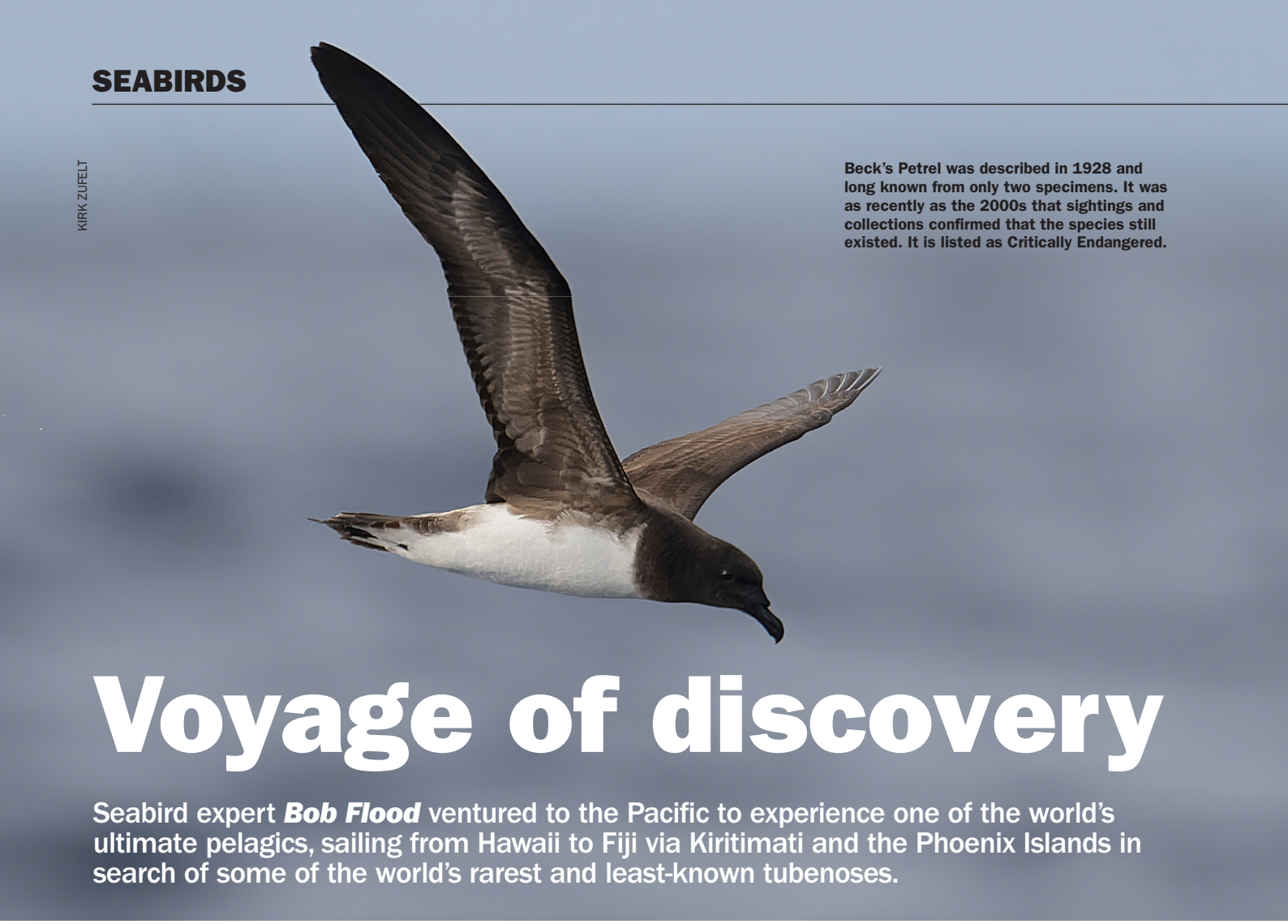


KIRK ZUFELT

Beck's Petrel was described in 1928 and long known from only two specimens. It was as recently as the 2000s that sightings and collections confirmed that the species still existed. It is listed as Critically Endangered.

