ceremonialism, as decorative objects (feathers and body parts), or for reasons other than food (Parmalee, 1977). In all probability birds were taken when encountered, but their apparent limited use may reflect their formal abundance and availability within the proximity of the site. Waterfowl would not have occurred commonly, even during migration, along a small stream such as Kickapoo Creek, so the paucity of duck and goose remains is not surprising. Of all the birds represented in the sample, the turkey (38 elements, 14 individuals) was the most significant avian species serving as a supplemental food resource. These 14 birds would have contributed an estimated 120 pounds of usable meat to the diet, assuming the average weight of 8.5 pounds of usable meat per bird as presented by White (1953) is accurate.

Mammals were by far the most significant animals used by these people for food and as a source of raw material in the manufacture of bone tools. Based on this sample, the white-tailed deer and elk provided the basic meat staple in the diet of these people. Their remains comprised 80% of all identified mammal elements; the majority of indeterminate large mammal bones were also probably from deer and elk. Smaller furbearers such as raccoon, beaver, striped skunk, otter and squirrels (*Sciurus*) were taken whenever encountered and together formed an important supplement to the basic meat diet of elk and deer. However, with at least 20 beaver and 17 raccoons represented in the faunal sample (combined ca. 200 elements), there is an indication that these two animals may have been especially prized as a source of hides and meat and that intensive hunting efforts were made to obtain them. Certain bones of the two large herbivores

Table 1. Summary of the number of vertebrate species and remains represented at the Noble-Wieting Site.

Vertebrate Group	Total no. of pieces	% of total	No. of species	MNI	% of MNI
Fishes	399	4.88	5	21	6.95
Amphibians	1	.01	1	1	.33
Snakes	2	.02	1	1	.33
Turtles	224	2.71	8	54	17.88
Birds	200	2.40	18	45	14.90
Mammals	7296	89.76	20	180	59.60
Total	8122	99.78	53	302	99.99

Table 2. Freshwater mussels recovered at the Noble-Wieting Site

Species	Number of valves
Amblema plicata, Three-ridge	40
Elliptio dilatatus, Spike	11
Fusconaia flava, Pig-toe	1
Pleurobema cordatum	1
Anodonta grandis, Floater	7
Anodontoides ferussacianus, Cylindrical paper-shell	1
Actinonaias carinata, Mucket	3
Lampsilis radiata siliquoidea, Fat mucket	33
Lampsilis anodontoides fallaciosa, Slough sand shell	2
Lampsilis ovata ventricosa, Pocketbook	5
Lampsilis sp.	1
Ligumia subrostrata, Pond mussel	1
Ligumia recta, Black sand shell	4
Total	110

were used in the manufacture of various tools and utensils. Two proximal ends of elk metatarsals (cannon bone) were recovered that had been altered and used as a fleshing tool (beamer). The sharpened edges of this lower leg bone tool were used to scrape excess fat and tissue from hides. Three sections of this same element from the white-tailed deer had also been cut in a like manner.

Butchering cuts were noted on several deer and elk elements and are indicative of the manner in which the carcasses were disarticulated. In the case of deer bones, cuts noted on 5 tarsals, 8 astragali, 2 calcanea and the distal end of 2 tibiae resulted from an effort to cut through the hock joint while removing the hind foot. Scored marks on or near the rim of 5 acetabula suggest that the hind limb was generally separated from the pelvis by disarticulating the femur head from the socket. Butchering marks on the proximal end of 5 radii and 3 ulnae and the distal ends of 9 humeri resulted from severing of the forelimb at the "elbow". Two atlas, two axis, and the basioccipital of a skull exhibited cut marks; these occurred when the head was being removed from the body. From the numerous recovered skull sections (frontal bone), 3 could be determined as those of does and 9 as bucks. All of these male skulls, with the possible exception of one, had portions of the antler still attached; this would indicate that these particular individuals were killed in the fall or early winter season before the antlers are shed.

Of special interest was the cut distal end of a wolf humerus. This piece probably represents the discarded end of the bone since it was often common practice to cut off (groove-and-snap) both ends of a long bone and then utilize the main shaft as some sort of ornament or tool (Parmalee, 1976). Portions of a heavy bone ring were also encountered as well as a cut section of a beaver incisor; this latter tooth section was probably used as a scraper or chisel. The worked distal end of a turkey tarsometatarsus was recovered that had been sharpened and this tool probably functioned as an awl. Several other miscellaneous cut and scraped bones (e.g. a raccoon baculum) and antler artifacts were also found at the site.

The quantity of elk remains recovered at the Noble-Wieting Site, compared with those of deer, is especially noteworthy because of their abundance (233 pieces; at least 24 individuals) and similar distribution within features. Although the total number of pieces of deer bone recovered (1344) and the Minimum Number of Individuals (MNI) represented (58) were greater than those of elk, the estimated pounds of usable meat realized from elk (8400) was notably more than that from the white-tailed deer (5800 pounds; estimates derived from live animal weights/pounds of usable meat: White, 1953). Elements of elk have been found in numerous other prehistoric sites in Illinois (e.g. Parmalee, 1961) and the Midwest in general, but compared with deer this large herbivore has been poorly represented in the archaeological record. It would appear that elk were either fairly numerous within the vicinity of the Noble-Wieting Site during its occupancy or that the site inhabitants made a special effort to hunt them over a wide area. Cory (1912:70) commented that "Nearly all of the early travelers in Illinois refer to the abundance of large game including Elk."

