

## LONGEVITY RECORDS FOR THE WAVED ALBATROSS *PHOEBASTRIA IRRORATA*

GUSTAVO JIMÉNEZ-UZCÁTEGUI<sup>1</sup>, MICHAEL P. HARRIS<sup>2</sup>, CHRISTIAN R. SEVILLA<sup>3</sup> & KATHRYN P. HUYVAERT<sup>4</sup>

<sup>1</sup>Department of Sciences, Charles Darwin Foundation, Puerto Ayora, Galápagos, Ecuador (gustavo.jimenez@fcdarwin.org.ec)

<sup>2</sup>Centre for Ecology & Hydrology, Penicuik, Midlothian EH26 0QB, UK

<sup>3</sup>Galápagos National Park Directorate, Puerto Ayora, Galápagos, Ecuador

<sup>4</sup>Department of Fish, Wildlife and Conservation Biology, Colorado State University, Fort Collins, Colorado 80523-1474, USA

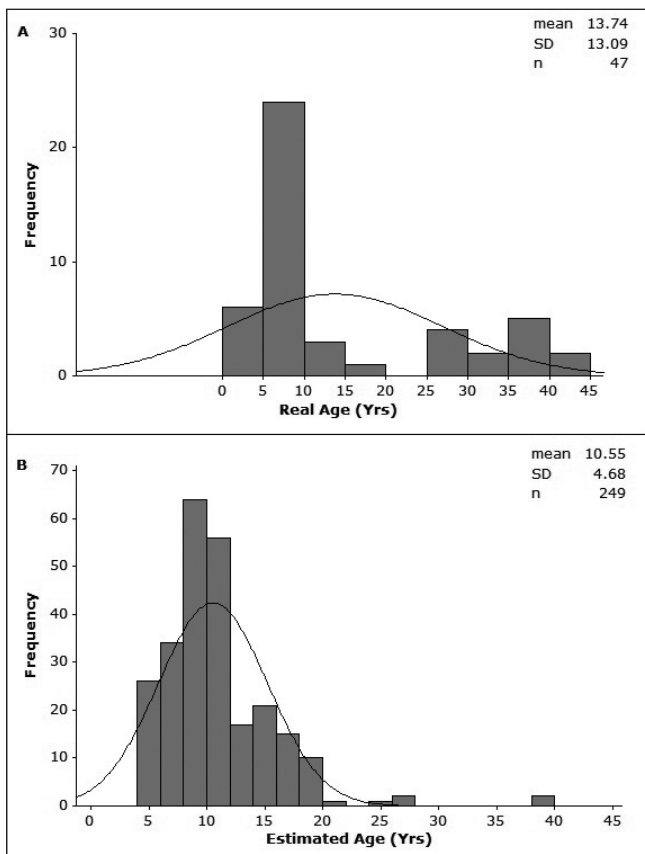
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The Waved (Galápagos) Albatross *Phoebastria irrorata* is endemic to Ecuador. Virtually the entire population of adults breeds on Española Island, Galápagos, Ecuador, and only a few pairs nest on La Plata Island, off the coast of mainland Ecuador (Anderson *et al.* 2008, Awkerman *et al.* 2014). When not breeding, the species occurs in the waters of the Humboldt Current off the west coast of South America, extending at least from El Chocó (Colombia) southward to the extreme north of Chile (Granizo 2002, Awkerman *et al.* 2014). It is considered critically endangered because the population appears to be declining owing to increasing mortality as bycatch in longline fisheries (Awkerman *et al.* 2006, Jiménez-Uzcátegui *et al.* 2006, BirdLife International 2014, IUCN 2015).

The Waved Albatross is also vulnerable to (i) the effects of El Niño-Southern Oscillation (ENSO) events—during which breeding success is reduced to virtually nil—, (ii) the occurrence of virulent pathogens and (iii) the introduction of other species to the breeding grounds (Rechten 1986, Anderson & Fortner 1988, Padilla *et al.* 2003, Jiménez-Uzcátegui *et al.* 2007).

On 19 June 2015, a total of 296 previously banded Waved Albatrosses were caught in the colony at Punta Suárez, Española Island (1°22.39'S, 89°44.41'W), as part of ongoing mark-recapture studies. At that time, breeding appeared to have failed almost completely at this colony, presumably owing to an ongoing ENSO event; as a result, the breeding status of these birds was unknown. The median age of 47 individuals banded as chicks was 13.7 years (Fig. 1), and the oldest bird was banded on 27 October 1974, a 40.8 year banding interval. This is the longest lifespan recorded for a Waved Albatross. This individual had previously been recaptured in 1994, 2001, 2007 (when it was re-banded), 2009 (when it was recorded as breeding), 2010 and 2013 (breeding). Three other older albatrosses of known ages were also caught that day (Table 1). The other 249 individuals had been banded in the colony as adults, so their true ages are unknown, and the maximum estimated age for this group was 38 years (Fig. 1).

The previous record for the oldest Waved Albatross was 38 years (Douglas & Fernández 1997). However, this age was probably overestimated because the individual had been banded at the nest as a breeder 33 years earlier. Five years were added to its age, based on the assumption that this was its first breeding attempt, but individuals may begin breeding from as early as three (Harris 1979) to six or more years of age (Street 2013).



**Fig 1.** Banding interval of Waved Albatross banded at Punta Suárez, Española Island, Galápagos Archipelago, and recaptured in 2015. (A) Birds banded as chicks; (B) Birds banded when older.

**TABLE 1**  
Longevity records of Waved Albatross *Phoebastria irrorata* banded as chicks (age 5–7 months) at Punta Suárez, Española Island, Galápagos Archipelago, and recaptured on 19 June 2015

Band No.	Sex <sup>a</sup>	Banded	Age (years)
84831119	Unknown	27 November 1974	40.8
1089251	Male	11 November 1975	39.7
9770	Female	13 November 1975	39.7
5235	Unknown	3 November 1977	37.7

<sup>a</sup> Sexed by bill length, < 141.5 mm = female, > 152.9 mm = male (Awkerman *et al.* 2007).

Albatrosses of all species are considered long-lived. The oldest albatross we are aware of is currently 65 years old. It is a Laysan Albatross *Phoebastria immutabilis* called “Wisdom;” however, there are records of Black-footed Albatross *P. nigripes*, Campbell Albatross *Thalassarche impavida*, Grey-headed Albatross *T. chrysostoma*, Buller’s Albatross *T. bulleri*, Northern Royal Albatross *Diomedea sanfordi* and Wandering Albatross *D. exulans*, according to which all exceed 40 years of age (Robertson 1993, Sagar & Warham 1993, Cooper *et al.* 2003, Lutmerding & Love 2015, Paul Sagar, pers. comm.). Waved Albatrosses have been banded on Española Island for over 60 years; however, the bands used in the early years tended to become illegible after a few decades, and, presumably, many fell off. Now that bands are routinely replaced and birds are either identified with PIT tags or double-banded, we anticipate that many more old Waved Albatrosses will be identified in the years to come.

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