Voyage of discovery

Seabird expert *Bob Flood* ventured to the Pacific to experience one of the world's ultimate pelagics, sailing from Hawaii to Fiji via Kiritimati and the Phoenix Islands in search of some of the world's rarest and least-known tubenoses.

Of the many natural history collecting expeditions to the Pacific Ocean, none captured my imagination more than the most comprehensive bird survey, the Whitney South Sea Expedition, especially the years from 1920-29 led by Rollo Beck, which resulted in voluminous findings published by Robert Cushman Murphy and colleagues. The vernacular names for the tubenoses Beck's Petrel and Murphy's Petrel celebrate their praiseworthy contributions. I visited the collection at the American Museum of Natural History in New York and was thrilled to see tubenose specimens from the remotest of islands, specimen labels written by the hand of Beck, and historic publications by Murphy. I lived great chunks of the expedition vicariously by reading the expedition log.

The plan

Kirk Zufelt and I first met in 2007 on a five-day pelagic trip off Baja California, Mexico. Kirk shared my fascination with tubenoses and he courted me with wild ideas about us sailing the Pacific, in the wake of Beck, to search for poorly known seabirds and to make our own discoveries. Rather than reading about past adventures, we could conceive and live for real our own expeditions to faraway Pacific islands. The idea grabbed me. Back home, my nearest and dearest Mandy questioned if I had heard 'the call of the void', although, as ever, Mandy let me choose my own fate.

Fifteen years on, after a hatful of successful expeditions and numerous exciting findings and discoveries, we headed to Hawaii for our next adventure, sailing to Fiji via Kiritimati and the Phoenix Islands, which are truly remote locations. Luckily, our team of six, from England, Canada and Japan, passed a barrage of COVID-19 tests between home and Waikiki Marina in Honolulu, enabling the Fijian authorities to give us clearance to depart for Fiji. Landings en route were banned due to the pandemic, and this was enforced by the Fijian navy who tracked our 20-m yacht, *Sauvage*, via its Automatic Identification System.

Setting sail

We were greeted by husband-and-wife team Didier and Sophie Wattrelot, who operate *Sauvage*, and set sail mid-morning on 16 April 2022. As nominated expedition leader, I worked out the route with Didier, basing progress on trade winds, aiming to cross many productive seamounts, and ensuring time to explore waters around destination islands. With a journey length of 41 days and about 8,000 km of sailing ahead of us there was a touch of trepidation, but mainly we were brimming with excitement and anticipation.

The eight-day southward sail to Kiritimati – also known as Christmas Island – in the island country of Kiribati encountered brisk winds, ranging from 15-30 knots, most often 20-25 knots, although from a favourable north-easterly direction, and a rough sea of around 3 m. The swell tested our sea legs and there were several 'casualties', but the conditions were simply perfect for pelagic birding. Tubenose mastery over windswept oceans must be seen to be appreciated. A fish-oil drip operated throughout daylight hours, forming a smelly, oily wash that stretched back hundreds of metres. Tubenoses have enlarged olfactory glands for ultra-sensitive smelling capabilities and are attracted to fish oil.

The ocean was teeming with seabirds. Hawaiian Petrels were regular visitors to the stern – this was a personal milestone bird as it meant that I had now seen all the world's gadfly petrel species. A few Laysan Albatrosses

SOPHIE WATTRELOT

BOB FLOOD

The 20-m yacht *Sauvage* (top) was Bob and the team's home for 41 days, and had a fish-oil drip that was operated during the day, forming a smelly wash that stretched back for hundreds of metres behind the vessel.

KIRK ZUFELT

The endemic Hawaiian Petrel was formerly found on all the main Hawaiian Islands except Niihau, but today its breeding area is mostly restricted to Haleakala crater on Maui.

