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LITTLE BLUE HERONS WITH ABERRANT PLUMAGE IN SOUTHWEST FLORIDA

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Abstract.—For a period of 13 years one or several unusually plumaged Little Blue Herons (*Egretta caerulea*) were observed and photographed in a colony/roost in Southwest Florida. The most commonly encountered variant was an adult definitive plumage with all-white head and neck. This note is the first detailed description of a Little Blue Heron in this aberrant plumage.

Throughout the world several species of herons are dimorphic, having both dark and light forms. The Little Blue Heron (*Egretta caerulea*) is unique among herons by having a white juvenal plumage followed by an all-dark adult plumage (Rodgers and Smith 1995). On two dates in 1988 I observed and photographed a Little Blue Heron with a totally white head and neck (Fig. 1). From 1989 through 1996 I noted a bird in what appeared to be exactly the same plumage eight more times, suggesting that this was the definitive adult plumage of one or more birds. In 1990 a Little Blue Heron with a mottled gray head and neck (Fig. 2) appeared and was photographed on two dates in the same location. In May of 2000 I noted a Little Blue Heron in a stage of transition from white juvenal to dark adult plumage that was unusually advanced for that time of year.

STUDY AREA AND METHODS

I made my observations at a mixed-species nesting colony and night roost known as the Marco Colony, located at 25°57'40"N 81°42'24"W, just north of Marco Island, Collier County, Florida, U.S.A. The colony is composed of three small Red Mangrove (*Rhizophora mangle*) islands 2.13 ha in total, owned and named the ABC Islands (one letter per island) by the State of Florida. All of the islands are long and thin, oriented NE-SW in the Marco River, and are 300 m from the nearest residential development.

These islands were reported to be the only nesting place for Little Blue Herons among the many colonies along the southwest coast visited by the National Audubon Society patrol boat from 1936 to 1939 (Reimann 1940). Little Blue Herons have used the islands continually for nesting and roosting in the 34 years I have monitored them through early 2008.

As part of an ongoing study of coastal waterbirds, the Marco Colony has been monitored every two weeks in the morning by boat since 1974. In another project, known as the ABC Sundown Census, the birds flying in to roost at sundown have been counted monthly since 1979. In 1979 an observation blind was constructed on the A Island (the westernmost) overlooking the densest part of the nesting colony. During the breeding

season, nesting is regularly monitored and photographed from the blind. To limit stress, the blind is visited no more than every seven to ten days and the average visit is less than 30 minutes.

After 1988, when the Little Blue Heron with the white head/neck was observed and photographed, I sought information about other instances of aberrant plumage in this species or other herons by circulating a photograph of the heron with white head and neck throughout the Florida ornithological community, at a Colonial Waterbird Society meeting, and among other authorities on herons.

RESULTS

By the end of 2006, data had been collected at the Marco Colony for 33 years. In this period 1167 censuses had been conducted there (925 morning and 242 evening) and the blind visited at least 300 times. This equates to approximately 3400 observer hours spent recording birds roosting, nesting, and flying either in or out. During this time, 2,160,195 individual birds have been recorded flying into the roost at sundown; 69,818 (3%) of these were Little Blue Herons. From 1988 through 2000 one or more aberrantly plumaged Little Blue Herons have been recorded either on or in the vicinity of the Marco Colony.

On 24 April 1988 a Little Blue Heron with totally white head and neck (Fig. 1) was observed and photographed in front of the blind. Except for this unusual feathering the heron appeared to be in Definitive Alternate plumage as described by Rodgers and Smith (1995): "Birds acquire longer lanceolate plumes than in Alternate II plumage (Palmer 1962). Definitive Alternate Plumage on head and neck is brownish red, a small tuft of lanceolate plumes on rear of crown and many on lower sides of neck. Rest of the plumage is slate, including long lanceolate back plumes (some extend 10.3-16.4 cm beyond tail)." A Little Blue Heron with white head and neck appeared and was photographed at the colony a total of four times through 3 June 1989.

In April and May of 1990 a Little Blue Heron with a mottled gray head and neck, instead of either brownish red or full white (Fig. 2) was observed and photographed at the colony on two dates about a month apart.

During a census at the blind on 2 May 1993 a Little Blue Heron with a white head and neck that had a few gray smudges was recorded; this bird appeared very similar to the one(s) with all-white head and neck seen in the first two years.

While at the blind 10 May 2000 yet another unusually plumaged Little Blue Heron (Fig. 3) appeared; this bird was in what I and others refer to as sub-adult plumage. This plumage is a blend of white, gray, and blue throughout the entire feathering, and is transitional between the all-white Basic I juvenal plumage and the all-blue adult Alternate II plumage (Rodgers and Smith 1995). This early in the year it is unusual for a sub-adult Little Blue Heron to have so much gray and blue plumage; the norm is all white with just a few off-white to blue spots. It also



Figure 1. Little Blue Heron with totally white head and neck, 24 April 1988.

was odd that this bird had many more plumes, and a bill that was much brighter cobalt blue at the base, than is typical for a bird of this apparent age; both are indicators of breeding. There have been reports of Little Blue Herons breeding in sub-adult plumage but it seems to be unusual.

All of the above aberrantly plumaged Little Blue Herons were observed and photographed 7.6 m in front of the blind on A Island.

Single Little Blue Herons with white head and neck have been observed flying into the Marco Colony during six sundown censuses (10 April 1993, 16 July 1994, 15 April 1995, 21 April 1995, 15 May 1996, and 6 May 2000).

Only once was a Little Blue Heron with white head and neck recorded away from the colony; this bird was observed flying low over mangroves 37 km SSE of the Marco Colony on 15 May 1996 (S. Davis, pers. obs.).



Figure 2. Little Blue Heron with gray head and neck, 14 April 1990.

DISCUSSION

In all of these observations only one bird was observed at a time. Although there were variations in plumages of the birds with all-white heads and necks, I cannot state with certainty that these were different individuals.

The whiteness of the head and neck may be an example of schizochroism, “the total lack of pigment which produces white” (Campbell and Lack 1985, p. 472). This plumage is different from anything previ-



Figure 3. Little Blue Heron in sub-adult plumage, 5 May 2000.

ously described in detail in the literature, and none of the ornithologists to whom I circulated a photograph reported knowing of others like it. Rodgers and Smith (1995) do refer to the 1988 Little Blue Heron with white head and neck, and a photograph of it appears in Hancock (1999).

The heron photographed in 1990 (Fig. 2) is quite different, with a considerable amount of blue smudging making the head/neck appear grayer. The 1990 photos also indicate that the white in the neck does not extend down as far as it does in the 1988-89 bird(s). I conjecture that the 1990 heron could be the offspring of a mating between a heron with typical plumage and one with white head and neck. This heron

with gray head and neck appeared two years after the breeding season of 1988 when the Little Blue Heron with white head and neck first appeared. This would have then been the third year for the gray head/necked bird if it hatched in 1988. Little Blue Herons molt into adult plumage after the end of the first year (Rodgers and Smith 1995).

The bird in the 1993 photos shows a little darkness in the chin and a few light smudges in the head/neck, thus it could be either one of the above birds; or there could have been three different birds; without some other means of identification it is impossible to tell.

All of these unusually marked birds appeared in the nesting season and were not seen flying in at sundown at any other time of year.

The studies described here are ongoing and as of April 2008 no aberrantly plumaged Little Blue Herons have been observed since 2 May 1993; this could be consistent with the hypothesis that all these sightings (except for the sub-adult) represent one individual, but does not prove it.

Even though the sub-adult appeared at the same place in the colony as the other oddly plumaged herons, I have no reason to think it was related to them.

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