

SHORT NOTE

First record of Kermadec petrel (*Pterodroma neglecta*) near the New Zealand mainland

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The Novara Expedition (1857–1859) was the first expedition of the Austrian Navy to circumnavigate the world, and visited New Zealand during late December 1858 to early January 1859 (Braund & Miskelly 2025). Before arriving in Auckland from Sydney, Australia, members of the SMS *Novara* crew and scientific team collected seabirds at 35° 0' S, 175° 5' E on 19 Dec 1858 (Scherzer 1863, p.91; von Pelzeln 1865; Braund & Miskelly 2025); this location is about 110 km north-east of the Poor Knights Islands.

Four of the seabirds collected on 19 Dec 1858 were described by von Pelzeln (1865) as “*Procellaria mollis* Gould”, which is a synonym of *Pterodroma mollis* (soft-plumaged petrel). The soft-plumaged petrel was added to

the New Zealand list in February–March 1969, when eight birds were captured on Antipodes Island (Warham & Bell 1979). However, a hybrid between *Pt. mollis* and *Pt. lessoni* collected offshore from Antipodes Island in February 1926 (Bourne 1995; Tennyson *et al.* 2013) indicates that soft-plumaged petrels started to colonise Antipodes Island more than 40 years before they were found ashore there.

We suspected that the four “*Procellaria mollis*” specimens collected off the Northland coast in 1858 were misidentified, and that they were more likely to be Kermadec petrels (*Pt. neglecta*). Kermadec petrel is a polymorphic species that has in the past been confused with *Pt. mollis* (Finsch 1875; Cheeseman 1891; Hutton 1893; Buller 1905). Finsch (1875) and Buller (1905, p. 113) referred to the Novara Expedition specimens as part of their justification for including *Pt. mollis* in the New Zealand bird list.

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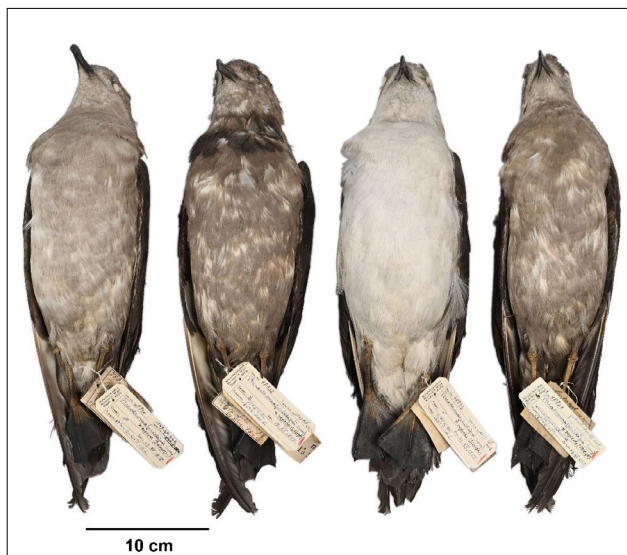


Figure 1. The four Kermadec petrel (*Pterodroma neglecta*) specimens collected by the Novara Expedition about 110 km north-east of the Poor Knights Islands on 19 Dec 1858. Naturhistorisches Museum Wien specimens NHMW 48830, 48832, 48833 & 48834. Image courtesy of Chloe Potter and Hans-Martin Berg (NHMW), prepared for publication by Jean-Claude Stahl (Te Papa).

An enquiry to the Naturhistorisches Museum Wien (NHMW, Vienna) revealed that the Novara '*Procellaria mollis*' specimens are held there, along with other Novara Expedition bird specimens (Hans-Martin Berg, *pers. comm.* to CMM, 28 Jun 2024; Braund & Miskelly 2025).