KIRK ZUFELT

A Flesh-footed Shearwater seen not far from Hawaii – it transpired that this individual had been ringed in New Zealand.

cruised by. Flocks of up to 50 Leach's Storm Petrels were ever-present, swooping back and forth over the oily wash, several fixated on a 'splasher' in tow (a fisherman's lure). Leach's showed up 23 days in a row, although numbers dropped off in equatorial waters.

Pelagic birding heaven

We soon encountered feeding frenzies, comprising mainly light-morph Wedge-tailed Shearwaters – a largish shearwater species – plus boobies, noddies and terns. The frenzies delivered the first surprises of the expedition, a 'Brewster's Booby' (the east Pacific form of Brown Booby) and two Nazca Boobies, both of which are historically restricted to offshore tropical seas west of the Americas. We previously found both taxa at about 10°S in the Marquesas Islands, French Polynesia, during September and October 2021. Could it be that these taxa are spreading widely into the tropical Central Pacific?

On 19 April, the third full day, a lone Flesh-footed Shearwater appeared in the oily wash. Flesh-footeds are the greediest of all shearwaters and are easily attracted to the stern. Kirk fired off a series of photos that revealed a readable ring (Beck shot with guns, we shoot with cameras). The ringing community informed us that the bird was a female at least three years old, which was ringed at Ohinau Island near Auckland in New Zealand. Amazing! The ocean never bores.

Petrel pumped

On 21-22 April we found eight beautiful Juan Fernandez Petrels – a large, long-winged and long-tailed petrel, essentially with a solidly mid-grey upperside and white underside. Old, worn feathers of one bird produced a scruffy white nape, suggesting the same-sized, similar-looking, aptly named White-necked Petrel, but we were wise to this ID pitfall. However, on 22 April a neatly white-necked petrel approached the yacht. Both Kirk and I recognised its smaller size and alarm bells rang. Vanuatu Petrel is a small version of White-necked Petrel with subtle plumage differences. Long known only from specimens collected by Beck in 1927, the first more recent evidence that it was extant, absurdly, was a roadkill corpse in New South Wales, Australia, in 1983. Vanuatu Petrel was confirmed breeding in Vanuatu, West Pacific, in 2009. Except in 1983, it has not been documented away from the breeding grounds. Kirk's photos confirmed the identification and secured the first documented oceanic record, some 4,500 km north-east of its namesake nation.

Tahiti Petrels regularly visited the yacht. They are rather large, long-winged petrels, with a robust bill and tapered tail, essentially with solidly chocolate-brown upperparts and hood, dark underwings and a white body. Early evening on 23 April, a small-looking ›

'Tahiti Petrel' flew up the oily wash. Once again alarm bells rang. Beck's Petrel is a small, more delicately built version of Tahiti Petrel. Known only from specimens collected by Beck in 1928 and 1929, it was rediscovered in 2007 by Hadoram Shirihai, with suspected breeding at New Ireland, Papua New Guinea. Recently, a tracked bird migrated 1,400 km west to north of West Papua. Otherwise, Beck's Petrel has not been recorded away from its breeding grounds. Once again Kirk's photos confirmed the identification and secured the first documented oceanic record, about 5,500 km ENE of New Ireland. I marvel at the vast distances that tubenoses cover.

Didier and I kept an eye on the approaching doldrums, which sit between the north-easterly and south-easterly trade winds, respectively of the Northern and Southern Hemispheres. Typically, calm conditions and convective thunderstorms present an imposing obstacle to sailing yachts. In biblical terms, like the parting of the Red Sea, our weather app showed clouds separating before us. All was hunky dory in the doldrums until, in a matter of seconds, a 40-knot wind hit us and we took off like a racing yacht. Didier appeared on deck, laughed, adjusted the sails, and all was good again. The doldrums are moody.

Out of the doldrums

We approached Kiritimati on 24 April. At 2°N, the air was cooking hot and the sea was becalmed, but the location was serene. Cruising offshore, we encountered a large feeding frenzy of seabirds over tuna, shadowed by a pod of five Orca. The cetaceans were oblivious to us and gave fabulous point-blank views.

