

GENERAL NOTES

**The American Bittern in Puerto Rico.**—On November 14, 1947, a female specimen of the American Bittern (*Botaurus lentiginosus*) was brought to me by Mr. Luis Santos, who had killed the bird near a small ciénaga northwest of the town of Añasco, Puerto Rico, densely covered with *Typha* associations and other thick clumps of plants typical of swampy areas. According to Mr. Santos, the bittern was feeding on the mudflats south of the swamp. The specimen (No. 918) is on deposit at the Institute of Tropical Agriculture, Mayaguez, Puerto Rico.

As far as I am aware, this constitutes the only recent record of the occurrence of the American Bittern in Puerto Rico. The last record known was that of Danforth (1925. "Birds of the Cartagena Lagoon," *Jour. Dept. Agric. Porto Rico*, 10:46), who flushed one bird in Cartagena Lagoon on the southwestern corner of the island, on November 30, 1923.

Bond (1945. "Check-list of Birds of the West Indies," p. 10) records the species as wintering southward to Panama, and: "Not uncommon winter resident in Cuba. Also recorded from Puerto Rico, Grand Cayman, Swan Island and from the Bahamas (New Providence). Should also be found in Hispaniola and Jamaica, though records of its occurrence on these islands are unsatisfactory."

Wetmore (1927. "The Birds of Porto Rico and the Virgin Islands," *N.Y. Acad. Sci., Sci. Surv. of Porto Rico and the Virgin Islands*, 9:303) states that the American Bittern is a migrant straggler in Puerto Rico and cites three definite records (1873, 1921, and "a skin in the collection of Blanco"), as well as the 1923 record of Danforth.—VENTURA BARNES, JR., *Division of Fisheries and Wildlife, Department of Agriculture and Commerce, Mayaguez, Puerto Rico.*

**Anting by some Costa Rican birds.**—Within recent years, the curious phenomenon of "anting" has received considerable attention from ornithologists, and numerous observations have been published, especially in the *Wilson Bulletin* and the *Auk*. In view of this widespread interest, it seems desirable to put on record a few instances of anting that have come to my attention in Costa Rica during the last dozen years. My first observation was made at a time when most of us had never heard about anting, and I shall give it as I recorded it in my journal on October 28, 1936: "Today at noon the pair of Buff-throated Saltators, *Saltator maximus* [a big, thick-billed, olive-green member of the finch family], that frequently come into my yard, flew into the lemon tree in front of the cabin, and one of them behaved most unusually. It perched on a slender ascending branch supporting a grayish nest inhabited by fat brown ants of medium size and began to pick off the ants with its bill. It held its right wing extended in such a fashion that the primary feathers shielded the side of its breast and belly, and every time that it picked up an ant, it rubbed its bill rapidly against these feathers. Then it seemed to eat the ant, but of this I could not make sure, for the creatures were too small for me to distinguish them in the bill. Once it climbed up very close to the nest to pick the ants from its surface, and here a leaf interfered with its reaching its wing, which was held forward as before. As a result, the bird rubbed its bill against the leaf instead of against its flight feathers. Was this rubbing against wing or leaf for the purpose of killing the ant?"

My next observation was made more than nine years later, and the actor in this instance was a little, sharp-billed flycatcher, *Pipromorpha oleaginea*. On November 7, 1945, while walking along the creek in front of my house, I found a lone male (I could tell the sex by the yellow corners of the mouth) in a little tree growing on the bank. He plucked a small, dark object from the foliage; then holding it in the tip of his bill, he rubbed it along the inner surface of the remiges. As he did this, his wing was slightly opened and his tail bent forward

under the perch. The object in his bill then disappeared, but he found another, and rubbed it beneath his wing. He did this several times over. I could not actually distinguish what the bird held in his bill, but after he flew off I found in the tree a small silken ants' nest; a number of the blackish ants were crawling over the boughs and foliage. Without much doubt the flycatcher had been anting.

Early in the morning of April 8, 1947, I met a lone Barred Woodhewer (*Dendrocolaptes certhia*) just within the edge of the tall second-growth woods beside a pasture. It picked from the bark of a tree a big, dark-colored insect (which might have been an ant), held it in the tips of the mandibles, rubbed it beneath a wing, then swallowed it. Next it clung to the side of a large silken ants' nest that it found near by, apparently plucked off an ant, and extending its wing forward, rubbed the ant beneath the partially spread primaries. Again it clung to the ants' nest and again passed its bill beneath a wing. It did this several times more. While passing its bill beneath its wing it perched or rather clung to slender branches or vines near the ants' nest, in a posture I had never before seen a woodhewer take, but somewhat in the manner of a perching bird. That this was not a natural or secure position for the big tree-climbing bird was attested by the fact that several times it lost its balance and seemed on the point of falling off. Except in the first instance, I could not see whether it swallowed the ants which, apparently, it rubbed beneath its wings.

My fourth and last example concerns the tiny Variable Seedeater (*Sporophila aurita*). It is less convincing than my other three instances of anting, because I could find no ants in the bush where I saw the bird perform; but her actions were certainly those of a bird anting, and no other explanation of her odd conduct occurs to me. Early on the morning of May 27, 1947, a female Seedeater flew into the cestrum bush in front of the house. She searched diligently over the slender branches until she seemed to find some tiny object. Then, standing high and bringing her wings forward, she rubbed her bill (and doubtless what she held in it) beneath her remiges. She did this repeatedly, each time after picking from a branch some small object which she had difficulty in finding. Once she rubbed her bill beneath a wing while clinging upside down to a twig. When she flew off I looked for ants in the bush but saw none—strangely enough, for ants are usually on everything in this region. The bird herself needed to hunt hard for them—if this is indeed what she sought—and must have used practically all of the available supply.

In the north temperate zone, birds have nearly always been observed anting on the ground, but here in the tropics I have seen birds anting only in trees and bushes. I believe that in Central America far more species of ants live in trees, either in nests of their own construction or in cavities and crannies of various sorts, than in the ground. The only terrestrial ant-hills at all abundant in this region are those of the leaf-cutting or parasol ants (*Atta*) and of the fire-ants (*Solenopsis*). The stingless attas are hard, spiny morsels which would hardly seem to lend themselves to anting, and the birds seem to leave the well-named fire-ants strictly alone. The first three birds that I saw anting performed close beside the silken nests that are woven about the foliage of trees and bushes by *Camponotus senex textor* (specimens identified by Dr. M. R. Smith of the U. S. Bureau of Entomology). This is a blackish, stingless ant of medium size that is exceedingly abundant in the clearings and in the light vegetation in El General, although not found in the big forest unless it be high up in the sun-bathed tops of the trees where it might escape detection. The adult ants themselves are no more capable of secreting silken thread than adult butterflies and moths, but their larvae do; holding the white grubs in their mandibles and moving them back and forth, the workers cause the larvae to spin thread where it is needed for building or repairing the grayish irregularly formed nest.—ALEXANDER F. SKUTCH, *San Isidro del General, Costa Rica*.