

prey for penguins



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To stem the African Penguin's slide to extinction, government support for optimal no-take zones around South Africa's penguin colonies is critical. BirdLife South Africa's Seabird Conservation team explains the imperative for implementing effective island closures in a bid to save the species.

A quintessential feature of our marine and coastal environment, African Penguins attract local and international visitors to South Africa's shores. The African Penguin colony at Boulders Beach in Simon's Town is one of the most popular tourist destinations in the country and generates an estimated revenue of R310-million a year. Sadly, the number of birds visitors see at Boulders gives a false impression of a situation that has actually reached crisis proportions.

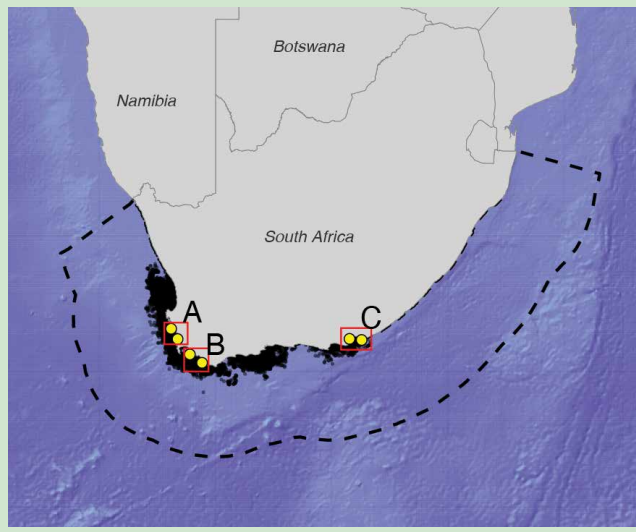
Once one of South Africa's most ubiquitous seabirds, estimated to number 1.5–3 million individuals at the turn of the 20th century, the species has lost a staggering 97 per cent of its population. In the past 30 years the number of African Penguins breeding in South Africa has declined by 73 per cent. It is estimated that there are fewer than 10 000 breeding pairs left.

Efforts to conserve the African Penguin have been extensive and include

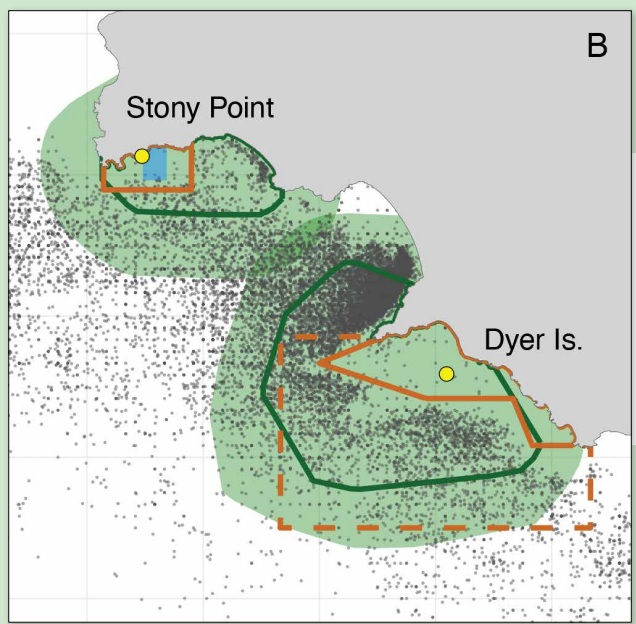
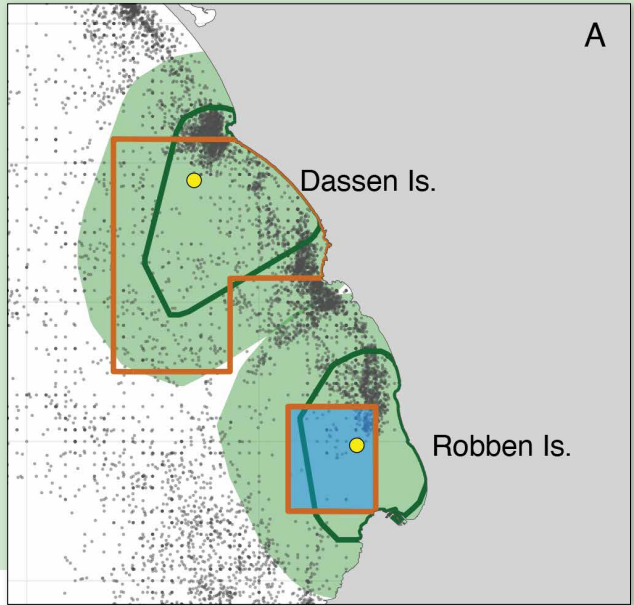
The African Penguin is currently listed as globally Endangered, but this classification is likely to change to Critically Endangered by the end of 2024. Once uplisted, it will be the most threatened penguin species in the world. At the current rate of decline, African Penguins may be extinct by 2035.

Crying out for help? African Penguins need a reliable supply of anchovies and sardines close to their colonies when they are breeding and moulting.

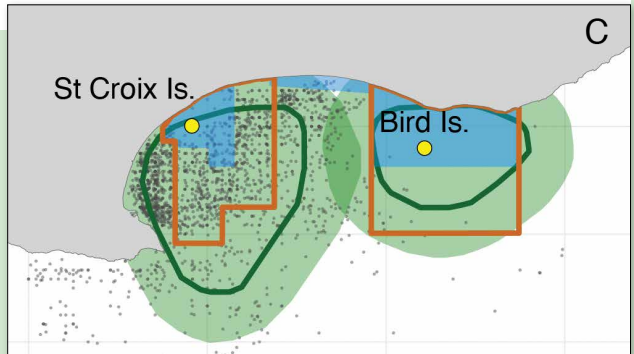
The six unprotected large African Penguin breeding colonies in South Africa



LEFT The penguin colonies in relation to South Africa's Exclusive Economic Zone (dashed black line), with purse-seine fishery catches 2011–2022 shown by small black dots.



