SANCCOB™
saves seabirds

INTEGRATED REPORT 2020–2021

CAPE TOWN

22 Pentz Drive, Table View, Cape Town,
Western Cape 7441, South Africa
Tel: +27 21 557 6155
Fax: +27 21 557 8804

GQEBERHA

Cape Recife Nature Reserve, Marine Drive,
Gqeberha, Eastern Cape 6011
Tel: +27 41 583 1830
Fax: +27 41 583 1835

After hours and weekends:

Tel: +27 78 638 3731 (Cape Town)
Tel: +27 64 019 8936 (Gqeberha)

Support SANCCOB

Account holder: SANCCOB
Bank: First National Bank
Branch: Table View
Branch code: 203 809
Account number: 5923 713 5859
Account type: Current
Swift code: FIRNZAJJ
Email: reception@sanccob.co.za

Registration Number: 2001/026273/08
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MESSAGE FROM OUR CHAIRPERSON

The past year has not been without its challenges, but I am immensely proud of how SANCCOB staff, volunteers and partners have displayed passion, dedication and commitment to our seabirds.

The impact of COVID-19 continues to challenge us. Field work has been restricted and our facilities have been closed to the public for extended periods of time, impacting our funding and public awareness. We have experienced fewer call-outs to distressed seabirds, due to the public not being permitted on the beaches. However, we have been able to successfully stay connected with stakeholders through a range of online and innovative events. Our online AGM was a great success and allowed the participation of many more attendees than usual, including those from abroad. Other online events included the Virtual Penguin Run, African Penguin Awareness Day and Penguin Palooza, which were all huge successes. We also saw some exciting improvements in our infrastructure such as a new rehabilitation pool and associated pens at SANCCOB Gqeberha.

Sadly, our seabirds continue to face severe challenges. This year we witnessed the second-largest seabird rescue since the *MV Treasure* Spill in 2000. A total of 2,038 Cape cormorants were rescued from Robben and Jutten islands during January 2021. 1,090 of these were successfully released, resulting in a release rate of 53%, which is something to be proud of, since cormorants are notoriously challenging to rehabilitate. 90% of the mortalities were experienced in the first eight days due to the poor condition of the chicks upon their arrival at SANCCOB.

A further success includes the adoption of The National Oil Spill Contingency Plan for South Africa by the Director-General of Transport. This Plan formally recognises the important role SANCCOB plays as a response organisation for oil-affected seabirds in the case of a spill.

Finally, SANCCOB continues to spread its wings across the geographical range of many endemic seabirds, such as the African penguin, by partnering with Debmarine-Namdeb, Namibian Chamber of Environment, Namibia Nature Foundation, Dr Jessica Kemper and The Maryland Zoo, to form the Namibian Foundation for the Conservation of Birds (NAMCOB). I have no doubt that we will see this collaboration growing, in our shared commitment to the conservation of coastal birds across southern Africa.

Dr Stephen van der Spuy has been a visionary leader and has led SANCCOB passionately, achieving great things in his time as CEO. Stephen will be sorely missed by the SANCCOB Board of Directors and staff, and also the seabirds. We wish him all the best in his next chapter and thank him for his tremendous contribution to SANCCOB and to seabird conservation.

On behalf of the SANCCOB Board of Directors, I have the pleasure of announcing that after an extensive recruitment process, we have decided to appoint Natalie Maskell as Chief Executive Officer of SANCCOB. Being at the head of a world-renowned organisation such as SANCCOB is a multifaceted job and Natalie is now taking over the reins to manage a passionate team, who will undoubtedly continue to thrive in their roles. We wish Natalie everything of the very best in the position and are confident in her ability to take SANCCOB from strength to strength.

SAMANTHA PETERSEN
Chairperson

MESSAGE FROM OUR CHIEF EXECUTIVE OFFICER

What an incredible year! We are proud to report back on the busy year that has passed and present to you our annual review from 1 April 2020 to 31 March 2021. First, I have to acknowledge the global impact of COVID-19, and the very sad reality of the huge number of lives that have been affected and lost because of the pandemic. It has not been easy, and each month brought with it a feeling of uncertainty about whether to anticipate good or bad news. The periods of isolation and lack of face-to-face interactions for some of the staff during lockdown meant they had to embrace new virtual tools and rely more on online platforms to stay connected. On site, the core animal care team courageously and tirelessly continued the critical rehabilitation work at both our Cape Town and Gqeberha centres. I thank each and every staff member, the Board of Directors, volunteers, interns and our wonderful supporters for keeping SANCCOB together and strong during this time. As the COVID-19 pandemic continues we continue to draw on your strength and support.

In this report you will read about how the restrictions during lockdown affected the seabirds, as well as our inability to do fieldwork within the bird colonies. While there were seabirds that enjoyed the freedom to frequent areas often crowded with people, there were also seabirds in distress, those that would usually have been identified and rescued by members of the public. As an essential service, SANCCOB was permitted to continue its vital work, and so staff and volunteers proactively visited beach sites to rescue birds in need of care.

In the year in review, we admitted close to 4,000 seabirds for rehabilitation, which included having to incubate hundreds of African penguin eggs and to hand-rear hundreds of African penguin chicks at the two SANCCOB centres up until the point of release. We know that our conservation efforts at SANCCOB, and those performed in collaboration with partners, contribute positively to bolstering the wild population of endangered African penguins, but the ongoing decline in numbers of breeding pairs resulting from a variety of threats remains a deep concern. At St Croix Island in Algoa Bay, numbers of African penguin breeding pairs have declined by over 70% since 2014, dropping this breeding colony's ranking from world's largest to just fourth largest in South Africa in 2021. In the Western Cape, there has been a 10% loss in the population per annum since 1999, with an approximate count of 10,400 breeding pairs revealed in the latest census. Lack of food, increasing shipping traffic, oil spills and pollution, climate change, extreme weather events, diseases and predation are all factors that threaten the existence of the species, and bold steps need to be taken to protect the remaining African penguins and prevent their extinction.

