ADDITIONAL FAUNAL RECORDS FROM THE KINGSTON LAKE SITE, ILLINOIS

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Recent acquisitions by the Illinois State Museum of private archaeological collections from the Kingston Lake (Village; Kitchen Midden) Site has provided quantities of bone and shell of noteworthy interest. Recovery of this material was made periodically from 1932 to about 1943, and through the kindness of Mr. L. P. Elliott, Dr. V. H. Chase and the late Dr. Donald E. Wray, all of Peoria, animal remains found by them at this site were made available for study. A small sample of bone collected by the late George and Ethel Schoenbeck during this time period has also been included in this report.

This large Middle Mississippi site (primarily Spoon River Focus: 1,100-1,400 A.D.), once covering approximately 15 acres, was situated on the north bank of Kingston Lake (parallel and adjacent to the Illinois River) 15 miles southwest of Peoria, Peoria County, Illinois. The village and the one large platform mound were the property of the Kingston Lake Gravel Company, and with the commencing of dredging operations in 1931, the site was gradually destroyed until, by 1938, most of it was gone. A general account of the artifacts, burials and other materials recovered during these years has been presented by Simpson (1939). Included in Simpson's report is an article by F. C. Baker on a sample of the faunal materials found at the beginning of the excavations; this same article appeared in the *Transactions of the Illinois Academy of Science* (Baker, 1936). A few of the first specimens recovered from this site ("Simpson Village") were reported in an earlier paper by Baker (1931).

The variety of both molluscan and vertebrate species represented provides an excellent index of the food habits of these people as well as to the prehistoric distribution and possible abundance of the local fauna. As suggested by the remains of certain species, both the marshy floodplain areas to the south and upland areas to the north were hunted for game. As evidenced by the variety of fresh-water mussels, fish, turtles, and aquatic and semi-aquatic species of birds and mammals, however, the Illinois River and its associated backwaters and bottomlands constituted the major areas hunted. The recently acquired faunal materials considered in this report add to the number of species previously recorded, as well as to the quantity, thus presenting a more complete study of the early fauna and its use by the Indians occupying this site. Table 1 is a list of the species identified from the Kingston Lake Site, including those recorded by Baker

(1931, 1936) and those recently obtained from Elliot, Chase and Wray.

Accounts of Species

Mollusks. — Compared with the quantity and variety of marine shells recovered at the Cahokia Site (Parmalee, 1958a), located along the Mississippi River (Madison Co., Illinois) and probably contemporaneous with this site, there was little evidence found to suggest a like use of such marine forms by the Kingston Lake people. Apparently trade routes or contacts with the southeastern coastal areas were meager, and the only reference to the use of marine shells states that "... several tools made from the columnella of conch shells . . . were collected" (Simpson, 1939).

Fresh-water mussels, however, were used extensively for food and, to a lesser degree, for ornaments and/or implements. Twenty-four species were identified and nearly all were typical large-river forms. Simpson (*op. cit.*) mentions the finding of two "clam bakes" in which mussels had been placed in the ground for baking but never removed. Mussels were undoubtedly collected locally in the Illinois River beds; with the possible exceptions of *P. lineolata, O. olivaria* and *E. crassidens,* all species represented apparently still inhabit that section of the river. *Alasmidonta marginata* is a headwater or small-stream form and normally does not occur in a large river environment, and its presence with all large-river species is unusual.

Valves of mussels were used in the manufacture of beads, spoons, and hoes. Simpson (*op. cit.*) records two spoons (probably *L. ventricosa*?), 10 shell ornaments, 695 disc beads (possibly from marine whelks rather than mussels?) and 170 shell hoes, and states that "With two exceptions, all [hoes] were made from one species of clam." This would probably be the large, thick-shelled washboard, *M. gigantea*; 15 shell hoes in the Elliott collection were referable to this species.

Vertebrates. — Twenty species of mammals were identified from the Kingston Lake Site, bones of the white-tailed deer forming 65 percent of the total. Although the percentage of deer bone to that of other species was not so large as it is at most sites (*e.g.* Cahokia: Parmalee, 1957), the quantity of remains attest to the use of this animal as a basic meat staple. Numerous deer bone artifacts were recovered, including cut antler, antler tines and projectile points, awls (from ulnae and splinters), jaw bone "hoes" and beamers (from metatarsals).

