



# TAKING ACTION TO SAVE PENGUINS



## AFRICAN PENGUIN *Spheniscus demersus*

Conservation Status: IUCN Red List - **ENDANGERED**

USFWS Endangered Species Act - **ENDANGERED**

### BASIC BIOLOGY

- Range: Coastlines and islands in South Africa and Namibia
- Males and females similar in coloring, size, and weight (Avg. wt. 7.5 lbs.)
- Monogamous; lay 2 eggs per clutch; both parents incubate eggs (36-42 days) and feed chicks
- Diving predators with excellent eyesight; require cold ocean currents to hunt for their fish prey
- Penguins are highly social and live in colonies. They hunt for fish more efficiently when in groups
- Adapted to warm climate; eliminate heat through pink patch above eye and open mouth breathing



### THREATS TO WILD AFRICAN PENGUINS

#### HISTORICAL

- Egg Harvest
- Guano harvest
- Habitat alteration
- Human encroachment
- Introduction of domestic animals (cats, dogs and rabbits)



#### CURRENT

- Deterioration of breeding habitat leading to diminished breeding success
- Poor availability of food (anchovies and sardines): driven by climate change (warming oceans, poor spawning, and changing currents and fish distribution) and unsustainable fisheries
  - Lower adult survival, fledging success, and juvenile recruitment
- Human disturbance including traffic, pets, and unregulated tourism
- Predator incursion (Cape fur seals, land predators like gulls, leopards, caracal, feral and domestic cats/dogs)

#### CATASTROPHIC EVENTS

- Oil spills including ship-to-ship bunkering (the transfer of oil to another vessel while at sea)
- Disease outbreaks
- Climate-change-driven periods of high temperatures or flooding leading to nest abandonment (excessive heat kills chicks, excessive rain floods nests killing eggs and chicks)



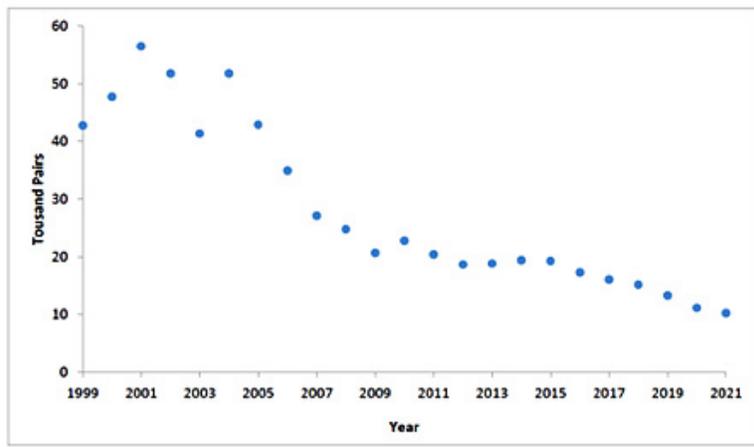


Figure 2: Trends in numbers of African penguins breeding in South Africa, 1999–2021.  
 Above image: Department of Forestry, Fisheries and the Environment, Republic of South Africa.  
 Biodiversity Management Plan for the African Penguin (*Spheniscus demersus*). 22 July, 2022.

# WILD POPULATION

African penguins are experiencing an alarming and continuing decline in the wild—**some scientists predict that they could be functionally extinct in southwestern South Africa in 2035!** The AZA SAFE African Penguin program is working with stakeholders in South Africa, Namibia, and other AZA institutions to help mitigate the threats and slow the rate of decline.

Between 2019 and 2021 in South Africa, the population of breeding birds declined by 23%! In Namibia, the population of African penguins is small and has been somewhat stable; however, recently the most importation colony there has declined drastically. Because the SA population continues to decline, Namibia now holds 1/3 of the total global population.

## WHAT IS AZA SAFE AFRICAN PENGUIN?

**AZA SAFE:** Saving Animals From Extinction focuses the collective expertise within the Association of Zoos and Aquariums (AZA) – accredited zoos and aquariums and leverages their massive audiences to help save species. The SAFE framework protects threatened animals, builds upon established recovery plans and history of commitment, prioritizes collaboration among AZA member institutions, implements strategic conservation and stakeholder engagement activities, and measures conservation progress.

## THE OVERALL GOAL:

The overall goal of the AZA SAFE African Penguin Program is to secure a healthy African penguin population in the wild through collaborative, science-based conservation programs; secure funding; and engage appropriate audiences through AZA and other partner institutions and organizations. The importance of Namibia has increased dramatically as a potential stronghold for a fragile population. Since 2022, AZA SAFE African Penguin has **increased the priority** and emphasis of our goals related to Namibia.



## SPECIFIC GOALS:

### IMMEDIATE AND SHORT TERM

Stop the decline of African penguin populations through efficient, effective response to oil spills, disease outbreaks and other short-term crises; by supporting (through SANCCOB) and establishing Colony Ranger positions to be effective monitors and first-responders; through improvement of nest habitat and nesting success by deploying, maintaining and documenting artificial nests in African penguin colonies and assisting with habitat restoration.

- 1 Disaster Preparedness, Response, Rescue & Rehabilitation in Namibia, and South Africa (Maryland Zoo in Baltimore)
- 2 Supporting Seabird Rangers in South Africa and launching a new Colony Ranger program in Namibia; develop an Adopt-a-Ranger program to generate support (California Academy, Steinhart Aquarium; Maryland Zoo in Baltimore; and National Aviary)
- 3 Habitat improvement and restoration with particular emphasis on deploying & monitoring artificial nests that maintain appropriate microclimates, attract pairs of African penguins for nesting and successfully fledge chicks (Dallas Zoo)

### LONGER-TERM ESSENTIAL PROJECTS

Understand and manage critical challenges through collaboration with research and management colleagues in range countries and facilitation of collaborations among a diverse array of stakeholders.

- 4 Achieving Food/Prey sustainability by working with a variety of stakeholders to support efforts to stabilize and increase a sustainable prey base for African penguins (and other top predators)
  - Elucidating quality of foraging areas near penguin colonies by recording weight gain and duration of foraging trip among penguins individually identified with passive integrated transponders (PIT tags) (Houston Zoo)
  - Endorsing and supporting studies of the economic impact of penguin colonies in South Africa (WWF-SA)
- 5 Understanding movements, mortality patterns and essential demographic parameters by using individually identified penguins with PIT tags (Houston Zoo)



# WHAT IS A SPECIES SURVIVAL PLAN® AND HOW DOES IT HELP?

- A **Species Survival Plan** is a cooperative breeding and management program that strives to create long-term, self-sustaining populations in zoos and aquariums which ultimately eliminated the need to collect wild animals. By making science-based breeding recommendations, the population's genetic diversity is preserved, and the demographic profile remains balanced over time.
- The **African Penguin Species Survival Plan (SSP)** has been in place since 1995 and has very effectively managed the North American AZA population by retaining **~99%** of the potential genetic diversity.
- The African Penguin SSP has historically supported in-situ conservation as well as improving educational messaging for all of its SSP members.
- In 2022 the African Penguin SSP included 52 institutional members with a total of **~1130** penguins.



## WHAT CAN YOU DO?



- Recycle, reuse, and reduce plastics, aluminum, and other materials in your daily activities.
- Help with beach, shore, and creek clean-up: the ocean starts here.
- Learn about and support efforts to reduce climate change.
- When ordering or buying seafood, select products certified as sustainable. Ask your grocer so they know it is important to you!
- Engage in positive SAFE efforts such as supporting disaster response program, adopt-a-penguin-ranger, or help provide penguins with artificial nests.