



A Pink-footed Shearwater in Hawai'i

MICHAEL P. FORCE¹ and LISA T. BALLANCE, PH.D.²

The Pink-footed Shearwater (*Puffinus creatopus*) is a common and fairly widespread shearwater of the eastern Pacific Ocean. It is an endemic breeder on three Chilean islands. Isla Mocha, 35 km off the coast of Region IX, is the primary colony with 20,000-25,000 nesting burrows, about half that number reside 700 km northwest on Isla Santa Clara and Isla Masatierra, in the Archipiélago Juan Fernández (Guicking et al. 2001, Hodum et al. 2004, Birdlife International 2008). They disperse north during the austral winter to the northeast Pacific Ocean off western North America (Harrison 1983, AOU 1998). The Pink-footed Shearwater can be locally abundant at favored stopover and wintering locations throughout its range and readily associates with other seabirds in feeding flocks over dolphins, fish, and other marine mammals in the eastern Pacific Ocean (Guicking et al. 2001, pers. obs.).

The primary migration route of the Pink-footed Shearwater appears to be coastal, as there are few previous records beyond 1000 km from the west coast of the Americas (cf. Pitman 1986); however, there are sight reports from New Zealand and Australia (Marchant and Higgins 1990, Onley and Scofield 2007). King (1967) collected a Pink-footed Shearwater near 7° N 152° W, about 1,400 km SSE of Hawai'i Island, 14 Oct 1964 (USNM 494191), and mentioned several other observations in this area, and Pitman (1986) reported at least two observations 750-1000 km S of Hawai'i Island. These reports appear to be the basis for some references (e.g., Harrison 1983, Marchant and Higgins 1990, Onley and Scofield 2007) to their occurrence at or near the Hawaiian Islands, but prior to our observation there were no substantiated records within the US Exclusive Economic Zone (EEZ), territorial waters that extend outward from shore to 370.4 km (200 nautical miles), and form the boundary on which official state bird lists are based (Pyle and Pyle in prep). A description accompanying a sight report of three Pink-footed Shearwaters 21 km E of Hilo 6 Aug 1994 is equivocal (Pyle and Pyle in prep).

On 24 August 2006, while conducting a seabird survey aboard the NOAA ship *McArthur II* about 444-222 km southeast of South Point (Ka Lae) Hawai'i Island, MPF saw a Pink-footed Shearwater in a mixed seabird feeding flock. The flock, consisting of about 50 Sooty Terns (*Onychoprion fuscatus*) and 80 dark morph Wedge-tailed Shearwaters (*Puffinus pacificus*), appeared to be focusing its attention on a small patch of water, presumably hunting small shoaling fish just below the surface. The flock remained at this position as the ship steamed past,

providing sufficient time to study the Pink-footed Shearwater using 20x60 prism stabilized binoculars. The bird was under observation for approximately one minute as it meandered around low over the water beneath the wheeling terns about 400 to 600 m away. Characters observed that easily separate it from light morph Wedge-tailed Shearwater (the species with which it can be most likely confused) were: larger size, thicker, more "barrel-chested" body, broad, more rounded tail, broader wings held straight out from the body, and a thicker, fleshy-pink bill with a well defined black tip. The bulky body impression was reinforced by the bird's relatively slow and lazy wing beats and slightly labored flight style compared to Wedge-tailed Shearwaters' narrower, slightly angled wings with the outer part typically held more forward than the inner part, and often more-hurried flight. Several members of the on-duty marine mammal observer team also saw the bird. The location, 18°08.8' North, 153°29.1' West, was 296 km (160 nautical miles) from South Point, the nearest point of land, putting it within the US EEZ, and thus constituting the first for this species for the Hawaiian Islands.

During the ship's 30 day August 2006 transit from San Diego to Honolulu, Pink-footed Shearwaters were fairly common in the central equatorial Pacific Ocean as far west as 142° West Longitude. Forty-six were seen, five of them west of 140° West Longitude; four were seen west of 140° West Longitude on the return leg about two weeks later, albeit on a slightly more southerly route. On previous NOAA-sponsored marine mammal and seabird research cruises through this area at approximately the same time of year, Pink-footed Shearwaters were rarely encountered in Equatorial regions west of about 140° West Longitude (cf. Pitman 1986). In 1999 a wide scattering of individuals or small groups, almost all associating with mixed seabird feeding flocks over dolphins and/or fish suggest this species was pushing westward equatorially at that time. Most of these were east of 140° West Longitude although one was seen as far west as 146° West Longitude (about 1380 km southeast of South Point). Broadly speaking, both years were unremarkable oceanographically, being neither warm nor cold water years. The vast majority of these birds were in feeding flocks over Spotted and Spinner Dolphins and/or fish. These flocks were numerically dominated by Sooty Terns and dark morph Wedge-tailed Shearwaters.

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The sighting of a Pink-footed Shearwater in Hawai'i was thus not completely surprising in light of this species' tendency to wander westward in the equatorial Pacific Ocean. Pink-footed Shearwaters favor ocean areas with high productivity such as coastal upwelling zones; meanwhile, large areas of the equatorial and sub-equatorial Pacific are unsuitable for Pink-footed Shearwaters. However, local upwelling associated with the equatorial current systems has long been known to be important for foraging seabirds. A combination of proper oceanic conditions and Pink-footed Shearwaters' proclivity to join mixed species feeding flocks leads to a high likelihood of future occurrences in Hawai'i.

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¹Southwest Fisheries Science Center, NOAA Fisheries, 3333 North Torrey Pines Court, La Jolla, CA, 92037

²Southwest Fisheries Science Center, NOAA Fisheries, 3333 North Torrey Pines Court, La Jolla, CA, 92037

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850 Richards Street, Suite 505
Honolulu, HI 96813
Phone/Fax: (808) 528-1432
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