



# **Developing an AZA SAFE Conservation Action Plan for African Penguins**



**AZA Mid-Year Meeting 2015  
Columbia, SC**

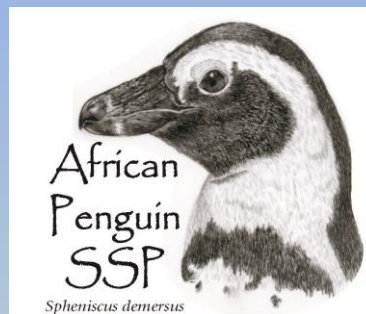
**Steve Sarro, Smithsonian's National Zoo  
Gayle Sirpenski, Mystic Aquarium**



# **Concept of AZA SAFE:**

## **Saving Animals From Extinction**

- Bring new resources and strategically focus the conservation work of zoos and aquariums for greater impact (180 million annual visitors)
- Capitalize on unique zoo & aquarium assets to save species



## **SAFE Conservation Action Plans (CAPs) provide:**

- Holistic approach to population management by SSPs
- A focus for zoo and aquarium research and conservation programs
- A “one-plan” approach taps AZA member expertise beyond the SSP
- Integrated messaging for education and interpretation to our visitors
- Opportunity for greater scientific and cultural exchange with in-country colleagues



## Future SAFE species will be...

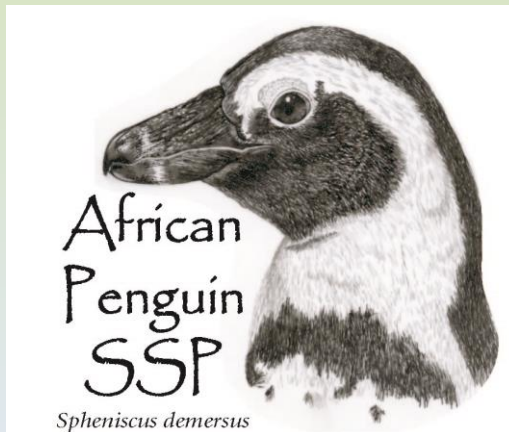
- Species that engage a significant number of AZA institutions
- Species that represent the diversity of life (Invertebrates; fish, amphibians, reptiles, birds, mammals)
- Species we can help in a reasonable time (5yrs - 10+ yrs)
- Geographic spread – emphasis on N.A. with global reach
- Attention to IUCN key threats (Human actions, climate change, invasive species, emerging diseases, etc.)
- Species for which AZA institutions play a leadership role
- Species offering opportunities for citizen action

