Penguin Taxon Advisory Group

AZA MID-YEAR MEETING 26 MARCH 2023

Karen Waterfall, Albuquerque Biological Park

TAG Chair

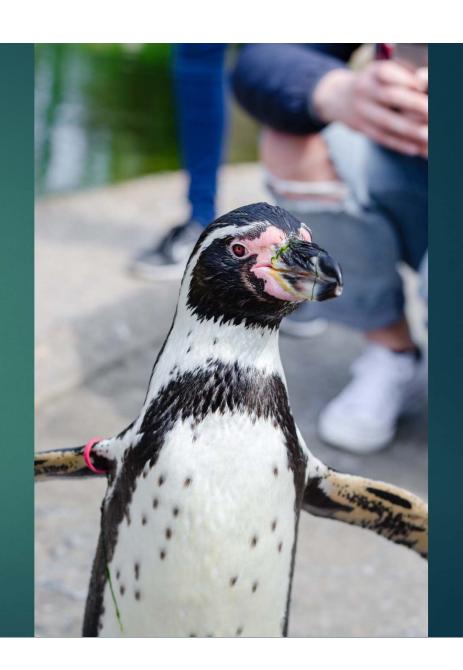
kwaterfall@cabq.gov

Executive committee

TAG Chair- Karen Waterfall, ABQ Biopark Vice Chair- Jen Kottyan, Maryland Zoo Secretary- Gayle Sirpenski, Mystic Aquarium Treasurer- Stephanie Huettner, Omaha Zoo

Steering Committee

Diane Olsen-Moody Gardens
Alex Waier-Milwaukee County Zoo
Geneve Darnell-Dallas Zoo
Colleen Lynch-Riverbanks Zoo and Aquarium
Steve Sarro-Smithsonian
Susan Cardillo-WCS
Bonnie Van Dam-Detroit Zoo
Justin Bracket-Sea World San Diego
Darwin Long-Audubon Aquarium
Susan Schmid-Dallas World Aquarium



Strategic Plan 2021-2025

Vision

The AZA Penguin TAG envisions a future with thriving penguin populations both within AZA and the wild.

Mission

Provide leadership in management, health, and welfare of AZA penguin populations, to collaborate with field conservationists, scientists and researchers to protect wild populations and to connect people to penguins

Husbandry

- Determine husbandry/management needs of individual species
- Be an expert resource for institutions
- Determine and /or change exhibit standards

Welfare

- Update ACM
- Complete animal ambassador guidelines

Education

- Determine how we want to disseminate information
- Develop tools to help connect visitors, students, teachers, staff to field researchers,
- Develop messaging incorporating behavior change

Conservation

- Track TAG conservation programs
- Work with the IUCN Penguin Specialist Group to identify relevant conservation programs that can be supported by AZA institutions

Veterinary

- Update vet and nutrition chapters of the ACM
- Review research and grant proposals that come through the TAG
- Develop a process to track veterinary questions coming in

Population sustainability

Changing goals to better align with SSP changes

RCP 2020-2025

SSP Assessments

SIGNATURE SSP

- African Penguin Steve Sarro
- Humboldt Penguin Alex Waier
- Southern Rockhopper Penguin Stephanie McIntosh
- King Penguin vacant

PROVISIONAL SSP

- Gentoo Penguin (ellsworthi) Tamara Jasperse-Sjolander
- Magellanic Penguin Nancy Gonzalez

AZA STUDBOOKS

- Little Penguin Susan Schmid
- Chinstrap Penguin Margaret Reynolds
- Macaroni Penguin Jessica Jozwiak
- Gentoo Penguin (papua) Lindsey Ireland
- Northern Rockhopper Malu Celli
- Adelie Penguin Grace Yambrach
- Emperor Penguin vacant





AFRICAN PENGUIN SSP

STEVE SARRO & GAYLE SIRPENSKI

By the Numbers:

- SSP Breeding &Transfer Plan September 2022 pop. = 1128 (600.525.3)
- 51 AZA institutions, 1 Sustainability Partner
- Genetic Diversity = 98.79, potential 99.33
- Recommended # of transfers = 76 over life of BTP
- Recommended # of females to breed = 98 (54 are genetic priorities)





- Target population size (per TAG's 2020-2024 RCP) = 1503
- Population grew by ~3% in 5 years: continued growth is expected
- Over past 5 years:

Average # hatches / yr. = 77.6

Average # of deaths / yr. = 47.4

 HPAI may delay some transfers but IRs are encouraged to contact the SSP Coordinators and SSP Veterinary Advisor with questions.

