



spectacular!

The recovery of the Spectacled Petrel population

TEXT & PHOTOGRAPHS **PETER RYAN**

Thanks to its white ‘spectacles’, the Ringeye or Spectacled Petrel is one of the more charismatic petrels. It breeds only at Inaccessible Island in the central South Atlantic Ocean, where it has been threatened by introduced mammals and accidental bycatch on tuna longlines. Peter Ryan explains why it is becoming an increasingly regular visitor to southern African waters.

Although originally described as a distinct species, the Spectacled Petrel was generally considered a subspecies of the White-chinned Petrel until 1998, when it was shown that the two species have different calls (*Bird Conservation International* 8: 223–235). Both species utter a series of rattles, groans and squealing calls at their nest burrows and in flight over their colonies. However,

above A Spectacled Petrel calls from a bog-fern near its burrow entrance on the plateau of Inaccessible Island.

Spectacled Petrels have lower-pitched calls than White-chinned Petrels and their groan calls in particular have a more complex harmonic structure that is more similar to calls of other *Procellaria* petrels. Playback experiments show that Spectacled Petrels are much less responsive to recordings of White-chinned Petrels than to those of other Spectacled Petrels.

A subsequent study led by Mareile Techow in 2009 (*Molecular Phylogenetics and Evolution* 52: 25–33) confirmed that the two species are genetically distinct, having last shared a common

ancestor about 0.9 million years ago. This is in contrast to the divergence among White-chinned Petrels, where the nominate subspecies *P. a. aequinoctialis*, which breeds at islands in the South Atlantic and Indian oceans, segregated from New Zealand’s *P. a. steadi* some 0.35 million years ago. Spectacled Petrels breed more than 800 kilometres farther north than the northernmost White-chinned Petrel colony, which explains their slightly earlier breeding season. They are also on average smaller than White-chinned Petrels, but this is not readily apparent in the field.



At sea, Spectacled Petrels are best identified by their white eye rings. These vary considerably in extent, from a bold white U-shaped ring that merges with a white throat patch to only a few white feathers around the eye. However, all typically show a distinct white forecrown patch, which makes them easy to recognise when they are flying directly towards you. A few White-chinned Petrels also have white patches on the head, but these tend to be on the hind crown. Given a good view, Spectacled Petrels can be further distinguished by their dusky bill tip, which is more akin to those of the two New Zealand *Procellaria* petrels, Westland and Black petrels.

A precarious past

Currently Spectacled Petrels breed only on the plateau of Inaccessible, the second largest island of the Tristan da Cunha archipelago. However, subfossil remains from Amsterdam Island, a remote volcanic island in the central Indian Ocean, may well represent an extinct population of the species.

Amsterdam Island lies at a similar latitude to the Tristan archipelago and the islands have many species in common – not only seabirds, but also plants and even an intertidal fish that occurs nowhere else. Sadly, early explorers introduced a range of mammals to Amsterdam Island, starting with goats and pigs in 1799, greatly altering the island’s ecology. Pigs are serious predators of seabird chicks and the subsequent introduction of cats probably sealed the fate of the petrel population on Amsterdam Island.

Inaccessible Island was more fortunate in that most human activity centred on the main island of Tristan. However, pigs and goats were also released on Inaccessible in the 1820s. The Stoltenhoff brothers, who lived on Inaccessible Island for two years from 1871 in an abortive attempt to start a sealing enterprise, killed all the goats for food and made a significant dent in the pig population. It is not known when the last pigs died, but fortunately they did so before they ate the last of the Spectacled Petrels.



above A bird with a poorly defined spectacle, but its identity is confirmed by the blackish tip to the bill.

top A Spectacled Petrel glides over a wave next to a White-chinned Petrel. Note the prominent white band across its forehead.

When the Norwegian Scientific Expedition visited Inaccessible in 1938, Yngvar Hagen found only six Spectacled Petrel nests. He probably missed some >



above *In good light, a well-marked Spectacled Petrel is a delight to behold.*

above, right *Unlike most burrow-nesting petrels, many Spectacled Petrels arrive at the island during the day and even sit outside their burrows.*

burrows, which is perhaps just as well as he collected two adults and three chicks, but it is clear that the population was tiny. By 1950, Bunty Rowan estimated that there were a few hundred pairs and by 1983 Mike Fraser thought that there were approximately 1000 pairs, suggesting a steady recovery once the pigs had disappeared.

Then came longline fishing. Nigel Brother's pioneering work in the late 1980s showed how thousands of albatrosses and petrels were being caught on longlines set for tunas throughout the Southern Ocean. By the 1990s it was clear that unsustainably large numbers of these seabirds were being killed, with White-chinned Petrels being the species most often the victims. Although only one Spectacled Petrel has been returned

to port by a longliner operating out of South Africa, the birds mainly forage west of Tristan and data from vessels off the east coast of South America indicated that hundreds of Spectacled Petrels were being killed annually. This highlighted the need for an up-to-date population estimate.

Sustained growth

The first comprehensive, island-wide survey took place in 1999 and estimated more than 5000 burrows. By 2004, this number had increased to almost 9000 burrows and in 2009 there were more than 14000 burrows. Clearly, Spectacled Petrels were doing just fine, despite the impacts of longlining. By 2018, the number of burrows was so large that researchers switched from assessing the numbers of all burrows to a survey that accurately mapped the number and distribution of burrows along fixed transects across the island plateau. Extrapolating from these transect counts gave a population estimate of some 30000 pairs. This impressive population growth is about as fast as can be

expected for a bird that lays only one egg per year and probably takes at least three to four years to start breeding.

Most areas of suitable plateau vegetation on Inaccessible Island are now dotted with burrows and in recent years Spectacled Petrels have been seen prospecting over Gough Island in late summer. Presumably these are young birds, which tend to arrive at the breeding colony later in the breeding season. It will be interesting to see whether they start visiting Gough earlier in summer, given that egg laying occurs in October.

The increase in Spectacled Petrel numbers is good news for local birders. Although Spectacled Petrels prefer warmer oceanic waters than White-chinned Petrels and are thus seldom seen over the continental shelf edge, sightings on one-day pelagic birding trips out of Cape Town have become increasingly regular over the past decade. Spectacled Petrels can be seen at any time of year, but they are perhaps easiest to locate in summer when there are fewer White-chinned Petrels among which they can hide. ♦

