

## SHORT NOTE

### White-headed petrel (*Pterodroma lessonii*) in French Polynesia

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During rat and seabird surveys by JCR and LF (Russell *et al.* 2011) on Tetiaroa Atoll, Society Islands, French Polynesia (509.7 ha; 17°07'15"S 149°29'30"W), a partially decomposed *Pterodroma* species was found by JCR on 8 July 2009 washed up on the eastern shoreline of motu Rimatu'u. Bones and feathers were collected and sent to the Museum of New Zealand Te Papa Tongarewa, Wellington (NMNZ) in August 2012 for identification. Based on size and colour, morphological identification by AJDT suggested that it was either a white-headed petrel (*Pt. lessonii*) or a white-naped petrel (*Pt. cervicalis*). Subsequent molecular identification was performed by LDS, by sequencing 648 base pairs of the mitochondrial COI locus using the methods of

Galbraith *et al.* (2013). Comparison of this sequence to those in the BOLD database (Ratnasingham & Hebert 2007) showed that it was identical to white-headed petrel and different to any other available sequence. Part of the specimen is now lodged in the NMNZ collection (OR.29663) and the COI sequence has been deposited in GenBank (Accession number KP261036).

White-headed petrels are a sub-Antarctic breeding species generally found in the circumpolar region and as far north as about 30°S (Szijj 1967), making this an unusual record for the species. There are several unusual cases of sub-Antarctic procellariiformes straying well out of their normal range into the Pacific, *e.g.*, albatrosses (*Diomedea* spp. and *Thalassarche* spp.), southern giant petrels (*Macronectes giganteus*) and prions (*Pachyptila* spp.), with a few of these even making it into the northern hemisphere (Gill *et al.* 2010). Dead white-headed

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petrels have also been found on Tekava Islet in the Gambier Islands on 4 August 1971 (Holyoak & Thibault 1984), Tubuai in the Austral Islands on 28 July 1975 (Thibault & Cibois 2005), and a live bird was found on Rurutu in the Austral Islands on 28 July 2005 (Gentilhomme 2005). At sea, white headed petrels have been observed in September around Marotiri in the Austral Islands (Gaskin 2007), and in June and July around the Pitcairn Islands (Brooke 2008). Possible prehistoric fossil records are reported for Easter Island (Steadman 2006). However, this is the first account of white-headed petrels being recorded this far north into the tropical Pacific.

At sea, white-headed petrels forage mainly over cold water between the sub-Antarctic and Antarctic convergence zones, but may move northwards in the non-breeding season during the annual feather moult (Taylor 2013). The breeding season is broadly August to the following June, with the single egg laid in late November or December and hatched in January or February (Marchant & Higgins 1990). This observation is therefore likely to be an adult having travelled north during the non-breeding season to moult. We suggest white-headed petrel may in fact be regular in Eastern Polynesian waters during the mid-year non-breeding season.

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#### LITERATURE CITED

- Brooke, M. de L. 1995. The modern avifauna of the Pitcairn Islands. *Biological Journal of the Linnean Society* 56: 199-212.
- Galbraith, M.; Tennyson, A.; Shepherd, L.; Robinson, P.; Fraser, D. 2013. High altitude New Zealand record for a long-tailed skua (*Stercorarius longicaudus*). *Notornis* 60: 245-248.
- Gaskin, C. 2007. Marotiri survey report. *Te Manu* 59: 7-8 (translated into French by P. Raust).
- Gentilhomme, Y. 2005. Pétrel de Lesson – *Pterodroma lessonii* – (pas de nom local connu). *Te Manu* 52: 3.
- Holyoak, D.T.; Thibault, J.-C. 1984. Contribution à l'étude des oiseaux de Polynésie Orientale. *Mémoires Museum National Histoire Naturelle, Paris, Zoologie* 127: 1-209.
- Marchant, S.; Higgins, P.J. 1990. *Handbook of Australian, New Zealand & Antarctic birds. Volume 1, Part B. Ratites to ducks*. Melbourne: Oxford University Press. 735 pp.
- Ratnasingham, S.; Hebert, P.D.N. 2007. BOLD: The barcode of life data system ([www.barcodinglife.org](http://www.barcodinglife.org)). *Molecular Ecology Notes* 7: 355-364.
- Russell, J.C.; Faulquier, L.; Tonione, M.A. 2011. Rat invasion of Tetiaroa atoll, French Polynesia. In: Veitch, C. R.; Clout, M. N.; Towns, D. R. (eds.) *Island Invasives: eradication and management*. Gland, Switzerland: IUCN (International Union for Conservation of Nature). pp. 118-123.
- Steadman, D.W. 2006. *Extinction & biogeography of tropical Pacific birds*. Chicago: University of Chicago Press. 480 pp.
- Szizij, I.J. 1967. Notes on the winter distribution of birds in the Western Antarctic and adjacent Pacific waters. *Auk* 84: 366-378.
- Taylor, G.A. 2013. White-headed petrel. In: Miskelly, C.M. (ed.) *New Zealand Birds online* ([www.nzbirdsonline.org.nz](http://www.nzbirdsonline.org.nz)).
- Thibault, J.-C. 2005. Une mention supplémentaire de pétrel de Lesson en Polynésie Orientale. *Te Manu* 52: 3-4.
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