

Call for Participation in the:



AFRICAN PENGUIN Conservation Action Plan | 2015-2018

Association of Zoos & Aquariums





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Introduction

In late 2014, AZA SAFE worked with African penguin conservation experts including representatives from the AZA African penguin SSP, South African government agencies, colony managers, conservation NGOs, and academic institutions to identify and prioritize conservation actions needed to stop the population decline of the African penguin. A 3-year SAFE Conservation Action Plan was developed using SAFE's new collaborative conservation process to address those needs and includes Projects that are aimed at achieving population sustainability.

These Projects fall within four specific thematic areas including conservation capacity, public action, scientific research, and Species Survival Plans®. Each Project is designed to incorporate collaborator expertise to maximize efficiency and effectiveness and has detailed goals and actions identified. Each Project will be coordinated by an AZA member who will work to identify key Project Collaborators.

This Project Team will be responsible for refining the project actions as needed and for developing a corresponding 3-year budget and timeline. These resources will facilitate the Project Team in executing their conservation actions, achieving successes, and identifying future needs.

This Call for Participation in the SAFE African Penguin Conservation Action Plan is a living document. It is updated on a consistent basis to recognize Project Coordinators, Collaborators, and Funders. In addition, as Coordinators are identified and Project Teams begin implementing their projects, oftentimes changes to the project's actions are revised and the scope of the suggested ideas for participation is expanded accordingly.

To view the Call for Participation webinar, please visit: https://www.youtube.com/watch?v=h_z1k2Wol80&feature=youtu.be

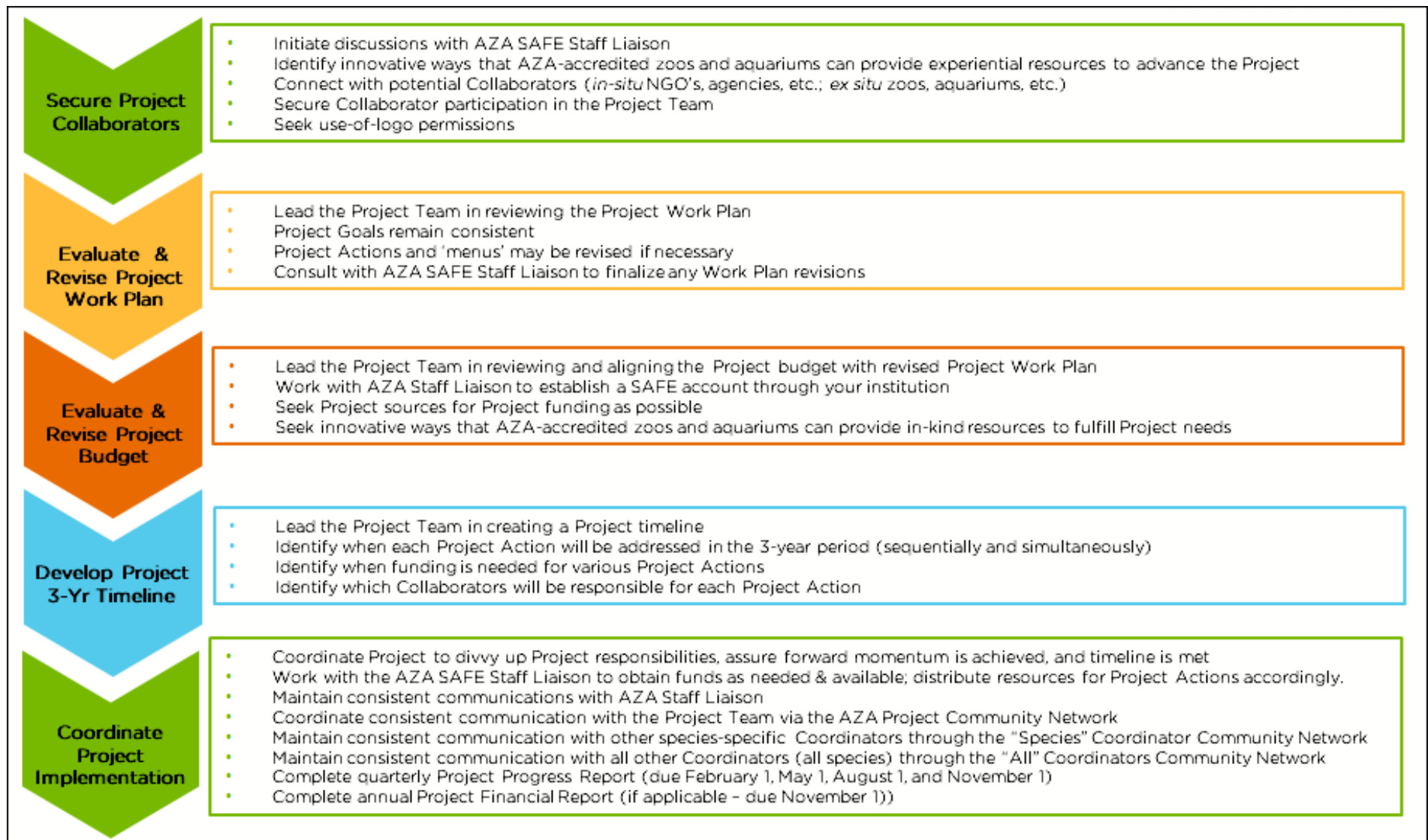
To learn more about how to become a Project Coordinator, please contact SAFEafricanpenguin@aza.org.

