



AFRICAN PENGUIN CHICK BOLSTERING PROJECT REPORT

PROJECT UPDATE: 11 December 2013

Data supplied by Dr Nola Parsons (SANCCOB Researcher) and Dr Richard Sherley (ADU UCT)

Report compiled by Margaret Roestorf and Francois Louw

Project partners and supporters:

The CBP is a collaboration between SANCCOB (project administrators), the Bristol Conservation and Science Foundation, the Animal Demography Unit (UCT), DEA (Oceans and Coasts), CapeNature and Robben Island Museum and SANParks, and is supported by Allwetterzoo Münster; Artis Zoo; Banham Zoo; Basel Zoo; Bristol Zoo Gardens; Burger's Zoo; Cheyenne Mountain Zoo; Detroit Zoo; Dierenpark Amersfoort; Disney Rapid Relief Fund; Erlebnis Zoo Hannover; Florida Aquarium; Fort Wayne Kid's Zoo; Georgia Aquarium; International Fund for Animal Welfare (IFAW); Jenkinson's Aquarium; La Palmyre Zoo; Leiden Conservation Foundation; Leipzig Zoo; Le Pal Nature Foundation; Little Rock Zoo; Living Coasts; Memphis Zoo; Minnesota Zoo; Monterey Aquarium; National Aviary; Oceana; Océarium du Croisic; Old Mutual Staff Volunteer Fund Trust; Omaha's Henry Doorly Zoo and Aquarium; Ripley's Aquarium in the Smokies; SASIX; Sea Research Foundation (Mystic Aquarium); SeaWorld Busch Garden Conservation Fund and the SeaWorld Animal Crisis Fund; Steinhardt Aquarium; Toledo Zoo; US Fish and Wildlife Service; Wallace Global Fund; ZOOM Torino.

Chick season at SANCCOB

Chick season has started at SANCCOB (the Southern African Foundation for the Conservation of Coastal Birds) as 329 abandoned African penguin chicks have been admitted to their Table View and Cape St. Francis rehabilitation centers since 1 October 2013. SANCCOB has admitted over 600 chicks since the beginning of this year which is second so far only to 2006 in the last 13 years. Every year from October to February, SANCCOB admits approximately 300-400 abandoned African penguin chicks from Stony Point,



Boulders Beach and Robben Island in the Western Cape and Bird Island in the Eastern Cape.

Numerous penguin chicks historically become abandoned at the end of the breeding season just before the parents start their annual moulting cycle. During this time the parents replace their feathers with a brand new set of waterproof feathers and are unable to hunt for fish and feed their young during the three to four week moulting process. As a result, the chicks that have yet to fledge are abandoned and face starvation unless conservation managers intervene with SANCCOB's help.



Working together with the SANParks (Table Mountain National Park and Marine Rangers section of Addo Elephant National Park), Overstrand Municipality and CapeNature, underweight and ill chicks are identified in the colonies and brought to SANCCOB for rehabilitation on a weekly basis.

On 19 November, SANCCOB sent out a special rescue team to collect abandoned chicks from Robben Island. Dr Nola Parsons, SANCCOB Researcher, said *"Very few chicks are left in the Robben Island colony as it is the end of the breeding season. We measured the head size and weight of 21 chicks. 9 of these were under the required measurements and therefore brought to SANCCOB for rehabilitation. Our team will be doing another sweep of the colony in the next few weeks to check for additional weak and abandoned chicks and admit them to our centre."*



Once at the centres, the chicks undergo a structured rehabilitation regime by SANCCOB's dedicated staff and volunteers who work round the clock to ensure that they get released back into the wild. Rehabilitation of these chicks varies from 6 to 12 weeks depending on their size and condition. Once they are at a fledging age, the correct weight, healthy and their feathers are waterproof, they receive the final nod of approval from SANCCOB's veterinary team and get released back into the wild.

Nicky Stander, SANCCOB's Rehabilitation Manager at Table View, said, *"The condition of the birds admitted thus far is stable and they are responding positively to the rehabilitation treatment. The first batch of chicks has already been upgraded to a new pen where they have started swimming – we anticipate that these birds will be released in the next month"*.

