

GENERAL NOTES

Great Auk and Common Murre from a Florida Midden.—Among bird bones from archeological sites submitted for identification by Ripley P. Bullen of the Florida State Museum are the proximal portion of a right humerus of the Great Auk (*Pinguinus impennis*) and the proximal portion of a left humerus of the Common Murre (*Uria aalge*). The collecting locality, known as Summer Haven midden (site No. SJ 46), is located on the east side of the Inland Waterway, immediately south of Matanzas Inlet, in St. Johns County, Florida. The site produced only decorated, fiber-tempered pottery of the late Orange period and is dated by Mr. Bullen at about 1000 B.C.

Other species of birds identified from the Summer Haven midden include the Common Loon (*Gavia immer*) with 11 bones from at least two individuals, the Gannet (*Morus bassanus*) with 9 bones from at least two individuals, and the Wild Turkey (*Meleagris gallopavo*) with a single carpometacarpus. The loon and the gannet occur in Florida only as winter visitants. The presence of these two species and the two alcid indicates winter occupancy of the site.

The Common Murre is previously unrecorded south of New Jersey, whereas the Thick-billed Murre (*Uria lomvia*) has occurred accidentally as far south as the Carolinas (American Ornithologists' Union, 1957). The humeri of the two species of *Uria* may be differentiated by the overhanging lip between the head and the external tuberosity being strongly concave in internal view in *U. aalge*, straight to slightly concave in *U. lomvia*.

There are two previous records of the Great Auk from middens in Florida. That from the Cotton midden north of Ormond (Hay, 1902) likewise represents the late Orange archeological period and has now been dated by the radiocarbon method as 1060 B.C. \pm 200 (Griffin and Smith, 1954). The record from the Castle Windy midden south of New Smyrna Beach is from the much-later St. Johns II archeological period (Weigel, 1958). Since publication of the latter record a series of radiocarbon dates from the site have been received, with the auk level dated at 1307 A.D. \pm 100 (Bullen, 1958; Bullen and Sleight, 1959). All three Florida localities of the Great Auk are from the banks of the Inland Waterway, but it seems likely that the birds were taken offshore and brought to camp.

Analysis of the bird remains from the three archeological sites mentioned above and from Green Mound midden near Daytona Beach (Hamon, 1959) suggests that there were two periods of cool climate in Florida prehistory: one about the year 1000 B.C., the other about 1000 A.D.

LITERATURE CITED

- AMERICAN ORNITHOLOGISTS' UNION. 1957. Check-list of North American birds. 5th ed. 691 pp.
- BULLEN, R. P. 1958. More Florida radiocarbon dates and their significance. *Florida Anthropologist*, **11**: 97-109.
- BULLEN, R. P., and F. W. SLEIGHT. 1959. Archaeological investigations of the Castle Windy midden, Florida. William L. Bryant Foundation Amer. Studies, Report No. 1: vi + 32 pp.
- GRIFFIN, J. W., and H. G. SMITH. 1954. The Cotton site: an archaeological site of early ceramic times in Volusia County, Florida. *Florida State Univ. Studies*, No. 16: 27-59, pl. 1-2.
- HAMON, J. H. 1959. Northern birds from a Florida Indian midden. *Auk*, **76**: 533-534.

- HAY, O. P. 1902. On the finding of the bones of the Great Auk (*Plautus impennis*) in Florida. *Auk*, **19**: 255-258.
- WEIGEL, P. H. 1958. Great Auk remains from a Florida shell midden. *Auk*, **75**: 215-216.

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A Probable Hybrid of *Larus argentatus* and *L. marinus*.—Hybrids between the Herring Gull (*Larus argentatus*) and the Great Black-backed Gull (*L. marinus*) have been produced under captive conditions on several occasions. Palmgren (Medd. Soc. Fauna Fl. Fenn., 44: 250-251) has reported offspring from the mating of an *argentatus* ♂ to a *marinus* ♀, and Heinroth (Jour. für Ornith., 53: 256-258) has noted young by the reciprocal cross. However, these and other reports in the literature are distinguished by the nearly complete lack of descriptions of the hybrids at any age, and I am unable to find any reference to this interspecific cross having occurred under natural conditions.



Figure 1. Primary pattern of *L. argentatus* x *L. marinus*. (Drawn by Helen Hays.)