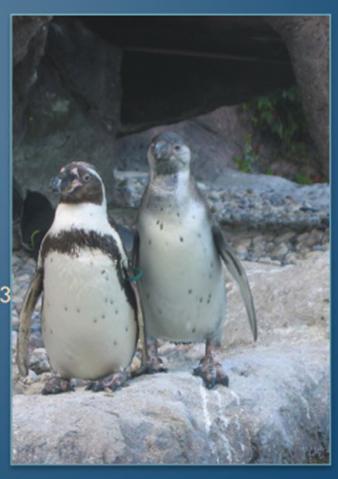
Dr. Ellen Bronson ellen.Bronson@marylandzoo.org

HUMBOLDT PENGUIN-SIGNATURE (FORMERLY GREEN) SSP

- Studbook current to June 2022
- Breeding and Transfer Plan completed and distributed November 15, 2022
- •402 birds at 20 AZA institutions.
- •One new institution coming on line in 2023, two more in 2024, and one in early 2025.
- •Still accepting new institutions!! (Small wait list) but need 3 years notice again due to recent interest!
- Chair- Alex Waier- Milwaukee County Zoo
- Vice-Chair- Vicky Croisant (Akron)
- Studbook Keeper- Rachel Ritchason (Santa Barbara)

GD- 98.1%

GD- >96% at 100 years



- #1 Connect researchers with Ex Situ managers.
- -Little progress. Still identifying research component.
- -Opportunity at upcoming IPC in September

#2 Strive to meet PVA goals for sustainability

- Recruit 4 new institutional holders (complete)
- Grow population to meet TAG identified number of 511 in 10 years (new holders should make this feasible)

#3 Enhance Captive Husbandry

-Currently collating best practices, weight/growth charts, new exhibit template



HUMBOLDT PENGUIN

Advantages to Being part of the Humboldt Penguin SSP

- -Great group of IR's and leaders. Good communication all around, and help available when questions are asked.
- Population is trying to grow, offspring get new homes quickly, so many chances to make more!
- -Rachel is willing to pick up bar tabs for institutions considering joining.
- -Our PMC Conservation Biologist Sara is a rock star
- -Takes the African Penguin program out of the equation.....
- -While not a SAFE program yet.... Ultimately that is our goal, so stay tuned...

Southern Rockhopper Penguin Signature SSP

- 16 institutions 2021 BTP 303 birds
- Survey coming this year, last one was in 2015
- Trying to move birds that are temperature and light cycle compatible
- Northern light cycle facilities want more birds
- Many challenges with moving birds from one light cycle to another
- Willing to do egg transfers? contact Stephanie stephanie.mcintosh@omahazoo.com

KING PENGUIN



Population Viability
Analyses (PVAs)
Animal Programs

WITH potential changes:

WITH potential changes:

Low Risk

Vulnerable

Endangered

Critical

WITH potential changes:

Low Risk

Vulnerable

Endangered

Critical

Essential Management Actions

- Increase breeding to produce ~17 hatches/year or reduce exportation to a maximum of 1.5 individuals/year to fulfill institutional interest
- Ensure that breeding effort is spread among institutions to reduce risks of catastrophic events

			HATCH						<1 yr MORTALITY						
	TIME FRAME	POPL	M/F	М	F	U	TOTAL	# INST WITH HATCHES	M	F	U	Total	1ST YEAR MORT	RCP TARGET POPL	%GD
	2003-2012	289 (147.128.11)	1.1	71	52	26	149	11 of 17	2	3	22	27	18.1%	290 (2010)	98.91 (2013)
A CONTRACTOR OF THE PARTY OF TH	2013-2022	286 (164.109.13)	1.5	76	43	29	148	16 of 18 including EGG TRANSFERS)	6	2	17	24	16.2%	293 (2020)	98.68 (2022)

Provisional SSP

Gentoo Penguin (ellsworthi)

- BTP 2022 14 current institutions with 2 more committing to the species and becoming accredited
- Vet Advisor Dr. Lauren Kane

Magellanic Penguin

- Standardized husbandry=increased hatch rates and chick survivability
- BTP 2022 14 institutions with El Paso
- Thinking of a temperate species? think of Magellanics!



