

far as I am aware, these are the first Caspian Terns to be authentically reported in Jamaica. All of the birds of both species were killed. The head of a Caspian and a full skin of another specimen of the same species have been preserved in the museum of the Institute of Jamaica. One of the Caspian Terns carried a band (Fish and Wildlife Service, No. 555-24390), which has subsequently revealed that the bird was banded on 21 June 1959 at Tobermory, Ontario, Canada. While Caspian Terns are generally common along the Central American coasts during the winter months, they appear rarely to venture among the Caribbean Islands.—C. BERNARD LEWIS, *The Institute of Jamaica, Kingston, Jamaica.*

First Record of the Least Frigate-bird (*Fregata ariel*) in North America.

—On 3 July 1960 Bertram Leadbeater of Beverly, Massachusetts, was photographing a Bald Eagle (*Haliaeetus leucocephalus*) on the rocks at Deer Isle, Hancock County, Maine, when a large bird soared overhead. Swinging his movie camera up, he was lucky enough to get some six feet of 16 mm. film of the bird. His companions, Henry S. Lewis and John E. Walsh, watched the bird for several minutes as it glided nearby, and recognized it as a Frigate-bird.

Mr. Leadbeater kindly showed me the film in August. Noting a marked white patch on the side under the wing, I turned to the cut of *Fregata ariel* in Murphy's *Oceanic Birds of South America*. We ran through the film again and noted that, as one of the observers said, the white patch looked like "a playing card placed on the body slightly on a slant." After looking at skins at the Museum of Comparative Zoology, Harvard, it was obvious that only the adult male of *F. ariel* matched the pictures. The film was then sent to Dr. Alexander Wetmore.

Dr. Wetmore writes that he examined it under a magnifier that allowed study of single frames, and through the courtesy of the laboratory of the National Geographic Society, obtained blow ups of four of the clearest frames. "These show the light spot clearly and indicate without question that the species photographed was *Fregata ariel* (G. R. Gray). This species ranges in the Pacific from the Philippines and coast of China to Australia; in the western Indian Ocean; and to South Trinidad Island in the Atlantic [700 miles east of Victoria, Brazil]. . . . The supposition would be that the bird seen in Maine was from the South Trinidad colony, although there is no absolute certainty regarding this. At any rate, it is a species that has not been found earlier in our North American region."

All authorities agree as to the essentially sedentary nature of frigate-birds, which are rarely seen out of sight of land. It is amazing that *Fregata ariel*, seldom observed in the Atlantic, and little known away from its island homes of South Trinidad and Martin Vas, not only visited our coast, but was photographed. Negatives and prints are on file at the Peabody Museum of Salem (PMS-k 17).—DOROTHY E. SNYDER, *Peabody Museum, Salem, Massachusetts.*

An Example of the Whisper Song of the Gray Jay (*Perisoreus canadensis*).

—On 12 September 1960 Mrs. O. E. Devitt, Miss Margaret McKay, and I stopped for lunch beside the Oxtongue River in Algonquin Provincial Park, Ontario; four Gray Jays appeared and, as is their habit, began looking for handouts. After receiving small pieces of bread, they remained in nearby trees watching us. One individual, which was perched on the lower branch of a spruce within three meters of us, began to sing a whisper song. The movement of the throat muscles could be clearly seen as the bird sang. The warbling song was subdued but easily audible to all of us. It was quite varied, somewhat resembling that of the Purple

Finch (*Carpodacus purpureus*) but with an occasional harsh jaylike note. A certain ventriloquistic quality made it seem to be coming from trees farther off. The song lasted about 25 to 30 seconds. References in the literature to this type of song are rare indeed. Probably the closest description to the one we heard is that given by Warren (*Auk*, 16: 14, 1899). Lawrence (*Auk*, 74: 260, 1957; *Audubon Mag.*, 62: 287, 1960) described a similar song, which she called "displacement singing," uttered in moments of frustration when there arises "a conflict between two drives which possessed the jay, the urge to feed and the urge to flee, caused by hunger and the finding of food in an unapproachable place." The latter situation was probably the case with our bird. However, Lawrence's assumption that there is a correlation between this song and the breeding season can hardly be applicable in the present instance.—O. E. DEWITT, 83 Harding Blvd., Richmond Hill, Ontario.

The Effect of Parasitism by the Brown-headed Cowbird on Empidonax Flycatchers in Michigan.—In Michigan three of the four *Empidonax* flycatchers are periodically parasitized by the Brown-headed Cowbird (*Molothrus ater ater*). The incubation period of the Cowbird eggs in two Field Sparrow (*Spizella pusilla*) nests that I followed in June 1945 was 12, possibly 13, days. Following is a summary of my observations of many nests of the four *Empidonax* flycatchers in Michigan.

YELLOW-BELLIED FLYCATCHER (*E. flaviventris*). I have observed six nests of this species of which none were parasitized by Cowbirds. Due to the type of habitat used, usually spruce-sphagnum bogs or alder-grown areas, the species is seldom parasitized. The incubation period at one nest in Schoolcraft County in June-July 1956 was 15 days.

ACADIAN FLYCATCHER (*E. virescens*). In 67 nests, the contents of which were known, 16 (24 per cent) were parasitized by Cowbirds. Table 1 shows in more detail this parasitism.

All nests had only one egg, except for one that had three Cowbird eggs. Three nests containing three host and three Cowbird eggs were deserted. Two Cowbird eggs disappeared from nests, one of which could have fallen through the bottom of the nest; the other could probably have been removed by the host. Two eggs were built into the bottom of the nests in which they were found. Thus seven eggs had no chance of survival. Of the remaining 11 eggs six hatched, and all six fledged, one from each of six nests. In all six cases no Acadian Flycatcher young fledged. In all but possibly one case no flycatcher eggs even hatched.

In six nests in which the incubation period (the period between the laying and hatching of the last egg) of the Acadian Flycatcher was known in Calhoun County, two were 13 days; three, 14 days; one, 15 days. In one nest in Oceana County this period was 14 days. Nestling periods of the Acadian Flycatcher in Calhoun County have been: one, 12 days; one, 13 days; five, 14 days. In Muskegon County, one was 13 days.

When the young Cowbird hatched, always prior to the hatching of the host eggs, the Acadian Flycatcher abandoned continuous incubation, and its eggs failed to hatch. In most cases its eggs remained in the nest even when the young Cowbird fledged.

In all parasitized nests the Cowbird eggs were laid in June. Among banded birds I have found several instances of the Acadian Flycatcher raising two broods