# Why African penguins as a

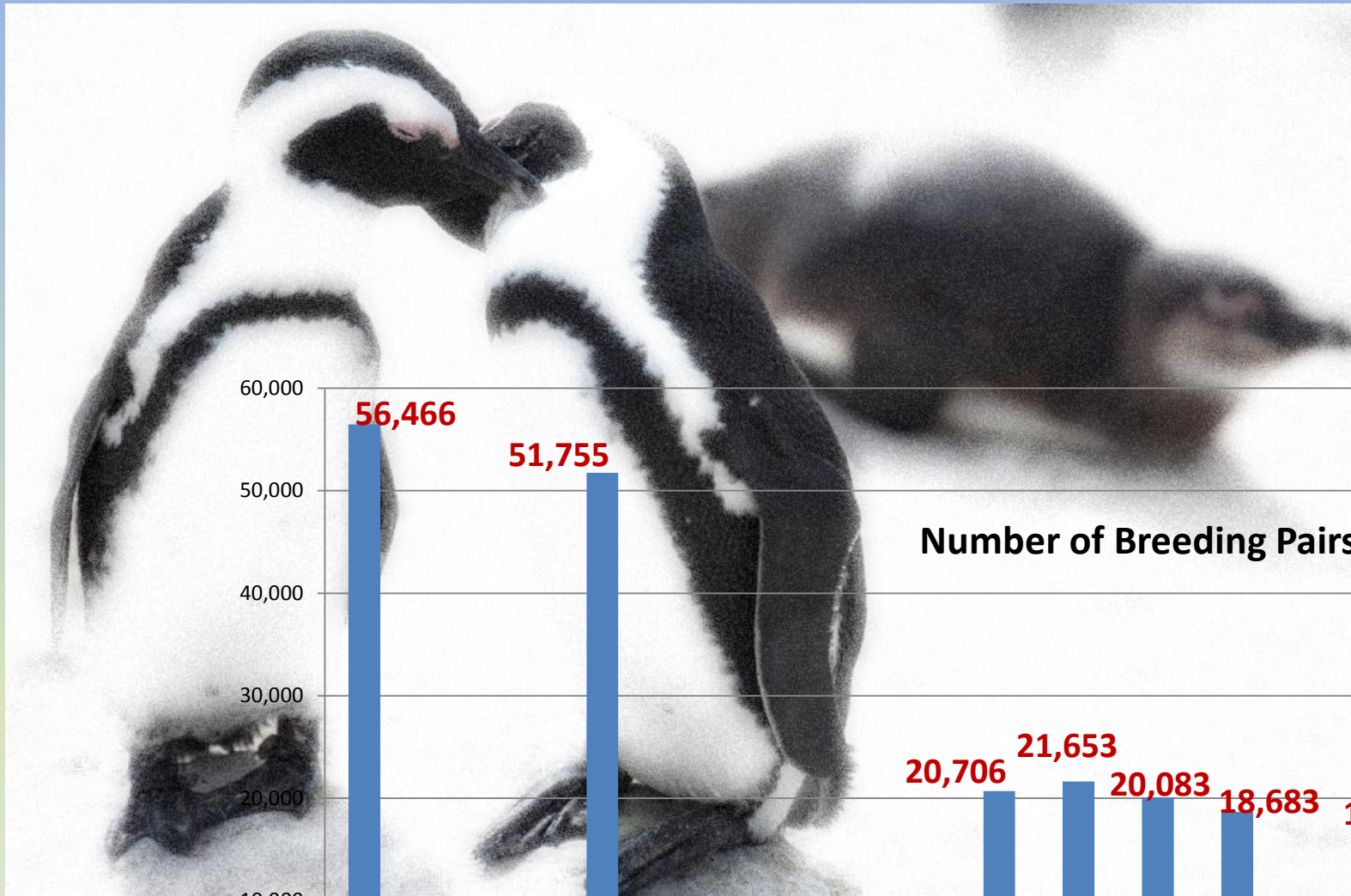


# species?

- Endangered species **Population has declined by 90% during the 20<sup>th</sup> century**
- Population decline continues with no sign of reversing
- African penguins have been successfully managed under the SSP for nearly 20 years
- Displayed in ~50 AZA institutions
- SSP has long history of supporting *in situ* conservation projects and SANCCOB
- **Biodiversity Management Plan (BMP)**







# Threats to African Penguins Identified in the BMP

## Anthropogenic Impacts

- Habitat destruction, invasive plants, guano harvest (historic)
- Human disturbance (tourists, poachers, vehicles)
- Introduced predators
- By-catch in fishing nets

## Fish Availability

- Commercial Fishing near nesting sites
- Shifting of prey species

## Natural Threats

- Predation by Cape fur seal/ Kelp gulls
- Diseases/parasites
- Extreme weather conditions
- Fire

## Potential Catastrophic

- Oil spills
- Exposure to hazardous chemicals









# BMP Stakeholders Meeting: Day 1



## AZA SAFE Program Introduction

# **BMP Stakeholders Meeting: Day 1**

**Working Group Reports:** Population Reinforcement, Translocation Guidelines  
SANCCOB, Pan-African Association of Zoos & Aquariums (PAAZA)

## **Action Items:**

- Establishing guidelines for new colony sites for releasing penguins
- PAAZA facilities are at capacity and are pricking eggs. Not currently allowed to release penguins.
- Banding/Transponders: Still uncertain which bands work best for visual.
- Establish guidelines for disease risk assessment and surveillance program.
- Investigate possible collaboration with fishing industry to provide fish for birds in care during large oil spills and to feed rescued chicks.
- Molecular and genetic analysis of wild and captive penguins

# BMP Stakeholders Meeting: Day 2 at SANCCOB

## African penguin Habitat WG Summary Points/Concerns

- Offshore oil /gas industry will have large impact with drilling, ship traffic and potential spills.
- Habitat management is important. Removal of invasive plants and reconstruction of nesting habitats
- Human disturbance, abalone poachers, road mortalities, air & boat traffic around colonies
- Pollutants from fertilizer runoff; baseline study needed
- Weather: flooding and extreme temperatures
- Cape fur seals continue to be an issue on Western Cape



