

# DOWN SOUTH

Antarctica is renowned as the coldest, driest and highest continent. Its inhospitable climate makes it the harshest place for life on earth, but the few birds that breed there include some truly iconic species, including the ultimate penguin. It's now possible to visit an Emperor Penguin colony from Cape Town – at a price!

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Although Antarctica is high on many people's bucket list, only a lucky few manage to visit the white continent. Antarctic tourism continues to grow, recently surpassing 100 000 visitors per year for the first time, but this is trivial compared to other continents. In 2023, Europe welcomed more than 700 million visitors, Asia 300 million, the Americas 200 million, Africa 66 million and Australasia 10 million. Most tourists visit the Antarctic Peninsula, which is a short cruise across the often tempestuous Drake Passage. Here you are likely to observe a good cross-section of Antarctic scenery and wildlife, but you can easily fail to see perhaps the

**ABOVE** Adult Emperor Penguins are curious, and visitors have to be careful that they maintain the required distance of five metres.

**OPPOSITE** In November all the Emperor Penguin chicks are still downy.

**PREVIOUS SPREAD** A tourist enjoys the spectacle of the Emperor Penguin colony on the Astrid coast, which was first visited in 2023.

most sought-after bird species of all: the Emperor Penguin.

Cruises from Tasmania and New Zealand are almost guaranteed to deliver Emperors, but they take much longer to reach the continent. A bonus, however, is that most of them stop at some of the sub-Antarctic islands en route. South Africa is the third gateway for Antarctic tourism; there are few ship-based options, but two 'deep-field' operators fly to the continent from Cape Town. One offers dedicated tourist flights to camps at mountains in Queen Maud Land, whereas the other offers seats on flights in support of the various national Antarctic research programmes in the same region. It has a small lodge at Schirmacher Oasis, a nunatak on the Antarctic coastline some 115 kilometres south of the edge of the ice-shelf and close to the blue-ice runway where the plane lands. From there, you can explore the Oasis on foot and the surrounding region by Twin Otter or Arctic Truck.

For birders, the main attraction is to visit one of the Emperor Penguin colonies found on the fast ice along the edge

of the ice-shelf. Emperor Penguins are unique in being the only bird to breed on ice and they do so through the frigid Antarctic winter. Adults congregate at breeding sites at the end of summer and, after a brief courtship, the females leave the males to incubate the single egg on their feet for two months. The males survive by huddling together to share body heat, making this the only penguin that forgoes the need for some personal space while breeding. The huddles of incubating birds slowly move downwind, as males on the exposed side shuffle round to gain some protection from the wind.

By the time the chicks hatch in July, the males have been fasting for almost four months, yet they are still able to feed their offspring with an oily glandular secretion if their partners have not returned. The chicks are brooded for four to five weeks, until they are large enough to survive by forming a crèche with other chicks. Then both adults are free to forage for the chick, commuting across the sea ice to areas of open water. The chicks leave the colony from mid-December, freeing up their parents to prepare for their >







annual moult. Once that is complete, the adults must fatten up to get ready for the rigours of the next breeding season.

Most cruises visit Antarctica only after the chicks have fledged. To see them in their super-cute downy plumage in spring you either need a powerful ice-breaker equipped with a helicopter or you have to fly to the continent, which is where the deep-field operators come in. Flights to Queen Maud Land, south of Africa, start at the end of October, once the blue-ice landing strip has been cleared by overwintering personnel from the nearby research bases. Smaller support planes fly in from South America to service the various bases from the main landing strip. In November and early December it is now possible to fly for six hours from Cape Town to Antarctica, then take a one-hour flight in a Twin Otter to one of the colonies at the edge of the ice-shelf.

There are some 65 Emperor Penguin colonies, spaced every few hundred kilometres around much of the Antarctic

coast. They are absent only from the west coast of the Antarctic Peninsula and the long stretches of ice-shelf edge in the Ross and Weddell seas. About half of all colonies were first discovered from satellite imagery; the penguins' dark brown faeces stain the ice and cause localised melting that is readily detected by satellite.

The two colonies close to Schirmacher Oasis are very poorly known. The Astrid colony was only discovered from satellite imagery in 2009 and first visited at the end of 2023, funded by a small tourist group. Counts made during this visit indicate that the colony contains three times more penguins than estimated from satellite imagery. The Lazarev colony has yet to be visited. It was spotted from a Russian plane in the 1960s, but the only subsequent information comes from satellite images. It is hoped that a visit to this colony at the end of 2024 will obtain better estimates of its size.