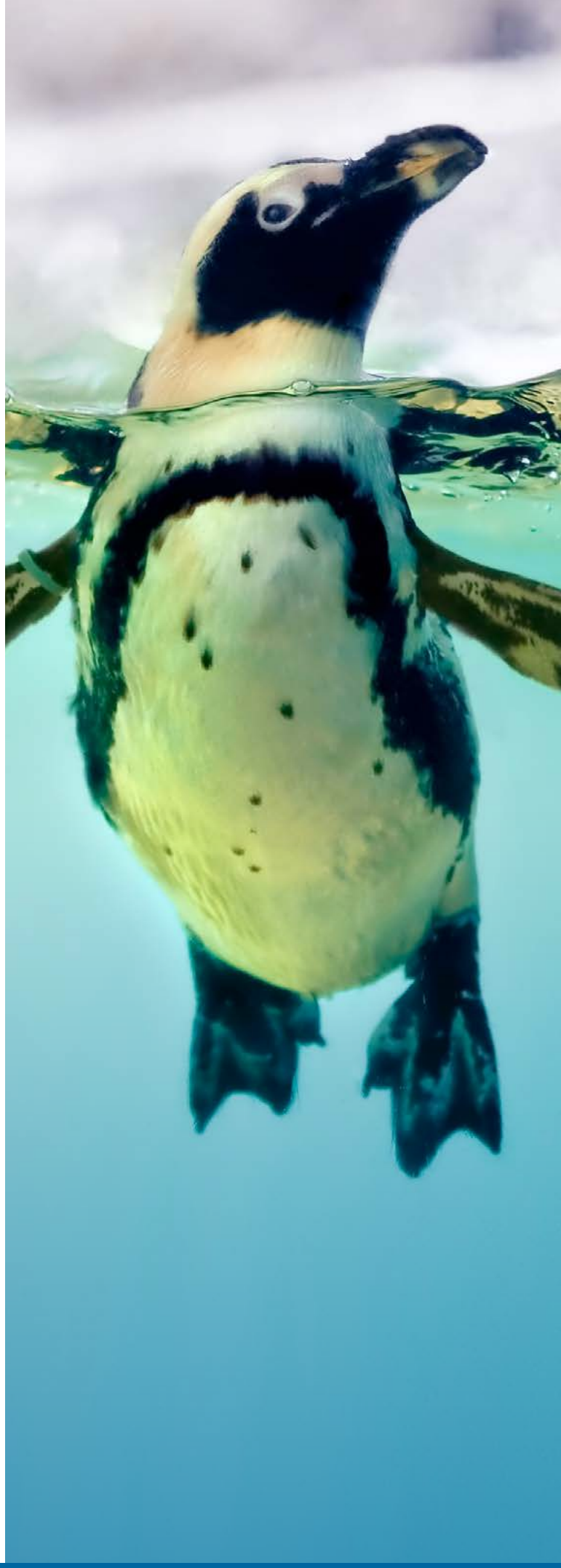
As always, we have been able to rely on support from our partners and funders to prepare for and respond to crises such as the mass abandonment of Cape cormorant chicks that were rescued from Robben Island in January 2021. You will read more about the thousands of chicks admitted to SANCCOB Cape Town and the mammoth task we faced to hand-rear and provide veterinary care to these Cape cormorants. Thank you to all funders, volunteers, large and small entities and individuals, as well as committed zoos and aquaria that contributed.

At the time of publication of this report, I have already resigned as CEO of SANCCOB and relocated to the United Kingdom. I feel privileged to have worked with such a dedicated team of staff, board of directors, volunteers,

interns, conservation partners, and local and international funders with whom I have formed lifelong friendships. I will continue in veterinary practice and will forever cherish the relationships formed during my years at SANCCOB.

Thank you to each and every person and group that has supported our organisation and to my stellar team, whom I will miss dearly. Thank you for your dedication to the cause. SANCCOB's newly appointed CEO, Natalie Maskell, has contributed to SANCCOB's achievements over the past nine years and, together with the highly skilled and passionate board of directors, will undoubtedly take SANCCOB to soaring heights.

DR STEPHEN VAN DER SPUY
Chief Executive Officer



REHABILITATION

Despite being overshadowed by the outbreak of the COVID-19 pandemic, 2020 was a year of many highlights for SANCCOB, with phenomenal work conducted by the Rehabilitation departments in both Cape Town in the Western Cape and Gqeberha in the Eastern Cape.

Both SANCCOB facilities were identified as essential services, so the Foundation was able to continue with its primary task of rehabilitating the sick, injured and abandoned seabirds in its care. With the necessary precautions put in place, the Rehabilitation and Veterinary departments were divided into two teams that alternated their working days at the facility with days spent working from home in order to keep the number of people on site to a minimum. The challenge we all faced was continuing to treat our seabird patients with the best care but at half the human capacity. We can proudly say that this was successfully achieved, and our extraordinary team managed to maintain the excellent work that we are renowned for.

The local community rallied too, and their incredible response showed the massive support structure that SANCCOB enjoys, and boosted morale in the teams and throughout the facilities.

During the period covered in this report, 38 different seabird species were admitted to both the Cape Town and Gqeberha facilities, highlighting the essential work we conduct on a daily basis to save southern Africa's seabirds.

