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## FIRST RECORD OF GREAT SHEARWATER (*Ardenna gravis*) IN CUBA

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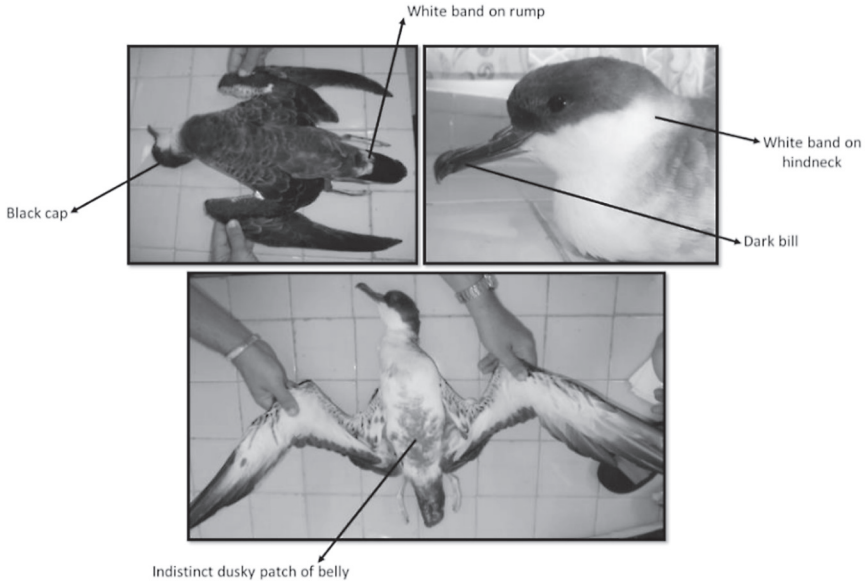
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Cayo Coco (22° 30' N, 78° 27' W), located north of Ciego de Avila province, is the second biggest cay of Cuba. Part of the Sabana-Camagüey archipelago, Cayo Coco is one of the most important islands due to its area (370 km<sup>2</sup>) and high habitat diversity and complexity. This cay is separated from the mainland by a shallow and open macro-lagoon named Perros bay, but since 1989 both landmasses were connected by a 17 km causeway. North of Cayo Coco are the open waters of the Caribbean Sea with coral reef crests, while several areas of mangroves and halophytic communities in Perros bay are the limits to the south. Nature tourism (e.g., recreational diving, fly fishing) and commercial fisheries are the main human activities in the marine areas that surround Cayo Coco.

This island is one of the most productive regions in Cuba for its avian abundance and richness (Garrido and Kirkconnell 2011, Parada et al. 2011). Waterbirds have been less studied than land birds due to logistic limitations of working in marine areas. However, some contributions have been made to the ecology of waterbirds in aquatic and coastal ecosystems (Sánchez and Rodríguez 2000, Nol et al. 2014), reproduction of colonial seabirds (Rodríguez et al. 2003, Pérez et al. 2005, Rodríguez et al. 2008) and new reports of rare and vagrant species (Parada et al. 2014, Stott 2015) in Cayo Coco and adjacent areas. The central and eastern cays of the Sabana-Camagüey archipelago provide critical stopovers and wintering habitats for several transient and wintering species (Parada et al. 2014).

Great Shearwater (*Ardenna gravis*) is a pelagic seabird with a wide range in the Atlantic Ocean. This species breeds on islands of the southern hemisphere during the summer and then makes a long trans-equatorial migration to the northern hemisphere where it feeds on fish, squid, and krill in the boreal summer (Haman et al. 2013). Migration of this species in the Caribbean Basin seems to peak in June through the Lesser Antilles (Sandoval et al. 2010). *A. gravis* is an uncommon non-breeding resident between The Bahamas and Puerto Rico mainly from May to July (Raffaele et al. 2003). In the rest of the West Indies, it is rare during these months. Mortality of individuals of *A. gravis* is high during migration (mainly juveniles) due to potential factors as equatorial fronts, currents, sea surface temperature, salinity, plankton distribution, hurricanes (Haman et al. 2013) and the effect of the Doldrums (Lee 2009).

In the morning of 23 June 2015 several divers were coming back to the Diving Center of Tryp Cayo Coco Hotel and found a rare dark bird that had fallen to the sea in the northern coast of Cayo Coco (approximately 200 m from the Rocarena cliff, 22° 32' 20.7" N, 78° 21' 22.5" W). The bird was taken to the Centro de Investigaciones de Ecosistemas Costeros (CIEC), where it was identified as *A. gravis* because of its characteristic white bands on hindneck and rump contrasting with black cap and dark grayish-brown upperparts, dark bill, and underparts white with indistinct dusky patch on belly (Fig. 1). The bird had a small but deep injury on the breast, probably caused by fishing gear or by a predator; it died after a few hours. The specimen was not preserved. This is the first record of *A. gravis* in Cuba; this species is not recorded in the most recent comprehensive manual of Cuban birds (Garrido and Kirkconnell 2011).



**Figure 1. Diagnostic characteristics of the Great Shearwater (*Ardenna gravis*), collected near Cayo Coco, Ciego de Ávila province, Cuba, 23 June 2015.**

The presence of this species in Cuban waters is plausible because the migratory route of *A. gravis* includes the Caribbean Basin, and it has been recorded recently at several islands in this region (Raffaele et al. 2003, Sandoval et al. 2010). Several isolated records of this species on the coasts of Mexico and Costa Rica have been documented by Imhof (1977) and Speaker (1979), but its pelagic distribution pattern is nearly exactly restricted to the areas of eutrophic waters (mainly the open waters of the Atlantic Ocean) (Voous and Wattel 1963). It is possible that the scarcity of this shearwater in Cuba, despite the abundant mortality in the eastern Caribbean, is related to its distribution pattern and energy availability. The migration route of *A. gravis* exerts a heavy physical and energetic demand on the individuals, so there would be a penalty on deviations from its well-defined migratory route in the rich waters of North America. Only some individuals (mainly the sick and the injured) would be expected to move outside of the route toward distant areas such as Cuba. Furthermore, studies of seabirds in Cuba are few, and this significantly reduces the probability of detecting the presence of species such as *A. gravis*.

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