To learn more about how to become a Project Collaborator, please contact the Project Coordinator as identified in the Project below. If there is not a Project Coordinator identified as yet, please contact SAFEafricanpenguin@aza.org.

To learn more about the progress being made for each of the SAFE African Penguin Projects, please visit: <https://www.aza.org/SAFE-african-penguin-conservation-projects>.

To learn more about the latest on SAFE efforts overall, please visit: <https://www.aza.org/aza-safe-stories>.

Overview of Project Implementation and Management Processes



Individual Identification Project

Challenge: In-situ African penguin longevity, reintroduction survival rates, nest and natal sites, mate fidelity, inter-colony movement patterns, and many other important metrics needed to supplement effective management are unknown.

Project: Passive integrated transponder (PIT) tags and receivers are used to monitor resident, introduced, reintroduced, and/or translocated African penguins from all colonies.

Project Coordinator:



Contact Ric Urban
(rurban@newportaquarium.com) to
learn more about this Project

Project Collaborators:



Project Funders:



Goals	General Actions Needed
Appropriately trained personnel are available to insert passive integrated transponders annually.	Identify appropriate collaborators (e.g., biologists/academics/government agencies/NGOs).
	Consult with AZA Research & Technology, Field Conservation, Animal Health, & Animal Welfare Committees to incorporate their expertise in project.
	Consult with other AZA Committees as appropriate to incorporate their expertise in project.
	Develop best practice methods for inserting PIT tags.
	Develop a training program for personnel who will be inserting the PIT tags
A percentage of resident and all introduced/reintroduced/translocated penguins are tagged with passive integrated transponders.	Provide training program annually to assure personnel are appropriately trained before tagging season.
	Purchase PIT tags for 200 or 20% of adults and 100 fledglings at each colony annually.
	Purchase PIT tags for introduced, reintroduced, and/or translocated penguins annually.
	Coordinate a Tag and Release Program at the same time each year to maximize collaboration.
	A % of penguins are PIT tagged annually.
Strip & handheld receivers are provided to colonies as needed to collect data.	Train appropriate numbers of personnel so they are available to participate in the Tag and Release Program annually.
	Identify appropriate strip and handheld receivers to be used with the penguin PIT tags.
	Purchase of hand-held and ground strip readers for each colony.
	Install strip receivers in each colony.



Goals (continued)	General Actions Needed (continued)
A study is conducted to determine African penguin Inter-colony movement, nest site fidelity and reproduction success rates.	Identify faculty/universities who will dedicate graduate student(s) to an inter-colony study of penguins.
	Fund graduate students.
	Develop data collection and monitoring protocols/IACUC Forms.
	Analyze data from all monitored colonies.
	Share study results with conservation community, including in peer-reviewed literature



Individual Identification Project

Suggested Ideas for Participation Menu

Action Opportunities:

- ☒ Serve as the Project Coordinator(s).
- ☐ Participate as a Project Collaborator.
- ☐ Send staff trained and experienced in PIT tag application to South Africa to assist with the tag and release program.
- ☐ Install video monitor to display how penguins in South Africa are moving in the colonies (penguin exhibits).
- ☐ Promote project to visitors (whether you have penguins in your care or not).

Potential Tier-Leveled Funding Opportunities to Support*:

- ☐ Purchase of PIT tags/ implanters/ readers.
- ☐ Purchase of power units for ground PIT tag readers across colonies.
- ☐ Purchase of hand-held PIT tag reader and stick antenna.
- ☐ Sponsor attendance of PIT tag insertion training by biologists in range countries.
- ☐ Funding of inter-colony movement graduate study.

* Potential Tier-Leveled Funding Opportunities will support the development, implementation, and ongoing management of AZA SAFE Conservation Action Plans

Artificial Nest Development Project

Challenge: Guano collection by humans has resulted in a lack of nesting materials for African penguins.

Project: Appropriate types and numbers of new and replacement artificial nests for African penguins are installed in each colony as needed.

Project Coordinator:



Contact Kevin Graham
(Kevin.Graham@dallaszoo.com) to
learn more about this Project

Project Collaborators:



environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



South African
NATIONAL PARKS



Project Funders:



Goals	General Actions Needed
An appropriate artificial nest design is developed out of materials that provide optimal conditions for the different colony habitats and settings.	Identify appropriate collaborators (e.g., academics/government agencies/NGOs).
	Consult with AZA Research & Technology, Field Conservation, Animal Health, Animal Welfare & other AZA Committees to incorporate their expertise in project.
	Sponsor artificial nest workshop in South Africa (February 2016).
	Fund and install additional wooden artificial nests on Robben Island.
	Identify appropriate nest size, shape, temperature, humidity, strength & weight conditions requirements for other colony sites.
	Identify nest manufacturer partners in the US and South Africa.
	Identify & purchase temperature/humidity gauges to be used in testing protocols.
	Develop data collection and nest research testing protocols/IACUC Forms.
	Identify institutions and colonies who will participate in nest research testing.
	Collect data according to the testing protocols.
	Monitor breeding success in nests as per breeding success protocol.
	Analyze data from all testing institutions and colonies.
	Make recommendation to Habitat WG on which prototypes should be tested.
	Select artificial nest design(s) appropriate for different colonies.
	Supply prototype nests in colonies and collect beta testing data.
	Analyze beta test data from all colonies.
	Determine if nest prototypes are appropriate.