Thirteen cases of entanglement in fishing line, affecting nine different seabird species, were admitted to Cape Town. Sadly, due to the severity of some of the cases, not all could be saved by the SANCCOB team. The Gqeberha facility admitted six cases of entanglement.

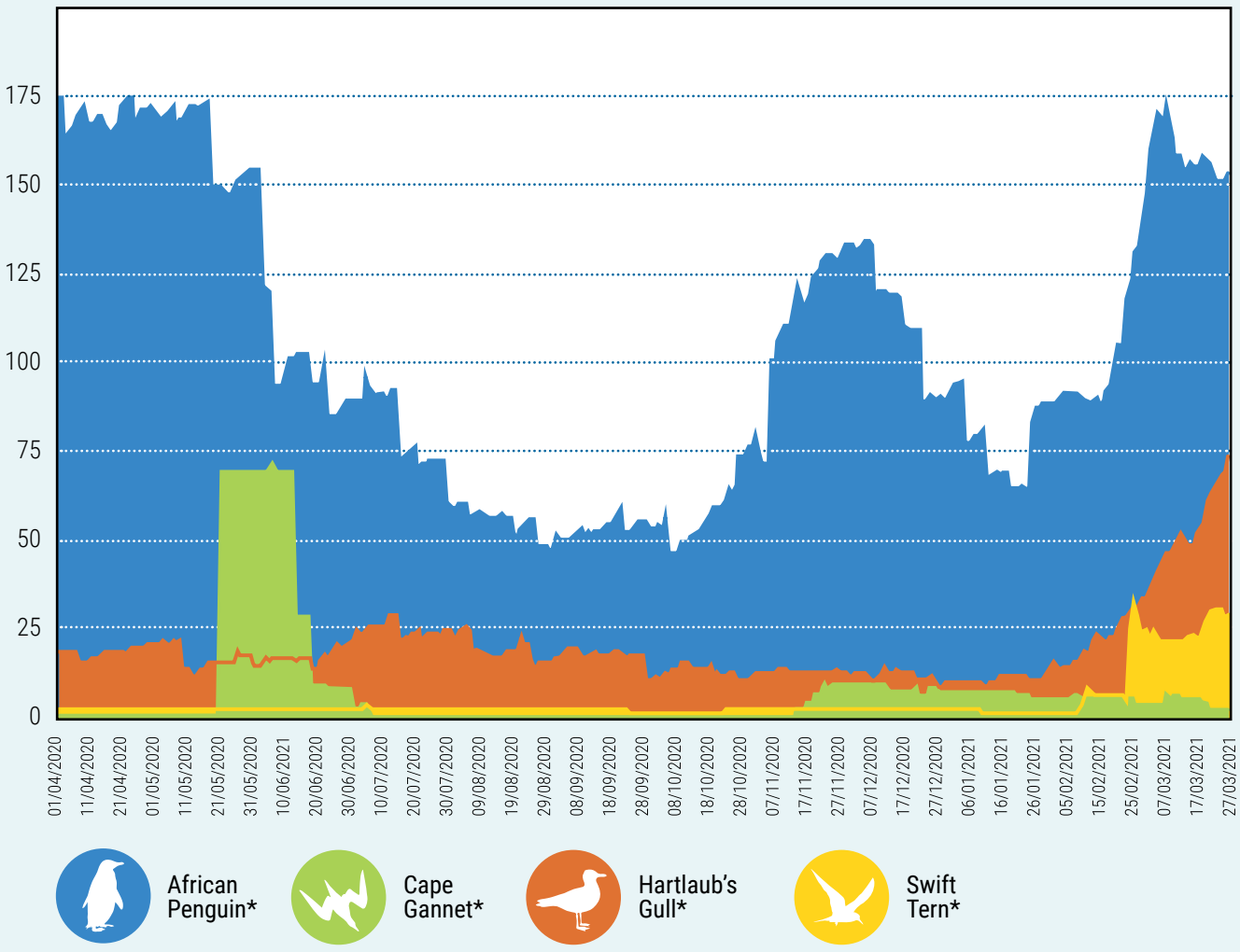
Human-related activities continue to impact seabirds.

OVERALL SEABIRD ADMISSIONS

3,627 seabirds were admitted to SANCCOB's two centres in Cape Town (Western Cape and Gqeberha (Eastern Cape) from 1 April 2020 to 31 March 2021.

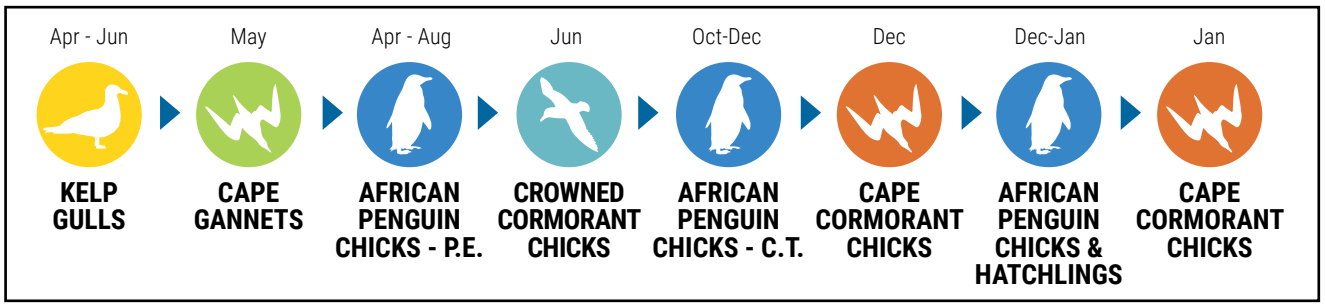
A total of 663 African penguins were admitted, while other seabirds made up 2,964 of the admissions, with the bulk of the admissions coming from the Cape cormorant emergency response on Robben Island in January 2021.