Kiritimati holds the largest global population of Phoenix Petrel, although currently it stands at less than half the 20,000 pairs once estimated. A mid-sized petrel with plumage similar to Tahiti Petrel, it has an enhanced aerodynamic design that permits perfection in motion. Fifteen or so of these gems put on an evening display in front of tangerine skies. Next morning several were seen departing the island.

The mouth of St Stanislas Bay on Kiritimati gives access to the bay and a multitude of lagoons beyond. Tubenoses breed on motus (islands) in the lagoons, where they are safe from predators. We reasoned that the main evening return to the colony would be through the mouth of St Stanislas Bay and positioned ourselves accordingly. As dusk fell, we witnessed the staggering sight of seabirds streaming past us towards the bay, including thousands of dark-morph Wedge-tailed Shearwaters and hundreds of Tropical Shearwaters – a smallish black-and-white shearwater – plus many, many other seabirds.

KIRK ZUFELT

The little-known Vanuatu Petrel was officially described as recently as 2001.

HIRO TANOI

Collared Petrel's breeding range is unclear. It is currently known to nest only in Fiji.

HIRO TANOI

Polynesian Storm Petrel is the only species placed in the genus *Nesofregetta*.

HIRO TANOI

New Zealand Storm Petrel was considered extinct since 1850 until sightings in 2003.

Phoenix nights

The following 1,800 km westward sail towards the Phoenix Islands crossed the Equator. Didier and Sophie did not break with tradition and at 4 am I was awoken from my 'camping mattress bed' on the deck. Countdown began and at exactly 0°N/S the champagne ceremony commenced. Next morning, while taking breakfast on deck, a pod of 30 Pygmy Killer Whales soothed our blurry eyes with a 30-minute spectacular.

Polynesian Storm Petrel is a giant among storm petrels with large wings and a long tail. The white-bodied pale morph occurs across most of its Pacific range. However, Phoenix holds streak-bellied and all-dark birds, the latter seen by few and never photographed at sea. The dark morph is the most prized of storm petrels among tubenose buffs. The catastrophic decline of this species in the Phoenix Islands was reported in 2006, but successful eradication of invasive mammals in 2008 gave hope for population recovery.

Depressingly, a full week in Phoenix waters yielded just 16 Polynesian Storm Petrels, a few of which were streaked, but none remotely approaching dark. Perhaps the dark-morph gene is lost? Also, we saw a mere four Bulwer's Petrels, remnants of a population of 1,000 pairs just 50 years ago. And we found just two Phoenix Petrels within the islands that gave the species its vernacular name. Sobering indeed, although not the first occasion that we have witnessed decimated tubenose populations in the Pacific.

The nine-day southward sail to Fiji was set in a stifling air temperature of 34°C, with a 33°C sea temperature ensuring that the inside of the yacht was equally sweltering. Daytime competition for patches of shade was intense. The inflatable RIB top deck became a sleeping venue as the night air cooled to 28°C. The daily allowance of half a bucket of water did little for purity. Despite the challenges, there was much enjoyment with regular sightings of the diminutive polymorphic Collared Petrel.

Hiccup in Fiji

A three-day provisioning stop in northern Fiji did not go according to plan. Fijian authorities considered our route suspicious and redirected us to the main customs centre at Port Denarau. Passports were confiscated and the yacht impounded. Ten people and two dogs searched our possessions and every nook and cranny of the yacht. They suspected an 'ornithological expedition' to be an elaborate cover up for drug and firearms smuggling. We looked the part after 31 days at sea! Three stressful days later, the authorities released us with an

KIRK ZUFELT

Phoenix Petrel is found throughout the central Pacific Ocean with colonies on Phoenix, Tonga, Kiritimati, Tuamotu, Marquesas and Pitcairn Islands.