Lauren Waller,  
CapeNature



# SANCCOB 2014





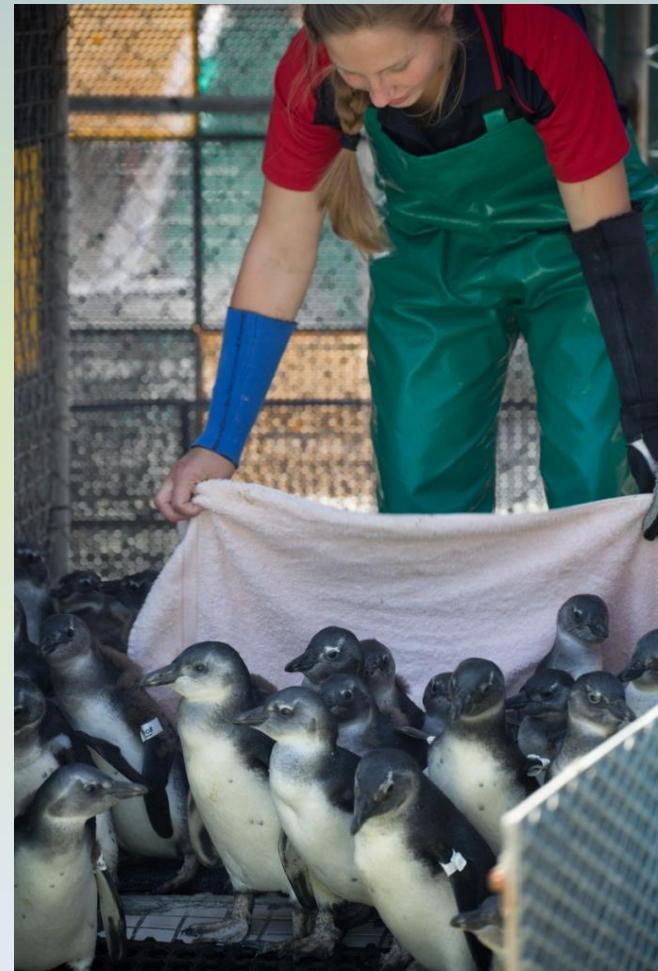






## 2014 Chick Bolstering Statistics:

- Admitted 972 chicks/ Released 747 (77%)
- 60 chicks remained at the center for continued care
- Rearing chicks from eggs to fledge success improved by 33% in 2014





# Penguin Colony Visits November 2014

Dassen Is.

Robben Is.

Boulders Beach

Stoney Point

Dyer Is.