Goals (continued)	General Actions Needed (continued)
An adequate number of new and replacement artificial nests are manufactured and installed in each colony.	Develop guidelines for nest manufacturing.
	Identify manufacturers in South Africa.
	Create an "adopt a penguin nest" program in AZA & PAAZA institutions to finance nest manufacturing, if appropriate.
	Purchase adequate numbers of nests for each colony.
	Supply and install appropriate number of new and replacement artificial nests in each colony
An African penguin nesting monitoring program is conducted to determine nest site selection, attendance, and fidelity, as well as reproductive success rates.	Identify Universities who will dedicate graduate student(s) to an African penguin artificial nest use study.
	Fund graduate students.
	Develop data collection and monitoring protocols/IACUC Forms.
	Monitor breeding success in nests as per breeding success protocol.
	Analyze data from all monitored colonies.
	Determine if nest selection, attendance, fidelity & reproduction rates are increasing; yes=continue; no=adapt.
	Share study results with conservation community, including in peer-reviewed literature



Artificial Nest Development

Suggested Ideas for Participation Menu

Action Opportunities:

- ☒ Serve as AZA SAFE Project Coordinator.
- ☐ Participate in design of artificial nest prototypes.
- ☐ Participate in testing of temperature/humidity ranges in artificial nest prototypes (whether you have penguins in your care or not).
- ☐ Participate in the usage testing of artificial nest prototypes (African penguin exhibits).
- ☐ Send staff to South Africa to help build wooden artificial nests for Robben Island Colony.
- ☐ Send staff to South Africa to help clear invasive vegetation from Stoney Point Penguin Colony.
- ☐ Install video monitor to display how artificial nests tested in Z & A's are being used by penguins in South Africa (penguin exhibits).
- ☐ Promote project to visitors (whether you have penguins in your care or not).
- ☐ Provide visitors the opportunity to "Purchase a Penguin Nest".

Potential Tier-Leveled Funding Opportunities to Support*:

- ☐ Purchase of temperature and humidity gauges (iButtons) for artificial nest design data collection.
- ☐ Purchase of "new" artificial nest design to be installed in breeding colonies.
- ☐ Purchase of wooden artificial nests for Robben Island.
- ☐ Funding of artificial nest use graduate study.

* Potential Tier-Leveled Funding Opportunities will support the development, implementation, and ongoing management of AZA SAFE Conservation Action Plans

Marine Movement Project

Challenge: Increased knowledge of African penguin movements associated with foraging and other activity in the marine environment is needed.

Project: Monitor marine foraging and movement patterns of resident, introduced, reintroduced, and/or translocated African penguins from all colonies.

Project Coordinator:

MARYLAND ZOO

Contact Mike McClure
(mike.mcclure@marylandzoo.org)
to learn more about this Project

Project Collaborators:



Project Funders:



Goals	General Actions Needed
Appropriately trained personnel are available to apply GPS and satellite transmitters annually.	Identify appropriate collaborators (e.g., biologists/academics/government agencies/NGOs).
	Consult with AZA Research & Technology, Field Conservation, Animal Health, & Animal Welfare Committees to incorporate their expertise in project.
	Consult with other AZA Committees as appropriate to incorporate their expertise in project.
	Identify appropriate GPS loggers and satellite-received transmitters to be used with penguins.
	Develop best practice methods for applying GPS loggers and satellite-received transmitters.
	Develop a training program for personnel who will be applying the GPS loggers and satellite-received transmitters.
A percentage of resident/introduced/reintroduced/translocated penguins are tagged with GPS loggers and satellite transmitters.	Provide training program annually to assure personnel are appropriately trained before tagging season.
	Purchase GPS loggers and satellite transmitters for wild, introduced, reintroduced, and/or translocated penguins.
	Coordinate a Tag/Release Program to maximize collaboration.
	Appropriate numbers of trained personnel are available to participate in the Tag and Release Program annually.
Satellite time is provided to collect, process and disseminate African penguin location data.	% of penguins are GPS and satellite tagged annually.
	Identify appropriate satellite company to collect penguin data.
	Determine appropriate amount of satellite time needed to collect adequate amounts of transmitter data.
	Purchase annual satellite contract.



Goals (continued)	General Actions Needed (continued)
Conduct a study to determine African penguin foraging and movement patterns in the marine environment.	Identify faculty/universities who will dedicate graduate student(s) to a foraging marine movement study of penguins.
	Fund graduate students.
	Develop data collection/monitoring protocols/IACUC Forms.
	Analyze data from all monitored colonies.
	Share study results with conservation community, including in peer-reviewed literature



Marine Movement Project

Suggested Ideas for Participation Menu

Action Opportunities:

- ☒ Serve as AZA SAFE Project Coordinator(s).
- ☐ Participate as project collaborator.
- ☐ Promote project to visitors (whether you have penguins in your care or not).
- ☐ Send staff trained and experienced in African penguin GPS tag application to South Africa to assist with the tag and release program.
- ☐ Promote tracking of GPS tagged penguins in South Africa monitor in your institution.