REHABILITATION PATIENTS AT SANCCOB CENTRES



*The Cape cormorants rescued from Robben Island in January 2021 are not included in this graph.

ADMISSIONS & REHABILITATIONS



KELP GULLS IN NEED

The strict national lockdown has had serious implications on the seabirds that needed rescuing by the public on beaches and in public areas not monitored by SANCCOB rangers. During the period from April to June, SANCCOB staff rescued a total of 154 Kelp gulls from beaches, mainly between Milnerton and Melkbosstrand, but because of lockdown there were probably many more that were not rescued. These gulls were admitted due to botulism and were treated accordingly at the Cape Town facility. The enclosure the gulls were housed in was fondly referred to as Kelp Gull City.

Caring for this number of Kelp gulls is extremely intensive as they require fluids and formula throughout the day to ensure the toxin is flushed from their systems. The birds received round-the-clock care, resulting in a successful release rate of 75%.

The specific high intake of Kelp gulls during one beach visit highlights the importance of members of the public acting as rescuers and first responders on beaches for seabirds in need of help.

ENDANGERED CAPE GANNET CHICKS ABANDONED

At the beginning of May 2020, many of the Kelp gulls admitted to SANCCOB for botulism had been released. By 22 May, a familiar odour coming through the doors heralded the arrival at the facility of Cape gannets: 69 juvenile and chick Cape gannets that had been cleared from Bird Island in Lambert's Bay after being abandoned by their parents. With most of the adults and juveniles having already flown off, the remaining chicks and juveniles were cleared by CapeNature assisted by SANCCOB staff. The juveniles were transported to SANCCOB for a short stint of rehabilitation to fatten them up, allow them to gain their waterproof plumage, and then to release them in False Bay. Clearing a colony before the juveniles and chicks have lost body condition usually results in a straightforward rehabilitation process.

Young Cape gannet preening

AFRICAN PENGUIN CHICKS AT SANCCOB GQEBERHA

A total of 158 African penguin chicks were rescued from Bird Island in Algoa Bay between April and August by SANCCOB's Penguin and Seabird Ranger based on the island. These young blues and chicks were emaciated after being abandoned after a storm.

A harsh cold front approached the island off the Eastern Cape during the last week of May, and a decision was made to rescue 78 African penguin chicks that were at risk of either having their nests flooded or being exposed to extreme rain and windy conditions. Soon after these initial chicks were rescued and safely housed at SANCCOB Gqeberha, an additional 53 chicks were rescued from Bird Island due to poor body condition and dehydration. Hand-rearing African penguin chicks is time-consuming and demands dedication and extreme care from the staff. Their hard work was rewarded when 84% of the chicks were released back on to St Croix and Bird islands.

Gqeberha penguin chick in poor condition

ANOTHER TREE-FELLING INCIDENT IMPACTS ON CROWNED CORMORANT CHICKS

In June 2020, the SPCA Wildlife Unit alerted SANCCOB of a tree-felling incident in Marina da Gama in Cape Town that had affected Crowned cormorants nesting with chicks.

The Cape of Good Hope SPCA Wildlife Unit was first on the scene and rescued 13 cormorant chicks that had fallen from the tree into the cold water of the marina. All chicks were stabilised on the scene. A team of experienced staff from SANCCOB were sent to collect the chicks, which arrived at the facility in a stressed and hypothermic state. They were admitted to the Chick Rearing Unit in Cape Town, and soon settled into their new temporary, warm and safe home. There they remained until they reached fledgling age and were able to be released back into a protected reserve. Seabirds are protected under environmental law and tree felling while seabirds are present is a contravention of the Act, as well as a blatant animal welfare concern.

WILDLIFE CRIME: DUMPED CAPE CORMORANT CHICKS

Late on the evening of 19 December 2020, SANCCOB was alerted to the suspected 'dumping' of endangered Cape cormorant chicks and eggs at the naval dockyard in Simon's Town. The chicks and eggs were found among a pile of rubble and rusted pipes, alongside the water's edge.

The chicks were huddled together in three small groups in and around the rubble and pipes. Among them, 36 live and an additional 30 dead Cape cormorant chicks were identified, with some bodies found scattered around the site. The chicks were collected by an experienced and skilled SANCCOB first responder, and were extremely cold and stressed when rescued. Cape cormorant chicks of this age and size should still be in their nests, protected from the natural elements and predators by their parents. Many of those who died were still covered in their downy feathers.

The chicks were admitted to SANCCOB's Chick Rearing Unit in Cape Town. The smallest chick weighed 86g, while the largest chick weighed 426g. Of the 36 chicks, we successfully released 28 back into the wild. Cape cormorants are classified as Endangered on the IUCN Red Data List and are protected under the National Environmental Management: Biodiversity Act (10/2004): Threatened or Protected Marine Species (ToPS) Regulations, and this incident is a direct contravention of the Act.

This concerning incident has been reported to the Department of Forestry, Fisheries and the Environment's Criminal Investigation Unit, which has taken it to the Prosecutor to decide whether the case will go to court and what legal actions will be taken against the alleged culprit.