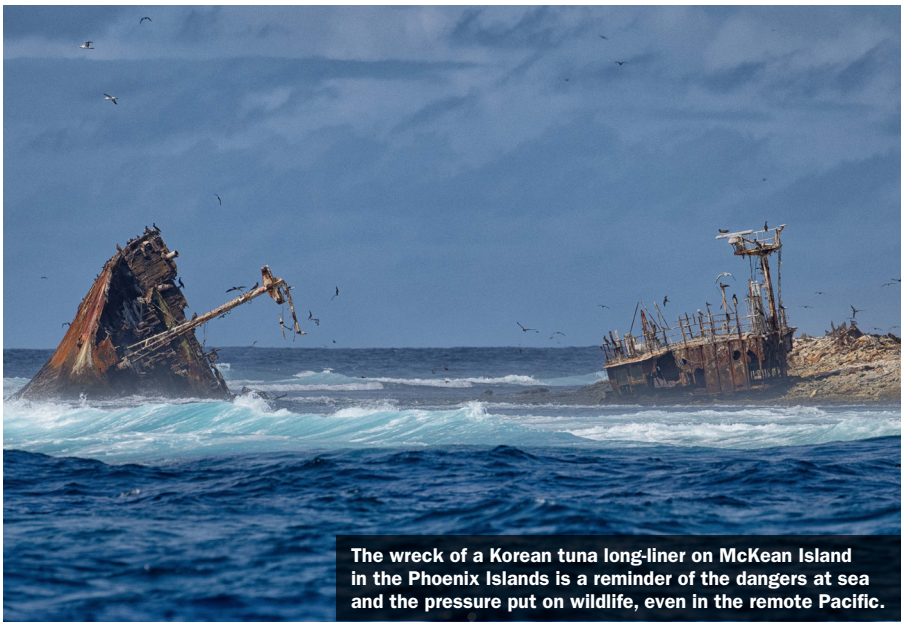
alleged US$4,200 fine for a territorial infringement. That behind us, we headed straight to Gau Island in search of the enigmatic Fiji Petrel.

Fiji Petrel is closely related to Tahiti and Beck's Petrels, being smaller and all-dark. The type specimen was collected on Gau in 1855 and reported by English zoologist George Robert Gray. It went unrecorded for 130 years until rediscovered on Gau in the mid-1980s by Dick Watling. Thereafter, biannual groundings on Gau and three documented sightings from offshore Gau were all that confirmed the species remains extant. No nest has been found, though, and I fear that Fiji Petrel is perilously close to extinction.

Five days and five gallons of fish oil (plus fish offal, fishmeal and so on) later and there was still no sign of a Fiji Petrel. Spirits were lifted on 29-30 May when four of my special friends, the streaked New Zealand Storm Petrel, visited our oily slick. New Zealand Storm Petrel was known only from three skins collected in the 19th century until, in 2003, I and a few others rediscovered it off New Zealand's North Island. Purely by coincidence, the species' oceanic range was completely unknown until an expedition of mine found one off Gau in May 2017. The 2022 sightings are of great interest as they confirm the importance of Fijian waters to the species.

The expedition was coming to an end and we were still searching for our key target species off Gau. Around mid-evening on 30 May we were watching from the stern when a ghostly dark cross rose up from our oily slick – a Fiji Petrel at last! For a few precious minutes, the petrel investigated the slick, showing itself from multiple angles, permitting record shots, then flew steadily away and was gone. A chill ran down my spine as I wondered whether this would be the last-ever sighting of Fiji Petrel at sea. We had no more encounters with this Critically Endangered species up until the end of the voyage on 2 June. The epic expedition of discovery drew to a close but the remarkable birds and experiences will live long in the memory. ■

KIRK ZUFELT



The wreck of a Korean tuna long-liner on McKean Island in the Phoenix Islands is a reminder of the dangers at sea and the pressure put on wildlife, even in the remote Pacific.

HIRO TANOI

Fiji Petrel is classified as Critically Endangered. The scant number of records infers that a tiny population of fewer than 50 is likely confined to a very small area.