Potential Tier-Leveled Funding Opportunities to Support*:

- ☐ Purchase of GPS loggers.
- ☐ Purchase of time depth recorders.
- ☐ Sponsor attendance of satellite transmitter affixation training by biologists in range countries.
- ☐ Funding of marine movement graduate study.

* Potential Tier-Leveled Funding Opportunities will support the development, implementation, and ongoing management of AZA SAFE Conservation Action Plans.

Health Monitoring and Rehabilitation Project

Challenge: Health monitoring of African penguins in breeding colonies is needed to identify and prevent disease or parasitic outbreaks; rescue/rehabilitation and/or chick/egg bolstering programs are needed to prevent significant decreases in population sizes.

Project: Maximize the health monitoring, rehabilitation, and chick bolstering capacity of African penguins in-situ.

Project Coordinator:



Contact SAFEafricanpenguin@aza.org to learn more about becoming a Project Coordinator

Possible Project Collaborators:



Project Funders:



Goals	General Actions Needed
Maximize the health surveillance and disease monitoring program of the African penguin Biodiversity Management Plan.	Identify appropriate collaborators (e.g., academics/agencies/NGOs).
	Consult with AZA Research & Technology, Field Conservation, Animal Health, & Animal Welfare Committees to incorporate their expertise in project.
	Consult with other AZA Committees as appropriate to incorporate their expertise in project.
	Develop guidelines for an African penguin disease surveillance and diagnosis program.
	Conduct a Disease Risk Assessment for seabird breeding islands.
	Draft disease contingency plans for African penguin colonies.
	Develop an injury, parasite, and disease risk assessment form to be used in colonies.
	Train personnel to routinely assess and report injury, parasite and disease prevalence.
Determine optimal feeding frequencies, growth rates, and body condition indexes for penguin chicks.	Identify and quantify internal injuries occurring in rescued penguins.
	Evaluate treatment outcomes.
	African penguin chick rearing/nutrition/husbandry protocols shared by the zoos & aquariums with rehabilitation facilities.
Provide vital medical equipment for rehabilitation facilities.	Compare these zoo/aquarium data to wild chick rearing data.
	Determine optimal chick feeding frequencies, growth rates, and body condition indexes.
	Identify key medical equipment needed to advance diagnoses and treatment of penguins in rehabilitation facilities.
	Purchase or acquire donations of this key medical equipment.



Health Monitoring and Rehabilitation Project

Suggested Ideas for Participation Menu

Action Opportunities:

- ☐ Serve as AZA SAFE Project Coordinator(s).
- ☐ Participate as project collaborator.
- ☐ Have qualified veterinary staff provide input into disease surveillance, risk assessment, and contingency plan development.
- ☐ Promote project to visitors (whether you have penguins in your care or not).
- ☐ Participate in exercise to develop optimal chick feeding frequencies, growth rates, and body condition indices for penguins in human care by sharing chick rearing husbandry protocols.

Potential Tier-Leveled Funding Opportunities to Support*:

- ☐ Purchase of necessary medical equipment for rehabilitation centers .

* Potential Tier-Leveled Funding Opportunities will support the development, implementation, and ongoing management of AZA SAFE Conservation Action Plan.

Disaster Response Project

Challenge: African penguin colony managers lack the equipment, training, and capacity to respond to environmental disasters in a timely and effective manner.

Project: Maximize disaster response and African penguin rescue capabilities across all colonies.

Project Coordinator:

MARYLAND ZOO

Contact Jess Phillips
(jess.phillips@marylandzoo.org)
to learn more about this Project

Project Collaborators:



environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



CapeNature



MARYLAND ZOO



South African
NATIONAL PARKS



Project Funders:



Goals	General Actions Needed
Disaster response and seabird handling training programs are used to train first responders and caregivers.	Identify appropriate collaborators (e.g., biologists/academics/government agencies/NGOs).
	Consult with AZA Research & Technology, Field Conservation, Animal Health, & Animal Welfare Committees to incorporate their expertise in project.
	Consult with other AZA Committees as appropriate to incorporate their expertise in project.
	Develop first response site stabilization protocols for disaster scenarios (e.g., oil spills) that are colony-specific.
	Develop first response seabird handling protocols for disaster scenarios.
	Train site stabilization first responder personnel and volunteers annually.
	Train seabird handling first responder personnel and volunteers annually.
	Assess and quantify response capacity in the event of disaster(s).
Disaster response equipment is provided for colony use as needed.	Evaluate seabird treatment outcomes and associated survival rates in the event of disaster(s).
	Identify disaster response equipment that is needed for each colony (e.g. Fencing, inflatable berms).
	Purchase or acquire donations of this disaster response equipment.
First response/triage equipment kits are provided for colonies.	Maintain disaster response equipment at a central facility to be deployed in cases of emergency.
	Identify first response/triage equipment that is needed for colonies (e.g., first aid equipment, incubators).
	Purchase or acquire donations of this first response/triage equipment.
	Create first response/triage equipment kits.
	Supply and maintain first response/triage equipment kits at colonies.