HARTLAUB'S GULLS AND SWIFT TERN ADMISSIONS

181 Hartlaub's gull eggs were safely rescued by SANCCOB staff from the top of a petrol station at the Waterfront that was scheduled for demolition. Without the intervention of SANCCOB staff and dedicated volunteers, neither eggs nor young chicks would have survived. This sad incident once more highlights the human-wildlife conflict issues that seabirds face during their annual breeding season.

Once the eggs were safely removed from the roof they were placed in a portable incubator and transported to our Chick Rearing Unit in Cape Town for artificial incubation. Although the Hartlaub's gull is a species of least concern, it is endemic to South Africa's Western Cape.

This reporting period saw a large number of Swift tern chicks admitted to the Cape Town facility, with 48 affected by heat stress and human disturbance. Plans are currently being made to propose a soft release with these terns as they are reliant on supplement feeding by their parents for up to six months after fledging.

CHICK BOLSTERING

A total of 513 African penguin chicks were admitted to both SANCCOB facilities during the reporting period, which makes up the bulk of African penguin admissions to both centres. However, this number represents a relatively quiet season when compared with the hundreds that were admitted in previous years. Between October and December 2020, the Cape Town facility admitted 69 chicks that had been abandoned by moulting parents. These chicks came from both Simon's Town and Stony Point.

Since the beginning of 2021, 269 African penguin eggs have been admitted for incubation. The eggs, which were admitted to our Chick Rearing Unit in Cape Town, were rescued due to unsafe nesting, human disturbance, extreme weather events, or after being abandoned by their parents. By the end of March 2021, a total of 124 eggs had hatched and the chicks were in the final stages of rehabilitation before release to help bolster the wild population.

ASCITES

A very special and interesting case is that of hatchling AP327, who hatched at the centre on 12 September 2020. It was healthy with no abnormalities. Then, on 28 September, the chick showed signs of lethargy: its eyes were not fully opened, it displayed a poor feeding response, and was retaining fluid. AP327 was also breathing heavily. It is possible that the heavy breathing was caused by fluid retention, which put pressure on the air sacs. Undigested fish was also felt in its stomach.

The chick was placed on oxygen therapy and received veterinary treatment. Slowly, we witnessed signs of improvement: less bloating, more vocally active, feeding more keenly, and breathing more easily. A week later, we once again detected lethargy and fluid retention with this little chick, presenting with a bloated abdomen and swollen feet. Additional vet checks were done, another fine needle aspirate was carried out and approximately 5ml of fluid was extracted. A barium study was done three days later – no perforation in the gut was seen. Baytril was continued, and Furosemide injections were extended for a further five days.

At 1kg in weight the young bird was transferred to the Nursery, showing no signs of swelling and displaying normal chick behaviour. It has since been successfully released.

X-rays of a barium study

A fine needle aspirate

INTERESTING CASES

AP208 (Gqeberha)

In July 2020, SANCCOB Gqeberha admitted an emaciated adult male African Penguin, AP208, weighing 1.55kg, and suffering with severe dehydration and an eye infection. The veterinarian detected a soft murmur on the left side of the bird's chest. The penguin also had malaria and appropriate medication was administered, but the bird became increasingly lethargic and could only stand for a few seconds. AP208's hydration worsened to 10% and he seemed unable to retain fluid. By mid-August his condition and hydration started to improve, only for the vet to discover that he had developed a corneal ulcer.

Late in August, the penguin developed breathing difficulties, the lethargy continued and he began flipper-walking. The left eye ruptured, and in early September the vet suggested an enucleation once the bird's condition had improved. Despite initial improvement, the bird developed an oedema on the site of the eye removal, and the jaw became tight and difficult to open. Three more operations were carried out on the eye area and the bird underwent its annual moult in our care. Staff became concerned that AP208 would not survive, but their hard work paid off. The adult male went on to recover and was released on Bird island weighing a healthy 3.25kg.

AP329 (Cape Town)

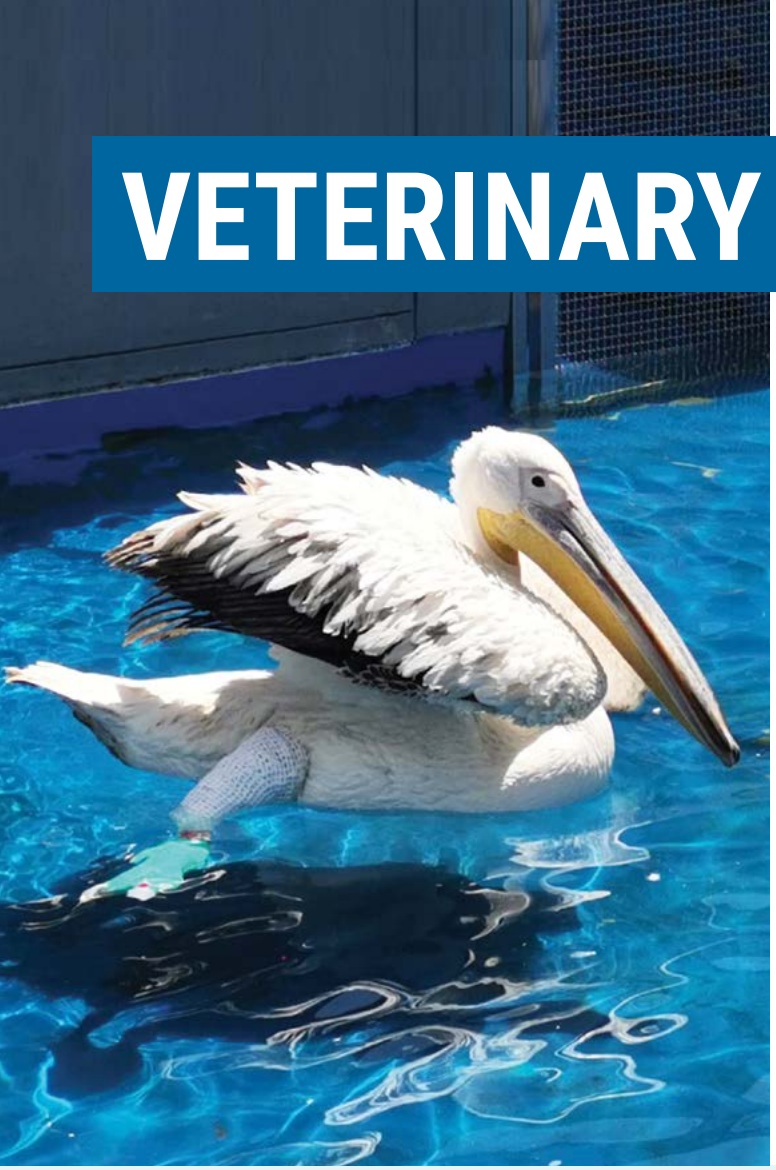
On 15 September 2020, AP329 was admitted to SANCCOB Cape Town with severe soft tissue swelling on the right side of its head – so severe that the eye was not visible. It was decided to place the penguin under general anaesthetic to X-ray the head to see if fluid could be removed to relieve the pressure from the eye. Some 17ml of serous fluid was drained from the swelling, after which the eye was visible. Fluid was removed from the eye on a weekly basis by the Veterinary and Rehabilitation departments. With specialised care and treatment, the swelling slowly subsided, and fortunately, the eye itself was not injured. AP329 stayed in SANCCOB's care for almost two months to monitor any additional swelling or potential infection until eventually being released back into the wild.