African Penguin SAFE

- Stop the Decline Dr. Patricia McGill
- African Penguin nest project
 - Kevin Graham, Dallas Zoo









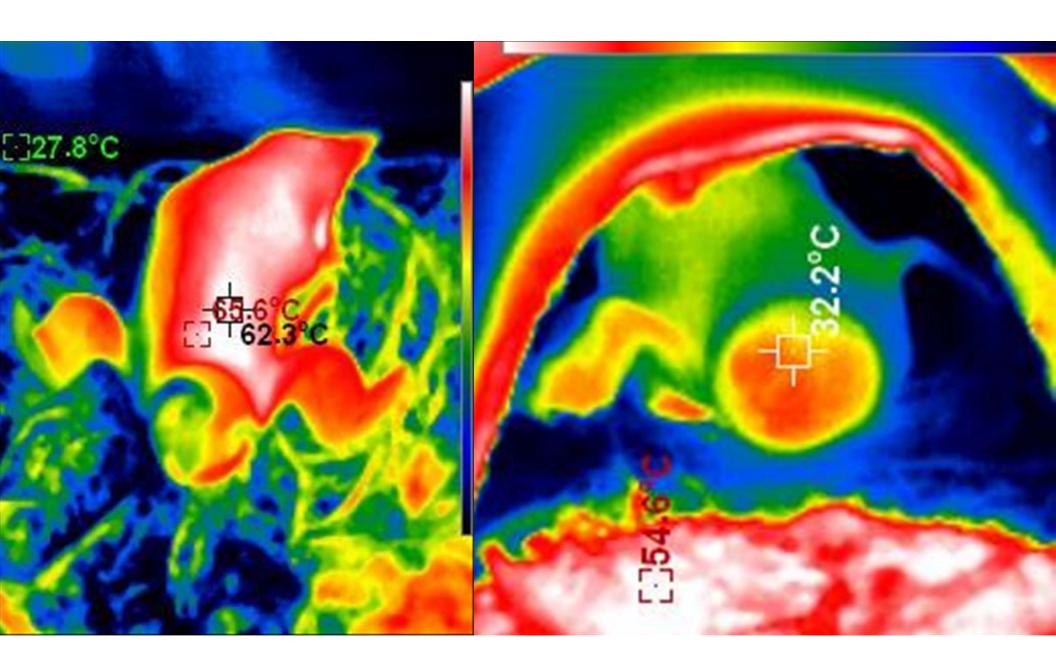








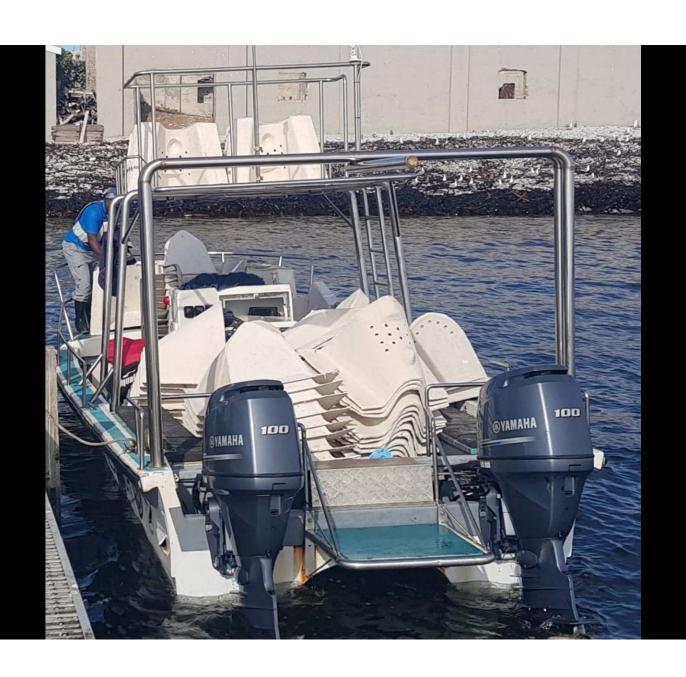










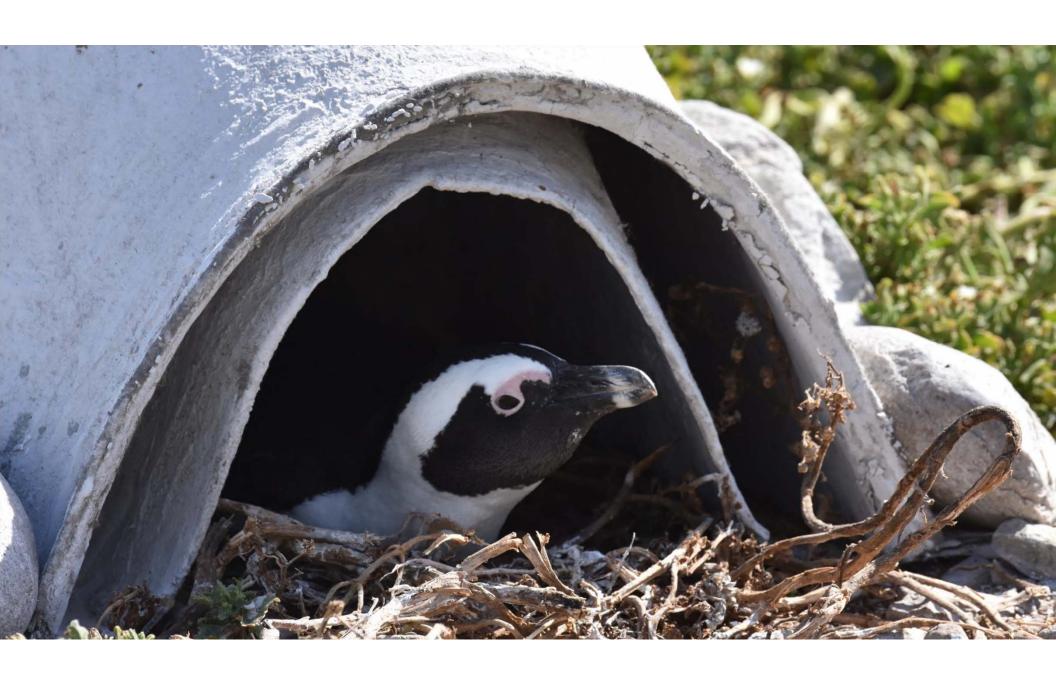








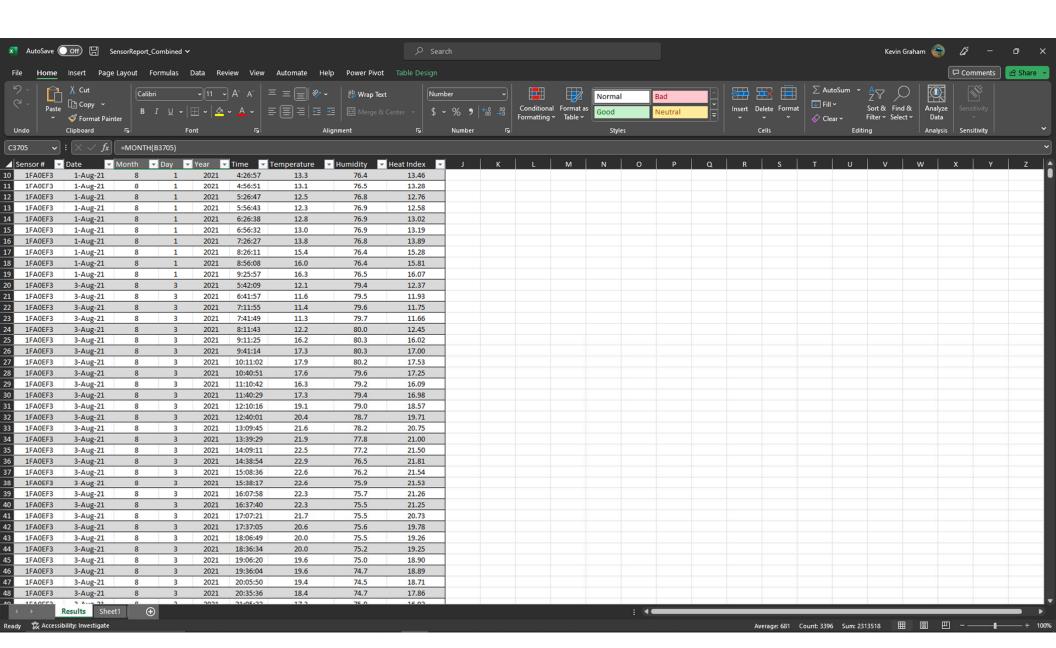








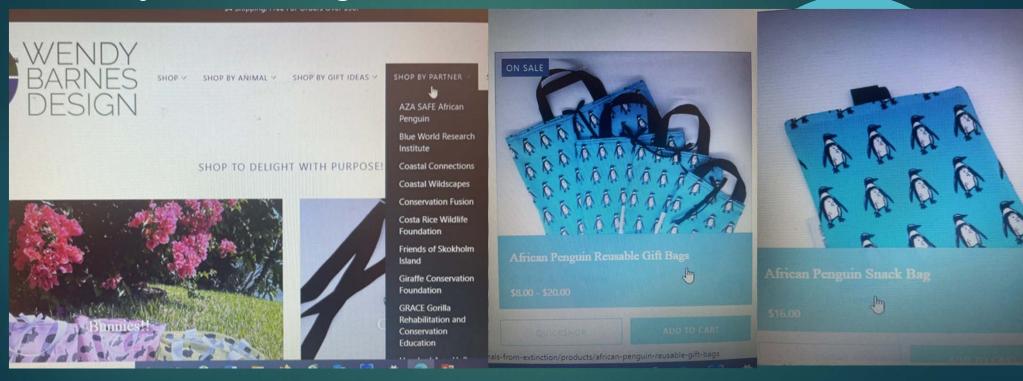






Shop for African Penguins

Wendy Barnes Designs.com



Silicone bands

- 2020 Detroit zoo put silicone bands on macaroni pair