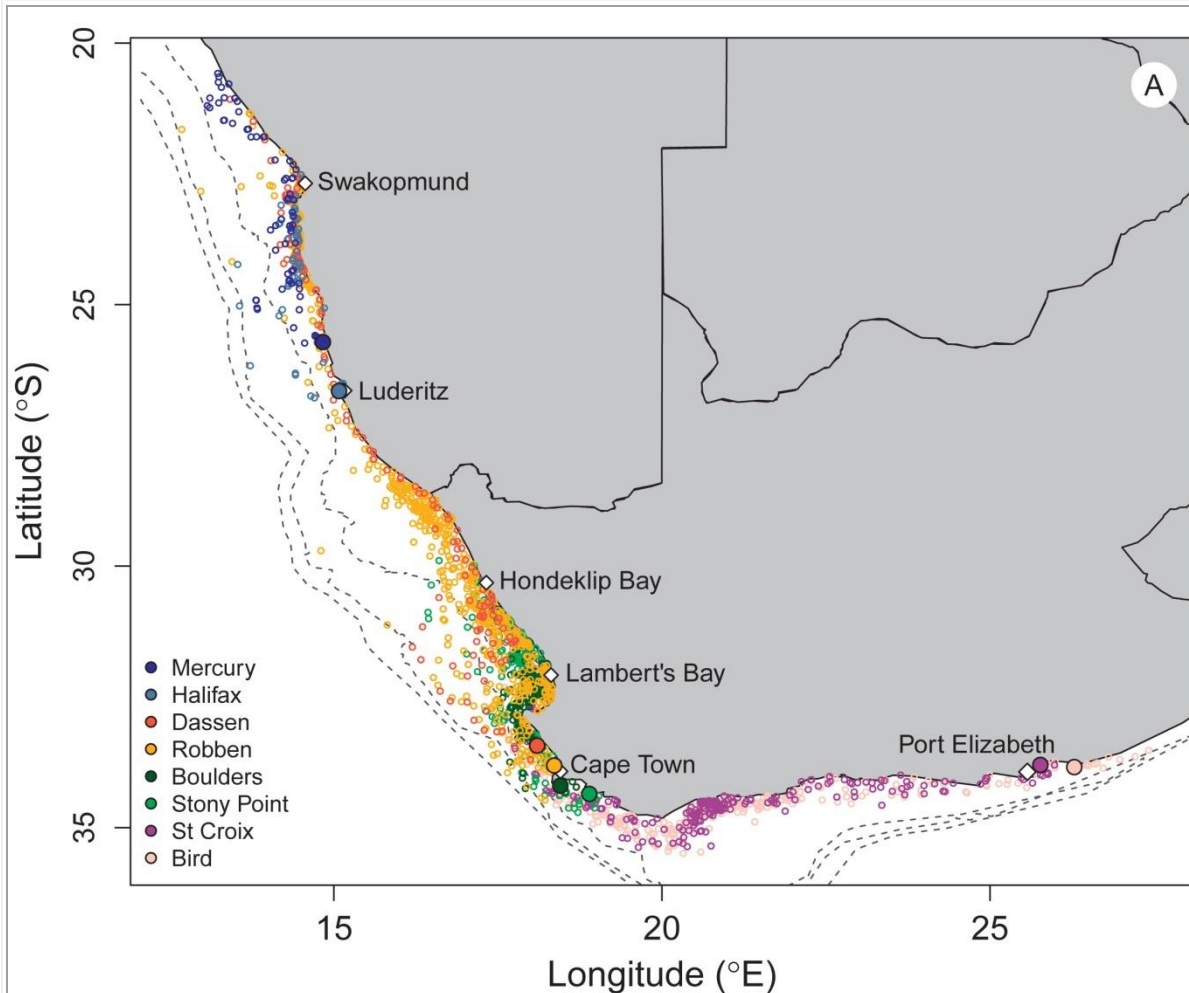
Research has proven that hand-reared chicks fare as well as naturally-reared chicks in the wild. With less than 18 000 breeding pairs left in the wild in South Africa, African penguins are an endangered species and it remains critical to save every individual possible to bolster the numbers in the wild. The Chick Bolstering Project and the hand-rearing of orphaned chicks are seen as an essential and successful component of bolstering the wild population.

Update from Dr. Richard Sherley, Animal Demography Unit at Cape Town University, whose research into site fidelity amongst juvenile African penguins will continue in 2014. The project hopes to raise funds for 6 satellite trackers to continue with this valuable study.

2013-09-14

Richard Sherley

Update on fledgling African Penguins tracked with satellite transmitters



During the last three years, research scientists from the Animal Demography Unit, University of Cape, and the Department of Environmental Affairs have been tracking the initial dispersal of fledgling African penguins from colonies in South Africa and Namibia as part of the Chick Bolstering Project (CBP). In 2011, five hand-reared chicks were tracked and in 2012 three hand-reared (HR) chicks were released from Robben Island, shortly behind three wild chicks (WR) equipped on the island.

During this year, an additional 43 fledglings have been tracked, 37 WR birds from eight colonies including Halifax and Mercury Islands, Namibia, in the north and Bird and St. Croix Islands, Eastern Cape, South Africa in the east (see image above) and 6 hand-reared chicks from SANCCOB. These birds were followed for up to 100 days and gave us unprecedented insight into the habitat use of non-breeding individuals of this endangered species.



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In 2011, the five HR birds tracked travelled an average of 1023 km from their points of release and location data were received for 62 days on average. In 2012, the birds travelled 734 km from their release sites on average, with location data received for an average of 68 days and in 2013, the 43 birds moved to an average of 1132 km from their colonies of origin and several devices were still transmitting at the time of writing. So far, all birds tracked (including the 10 birds tracked from Bird and St. Croix Islands, Eastern Cape) have moved predominately in a clock-wise direction around the coast (see image above). This could

indicate genetic control of dispersal and the fact that birds forage on the west coast, where food may be limited, suggests minimal capacity for individual adaptation to local habitat degradation.

The initial analysis conducted on the tracking data suggested three key foraging areas, two in regions of high and reliable primary productivity, one south of Swakopmund, Namibia, and one north of Lambert’s Bay, South Africa. The final core area was on South Africa’s south coast, east of Cape Agulhas, in the area now occupied by spawning sardine and anchovy. However, this area was only used by birds originating in the Eastern Cape.

A paper detailing the tracking study and the results from the initial five-hand reared chicks was published in *Endangered Species Research* in July 2013; The results to date were presented as a poster at the 8th International Penguin Conference in Bristol (UK) in August 2013.

Fundable budget for Chick Bolstering Project 2014

All contributions are welcome and funders will be credited.

The project supports chick rearing to bolster wild population and research to establish foraging behavior of juveniles. Please consider sponsoring a **LOGGER PACKAGE** (or part thereof).

Chick Hand-Rearing and Research Package	US\$
Contribution - hand rearing abandoned chicks at SANCCOB	US\$1 250
Contribution - Chick Bolstering Project	US\$1 500
1 x PTT (satellite tracker) instrument	US\$2 250
TOTAL	US\$5 000