

WHITE-FACED WHISTLING-DUCKS (*Dendrocygna viduata*) CAPTURED, COLOR-MARKED, AND RELEASED IN BROWARD COUNTY, FLORIDA

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There have been multiple reports of White-faced Whistling-Ducks (*Dendrocygna viduata*) in Florida since the first in 1991 (Sullivan et al. 2009, Greenlaw et al. 2014, EDDMapS 2018). The sighted birds were most likely released or escaped from captivity, but some may have possibly been natural vagrants (Greenlaw et al. 2014). In November 2015, we learned of a flock of six White-faced Whistling-Ducks in Davie, Broward County, Florida (Fig. 1). In June 2016, we captured,



Figure 1. Flock of six White-faced Whistling-Ducks at the capture site prior to any capture attempts. Photographed by Ron Smith.

color-marked, and released two members of this flock (Fig. 2). Here we summarize reports of White-faced Whistling-Ducks in Florida and provide specifics about the capture effort and associated encounters with the two color-marked individuals.

The range of White-faced Whistling-Ducks is from Costa Rica to northern Argentina and Uruguay, including Trinidad, and sub-Saharan Africa, including Madagascar and Comoro Island (del Hoyo et al. 1992, Dickinson et al. 2004). White-faced Whistling-Ducks were listed by Robertson and Woolfenden (1992) as “unestablished exotics” in Florida, with only one report. Greenlaw et al. (2014) list the species as “verifiable, potential natural vagrants” and include 10 reports (five



Figure 2. Color marking an after-hatch-year female with marker “Y3”. Photographed by Richard Hermann.

records). Most reports of White-faced Whistling-Ducks in Florida have been of one or two individuals (Fig. 3; Sullivan et al. 2009, Greenlaw et al. 2014, EDDMapS 2018).

Across their natural range, White-faced Whistling-Ducks use a variety of wetland types but are most commonly found at freshwater ponds and emergent wetlands (del Hoyo et al. 1992), both of which are abundant in southern Florida. Most sightings of White-faced Whistling-Ducks in Florida have been from suburban areas, but individuals have also been seen at more natural areas such as Circle B Bar Reserve in Polk County and Stormwater Treatment Area 5 in Hendry County. Other exotic waterfowl in Florida such as Muscovy Ducks (Greenlaw 2014), and Egyptian Geese (Braun 2004, Pranty and Ponzo 2014) have

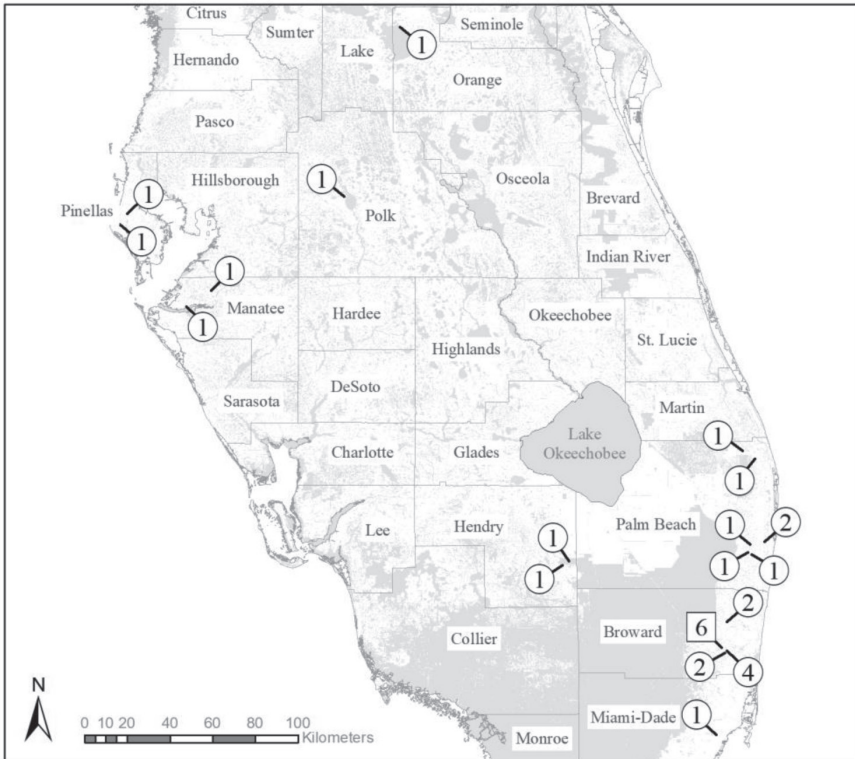


Figure 3. Map of sightings of White-faced Whistling-Ducks in Florida. Numbers inside symbols represent the maximum number of individuals reported at that location in any given report. Multiple reports at the same location from different reporters or dates were consolidated for legibility. The square symbol distinguishes sightings at the banding location. Shaded areas represent National Wetland Inventory polygons.

