

A PREHISTORIC ARCHAEOLOGICAL RECORD OF THE POMARINE JAEGER, *Stercorarius pomarinus* (Temminck), from Central Illinois

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ABSTRACT

Recovery of a distal portion of a left humerus of the Pomarine Jaeger, *Stercorarius pomarinus* (Temminck), at the Orendorf Site, a large Middle Mississippian village situated on the Illinois River bluff, Fulton County, Illinois, represents the first prehistoric record of this Arctic species for the state. The total avian assemblage reflects a concentrated exploitation of the Illinois River and associated bottomland habitats by the aboriginal inhabitants of this site.

INTRODUCTION

The Orendorf Site (11F1284), an extensive prehistoric habitation site comprised of four or five sequentially occupied areas, at least three of which were towns, has been recognized as belonging to the Middle Mississippian Spoon River Culture. Radiocarbon dates have placed the major period of occupation at c. AD 1100 - 1250 (Bender et al., 1973, 1975). Archaeological investigations were carried out periodically from 1972 to 1979 under the auspices of the Upper Mississippi Valley Archaeological Research Foundation and Western Illinois University, Macomb, during which time huge quantities of lithic, ceramic, and faunal materials were recovered. This site is situated on the Illinois River bluff about 5 km west of the main channel and 10 km southeast of Canton, Fulton County, Illinois. It was ideally placed for maximum exploitation by the aboriginal inhabitants of both upland food resources and the abundant and varied animal species inhabiting the Illinois River bottomlands and associated sloughs and lakes. In addition to the large quantity of fish, reptile (particularly turtle), and mammal (especially white-tailed deer) remains recovered at the Orendorf Site, those of birds were also abundant and reflect a diversity of habitats hunted by the occupants. However, it is apparent from the quantity of aquatic and semi-aquatic species represented in the avian assemblage from the Orendorf Site that the Illinois River and associated marsh and slough areas were the primary habitats exploited for birds.

MATERIALS AND METHODS

Bird remains recovered from the Orendorf Site were used as the basis for an MA thesis by Speth while a graduate student at the University of Wisconsin-Madison. Comparative osteological collections housed in the University of Wisconsin Zoology Museum, Madison, were utilized for the identification of most of the avian remains; for the determination or verification of certain questionable specimens, collections housed in the Zooarchaeological Section, Department of Anthropology, University of Tennessee, Knoxville were used. A total of approximately 3,020 bird bones were examined during this study of which 31% were identified to either genus or species; and additional 23% of the elements could be determined to family (e.g. rails, Rallidae; ducks, Anatidae: Speth 1981). Faunal materials recovered at the Orendorf Site will eventually be housed in the Archaeological Research Laboratory, Western Illinois University.

DISCUSSION

There have been several reports dealing with the avifauna recovered from aboriginal sites located along the Illinois, Mississippi, and other Illinois rivers. The species assemblages from all of these sites, e.g. Fisher (Kankakee River: Parmalee 1962a), Kingston Lake (Illinois River: Parmalee (1962b), Crawford Farm (Rock River: Parmalee 1964), and Cahokia (Mississippi River: Parmalee 1958, 1975; Kelly 1979) were dominated by the remains of aquatic and semi-aquatic birds with those of waterfowl usually comprising 65-75% of the identifiable elements. Concentrations of swans, geese, and ducks along many of these major rivers during migrations provided the Indian with an important food resource that was apparently exploited to the fullest.

In addition to providing data on the food economy of aboriginal man, bird remains (as well as those of other vertebrates and mollusks) from archaeological sites often furnish other data on the former relative abundance and distribution of species and occasionally evidence of special uses of a bird or its elements in the Indian's social, ceremonial, or economic activities. Remains of the Trumpeter Swan (*Olor buccinator*), for example, once a common migrant along the Mississippi River, were recovered in large numbers at two sites (Parmalee 1964, 1975); this large bird was undoubtedly a valued food resource and its major wing and leg bones were often fashioned into whistles and various tools. Recovery of a skeleton of the Roseate Spoonbill (*Ajaia ajaja*) in a Hopewellian tomb at the Gibson Mound Site, Calhoun County (Parmalee and Perino 1970) suggests that a special symbolic or ceremonial significance was attached to this formerly rare summer resident in central and southern Illinois.