Because of the relative numbers of deer and elk represented in the Noble-Wieting faunal sample and because of the size of these animals and, therefore, the quantity of meat they provided, it is apparent that these two herbivores comprised the bulk of the meat consumed. Nevertheless, smaller animals such as the beaver and raccoon formed a valued meat supplement in the diet and were undoubtedly hunted or trapped with some degree of regularity. Although a variety of other species are represented in the faunal sample from Noble-Wieting, there were only one or a very few individuals of each represented (e.g., gray fox, mink, muskrat, badger, otter) and this low frequency of occurrence very possibly reflects the formal local abundance of these animals.

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Table 3. Vertebrates identified from the Noble-Wieting Site

Species	No. of bones	% of bones	Min. no individ
FISHES	399	4.88	21
Gar, *Lepisosteus* sp.	1	.01	1
River Redhorse, *Moxostoma carinatum*	1	.01	1
Redhorse, *Moxostoma* sp.	43	.53	6
Suckers: Family Catostomidae	44	.55	7
Channel Catfish, *Ictalurus* cf. *punctatus*	6	.07	2
Bullhead, *Ictalurus* sp.	8	.09	3
Sunfish/Crappie/Bass: Family Centrarchidae	2	.02	1
Indeterminate Fish	294	3.62	—
AMPHIBIANS	1	.01	1
Toad, *Bufo* sp.	1	.01	1
REPTILES (snakes)	2	.02	1
Snake: Family Colubridae	2	.02	1
REPTILES (turtles)	224	2.71	54
Snapping Turtle, *Chelydra serpentina*	31	.38	8
Musk Turtle, *Sternothaerus odoratus*	17	.21	5
Blanding's Turtle, *Emydoidea blandingi*	30	.36	7
Eastern Box Turtle, *Terrapene carolina*	34	.41	4
Map Turtle, *Graptemys* cf. *geographica*	3	.03	1
cf. Map Turtle, *Graptemys* sp.	1	.01	1
Painted Turtle, *Chrysemys picta*	6	.07	3
Red-eared Turtle, *Chrysemys scripta*	2	.02	2
Painted Turtle/Slider group, *Chrysemys* sp.	53	.65	14
Softshell Turtle, *Trionyx* sp.	8	.09	2
Indeterminate Turtle	39	.48	7
BIRDS	200	2.40	45
Pied-billed Grebe, *Podilymbus podiceps*	2	.02	2
Great Blue Heron, *Ardea herodias*	1	.01	1
Canada Goose, *Branta canadensis*	1	.01	1
Mallard, *Anas platyrhynchos* &/or Black Duck, *A. rubripes*	3	.03	3
Teal, *Anas* sp.	1	.01	1
Duck, *Anas* sp.	4	.05	1
Redhead, *Aythya americana*	1	.01	1
Duck spp.	11	.14	4
Hooded Merganser, *Lophodytes cucullatus*	1	.01	1
Cooper's Hawk, *Accipiter cooperii*	1	.01	1
Red-shouldered Hawk, *Buteo lineatus*	2	.02	2
Hawk sp.	3	.03	1
Bald Eagle, *Haliaeetus leucocephalus*	1	.01	1
Prairie Chicken, *Tympanuchus cupido*	1	.01	1
Turkey, *Meleagris gallopavo*	38	.47	14
Sandhill Crane, *Grus canadensis*	2	.02	2
Barred Owl, *Strix varia*	2	.02	2
cf. Red-headed Woodpecker, *Melanerpes erythrocephalus*	1	.01	1

Common Raven, *Corvus corax*	2	.02	2
Common Crow, *Corvus brachyrhynchos*	1	.01	1
cf. Dickcissel, *Spiza americana*	1	.01	1
Passerine sp.	1	.01	1
Indeterminate Bird	119	1.46	–
MAMMALS	7296	89.76	180
Opossum, *Didelphis marsupialis*	2	.02	1
Eastern Mole, *Scalopus aquaticus*	2	.02	1
Eastern Cottontail, *Sylvilagus floridanus*	2	.02	2
Eastern Chipmunk, *Tamias striatus*	23	.28	7
Fox Squirrel, *Sciurus niger*	13	.16	5
Squirrel, *Sciurus* sp.	37	.45	8
Plains Pocket Gopher, *Geomys bursarius*	3	.03	3
Beaver, *Castor canadensis*	107	1.32	17
Deer Mouse, *Peromyscus* sp.	1	.01	1
Muskrat, *Ondatra zibethica*	5	.06	3
Small Rodent sp.	4	.05	3
Gray Wolf, *Canis* cf. *lupus*	21	.26	3
cf. Domestic Dog, *Canis familiaris*	41	.50	9
Gray Fox, *Urocyon cinereoargenteus*	1	.01	1
Raccoon, *Procyon lotor*	96	1.18	20
Mink, *Mustela vison*	1	.01	1
Badger, *Taxidea taxus*	1	.01	1
Striped Skunk, *Mephitis mephitis*	12	.14	6
River Otter, *Lutra canadensis*	2	.02	2
Bobcat, *Lynx rufus*	5	.06	4
Elk, *Cervus elaphus*	233	2.87	24
White-tailed Deer, *Odocoileus virginianus*	1344	16.54	58
Deer/Elk: Family Cervidae (Indet. antler pieces)	6	.17	–
Indeterminate Large Mammal	4893	60.24	–
Indeterminate Small Mammal	441	5.43	–
TOTAL	8122	99.78	302

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