# Robben Island









# Penguin Gateway on Robben Island

**2009**



**2014**







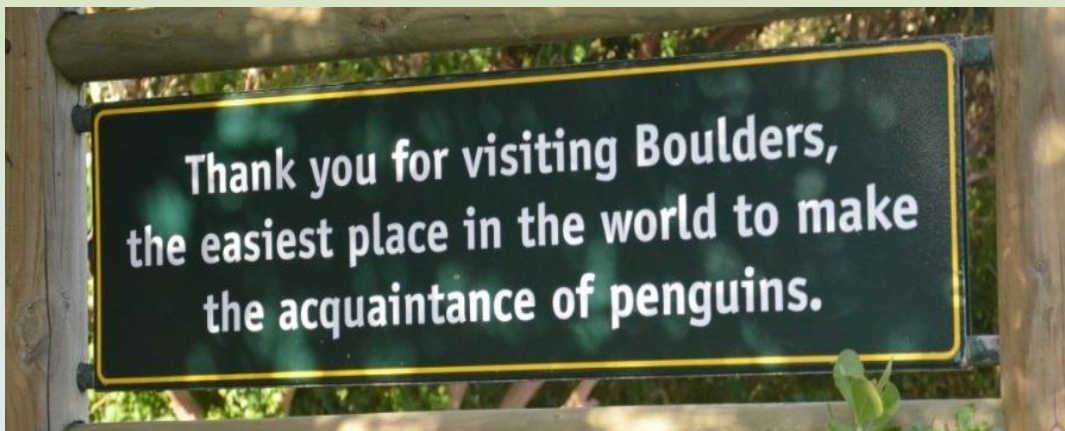
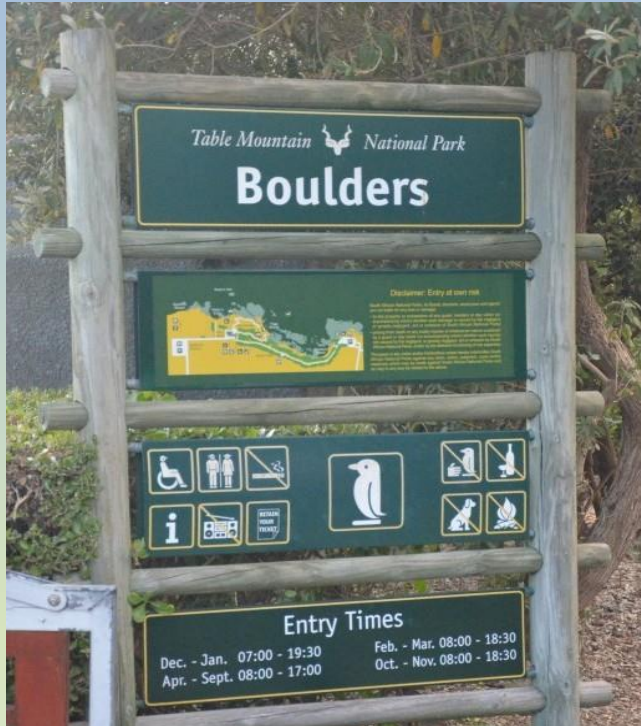
**Currently ~1,200 pairs. During *Treasure* spill in 2000 ~15,000 oiled penguins removed**







# Boulders Beach/ Burgher's Walk



# Boulders Beach Colony

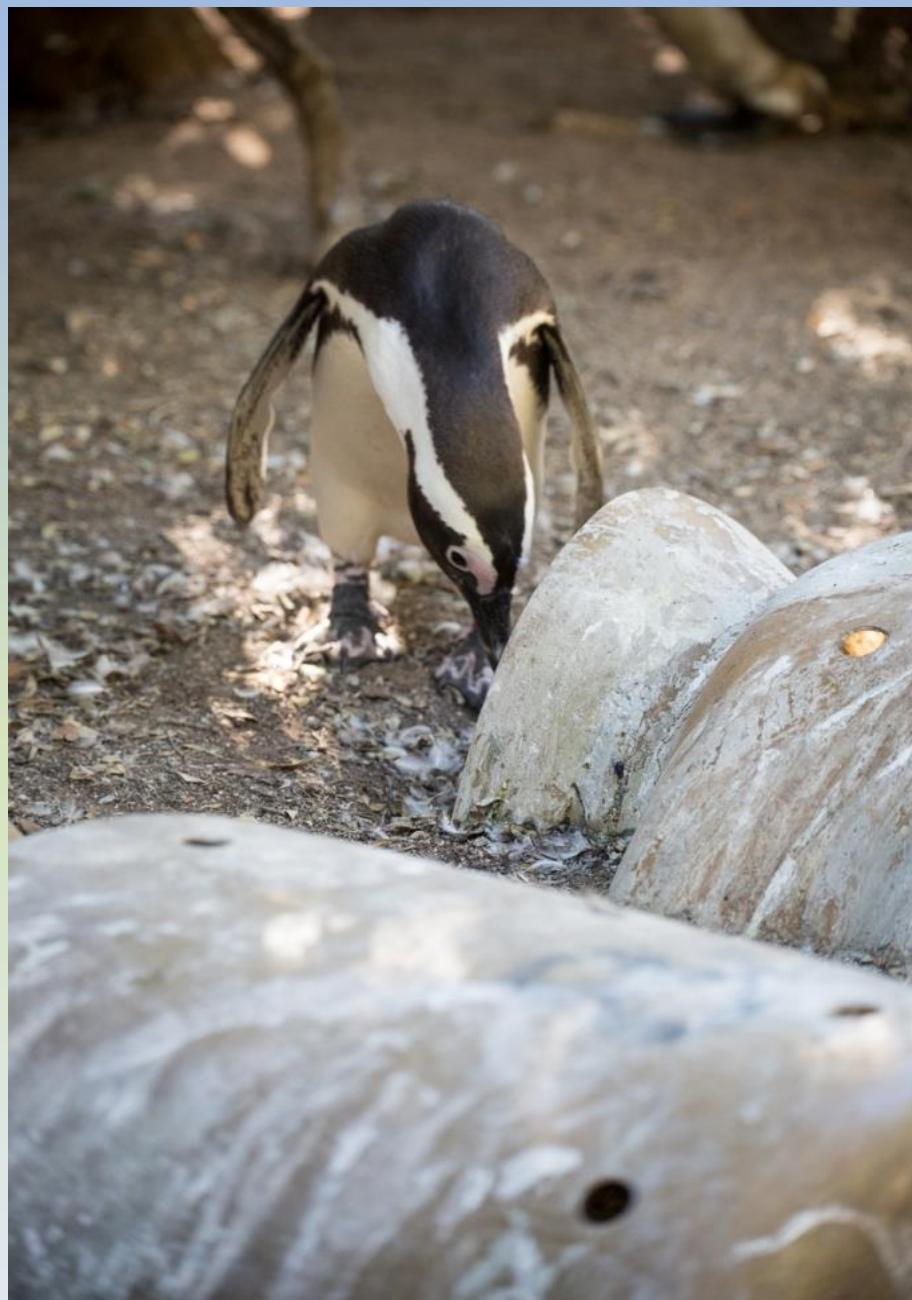
- Mainland colony. Public land; co-managed by SANParks, SANCCOB and City of Cape Town
- Penguins began to colonize this site in 1983. Breeding began in 1985
- Colony size ~3000 individuals - ~700 breeding pairs (down from 1200 in 2005)
- Vegetation is managed/ replaced with indigenous plants
- High visitation; Cape Town gets 2.5 mil tourists/year and 20% visit Boulders Beach