Approximately 50 species of birds, representing 20 families and a minimum of 207 individuals, were identified from the Orendorf Site faunal sample. Like other avifaunas reported from aboriginal sites situated along the major rivers in Illinois, elements of waterfowl and other aquatic (grebes, coots) and semi-aquatic (rails, Ardeidae) species predominated; they comprised about 88% of all identifiable (family/genus/species) bones from this site. The most interesting avian record to appear in the Orendorf Site faunal assemblage was that of the Pomarine Jaeger, *Stercorarius pomarinus* (Temminck); this determination was based on the distal end section of a left humerus (Fig. 1) that measured c. 34 mm

in length. There was slight damage to the specimen, apparently during its removal, that resulted in loss of a narrow sliver of the shaft and the tip of the ectepicondylar prominence. The bone occurred in the fill of Structure 25, an abandoned house which was located in the site area designated as Settlement C, and area of approximately five acres and representing possibly three slightly different periods of occupation (Santure 1981).

There are three recognized species of jaegers, the Pomarine, Parasitic (*Stercorarius parasiticus*), and the Long-tailed Jaeger (*Stercorarius longicaudus*); all three are pelagic birds for the most part and range throughout Arctic circumpolar waters. During fall migration jaegers move southward (in the northern hemisphere) and winter offshore along the coasts of North America with a few individuals occasionally wandering inland along major rivers and lakes. Bohlen (1978) records all three jaegers as rare to very rare fall migrants in Illinois and, for the Pomarine Jaeger, lists only two valid sight records and two previously published but unverified records. Apparently there are no extant specimens collected in Illinois.

The recovery of an element of the Pomarine Jaeger at the Orendorf Site poses some interesting questions: was this pelagic bird a more common migrant in central Illinois during prehistoric times, did the Indian recognize this jaeger as something "different" or unusual and made a special effort to obtain it, or was it simply taken along with other birds by a hunting party along the Illinois River? There is no zooarchaeological evidence to suggest that this species was more numerous in the Midwest 700-800 years ago than it is today. Jaegers appear similar to gulls (*Larus*) to which they are closely related, so one of these birds would not appear particularly distinct on the basis of plumage or form. Gulls (fish-eating birds) in general are poorly represented in aboriginal sites; they may have been ignored as possibly being an undesirable food resource although other fish-eating species including grebes, cormorants, and mergansers were often taken in considerable numbers. For whatever reason this bird was taken by the aboriginal inhabitants of the Orendorf Site, this humerus section represents the first prehistoric record of the Pomarine Jaeger in Illinois. It implies occupation of the village at least during the fall, and it indicates - along with the predominance of other aquatic species comprising the avifauna - that the Illinois River and associated bottomland sloughs and marshes were the primary habitat exploited for birds.

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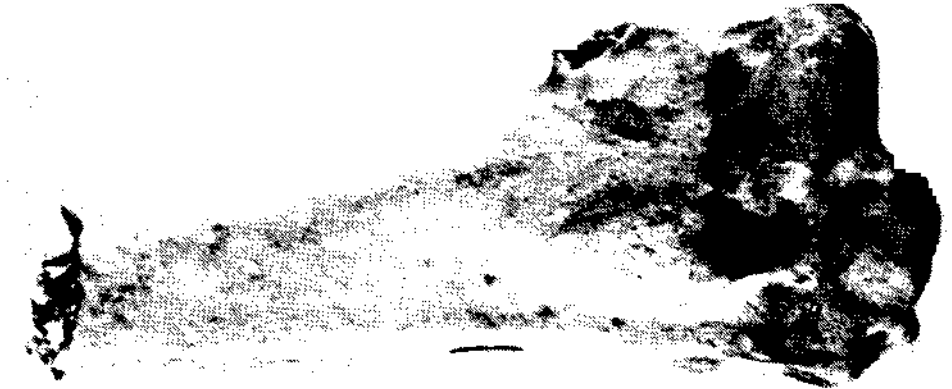


FIGURE 1. Distal left humerus of the Pomarine Jaeger from the Orendorf Site, Fulton County, Illinois. Scale: