Melanistic Green Herons (*Butorides virescens*) in Cuba

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Abstract

Small herons of the genus Butorides are known to have populations showing polymorphic plumage, most notably on the Galapagos. Black-plumaged individuals were observed and photographed in Cuba, in the Jardines del rey archipelago, on the island of Cayo Santa Maria. That more than one individual was observed suggests the possibility that this may be a polymorphism, the first suggested for the Green Heron (*Butorides virescens*).

Key words: Atlantic Ocean; color morph; Jardines del rey; melanism; plumage; UNESCO World Biosphere.

Introduction

The herons of the genus Butorides are small birds found in a variety of habitats, ranging from small streams, ponds and marshes (Kushlan and Hancock 2005). Those with surrounding cover are most suitable. In such habitats, these herons forage for a variety of prey such as small fish, frogs, and crustaceans (Davis and Kushlan 1994). The plumages of these herons make them rather camouflaged within such feeding sites, being variably dark above and striped below. Depending on species, they have a distinctive chestnut or grey necks. Juveniles are cryptically stripped. Famously, a population of the Green-backed Heron (*Butorides striata sundevalli*) on the Galapagos Islands, in the Pacific Ocean, has many dark individuals that inhabit the dark lava shoreline, the plumage being an apparent adaptation for foraging out in the open on a dark surface (Kushlan 2009). For the Green Heron (*Butorides virescens*), there is much variation geographically in neck color, but few reports of overall plumage deviation (Kushlan and Hancock 2005). In this paper, I report and document photographically apparently melanistic Green Herons in Cuba.

Methods

These herons were photographed in Cuba, at the resort "Sol Cayo Santa Maria" on the island of Cayo Santa Maria in the Jardines del rey archipelago in the Atlantic Ocean. The photographic equipment used to document this species was as follows: Nikon D200 camera with a Nikon 80-

Figure1. Melanistic Green Herons, with normal Green Heron for comparison at lower right.

400mm VR lens. No photographic filters were used in the digital capture of these birds. The image files have undergone minimal processing with no adjustments to color and no objects cloned out of the images. The only post capture adjustments made to the images were minor contrast adjustments and a small amount of highlight detail recovery in the rock perch. All Photography © 2011 Andrew McLachlan.trast adjustments and a small amount of highlight detail recovery in the rock perch. All Photography © 2011 Andrew McLachlan.

Results

During the week of 13 February 2011, on the island of Cayo Santa Maria, in the Jardines del rey archipelago on the Atlantic Ocean, I encountered and photographed two Green Herons both with dark, almost black plumage. Figure 1 shows these herons, with a comparison photograph of a normally plumaged Green Heron.

The normal Green Heron was photographed in 2009 on the island of Cayo Guillermo, located within the Jardines del rey also, a mere 246 km east of Cayo Santa Maria. The images of dark birds were captured in both over-cast light and full sunlight and a couple of them clearly show an interesting pure white wing feather. I cannot say for certain if this white feather was present in both birds or just one. Also of interest is the full development of the dorsal breeding plumes, which look typical, if darker, than normally plumaged birds.

These herons would frequent small man-made ponds at the resort I was staying at. As the photographs showed, they roosted on rocks at the edge of the ponds. However, they fed under the cover of pond edge vegetation, not in the open on the rocky shore. The ponds, noticeably green with algae, appeared to be stocked with a cichlid-type fish, perhaps Tilapia.

Discussion

There is little doubt, that these birds are Green Herons. Indeed, these birds are the same size as Green Herons, have the same call as Green Herons do and when alarmed, like Green Herons, would raise a small crest on their head as they flew into nearby sea grape (*Coccoloba uvifera*). Furthermore, Green Heron is the *Butorides* species occurring in Cuba, the nearest Green-backed Herons occurring in Trinidad and northern South America.

Based on Kushlan and Hancock (2005), this is the first report of melanistic plumage in the Green Heron. Interestingly, though, it is not the first report of a color form in Cuba. Raffaele *et al.* (1998) reported the existence of a red-brown phase in Cuba, characterized by small size, short neck, generally dark coloration, and greenish-yellow to orangish legs. It is not clear how these two reports may be related.

The similarity of the birds in these photographs and dark forms of *Butorides striatasundevalli* from the Galapagos is striking. These birds are not *sundevalli*, however, as that subspecies has a markedly large bill and thick legs (Kushlan 2009), which the Cuban birds did not show.

It is most likely this is a genetic variant within the population of Green Herons. Of great interest is that I observed two birds. Of course, there might be more. These observation suggest that the genetic variation resulting in the dark plumage might be spread within this population, and if so the potential exists for the development of a permanent plumage variant or even a dimorphic population. Given the propensity for *Butorides* herons to diversify on islands, perhaps it is an undescribed subspecies of Green Heron that

inhabits this archipelago.

In other *Butorides* subspecies, there are proven advantages to dark color morphs, particularly if foraging on a darker substrate. But many of the islands in the Jardines del rey archipelago are lush with Sea Grape and Mangroves, however, the rocky shorelines that exist vary from cream colored or dark grey and the Green Herons prefer to forage in ponds, streams and marshes. I witnessed no Green Herons near or foraging around the rocky shorelines. It would seem that there is little advantage for this dark color morph within the Jardines del rey, unless these birds have adapted to the environment inhabited for other unknown reasons. The unknown variables surrounding these two herons, displaying this color morph, should be monitored and investigated further on the island of Cayo Santa Maria in Cuba's Jardines del rey.

Photographer's Note

I photographed these herons while vacationing in Cuba. The island of Cayo Santa Maria, in the Jardines del rey archipelago, a UNESCO World Biosphere, on the Atlantic Ocean. Being a freelance nature photographer, I enjoyed the opportunity to photograph a co-operative heron that I had never encountered before. I believed that I would easily identify this heron upon my arrival home. It has been a challenge to say the least. I have enlisted the help of several individuals, more knowledgeable than I, before concluding that they were a melanistic form of Green Heron.

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