

to be definitely associated with only the Orange Period, which terminates around 200 B.C. A resampling of the Ormond midden by Griffin and Smith in 1947 (Florida State Univ. Studies, 16) revealed that although the bulk of the occupation dates from near the end of the Orange Period there is a short interval of reoccupation during the St. Johns II Period. This makes the association of these humeri with the Orange Period questionable, and they may even be coeval with the auk humeri of Vo 112.

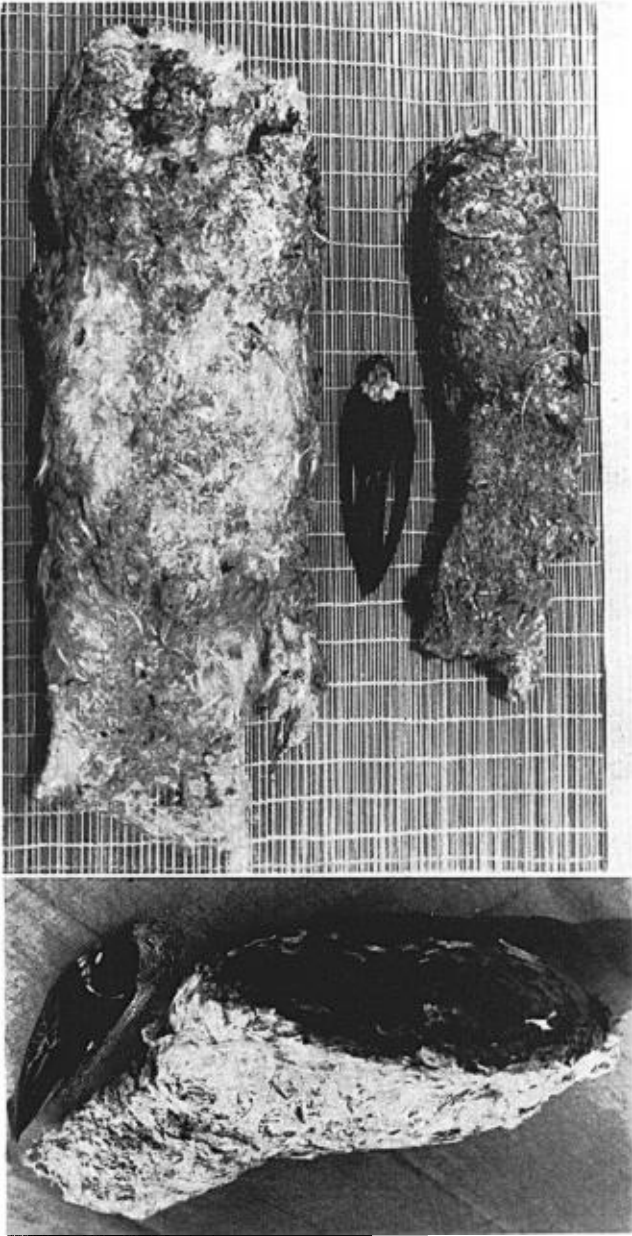
The archeological evidence from Vo 112 gives us a definite period for the presence of the Great Auk in Florida and substantiates its extension of winter range as indicated by the Vo 83 record. I am greatly indebted to Dr. Pierce Brodkorb of the University of Florida for use of his data on Great Auk skeletal measurements and for confirmation of the identification.—PENELOPE HERMES WEIGEL, 245 North Street, Buffalo 1, New York.

First Ancient Murrelet Collected in Colorado.—While driving on November 28, 1957 on U. S. 287 just south of Lafayette, Boulder County, Colorado, we noticed a dead bird beside the highway and stopped to examine it. The bird proved to be an Ancient Murrelet (*Synthliboramphus antiquus*)—the first of its kind recorded in Colorado. Though it had apparently been killed by a car, except for a broken wing the specimen was in good condition. We showed the bird to Dr. A. M. Bailey, Denver Museum of Natural History, and Dr. Gordon Alexander, University of Colorado, who verified our identification. The specimen was then given to the University of Colorado Museum (Mus. No. 6282 in the bird series). Upon dissection it was impossible to determine the sex with certainty from the gonads; however the bird (an adult in winter plumage) was probably a male, the testes presumably being very small. The bird measured: wing 140 mm., culmen 14 mm., tarsus 26 mm.

Just previous to November 28 we had a period of very strong westerly winds across the northwestern states. Air velocities reached 170 miles per hour at high altitudes. Perhaps the murrelet traveled from his normal range on these air currents. Analysis of wind conditions indicates that the flight could have been made in about twenty-four hours. Though the Ancient Murrelet breeds only on boreal islands in the Pacific and winters somewhat farther south in the north Pacific, according to the A.O.U. Check-list (1957) there are a number of accidental records from the interior of the United States and Canada, one as far east as Montreal.—JOHN R. AND MARGARET M. DOUGLASS, *Colorado State University, Fort Collins, Colorado.*

A Releaser Mechanism in the Feeding of Nestling Chimney Swifts.—Much has been written in recent years about the phenomena known as "releaser mechanisms," and their controlling roles in animal behavior. These releasers are now known to be fixed, specific events which generally must occur before an animal is enabled to perform some series of habitual acts. Many of the most outstanding examples of such behavior chains have been observed among the birds, where some are so widely operative as to have been observed among members of different genera. Other chains are highly specialized and are known to appertain only to a single form.