- St. Louis found local vendor
- Lipic Engagement, <u>www.lipic.com</u>
- St. Louis took the lead in sending out requests for institutions to measure flipper sizes for various penguin species to narrow down band mold sizes
- 4 measurements on each wing- D is the max thickness of the flipper between A and B
- They were able to narrow mold sizes down to 3 sizes



Silicone Bands

PROS

- Durable and do not have to remove/change for molt
- They look difficult to apply but they are not a 2-3 person job and can be done by hand w/o a special tool -- suggested soaking the bands in warm water prior to applying

CONS

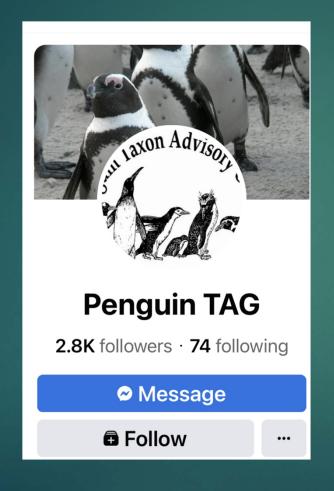
- Not easily readable from afar
- May be limited on quantity ordered and colors ordered
- The band supplier will only run 100 (50 sets) per each color but not individual colors- You can personalize each band for \$2 but need 100 of each color

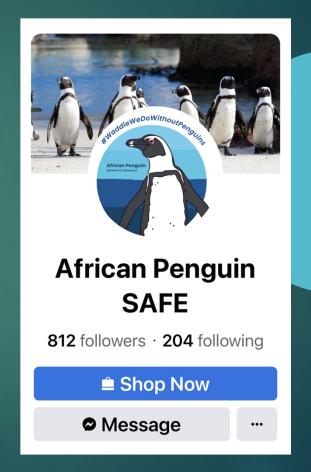
Penguin Specialist Group

www.penguin-conference.com/



Social Media





TAG MART



Thank you!