Several species of the smaller mammals (raccoon, beaver, muskrat, cottontail, squirrel) were also taken in considerable numbers, their remains comprising 18 percent of the mammalian bone. Remains of the mole and small rodents (*Peromyscus, Citellus, Oryzomys*) are probably from animals that died naturally at the site location and were incidental to human occupation. However, as Baker (1936) has indicated, the former occurrence of the marsh rice rat in Peoria County is of special significance since it is now restricted to the southern most part of the state. This rodent has since been identified from several other sites in the Illinois-Mississippi river valley

(Parmalee, 1957) and its presence at these sites is indicative of dense vegetation along marsh and swamp margins.

Elk still inhabited the Illinois region in early historic times and bones have been recovered at numerous aboriginal village sites, but only rarely in any quantity. Apparently elk were far less numerous than the white-tailed deer in prehistoric times. One of the more interesting aspects of the mammalian complex from this site is the occurrence of bison. Griffin and Wray (1945) have suggested that this animal did not cross the Mississippi River into eastern United States until 1600 or shortly before. This appears correct as bison remains in prehistoric Illinois sites are typically rare or nonexistent; only in the historic components of the Starved Rock and Zimmerman sites in La Salle county have bison bones been encountered in quantity (over 150 specimens in the Illinois State Museum archaeozoological collections). The Schoenbecks reportedly obtained a scapula hoe "thought" to be bison from this site and, although the number of bones recovered are few, they may suggest a beginning of the eastward bison migration in the late 15th or early 16th century.

Birds were apparently an important source of food to these Indians, and the Illinois River, Kingston Lake and associated backwaters formed an excellent habitat for a large variety of species. At least 36 species were represented, and bones of waterfowl (ducks, geese, swans) comprised 54 per cent of the total identified birds. Other aquatic and semi-aquatic species (sora, cormorant, coot, shorebirds, *etc.*) formed an additional 12 percent. Only two species, the bobwhite and the prairie chicken, suggest an upland prairie habitat.

The trumpeter swan is now extirpated in Illinois. In prehistoric times, however, it was a common migrant along the Mississippi River and apparently, but to a lesser extent, elsewhere in the state, so remains of this species at the Kingston Lake Site are not unexpected. Although far less numerous than at Cahokia (Parmalee, 1957), bones of *O. buccinator* at this site establishes it as a former migrant through central Illinois. A single, cut distal humerus end was recovered at Kingston Lake; these cut ends were common at the Cahokia Site (Parmalee, *op. cit.*), the bone shaft having apparently been used for tools or sectioned into beads. The majority of the other avain species identified from this sample still occur locally or as migrants through the area. However, the wild turkey is now extirpated in Illinois and the prairie chicken is no longer found in that area. Both the whistling swan and sandhill crane occur rarely during migration, and the long-billed curlew (now accidental in Illinois) has been identified from only two other sites (Parmalee, 1958b; plus an historic Crawford Farm Site, Rock Island Co. record).

Turtles were utilized to a limited extent by the Indians who occupied this site, probably mainly for food, although sections of worked carapace (scraped interior) were recovered which indicate that shells were occasionally fashioned into bowls or dishes. A minimum of six

TABLE 1.—Enumeration of the Animal Species Identified from the Kingston Lake Site, Peoria Co., Illinois.