SKILLS TRANSFERRAL

With the implementation of the national level 5 lockdown in South Africa, the usual training conducted by the Rehabilitation Department was put on hold. However, as the restrictions lifted the department started to focus on setting up COVID-19 compliant training sessions for additional first responders and colony staff. In addition, two members of the Rehabilitation department were fortunate enough to attend a two-day wildlife rehabilitation workshop.

In total, 11 training sessions were hosted during the reporting period, and colony staff from Stony Point, City of Cape Town, as well as a team from Oil Spill Response Limited, received training, as did an additional four first responders.

VETERINARY DEPARTMENT

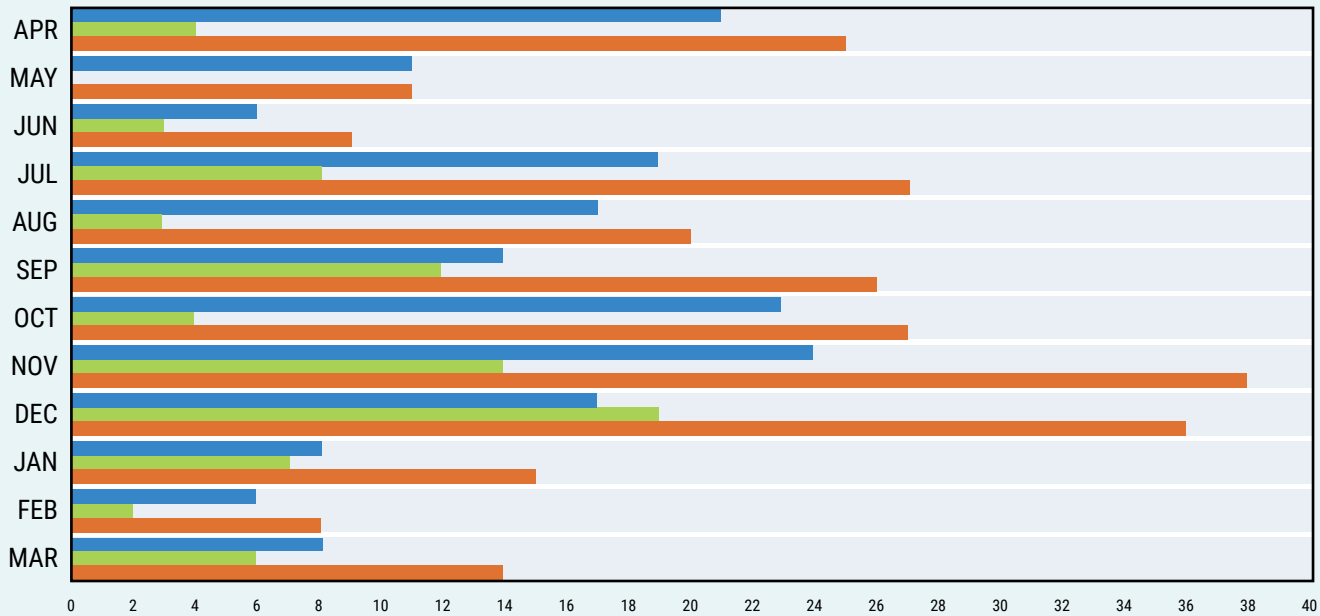


CAPE TOWN SEABIRD HOSPITAL

We performed 256 surgical procedures and 468 X-ray studies at our Cape Town Seabird Hospital during the period under review, with our busiest period being between October and December.