Disaster Response Project

Suggested Ideas for Participation Menu

Action Opportunities:

- ☐ Serve as AZA SAFE Project Coordinator(s).
- ☐ Participate as project collaborator.
- ☐ Have staff qualified in first response site stabilization provide input into developing disaster response protocols.
- ☐ Have staff qualified in first response seabird handling provide input into developing seabird handling protocols.
- ☐ Promote project to visitors (whether you have penguins in your care or not).
- ☐ Send staff appropriately trained in seabird handling, first response and disaster response, to range countries to assist in the event of a disaster.

Potential Tier-Leveled Funding Opportunities to Support*:

- ☐ Purchase of necessary disaster response equipment.
- ☐ Purchase of first response / triage equipment.
- ☐ Sponsor attendance of seabird handling, first response and disaster response by biologists in range countries.

* Potential Tier-Leveled Funding Opportunities will support the development, implementation, and ongoing management of AZA SAFE Conservation Action Plan.

Marine Contaminant Monitoring Project

Challenge: Rapid expansion of offshore oil and gas exploration is being implemented offshore of African penguin colonies and contaminant monitoring is needed to provide information on potential health problems with African penguins.

Project: Monitor environmental and African penguin-absorbed contaminant levels as offshore economic development activities increase.

Project Coordinator:



Contact SAFEafricanpenguin@aza.org to learn more about becoming a Project Coordinator

Possible Project Collaborators:



environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



**South African
NATIONAL PARKS**



**agriculture,
forestry & fisheries**
Department:
Agriculture, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



NRF NZG
National Research Foundation
National Zoological Garden



SANCCOB
saves seabirds



CapeNature



**Robben Island
MUSEUM**



Project Funders:



Goals	General Actions Needed
Soil contaminant levels of all colonies are measured to determine a data baseline.	Identify appropriate collaborators (e.g., biologists/academics/government agencies/NGOs).
	Consult with AZA Research & Technology, Field Conservation, Animal Health, & Animal Welfare Committees to incorporate their expertise in project.
	Consult with other AZA Committees as appropriate to incorporate their expertise in project.
	Identify methods for determining contaminant levels in soils.
	Compile any historic measurements of contaminant levels in colony soil.
Contaminant levels of African penguin egg shells are measured across colonies to determine a data baseline.	Gather soil samples from each colony to measure baseline contaminant levels.
	Identify methods for determining contaminant levels in penguin eggs.
	Compile any historic measurements of contaminant levels in penguin eggs.
Environmental soil and egg shells are monitored across colonies over time to determine if contaminant levels change over time.	Gather penguin egg shells from each colony to measure baseline contaminant levels.
	Identify faculty/universities who will dedicate graduate student(s) to a contaminant monitoring study.
	Fund graduate students.
	Identify AZA & PAAZA institutions who will provide staff/intern support to the long-term contaminant monitoring study.
	Develop data collection and monitoring protocols/IACUC Forms.
	Analyze data from all monitored colonies.
	Share study results with conservation community, including in peer-reviewed literature



Marine Contaminant Monitoring Project

Suggested Ideas for Participation Menu

Action Opportunities:

- ☐ Serve as AZA SAFE Project Coordinator(s).
- ☐ Participate as project collaborator.
- ☐ Provide lab services to measure contaminant levels of soil and egg shell samples.
- ☐ Promote project to visitors (whether you have penguins in your care or not).

Potential Tier-Leveled Funding Opportunities to Support*:

- ☐ Purchase soil and marine contaminant sampling equipment.
- ☐ Funding of laboratory analysis for contaminants in soil and marine samples.
- ☐ Funding of marine contaminant graduate study.

* Potential Tier-Leveled Funding Opportunities will support the development, implementation, and ongoing management of AZA SAFE Conservation Action Plans.

Public Engagement Project

Challenge: Currently available tools and programs to effectively engage key stakeholder groups and the general public in conservation of the African penguin are insufficient.

Project: Public engagement efforts are implemented to increase knowledge of African penguins and the threats they face and provide measurable calls to action.

Project Coordinator:



Contact Elizabeth Mulkerrin
(elizabethm@omahazoo.com) to
learn more about this Project

Project Collaborators:



environmental affairs
Department:
Environmental Affairs
REPUBLIC OF SOUTH AFRICA



SANCCOB
saves seabirds



Robben Island
MUSEUM



SA MARINE
REHABILITATION
AND EDUCATION CENTRE



SA
WORLD



PAAZA
Pan-African Association
of Zoos and Aquariums



South African
NATIONAL PARKS



CapeNature



PAAZA
Pan-African Association
of Zoos and Aquariums



AFRICAN PENGUIN
& SEABIRD SANCTUARY



Project Funders:



Goals	General Actions Needed
Effective educational messaging is used and conservation action opportunities are offered consistently in US and international communities as well as aquarium and zoo audiences.	Sponsor a portion of the 2016 International Penguin Congress.
	Identify and work with partners already involved in communications and education/outreach efforts.
	Consult with the AZA Conservation Education and other AZA Committees to incorporate expertise where appropriate.
	Establish a species-specific communications and education/outreach group with field personnel and AZA community experts.
	Identify target audiences for greatest dissemination and impact for saving the species.
	Compile existing species-specific conservation education messages/materials (outreach and interpretive) from field personnel and AZA community experts.
	Identify needs for messaging and public/target group conservation actions and associated gaps in available materials.
	Identify and integrate synergies with conservation education efforts for other species/conservation programs.
	Identify measurable conservation actions that can be taken by target audiences in range communities and by visitors to AZA, and sister associations and their facilities (e.g. PAAZA, WAZA).
	Create consistent and updated messages / action opportunities and materials.
	Develop and distribute packages with tested outreach & interpretive messages & actions, training resources, collateral information & materials.

Goals (continued)	General Actions Needed (continued)
Public engagement efforts are consistently measured and evaluated to assure that public awareness of African penguin and calls to action are successful.	Identify measurable objectives.
	Analyze data to determine trends in increased knowledge of African penguins and implementation of calls to action.
	Evaluate usage and effectiveness of communications packages, adapt as needed.
	Share study results with conservation community, including in peer-reviewed literature.
A Penguin Partners Program is established to provide enhanced personnel, knowledge and skills transfer among stakeholders.	Assess field programs' needs for volunteers and opportunities for AZA community assets and expertise to assist.
	Vet potential volunteer opportunity actions to ensure measurable impact and positive benefit:cost ratio.
	Develop a personnel exchange program between zoos/aquariums and field programs based on assessment (e.g., keepers, IT).
	Expand the personnel exchange program between zoos/aquariums and rehabilitation facilities (e.g., keepers, IT,).
	Measure and monitor impacts of exchange program, adapt as needed.



Public Engagement Project

Suggested Ideas for Participation Menu

Action Opportunities:

- ☒ Serve as the AZA SAFE Project Coordinator(s).
- ☐ Participate as a Project Collaborator.
- ☐ Participate in education / outreach group organized to create educational messages and conservation action opportunities for guests and audiences in range countries.
- ☐ Send your latest African penguin-focused conservation education resources/materials (e.g., photos of graphics/signage, interpretation plans, exhibit talking points, docent/volunteer training materials, fact sheets, conservation related messages, etc.) to Project Coordinator Elizabeth Mulkerrin (elizabethm@omahazoo.com).
- ☐ Participate in evaluation of messages/actions to determine reach and effectiveness.
- ☐ Participate in development of messages and materials based on assessment of existing materials / programs.
- ☐ Participate in evaluation of usage and effectiveness of communications packages.
- ☐ Participate in efforts to identify projects/collaborations for Penguin Partners Program.
- ☐ Send appropriately trained staff to participate in Penguin Partners program between AZA institutions and field programs led by agencies/NGOs.
- ☐ Incorporate / deliver updated educational messages and materials into appropriate exhibits and programs.
- ☐ Promote new / updated conservation action opportunities in your institution.
- ☐ Promote project to visitors (whether you have African penguin in your care or not).

Potential Tier-Leveled Funding Opportunities to Support*:

- ☐ Fund distribution of educational messages and materials to appropriate audiences and locations.
- ☐ Fund evaluation of messages/actions to determine reach/ effectiveness.
- ☐ Fund evaluation of usage and effectiveness of communications packages.

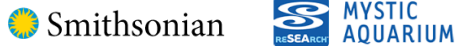
* Potential Tier-Leveled Funding Opportunities will support the development, implementation, and ongoing management of AZA SAFE Conservation Action Plans.

SSP® Sustainability Project

Challenge: The genetic diversity of the African Penguin SSP program is currently very high (>98%) and priorities include modest increases in hatch rates and the maintenance and refining (as needed) of this successful program.

Project: The demographic and genetic health of the AZA African Penguin SSP is maintained and the population size meets AZA-accredited aquarium and zoo needs.

Project Coordinators:



Contact Steve Sarro (sarros@si.edu) or Gayle Sirpenski (gsirpenski@searesearch.org) to learn more about this Project

Project Collaborators:



Project Funders:



Goals	General Actions Needed
Institutional needs for African penguins are met.	Identify appropriate collaborators (e.g., biologists/academics/government agencies/NGOs).
	Consult with AZA Research & Technology, Field Conservation, Animal Health, & Animal Welfare Committees to incorporate their expertise in project.
	Consult with other AZA Committees as appropriate to incorporate their expertise in project.
	Consult with the AZA Population Management Center to assure all genetic and demographic information has been considered/incorporated as appropriate.
	Consult with the AZA Reproduction Management Center to assure all contraception/reproductive factors have been considered/incorporated as appropriate.
	Consult with the AZA Animal Welfare & Animal Health Committees to assure animal well-being provides optimal reproductive health.
	Allow imports from non-AZA institutions if appropriate for genetic/demographic management.
Effective methods for diagnosing, preventing, and/or treating of avian malaria are refined/developed, implemented and monitored in AZA facilities and rehabilitation centers.	Increase breeding to produce 68 hatches /yr.
	Collate and synthesize information about general avian malaria risk factors and historical occurrence and ongoing risk for each AZA holding facility and rehabilitation center.
	Assess current malaria prophylaxis methods and develop best practices; assure that this agrees with the Animal Care Manual.