Species	Number of Specimens	
	Elliott, Chase, Wray, Schoenbeck	Baker (1931; 1936)
Fresh-water mussels		
Amblema peruviana (*rariplicata*), Blue-point	29	3
Megalonaias gigantea, Washboard	28	1
Actinonaias carinata, Mucket	20	6
Elliptio dilatatus, Spike	17	9
Fusconaia undata, Pig-toe	14	3
Quadrula pustulosa, Pimple-back	12	2
Elliptio crassidens, Elephant's Ear	10	1
Fusconaia ebenus, Niggerhead	7	1
Lampsilis ventricosa, Pocketbook	7	2
Lampsilis siliquoidea, Fat Mucket	5	2
Quadrula quadrula, Maple-leaf	5	1
Pleurobema (*cordatum*) *pyramidatum* and *P. c. coccineum*, Small Niggerhead	4	2
Proptera alata, Pink Heel-splitter	2	2
Plethobasus cyphyus, Bullhead	2	1
Ligumia recta, Black Sand-shell	2	1
Quadrula metanevra, Monkey-face	1	
Obovaria olivaria, Hickory-nut	1	
Tritogonia verrucosa, Buckhorn	1	
Quadrula nodulata, Warty-back	1	
Cyclonaias tuberculata, Purple Warty-back		1
Alasmidonta marginata, Elk-toe		1
Arcidens confragosus, Rock Pocketbook		1
Plagiola lineolata, Butterfly		1
Lampsilis fallaciosa, Slough Sand-shell		1
Snails		
Campeloma integrum	1	
Campeloma rufum		1
Pleurocera acuta		1
Fishes		
Bowfin, *Amia calva*	29	5
Fresh-water Drum, *Aplodinotus grunniens*	24	3
Channel and/or Blue Catfish, *Ictalurus* sp.	20	
Bullhead, *Ictalurus* (*Ameiurus*) sp.	19	3
Suckers and Buffalofish, Catostomidae	18	
Buffalofish, *Ictiobus* sp.	10	
Gar, *Lepisosteus* sp.	7	
Longnose Gar, *Lepisosteus osseus*	3	2
Pike, *Esox* sp.	3	
Northern Pike, *Esox lucius*	2	
Redhorse, *Moxostoma* sp.	2	
Bass, *Micropterus* sp.	1	1
Sturgeon, *Scaphirhynchus* sp.?	1	
Flathead Catfish, *Pylodictis olivaris*	1	
Smallmouth Buffalofish, *Ictiobus bubalus*		14+
Turtles		
Box Turtle, *Terrapene* sp.	31	
Soft-shelled Turtle, *Trionyx* (*Amyda*) sp.	26	1
Turtle spp.	20	
Pond Terrapin, *Pseudemys scripta*	12	
Turtle, *Pseudemys, Graptemys, Chrysemys* group	8	4
Snapping Turtle, *Chelydra serpentina*	1	
Map Turtle, *Graptemys geographica*	1	
Blanding's Turtle, *Emys blandingii*	1	