## Challenges at Boulders:

- Managing the public
- Car traffic
- Staffing/Monitors





# The daily “Sweep” at Boulders Beach







# Stoney Point at Betty's Bay

- Land based colony managed by Cape Nature & SANCCOB
- Public walkways and private land
- Colony established in 1982
- ~2000 breeding pairs (only colony believed to be growing)
- Large number of molting/transient penguins
- Possibly has good fish resources; birds spend less time at sea























# Potential Areas of Focus for AZA SAFE African penguin Conservation Action Plan

## Nest Related

- Artificial nest (appropriate for different habitats)
- iButtons to track nest temp/humidity

## Monitoring

- Transponders/readers and GPS loggers to track foraging patterns
- Train individuals to insert transponders
- Fund students and additional staff for mainland colonies
- Camera traps

## Health

- Investigate use of fecal samples to assess stress hormones
- Assess levels of contaminants in colony environments- baseline needed
- Share chick rearing protocols with SANCCOB to improve success
- Diet analysis research



## **Disaster Response & Rescue**

- Facilitate development of standardized first responder protocols
- Funds to build appropriate stabilization areas/equipment
- Funds for response supplies (fencing, boxes)

## **Public Engagement & Education**

- Develop public campaign that leads to behavior changes
- Increase awareness of African penguin conservation (SAFE and Stakeholder efforts; International African Penguin Awareness Day)
- Advance awareness to connections between penguins & jobs by selling locally made crafts at AZA gift shops
- Standardize educational messaging about the SAFE program
- Create connections between US and SA schools

## **Collaboration and Professional Development**

- Enhance keeper exchange “Penguin Partners” with AZA and SANCCOB
- Facilitate colony manager attendance at next IPC in Cape Town

# Many thanks to.....



**Dr. Debi Luke, Senior Vice President, Conservation & Science**  
**Rob Vernon, Senior Vice President, External Affairs**  
**Joel Merriman, Director, Conservation Action Planning**