Goals (continued)	General Actions Needed (continued)
Diagnose, prevent and/or treat avian malaria (continued).	Develop a program to monitor and compile data on reports of avian malaria from holding institutions to monitor trends; conduct surveys every 2 years.
	Collate & synthesize information about avian malaria in African penguins, diagnostic methods (e.g., blood smears, PCR, genotyping) and the efficacy and pharmacokinetics of medications for treatment & prophylaxis.
	Develop goals, study design and data collection protocols for study(-ies) of avian malaria, including diagnostic methods and the efficacy and pharmacokinetics of medications for treatment and prophylaxis.
	Obtain necessary permits and institutional approvals for research.
	Implement study(-ies).
	Analyze and interpret data, develop revised best practices based on results.
	Update African Penguin Animal Care Manual as needed based on results.
	Share study results with African penguin management community, including in peer-reviewed literature.
Effective methods for diagnosing, preventing, and/or treating of aspergillosis are refined/developed, implemented and monitored in AZA facilities and rehabilitation centers.	Develop a program to monitor and compile data on all reports of aspergillosis from holding institutions and rehabilitation centers to monitor trends and routinely test Aspergillus strains during endoscopy and necropsy.
	Collate and synthesize information about aspergillosis in penguins, diagnostics for early detection (e.g., inflammatory markers), transmission and causal factors, and efficacy and safety of treatment methods.
	Develop goals, study design and data collection protocols for study(-ies) of aspergillosis, including diagnostics, transmission and causal factors, and efficacy and safety of treatment methods.
	Obtain necessary permits and institutional approvals for research.
	Implement study(-ies).
	Analyze and interpret data, develop revised best practices based on results.
	Update African Penguin Animal Care Manual as needed based on study.
	Share study results with African penguin management community.

Goals (continued)	General Actions Needed (continued)
Causal factors are assessed for molt issues and effective methods for prevention and/or treatment are refined/developed, implemented and monitored in AZA facilities and rehabilitation centers.	Develop a program to monitor & compile data on reports of molting issues and possible causal factors from holders and rehab centers, comparing with wild birds, to monitor trends and gather correlative data.
	Collate & synthesize information about molting issues in African penguins, possible causal factors and treatment methods (husbandry and medical) in AZA facilities and rehab centers, comparing with wild birds.
	Develop goals, study design and data collection protocols for study(-ies) of molting issues, including possible causal factors and treatment methods (both husbandry and medical).
	Obtain necessary permits and institutional approvals for research.
	Implement study(-ies).
	Analyze and interpret data, develop revised best practices based on results.
	Update African Penguin Animal Care Manual as needed based on study.
	Share study results with African penguin management community.
The high gene diversity & low inbreeding coefficient within the AZA African Penguin SSP is maintained.	Identify birds in the African penguin SSP population that may be hybrids due to past hybrid founder imports.
	Develop protocols for collecting and handling genetic samples.
	Identify lab where genetic testing will be conducted.
	Obtain necessary permits and institutional approvals for research.
	Collect & process genetic samples from potential hybrid SSP animals.
	Update and maintain the AZA African Penguin Studbook with current genetic information.
	If hybrids are confirmed, develop and implement measures to isolate these birds from pure African penguin breeding birds.
	Update the AZA African Penguin Breeding and Transfer Plan as needed.
	Institutions follow the breeding and transfer recommendations in accordance with the Breeding and Transfer Plan.



SSP[®] Sustainability Project

Suggested Ideas for Participation Menu

Action Opportunities:

- ☒ Serve as the Project Coordinator(s).
- ☐ Become a member of the African Penguin SSP.
- ☐ Breed and transfer African penguins in your care in accordance with the SSP Breeding and Transfer Plan.
- ☐ Promote project to visitors (whether you have penguins in your care or not).
- ☐ Provide data regarding the incidence of avian malaria, aspergillosis and/or molt issues at your facility.
- ☐ Provide data regarding the incidence of avian malaria, aspergillosis and/or molt issues at your facility on an ongoing basis to assist with long-term monitoring.
- ☐ Participate in efforts to assess current malaria prophylaxis methods and develop best practices.
- ☐ Participate in efforts to develop/refine methods to diagnose and treat avian malaria and aspergillosis.
- ☐ Participate in efforts to assess causal factors and develop/refine treatment for molting issues.
- ☐ Provide biological samples for potential hybrid SSP animals.

Potential Tier-Leveled Funding Opportunities to Support*:

- ☐ Fund distribution of educational messages and materials to appropriate audiences and locations.
- ☐ Fund evaluation of messages/actions to determine reach/ effectiveness.
- ☐ Fund evaluation of usage and effectiveness of communications packages.
- ☐ Fund studies to assess current malaria prophylaxis methods and develop best practices.
- ☐ Fund studies to develop/refine avian malaria diagnostic methods and assess the efficacy & pharmacokinetics of medications for treatment and prophylaxis.
- ☐ Fund studies to develop/refine aspergillosis diagnostic methods, and assess transmission, causal factors, and efficacy and safety of treatment methods.
- ☐ Fund genetic analysis to assess whether SSP animals are potentially hybrids.