Birds		
Mallard, *Anas platyrhynchos*, and/or Black Duck, *A. rubripes*	25	3
Turkey, *Meleagris gallopavo*	17	7
Canada Goose, *Branta canadensis*	11	2
Prairie Chicken, *Tympanuchus cupido*	10	5
Duck spp.	7	
American Coot, *Fulica americana*	5	2
Trumpeter Swan, *Olor buccinator*	5	2
Wood Duck, *Aix sponsa*	5	1
Bobwhite, *Colinus virginianus*	4	2
Redwinged Blackbird, *Agelaius phoeniceus*	4	1
Green-winged Teal, *Anas carolinensis*	4	1
Bufflehead, *Bucephala albeola*	3	2
Lesser Scaup, *Aythya affinis*, and/or Ring-necked Duck, *A. collaris*	2	3
Canvasback, *Aythya valisineria*	2	2
Blue-winged Teal, *Anas discors*	2	3
Long-billed Curlew, *Numenius americanus*	2	1
Sora, *Porzana carolina*	2	2
Snow and/or Blue Goose, *Chen sp.*	2	
Pintail, *Anas acuta*	2	1
Flicker, *Colaptes* cf. *auratus*	1	1
Blue Jay, *Cyanocitta cristata*	1	
Rusty Blackbird, *Euphagus carolinus*?	1	
Sparrow Hawk, *Falco sparverius*	1	
Double-crested Cormorant, *Phalacrocorax auritus*	1	
Black-crowned Night Heron, *Nycticorax nycticorax*	1	2
Whistling Swan, *Olor columbianus*		2
Hooded Merganser, *Lophodytes cucullatus*		2
Bald Eagle, *Haliaeetus leucocephalus*		2
American Bittern, *Botaurus lentiginosus*		1
Red-tailed Hawk, *Buteo jamaicensis*		1
Red-shouldered Hawk, *Buteo lineatus*		1
Broad-winged Hawk, *Buteo platypterus*		1
Sandhill Crane, *Grus canadensis*		1
Woodcock, *Philohela minor*		1
Short-billed Dowitcher, *Limnodromus griseus*		1
Shoveller, *Spatula clypeata*		1
Grackle, *Quiscalus quiscula*		1
Mammals		
White-tailed Deer, *Odocoileus virginianus*	404	6+
Beaver, *Castor canadensis*	37	8+
Raccoon, *Procyon lotor*	25	2
Elk, *Cervus canadensis*	24	1
Canids: *Canis* sp., and Dog, *C. familiaris*	22	13+
Muskrat, *Ondatra zibethica*	17	7
Cottontail, *Sylvilagus floridanus*	13	2
Fox Squirrel, *Sciurus niger*	12	4
Mink, *Mustela vison*	4	6+
Bison, *Bison bison*	4	
Bobcat, *Lynx rufus*	2	1(?)
Gray Squirrel, *Sciurus carolinensis*	2	1
Striped Skunk, *Mephitis mephitis*	2	
Franklin Ground Squirrel, *Citellus franklinii*	2	
Marsh Rice Rat, *Oryzomys palustris*	1	3
River Otter, *Lutra canadensis*	1	1
Gray Wolf, *Canis lupus*	1	
Opossum, *Didelphis marsupialis*	1	
Common Mole, *Scalopus aquaticus*		2
White-footed Mouse, *Peromyscus* cf. *leucopus*		1

species were determined, and 69 percent of the remains were those of aquatic forms. With the possible exception of *Emys blandingii*, all of the turtles represented are still common in that area.

Fish were well represented in the general midden deposit and in refuse pits, with at least 12 species being identified. Judging from the size of many specimens, and from the species involved, most of the fish were taken in the Illinois River. Remains of the bowfin were the most numerous (29), while bones of several species of other "rough fish," the gar and catastomids, comprised 33 percent of the total. Catfish and bullheads were taken in considerable numbers, while drum ranked second in the number of bones recovered; compared with specimens of known weight, the majority of drum caught by these Indians weighed between 6 and 10 pounds. Considering the large size of many of the drum, catfish and buffalofish, fish were an important source of food to these people.

Apparently few "game fish" were caught by the Indian as evidenced by paucity of remains. In addition to the bass and pike listed in Table 1, Simpson (1939) mentions many crappie (*Pomoxis* sp.) scales found in a grave fill (identified by Dr. D. F. Hansen, Dept of Zool., U. of I., Urbana). Through the courtesy of Dr. Donald F. Hoffmeister, Director of the Museum of Natural History, University of Illinois, Urbana, the author was able to examine the faunal specimens described by Baker (1936). One apparent error is the identification of a dentary as *Stizostedion*; this jaw section appears to be *Esox* rather than sauger or walleye. The presence of northern pike at this site is noteworthy since this fish is now restricted (except where re-introduced) in Illinois to the northern sections of the Mississippi River. Two large jaw sections of the pike recovered by Mr. Elliott were from fish that weighed 6 to 8 pounds. Parts of three smaller mandibles are also probably *E. lucius*, but may be referable to the redfin pickerel, *E. americanus*.

Summary

Faunal remains recovered at the Kingston Lake Site in Peoria County, Illinois, between 1932 and 1943 were discussed. A minimum of 12 species of fish, 6 species of turtles, 36 species of birds and 20 species of mammals were identified, the majority of which still occur in the region. Several, such as the bison, elk, otter, gray wolf, turkey, and trumpeter swan, are now extirpated in Illinois while the prairie chicken, long-billed curlew, bobcat, white-tailed deer and marsh rice rat are no longer present locally. Extensive river and bottomland habitat provided a variety of game species which were utilized by the Indian. Freshwater mussels were also important food items, and 24 species were identified from this site.

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