occasionally been observed away from suburban water bodies, but seem unable to survive long-term away from human habitation.

White-faced Whistling-Ducks have several life-history traits that may make them successful invaders of southern Florida, including long-distance dispersal capabilities (Petrie and Rogers 1997), adaptable diet and feeding behavior (Petrie 2000, 2005), and use of similar habitats in their native range. Their congeners, Fulvous Whistling Ducks (*D. bicolor*) and Black-bellied Whistling-Ducks (*D. autumnalis*), increased in both population sizes and ranges in Florida starting in the 1960s and 1980s, respectively (Greenlaw et al. 2014). In addition to biological differences among the three species, a key difference is that those population changes in Florida originated from relatively close historic ranges where additional emigration could bolster the stock in the area of expansion, whereas White-faced Whistling-Ducks in Florida are few in number and relatively farther from their native range.

In November 2015, we learned of a flock of six White-faced Whistling-Ducks photographed on a suburban retention pond in Davie, Broward County, Florida. Our attempts to capture individuals from this flock via cast net and mist net were unsuccessful. On 14 June 2016, we captured two individuals from this flock using a pneumatic-powered net cannon (Wildlife Control Supplies Net Blaster SP-10500) and sexed them via cloacal examination. One duck was an after-hatch-year (AHY) male and the other was an AHY female. We attached one alpha-numeric color band (Spinner Plastics, Inc.) to each leg of these individuals: white "W7" on red markers on the male and white "Y3" on green markers on the female. Neither bird was pinioned, toe-clipped, or otherwise previously marked. The U.S. Geological Survey Bird Banding Lab (BBL) does not regulate the marking of exotic birds, so BBL aluminum bands were not placed on the ducks. We used markers with an inside diameter similar to a size 7 band (12.7 mm), based on recommendations for Black-bellied Whistling-Ducks, which call for sizes 7 or 7a (11.13 mm). We recommend using size 7a markers in the future because the size 7 marker slid above the ankle of one of the individuals post-release. Several underwing feathers were collected from each individual, dried, and stored at Southern Illinois University's Cooperative Wildlife Research Laboratory; they will be made available should any researchers seek to examine genetic relationships between other White-faced Whistling-Ducks captured in the future and the birds captured for this study.

One unmarked White-faced Whistling-Duck from the Davie flock disappeared in 2016 and another was later found dead on a road (R. Hermann in litt.), leaving four individuals, including the two that we color-marked. Four individuals have since been photographed at St. David Catholic Church, Davie (as recently as 21 July 2018 for W7, 22

April 2017 for Y3, and 9 November 2017 for two unmarked birds; eBird data) and observed at the capture site (29 August 2018 for W7 and two unmarked birds, 1 July 2018 for Y3; R. Hermann in litt.), confirming that these ducks move between the two locations, which are about 3 km apart.

We agree with the consensus of those who have commented on this project and subsequent manuscript that the White-faced Whistling-Ducks in Davie more likely represent released or escaped individuals rather than natural vagrants; releases and escapes of exotic bird species are common in southern Florida (Simberloff et al. 1997). Reports for the church pond (eBird data) included several other exotic species such as Red-crested Pochards (*Netta rufina*), Muscovy Ducks (*Cairina moschata*), and Egyptian Geese (*Alopochen aegyptiaca*).

The lack of any breeding occurrences and very limited movements of White-faced Whistling-Ducks in Florida, along with demonstrated limited dispersal in their native range when food is readily available year-round (Petrie and Rogers 1997), suggest that establishment and expansion of the species in Florida is unlikely. That said, monitoring the distribution and abundance of White-faced Whistling-Ducks in Florida will be important for detecting any potential future changes to their population.

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