* Potential Tier-Leveled Funding Opportunities will support the development, implementation, and ongoing management of AZA SAFE Conservation Action Plans.

Collaboration Project

Challenge: An approach and process that draws from the strengths and expertise of the entire African penguin conservation community is needed to protect the species.

Project: Conservation impact and efficacy is maximized through a collaborative and adaptive process that is applied throughout the CAP's development, implementation, evaluation and ongoing management processes.

Project Coordinator:



Contact
SAFEafricanpenguin@aza.org to
learn more about becoming a

Project Collaborators:



Project Funders:



Goals	General Actions Needed
Agreed-upon conservation priorities are identified and detailed plans are developed to address them.	Identify and connect stakeholders (within existing conservation frameworks, as applicable).
	Identify conservation needs, gaps in existing efforts and priority actions.
	Identify AZA SAFE Areas of Focus by aligning AZA strengths with conservation needs.
	Create 3-Year AZA SAFE Conservation Work Plan and Conservation Action Plan (CAP), project budgets and timelines.
CAP projects are implemented in an adaptive fashion, informed by consistent evaluation processes.	When funding is secured, representatives from AZA Facilities coordinate / facilitate implementation of CAP projects.
	Consistently coordinate project implementation and promote CAP projects.
	Monitor and evaluate progress of project implementation and use this to adapt plans as needed.
Efforts of AZA members and partners are catalogued and combined visually for effective messaging.	Identify and catalog AZA member and partner conservation, research, husbandry, and educational outreach efforts relevant to the SAFE CAP.
	Expand AZA database programming to input, track, coordinate and communicate assets, outputs, and resources relevant to the SAFE CAP (e.g. Miradi, ARCS, etc.).
	Develop spatial illustration of AZA efforts and maintain information for proper dissemination.
	Provide consistent messaging content & materials relevant to the SAFE CAP.

Goals (continued)	General Actions Needed (continued)
Stakeholders meet consistently to maximize collaboration, communication, and efficacy.	Provide funding for recurring stakeholder meetings at intervals decided by stakeholders.
	Develop a collaborative process that is adopted and accepted by all stakeholders.
	Conduct collaborative stakeholder analyses to evaluate how conservation efforts are impacting communities, perceptions of efforts, and provide realistic measures of how to progress.
Communication and decision-making opportunities are optimized among stakeholders and Project Coordinators.	Create and distribute meeting reports appropriately.
	Provide regular updates to stakeholders and Project Coordinators.
	Investigate and adopt new decision-making, consensus building models to assure the Conservation Action Plan remains adaptive.
Measurement and communication of the CAP's overall conservation impact is consistently disseminated.	Identify and implement methods to measure the collective impact of CAP projects.
	Adapt measurement and communication methods as needed over the 3 year CAP life cycle.
	Identify mechanisms to communicate CAP progress and success stories internally (e.g. membership, partners, agencies, etc.).
	Identify mechanisms to communicate CAP progress and success stories externally (e.g. member audiences and communities, social media, etc.).
	Disseminate CAP progress in conferences and peer-review literature opportunities.
Stakeholders will complete a comprehensive review, evaluation and adaptation of the CAP every three years to maximize conservation impact.	Maintain an adaptive list of stakeholders and partners and adjust as needed.
	Provide funding for 3-year CAP workshop.
	Conduct comprehensive review of CAP progress documenting successes and future needs.
	Develop subsequent 3-year CAP.



Collaboration Project

Suggested Ideas for Participation Menu

Action Opportunities:

- ☒ Serve as the AZA SAFE Project Coordinator.
- ☐ Participate as a Project Collaborator.
- ☐ Develop SAFE Areas of Focus and align AZA strengths with conservation needs.
- ☐ Create 3-year CAP documents with budgets and timelines.
- ☐ Coordinate and promote CAP projects.
- ☐ Monitor and evaluate progress of projects.
- ☐ Develop collaborative process agreed upon by all stakeholders.
- ☐ Investigate relevant consensus-building models.
- ☐ Identify and implement methods of measuring impact of CAP projects.
- ☐ Attend and participate in relevant meetings.
- ☐ Create and distribute meeting notes and other relevant materials.
- ☐ Identify internal and external communication mechanisms.
- ☐ Create and submit conference abstracts.
- ☐ Create and submit papers to peer-reviewed journals.
- ☐ Conduct review of 3-year CAP with documented successes and future needs.
- ☐ Develop subsequent 3-year CAP.

Potential Tier-Leveled Funding Opportunities to Support*:

- ☐ Sponsor recurring stakeholder meetings.
- ☐ Fund distribution of materials related to meetings.
- ☐ Sponsor 3-year CAP workshop.
- ☐ Fund conference attendance and journal submission (if open-sourced).
- ☐ Fund training needs (e.g. software, consensus-building tools, facilitation workshops).

* Potential Tier-Leveled Funding Opportunities will support the development, implementation, and ongoing management of AZA SAFE Conservation Action Plans.