Von Pelzeln (1865) referred to five specimens of '*Procellaria mollis*' collected by the Novara Expedition, with the fifth specimen (field no. 145) collected at 40° 44' S, 60° 9' E "Indischer Ocean, gegen St. Paul zu" [Indian Ocean, towards Saint Paul Island]. This specimen is correctly identified as a soft-plumaged petrel; it was prepared as a mount (with field collection number and collection details attached) and remains in the NHMW collection (images supplied by Hans-Martin Berg). The four other specimens are study skins (relaxed mounts) of Kermadec petrels (Fig. 1), identifiable by their larger size (cf. *Pt. mollis*), pale primary shafts, and variable ventral plumage.

All four Novara Expedition Kermadec petrel specimens still have their original labels with field numbers (779–782), date and location as documented by von Pelzeln (1865) under his account for '*Procellaria mollis*' (e.g. Fig. 2). Note that von Pelzeln erred in referring to one of the specimens as no. 783, which was a Cook's petrel (*Pterodroma cookii*) or possibly a Pycroft's petrel (*Pt. pycrofti*) with the same collection details, which he listed as "*Procellaria velox*" (von Pelzeln 1865; Braund & Miskelly 2025). Three of the Kermadec petrel specimens were shot by the expedition's commander, Baron Bernhard von Wüllerstorff-Urbair, and the fourth (now NHMW 48834) was shot by zoologist Georg Frauenfeld. Field notes for the bird specimens were prepared by the expedition's assistant zoologist Johann Zelebor (von Pelzeln 1865).

Subsequent labels attached to the Kermadec petrel specimens show that their identification was corrected to *Aestrelata neglecta* and then *Oestrelata neglecta* in "Pelzeln's time" (Hans-Martin Berg, *pers. comm.* to CMM, 3 Jul 2024), and they are currently labelled and registered as *Pterodroma n. neglecta*. The four specimens were accepted by the Birds New Zealand Records Appraisal Committee as the earliest record of Kermadec petrel from near the New Zealand mainland (Unusual Bird Report 2024/050).



Figure 2. Original label attached to Kermadec petrel (*Pterodroma neglecta*) specimen NHMW 48834, showing the field number (782), collection location and date. Image courtesy of Chloe Potter and Hans-Martin Berg (Naturhistorisches Museum Wien), prepared for publication by Jean-Claude Stahl (Te Papa).

The Novara Expedition Kermadec petrel specimens were collected 74 years before the first accepted record of Kermadec petrel from the New Zealand mainland – a bird found dead on Muriwai Beach, west Auckland, in November 1932 (Falla 1933; Checklist Committee 1953). All ten subsequent accepted records from the mainland or coastal waters, plus one at Cuvier Island, have been of single birds (Reed 1976; Checklist Committee 2022; Miskelly *et al.* 2023). The Novara specimens were collected 5 years before *Procellaria neglecta* (with a type locality of Sunday Island = Raoul Island) was named by Schlegel (1863). However, Schlegel's description was available before von Pelzeln (1865) listed the birds collected during the Novara Expedition as *Procellaria mollis*.

While seeing (or collecting) four Kermadec petrels at one time near the New Zealand mainland seems exceptional, the species was vastly more abundant in the 1850s compared to its status over recent decades (Veitch *et al.* 2004). The breeding population on Raoul Island (860 km north-east of where the Novara Expedition specimens were collected) likely exceeded a million pairs before it was reduced and eventually extirpated by cats (*Felis catus*) and Norway rats (*Rattus norvegicus*). The Raoul Island population was estimated at "about half a million individuals" in 1908 (Iredale 1914), which was 72 years after cats were reported to be established on the island (Straubel 1954) and 13 years before Norway rats likely established following the wreck of the schooner *Columbia River* (Ingram 1972; Merton 1968). The remnant population breeding on small islands in the Kermadec group is estimated at about 6,000 pairs (Veitch *et al.* 2004).

The collection of four Kermadec petrels north-east of the Poor Knights Islands by the Novara Expedition in 1858 provides an insight into the extent to which predatory mammals introduced to remote islands can impact the ecology of vast areas of the surrounding ocean (Ashmole 1963; Gaston *et al.* 2007; Opper *et al.* 2015; Weber *et al.* 2021).

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