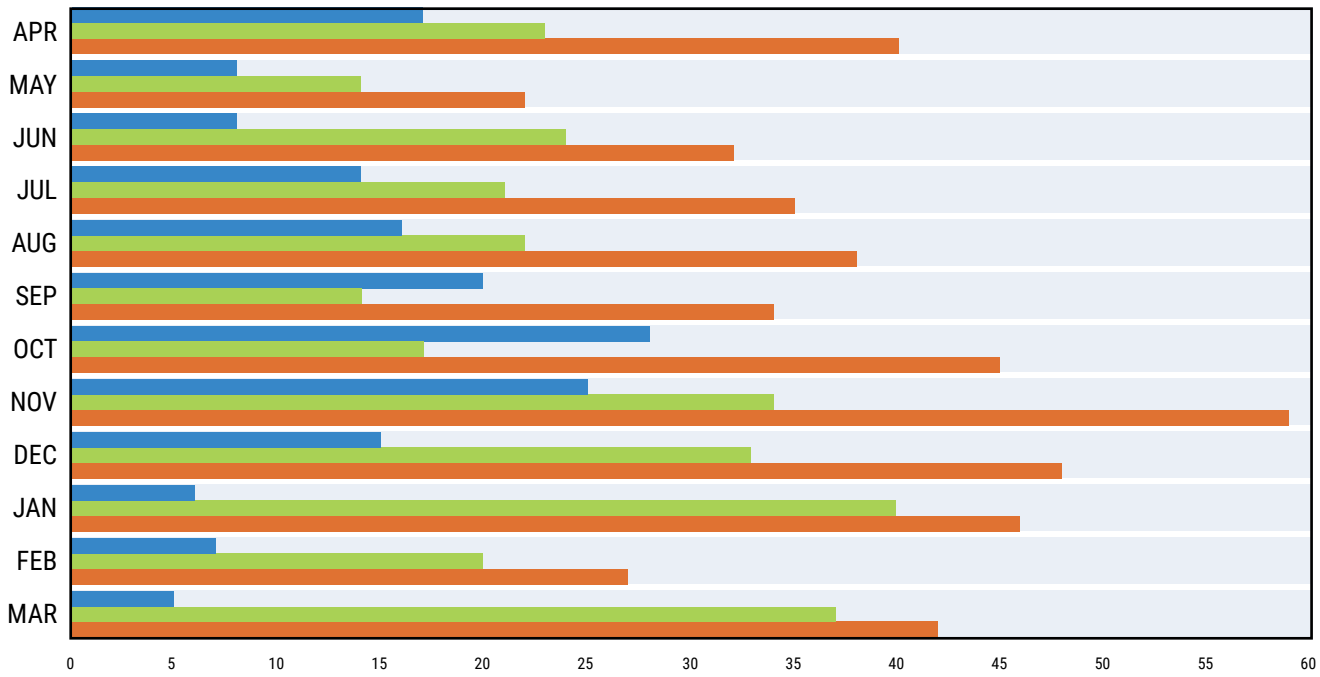
Most of our surgical patients are African penguins, which are far tougher than other birds and are able to cope remarkably well even after suffering severe injuries that may require several surgical procedures. In general, most heal sufficiently well to be released into the wild. We X-ray our other, more delicate, seabird patients. X-rays are a useful diagnostic tool, not only to detect broken bones but also to see if patients have swallowed foreign bodies such as fish hooks.

SURGICAL PROCEDURES AT SANCCOB CAPE TOWN



African Penguin*	Other Seabirds	Both
TOTAL 174 | AVERAGE 15	TOTAL 82 | AVERAGE 7	TOTAL 256 | AVERAGE 21