In 1953, three unfledged Chimney Swifts (*Chaetura pelagica*) were acquired by Mr. Dennis Puleston of Brookhaven, Suffolk County, New York, as a result of storm destruction. He made efforts to rear these through manual feeding, but the nestlings remained totally uncooperative. The familiar artifice of tapping the nesting box to imitate the parent's arrival failed to elicit the slightest response, and Mr. Puleston fearfully resorted to forcible means. Then, quite by accident, a sudden draft of air chanced to blow across the birds. Immediately the whole feeding syndrome ap-



Detached nests of *Panyptila cayennensis* from Brazil to show varying sizes, shapes and structures. Above: (Left) Large loose nest from Kuluene (Mato Grosso). (Right) Small entirely felted nest from Ilha Grande (Rio de Janeiro). Below: Very stiff kinked type from Espirito Santo, covered with loose plant floss. (Photograph intentionally reversed to indicate that in nature broad section is attached above and tube hangs free below.) Photos. by H. Sick.

peared: outstretched necks, gaping bills, fluttering wings, hunger cries. For the next few weeks the simple expedient of blowing gently across the nest never failed to arouse this response if the young were hungry.

It seems clear that the parent birds must approach the nest from directly above because of the characteristic choice of nesting site in this species. As they do so, they open their wings abruptly to check their fall. These opened wings generate a sudden air current, which apparently releases the feeding response of the young.

The concurrent processes of discarding a supposed ancestral habit of responding to the vibrations engendered by the parents' landings on the nest and of ingraining in its place the specialized behavior just described must have taken a very long time. Chimney Swifts, then, must have long been nesting in situations which afford only a vertical access; situations in which also the nestlings are completely sheltered from vagarious drafts.—A. J. BARTON, *The Stony Brook School, Stony Brook, L. I., New York*.

Distribution and Nests of *Panyptila cayennensis* in Brazil.—The Lesser Swallow-tailed or Cayenne Swift is found not only in the northern and eastern parts of Brazil south to São Paulo (Peters, 1940: 254), but also through the Amazon basin. At Fordlândia, Pará, in the lower Tapajós valley, I found nests in 1951 under the eaves of roofs and even inside deserted buildings. On the upper Tapajós in southern Pará (Serra do Cachimbo) and northern Mato Grosso (Teles Pires River), and also on the upper Xingú, Mato Grosso (Kuluene River), I saw nests attached to various large forest trees. This swift seems to prefer the smooth barks of the Bombacaceae (including the cotton-tree *Ceiba pentandra*) and Leguminosae (e.g. the Jatobá-tree, *Hymenea* sp.) for its long felted nests. In Pará and Mato Grosso I found *Panyptila* nests occupied in June, July, August and September. In Rio de Janeiro well-feathered young were in a nest in November. There is some evidence that in Brazil *Panyptila* stays about its breeding place throughout the year. If this is confirmed, it would contrast with the status of the *Chaetura* swifts in southeastern Brazil, which have a well-defined breeding season (September–April), and disappear during the cool part of the year (Sick, 1950).

On the two occasions (at Rio de Janeiro and Tapajós) when I was able to check for nestlings, there were two. At Fordlândia I was told that eggs and nestlings often fell out of the nests, and that two fallen nestlings were successfully reared by men—which suggests that even healthy young may fall out. Both parents roost in the nest, dashing in, perhaps a minute apart, about fifteen minutes after sunset. I have noticed that when the swifts fly into the nest the structure sometimes quivers. The coming and going of the parents may be the cause of eggs or young dropping off the small incubation shelf (see fig. a). It is difficult to observe details of this swift's behavior, for usually one merely gets a glimpse as a bird shoots into the nest, giving a high pitched *djíp-djíp-djíp*, that increases in strength as the pair meet within the nest. Occasionally I have noted a single bird foraging high above the forest, and once near Belém, Pará, I saw a loose flock of a half dozen birds hunting low over a road near the Guamá River in June, 1951.

Nest shapes fall into two main patterns (Sick, 1947): the long, straight type, sometimes attached along its entire length to a vertical tree-trunk or wall; and the shorter kinked type with a wider more bulbous upper section attached from above and a narrower sleeve-like entrance-tube hanging free (Pl. 10). The kinked nests sometimes suggest a thick woolen stocking, fixed by its sole to a branch. The lower end of the sleeve or tube is sometimes turned slightly outwards—which may facilitate entrance.