**MYSTIC  
AQUARIUM**

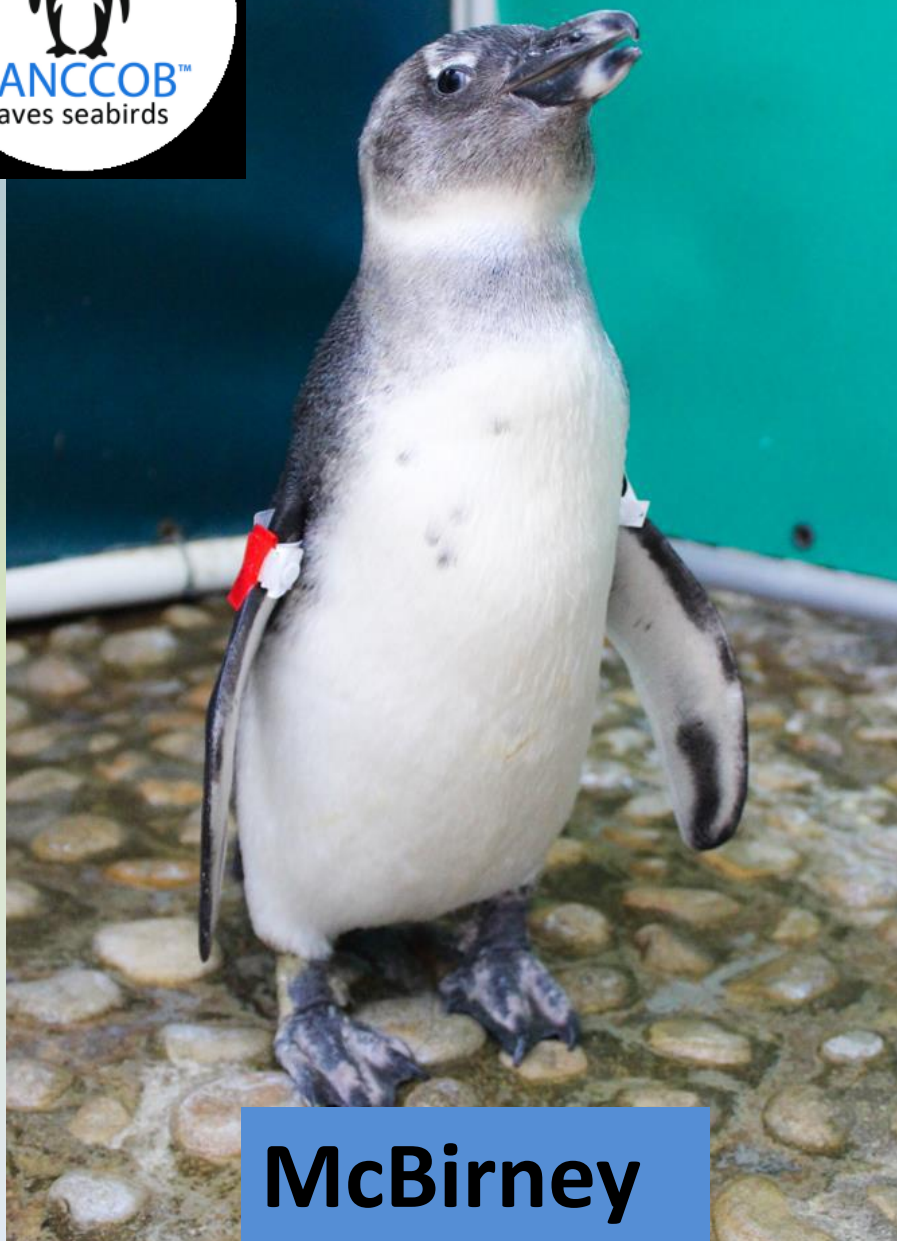
**Smithsonian Institution**







THANK YOU FOR ADOPTING ME

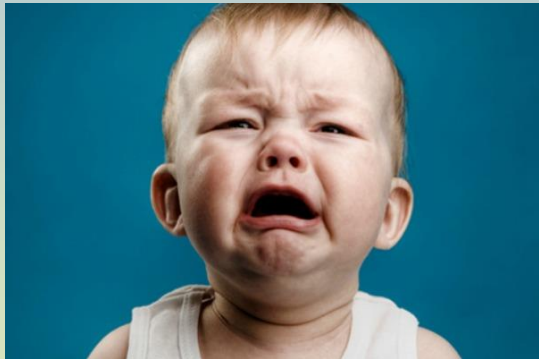


**McBirney**

**In Loving Memory of  
Our Friend and  
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Marilyn McBirney**



**Margaret has  
moved on.....**





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# Questions?