Such baseline data are important because the Emperor Penguin is one of

**ABOVE** The number of South Polar Skuas breeding at Schirmacher Oasis has fallen during the past two decades as waste-management practices at the two research stations in the area have improved.

**OPPOSITE** Although there are few birds, the other-worldly scenery, such as this ice cave, is unforgettable.

the species in Antarctica most at risk from climate change. The chicks have to be fully feathered before the ice on which they breed breaks up. Early break-up of the sea ice has resulted in catastrophic breeding failures at some colonies. For example, in 2015 the ice under the Emperor colony at Halley Bay, the largest in the Weddell Sea, broke up by mid-November thanks to reduced sea ice and strong winds linked to a powerful El Niño event. The following three years saw similar complete breeding failures at this site, when the ice broke up before the end of November each year. By then, most >









adults had moved farther south to breed at the Dawson-Lambton colony.

That this is only going to get worse is indicated by the past three years having the smallest extent of sea ice around Antarctica since satellite observations began in 1979. There appears to have been a fundamental shift in sea ice conditions around the continent over the past decade or so, with ice formation becoming more erratic each year. Climate model projections suggest that most Emperor Penguin colonies will be effectively extinct by the end of the century.

Emperor Penguins are not the only bird you can see during a fly-in visit to Antarctica, but the list is remarkably short. South Polar Skuas breed at the Oasis and small numbers forage at the Emperor colonies. The only other breeding species is Wilson's Storm Petrel, which nests in crevices on scree slopes at the northern edge of the Oasis. They are most active at midnight, flying along the cliffs and calling from burrows, but are still easily seen thanks to the 24-hour daylight!



Snow Petrels used to breed at the Oasis, but no longer do so probably because of predation by skuas. Up to 10 pairs of skuas bred at the Oasis in the 1980s and '90s, subsidised in part by food scraps from the two research stations. Skua numbers have since decreased to only a few pairs, but Snow Petrels are still only occasional visitors, commuting through the area to breed on mountains further inland. Another non-breeding visitor is the Adélie Penguin. A few pairs visit the Oasis each year and even try to breed in some years, but such attempts are doomed to failure, given the 120-kilometre trek over the

ice-shelf to reach the edge of the sea ice. In 2023, a pair of Southern Fulmars displayed on the northern cliff of the Oasis; their nearest breeding site is 1500 kilometres to the east. Antarctic Petrels also sometimes fly over the Oasis.

Visiting Antarctica by ship offers many more bird species than these, as well as the chance to travel through the pack ice with hundreds of seals and whales. However, very few people have the opportunity to visit the interior of the continent. Hiking around nunataks and exploring ice caves are extraordinary experiences that will stay with you forever. ♦

**ABOVE** One of a pair of Southern Fulmars displaying on the northern slope of Schirmacher Oasis in December 2023. This is the first record of the species from the region.

**OPPOSITE, ABOVE** Adélie Penguins occasionally visit Schirmacher Oasis in spring, walking more than 100 kilometres from the edge of the ice-shelf.

**OPPOSITE, BELOW** Wilson's Storm Petrels breed on the Antarctic coast in summer.

**PREVIOUS SPREAD** A Snow Petrel soars along the northern cliffs of Schirmacher Oasis.

### Managing Antarctic tourism

Antarctica is unique in not being part of any sovereign nation. In terms of the 1959 Antarctic Treaty, the area south of the 60th parallel is set aside as a natural reserve dedicated to peace and science. Most Antarctic tour operators belong to the International Association of Antarctica Tour Operators (IAATO), which promotes

safe and environmentally responsible tourism to the continent. IAATO provides guidelines to minimise impact on wildlife and the environment in general, and imposes strict biosecurity and waste-management regulations, as well as emission controls on tourist vessels. Regular inspections of tourist facilities ensure that these regulations are enforced.

Only about a thousand tourists visit the interior each year, which is less than one per cent of all visits to Antarctica. Despite the stringent controls, there is pressure to limit tourism to the continent, even though it has less impact than national research operations. One way to further reduce the impact of tourism is to link it to existing logistic activities.