

around Paramaribo by the end of April and the beginning of May. They returned in November after the harvest of the rice. On April 24, 1947, they had gone from all their favorite feeding grounds west of Paramaribo, and on May 10, 1947, they were not present anymore at Meerzorg. They were back at Meerzorg on November 4, 1947. In 1948, they had left Meerzorg by March 27; a single bird was seen on April 3. They came back into this area on November 14.

The question arises—where do these birds go in the meantime and where do they breed? I suspect that they all go to the coast, which is densely wooded with *Avicennia nitida*, to breed in some inaccessible place. There were no Cattle Egrets present, however, in a mixed colony of *Guara rubra*, *Leucophoyx thula*, *Hydranassa tricolor* and *Nyctanassa violacea* near the mouth of the Saramacca and Coppename rivers which I visited on June 5, 1948. That the birds do breed in this country is, however, certain. One of the birds collected at Meerzorg on January 11, 1947, had enlarged testes, and its plumage showed the beginning of its breeding dress. A male collected west of Paramaribo on February 21, 1947, also had enlarged testes. In February and March, all birds were in full breeding plumage.

As to the occurrence of the Cattle Egret in neighboring countries, I will draw attention to the fact that a second specimen, shot from a flock of eight birds, was obtained in Venezuela (Walter Dupouy, Primer Congreso de Ciencias Naturales, Caracas, pp. 1-5, 1948). As to British Guiana, Phelps (Bol. Soc. Venezolana de Ciencia Naturales, 10: 230-231, 1946) quotes an interesting letter from Mr. Hunter, owner of the sugar plantation 'Versailles' on the right bank of the Demarara River, who has observed flocks of Cattle Egrets in this area since 1930. How did this Old World species turn up in tropical South America? Several solutions are at hand. The first being that the bird was always indigenous but that it has been overlooked. This seems, however, extremely unlikely. In British Guiana, it certainly could not have escaped the attention of such a keen field ornithologist as the late J. J. Quelch. As for Surinam, I think it is out of question that it should not have been obtained by one of the numerous assistants of the three Penard brothers at the time their collections were brought together in the last part of the 19th and the beginning of the present century. Their principal collectors lived in the very area where the bird is at present numerous.

The second solution is that the flocks are descendants of escaped birds. This seems unlikely too, as I do not know of any zoological garden or aviculturist either in Surinam or in British Guiana in the last years. It is true, however, that *Bubulcus* breeds freely in captivity. According to the 'Handbook of British Birds' Vol. III, p. 144, a considerable number of Cattle Egrets have been released by the Zoological Society at the Whipsnade Zoo since 1931 and a few in 1930 in Surrey. Some have also been released (1929 and 1938) at the Dublin Zoo. These birds have wandered in all directions, even as far as Iceland, and have caused great confusion. I must stress, however, the fact that all these birds belonged to the Indian race, *B. i. coromandus*, which was imported. The specimens from Surinam (males, January 4, and February 21, 1947) which I sent to the American Museum of Natural History at New York, belong to the typical race *ibis*, according to Zimmer.

The last solution, which I believe the most likely one, is that some birds or a flock found its own way to the coastal region of tropical South America and settled in an area which proved favorable for the birds.—FR. HAVERSCHMIDT, *Paramaribo, Surinam, Dutch Guiana.*

Concentration of Trumpeter Swans, *Cygnus buccinator*, in British Columbia in Winter.—In 'The Auk' (59: 100, 1942) there were published some notes on Trumpeter Swans in British Columbia, Canada, which were sent to me by Mr. Ralph

A. Edwards who lives in the region where these swans spend the winter. I gave these notes to Dr. H. H. Chapman and he sent them to 'The Auk.'

Under date of April 3, 1949, Mr. Edwards wrote me as follows: "Early last fall we thought we had about 84 but quite a few of them hung around various lakes and the river, so it was not a complete count. Later, we got better track of them—nearly 100 with 24 cygnets. We had to start feeding the first week in December and soon had 63 regular boarders, 16 of them cygnets.

"It seems to take about one-half pound of grain per day to keep one of these big birds flying, so we soon found our supply of a ton of grain dwindling. I wired the Government for another 1000 pounds so as to be able to bring all of them through the winter. The Government promptly flew in a DC3 transport plane, dropping the feed by parachute. This was in mid-February and as the winter became more severe several more swans and another cygnet joined our band, but of the eight cygnets that were staying below us on the river only two survived. The ones that stayed here regularly and had grain every day lived and remained strong, even one family of five cygnets.

"Our daughter Trudy did the feeding because I was away on the trapline so much. The swans are very sensitive to any change in routine, to any change in feeders or even to any change in the garments worn by the feeder. Of course when there is lots of open water one does not need to come in very close contact with them in order to feed, but when the lakes and river freeze except for a tiny hole they are pretty tame; otherwise, they fly away to some other lake and sit on the ice and starve, as they did before we started feeding them.

"This winter the river at our place froze from the bottom up and ran all over the country, a stream of ice crystals almost too sticky to run, so we could not always feed in the river in the same way we had been doing. We used to dump half a sack or so in the lake at a time, but we now feed every day with better results. For the past few years Trudy has been able to keep a small hole open in the river by chopping the ice when the surface froze and the swans learned to have confidence in her. But this winter when the big cold came the river was out, and we had to find another place to feed. Across the lake and down about a mile there has always been a narrow streak of open water, kept that way by springs, so Trudy packed the grain down there; the trumpeters followed her and were able to eat in the coldest weather.

"The swans had just been fed when the R. C. A. F.'s DC3 flew in, and the birds continued to sit there while the big plane flew back and forth dropping sacks of grain in parachutes in plain sight of them. Then the plane made a final circle at about 150 feet elevation over them, and they did not move. Since we have been feeding every day we have been able to conserve practically all the grain for the swans. The ducks are wilder and fly out when Trudy goes down to the feeding place, so the swans get all the grain. Each swan will clean up about one-half pound of feed in about 20 minutes."

The region where these swans occur is very remote from any settlement, but the land along the river and at the end of the lake Edwards referred to is owned by a trapper who is most anxious to sell to someone who would be interested in having the Trumpeters protected and a sanctuary created for their benefit. The Conservation Department of the Canadian Government does not like to disclose the whereabouts of rare species threatened with extinction except to accredited persons. For this reason I have omitted the exact location of this concentration of Trumpeters, but I will be glad to give the pertinent information to responsible organizations or individuals.—JOHN P. HOLMAN, *Fairfield, Connecticut.*