ABOVE At Dyer Island, the interim closure consists of a split-zone configuration, where no fishing is allowed inside the solid orange line, but vessels smaller than 26 metres can fish between the solid and dashed orange lines.



- Current interim closures
- Existing marine protected areas
- Locations of fishing catches
- African Penguins' full foraging range
- African Penguins' core foraging range

protocols to minimise the impacts of oiling and predator incursions into colonies. However, scientists have repeatedly stressed the need to secure the major driver of their survival – the sustained availability of anchovies and sardines.

The African Penguin is a specialised feeder and is most vulnerable to food

shortages at key stages of its life cycle. Although penguins spend a lot of time at sea, they also spend several weeks at a time on land, especially while breeding and during their annual moult. During their breeding season, when they are mostly limited to foraging within 20 kilometres of their colony, they need prey to

be within a relatively small area around it. Prior to moulting, penguins spend four to five weeks foraging at sea, building sufficient fat reserves to sustain them during the two to three weeks when they moult. At the end of this time, they need to regain weight and build muscle to hunt effectively. Consequently, they need to >

feed quickly and efficiently once they return to the sea.

A reliable supply of anchovies and sardines is vital for penguins, but also important for Cape Gannets, Cape Cormorants, Cape fur seals, common dolphins and Bryde's whales, as well as predatory fish such as geelbek, yellow-tail and snoek. These fish are targeted by small-scale line fishers, who thus also have an interest in boosting the biomass of sardines and anchovies.

Additional competition for prey comes from the purse-seine fishery operating between Hondeklip Bay on the west coast and Port Alfred on the east coast. This is the largest industrial fishery in South Africa in terms of landed mass, approximately 80 per cent of which comprises anchovies and sardines. The sardines are either canned or packaged as bait, whereas anchovies are mainly reduced to fish-meal and either exported or used by local agriculture. Due to decreasing stocks in South African waters, most of the sardines you see in our stores are imported from Morocco.

The prohibition of fishing around penguin colonies is not a new strategy; one of the first experimental closures was implemented in 2008. Since then, the Department of Forestry, Fisheries and the Environment (DFFE) has instituted a longer-term 'Island Closure Experiment', the monitoring and results of which have elicited contradictory interpretation and opinion from fishery and seabird scientists. To help resolve the impasse, the DFFE Minister convened an International Review Panel of expert scientists and economists.

Based on the results of the Island Closure Experiment, the panel's report confirmed that purse-seine fishing closures have a positive impact on African Penguin populations. The panel also recommended that, because of the penguin's relatively long lifespan, closures should be implemented for at least 6–10 years to allow for a conclusive determination of the benefits for

penguin survival and population recovery. On 4 August 2023 the findings of the panel were made public with an accompanying announcement by the DFFE Minister that long-term closures (10 years with a review after six years) would be implemented around six of South Africa's largest penguin colonies.

Impasse

This endorsement of island closures was welcomed by the conservation sector. Of concern, however, was the minister's failure to recognise the role of the Independent Review Panel as arbiter, given the prior impasse between the seabird and fishery scientists. Instead of sanctioning the recommendations of the panel as to how the no-take zones should be configured, the minister sent the purse-seine fishery and the seabird scientists back to the negotiating table to deliberate on the extent and design of the closures.

'If there is agreement on fishing limitations over the next few weeks or months across these sectors, these will be implemented as they are agreed upon. If no alternate fishing limitation proposals are concluded by the start of the 2024 Small Pelagic Fishing Season (15 January 2024) the current interim fishing limitations will continue until the end of the 2033 fishing season...' – Extract from the minister's announcement

Despite pleas on the part of the conservation sector to government and the fishing industry to realign the boundaries of the no-take zones, no agreement was reached with the fishery. In accord with the DFFE Minister's announcement, the 'interim closures' in place while the International Review Panel undertook its independent assessment are set to remain until the end of the 2033 fishing season.

By then, the African Penguin may have only a year or two before its forecast extinction date.

BirdLife South Africa and SANCCOB turn to the courts

Seabird scientists have focused on modelling the efficacy of the interim closures, using the trade-off methodology recommended by the International Review Panel. The result of this research indicates that, in most instances, the interim closures do not adequately protect the critical foraging areas of breeding African Penguins (see maps).

Therefore BirdLife South Africa and SANCCOB are taking the office of the minister responsible for the environment to court. Our aim is to compel the office to revisit the decision of August 2023, which prohibits fishing for sardines and anchovies in waters around penguin colonies.

In turning to the courts, BirdLife South Africa and SANCCOB are not asking that purse-seine fishing be banned. The sector's call is for sensible trade-offs whereby no-take zones are designed to benefit penguins while ensuring the purse-seine fishery remains viable. In essence, the call is for the application of the precautionary principle. This principle is a global norm for decisions about the environment and is set down in section 2 of South Africa's National Environmental Management Act. Hence, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent serious and irreversible environmental consequences.

We are committed to challenging the passive notion that species go extinct. African Penguins are not disappearing by magic. They are being pushed to the brink by human pressure on their food supply and habitats. If we don't apply maximum pressure on government institutions to act now – and act fast – the fate of the African Penguin is as good as signed and sealed.

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For more information and to support our efforts to save the African Penguin, please go to birdlife.org.za/penguins