

into the cattails just a short distance away. I approached the birds and, as they flew, shot and killed one. The other four circled the marsh and again settled down. As they flushed again, I collected another. The remaining three circled out of sight but soon came back and again settled into the marsh.

I again approached the ibises, this time very carefully, and got within 50 feet of them. They were standing along the edge of a small pond, with their decurved bills lying along their breasts. After a short time they began feeding in the pond, with very deliberate movements. After feeding for about 20 minutes they flew up and circled out of sight. In approximately half an hour they returned and dropped into the cattails a short distance away. This time I approached to within 30 feet and watched them for about an hour as they fed and preened. As I wanted to look over more of the marsh I rose, flushing the ibises. They again circled out of sight and returned to the same general area. The last I saw of them they were again dropping into the cattails.

Examination of the two specimens taken showed that one was an adult male and one was an adult female. The gonads of each were in breeding condition, those of the male being much enlarged, and those of the female containing eggs as large as the end of an ordinary pencil. While watching the living birds from a very close range, a light line was seen extending around the base of the feathers. In the living bird this appeared white, but in the birds collected it was seen that this line was of a greenish-white and was a line in the bare skin at the base of the bill. At a little distance in poor light, or at a glance, it would be very easy to confuse this line with the white feathers around the base of the bill of the white-faced glossy ibis, *Plegadis mexicana*. There are few ornithological works that mention this line.—JOHN H. BUCKALEW, *Chincoteague National Wildlife Refuge, Chincoteague, Virginia*.

**An abnormality in a Canada goose.**—On April 1, 1948, a Canada goose, *Branta c. canadensis*, was found by laborers on the Tuckahoe Public Shooting Grounds, Tuckahoe, New Jersey. The bird was emaciated and unable to fly. An autopsy was performed by Mr. C. B. Hudson, Department of Poultry, Rutgers University, New Brunswick, New Jersey. The lower esophagus and proventriculus were severely impacted with a mixture of sand and vegetable material, mostly leaves which resembled *Spartina alterniflora*. A blood smear and a macroscopic examination of the intestinal tract did not reveal any parasites. Impaction of the upper digestive tract is a rather common occurrence in chickens and domestic turkeys.—EDWARD L. KOZICKY, *New Jersey Division of Fish and Game, Trenton 7, New Jersey*.

**Hybrid of snow and Canada goose.**—An interesting example of hybridism between a male lesser snow goose, *Chen hyperborea hyperborea*, and a female Canada goose, *Branta canadensis*, occurred on the game farm of Jack Miles of Denver, Colorado. He has a small band of pinioned Canada geese and one crippled, male snow goose. In 1942, and the following spring, the snow goose followed a Canada goose and attempted to mate, apparently without success. His attentions continued in the next two years, and eggs were laid both seasons, but they did not hatch. In 1946, four eggs were laid and in due time three young appeared, two of which were raised. These two young, a trifle larger than the snow goose, have nearly white heads, a flecking of white upon the neck, and their underparts are whiter than in Canada geese (Plate 3). —ALFRED M. BAILEY, *Denver Museum of Natural History, Denver, Colorado*.

**Observations on greater snow geese in the Delaware Bay Area.**—One of the major resting and feeding areas used by greater snow geese, *Chen hyperborea atlantica*,

on their migrations is the extensive marshy areas lying along both sides of Delaware Bay at Fortescue, New Jersey, and the Bombay Hook National Wildlife Refuge in Delaware. Data recorded at the Bombay Hook Refuge show that weather conditions are primarily responsible for the times of appearance and duration of stay in this area. The geese have been noted to arrive as early as September and as late as November. They remain until the marsh freezes, which may occur from November to January. Spring data include arrival dates in February and March, with the geese usually remaining until April.

Through the courtesy of Colonel Donald B. Diehl, Commanding Officer of the 4146 Base Unit, AMC, USAAF, located at the Dover Air Base in Delaware, both the fall and spring flights were photographed from the air. The area containing the geese was first flown over and the geese herded into a flock. Then the flock was chased out into the bay to provide a dark background for the photographs. A series of pictures of each flock was taken at an altitude of about 500 feet and the best photograph enlarged to 20 by 24 inches so that *each goose* could be counted. The fall flock contained 2,659 individuals, and 13,494 were in the spring flock.

Plate 4 is the photograph taken of the spring flock on March 29, 1945. It points out the usefulness of aerial photography as an aid in censusing the various forms of wildlife, particularly waterfowl.

Another interesting fact which was brought out by the photograph was the wide divergence of opinions expressed as to the total number of birds contained in the flock. Shortly after the photograph was "counted," several visitors to the Bombay Hook Refuge were shown the photograph and asked to estimate the total number of birds. The results were so at variance that an effort was made to gather further data to determine how much reliance could be placed on estimates made of large flocks of waterfowl. Through the courtesy of Colonel Diehl, several large photographs were made available to interested organizations. In addition, all visitors to the Refuge and Army personnel at the Air Base were asked to make estimates. The averages and ranges of the estimates varied directly with the experience of the observer. Estimates of 91 laymen varied from 1,000 to 1,000,000, and the average was out of all proportion to the actual figure. The estimates of 52 ornithologists varied from 3,000 to 28,000 with an average of 9,000.

Another interesting point was brought out by two of the photographs of the fall flock. The first photograph was taken as the flock rose from the feeding grounds on the refuge and flew in a long line toward the bay. The second was taken as the flock settled on the bay in a compact group. Invariably, observers overestimated the number in the first photograph and underestimated on the second.

Mr. Charles L. Slaughter, maintenance man at the Refuge, assisted materially in the counting work. Master Sergeant Robert Livingston was the photographer on all flights. William Burchard and Clifford Hagerman of the Photographic Laboratory of the 4146 Base Unit assisted in technical details.—GEORGE P. SPINNER, *Bombay Hook National Wildlife Refuge, Smyrna, Delaware.*

**Notes on the sexual behavior of the baldpate.**—On May 28, 1948, at 7:45 a. m. in Ashbridges Bay in Toronto a male baldpate, *Mareca americana*, dropped into a group of two females and one other male on the water and started to chase one of the females. Both flew up, the male behind. He caught her tail feathers with his beak and held them. They dropped to the water, the male on top and still holding the tail feathers. The female sank into the water until only her head showed. They copulated. As far as I know, this behavior has not been previously recorded on the