X-RAYS AT SANCCOB CAPE TOWN

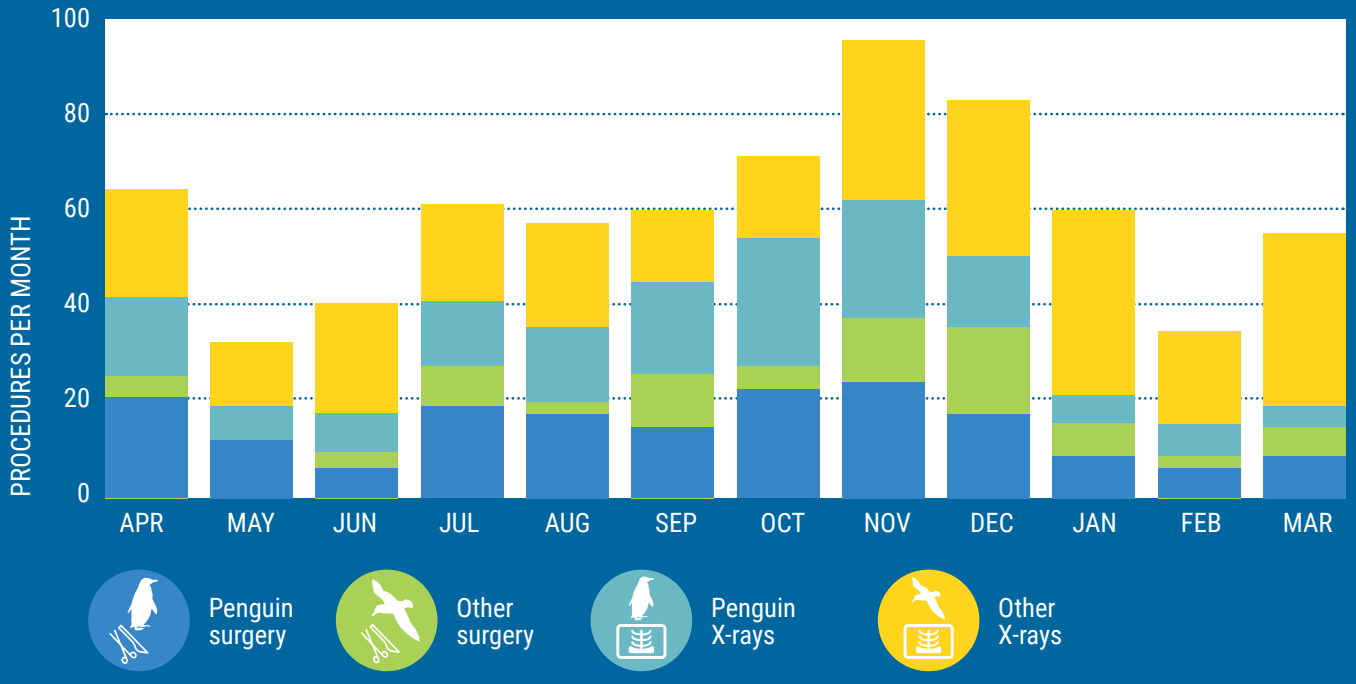


African Penguin*
TOTAL 169 | AVERAGE 14

Other Seabirds
TOTAL 299 | AVERAGE 25

Both
TOTAL 468 | AVERAGE 39

VETERINARY PROCEDURES AT SANCCOB CAPE TOWN

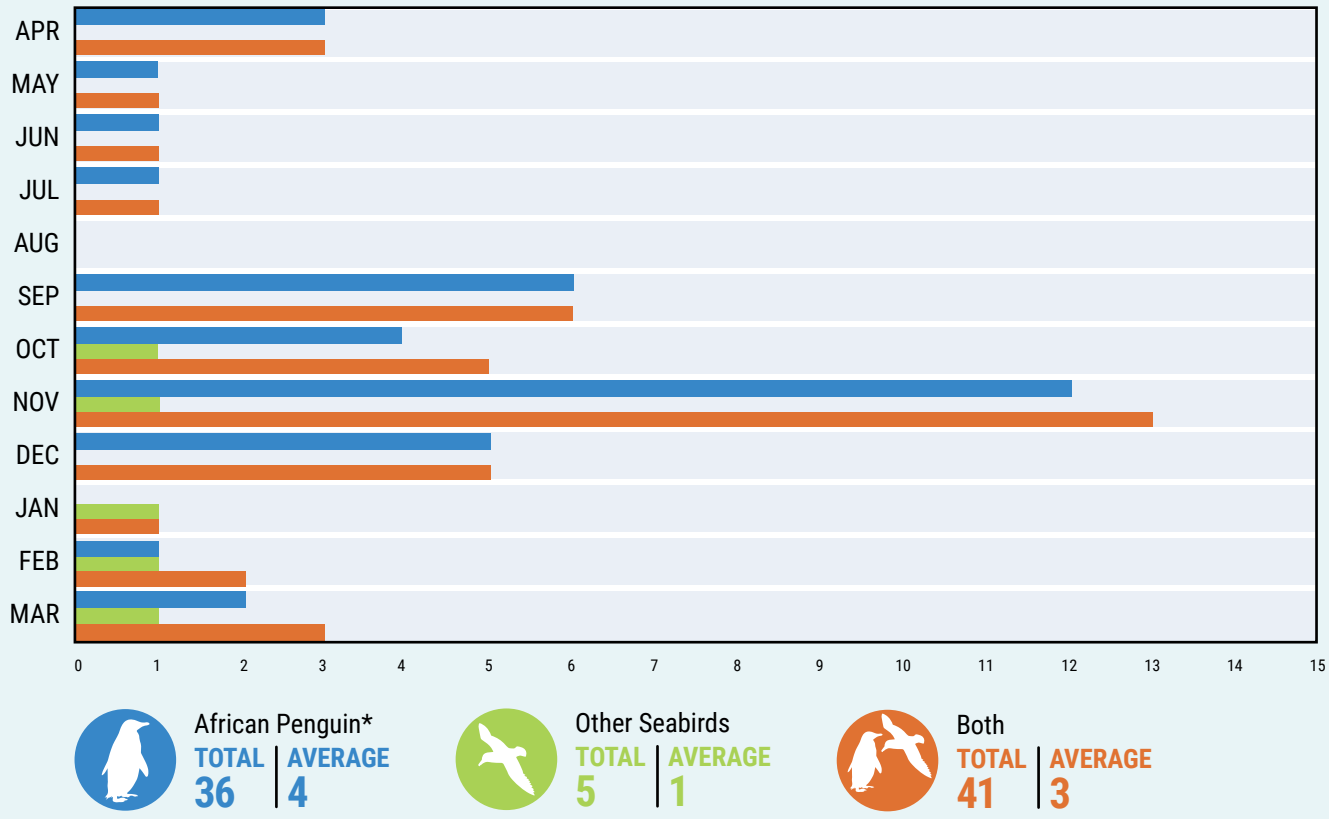


EASTERN CAPE SEABIRD HOSPITAL

An enthusiastic team of vets from the Mt Croix Animal Hospital and a few outside volunteer vets have been kept busy with a constant stream of interesting seabird cases at our hospital in Gqeberha. Cases included the first successful treatment of an African penguin with a fractured leg, emaciated penguin chicks, birds with large wounds, birds entangled in fishing tackle, severe bumblefoot lesions requiring surgery, corneal ulcers, pox virus and malaria infections.

We also had to respond to a severe disease outbreak that affected both resident and rehabilitated birds. Increased biosecurity, isolation of infected birds and thorough cleaning and disinfection slowed the rate of infection, and careful treatment and nursing allowed many of the affected birds to recover. Despite extensive diagnostic work, we were unable to determine the cause of the outbreak, but suspect it was a toxin or a viral infection.

SURGICAL PROCEDURES AT SANCCOB GQEBERHA

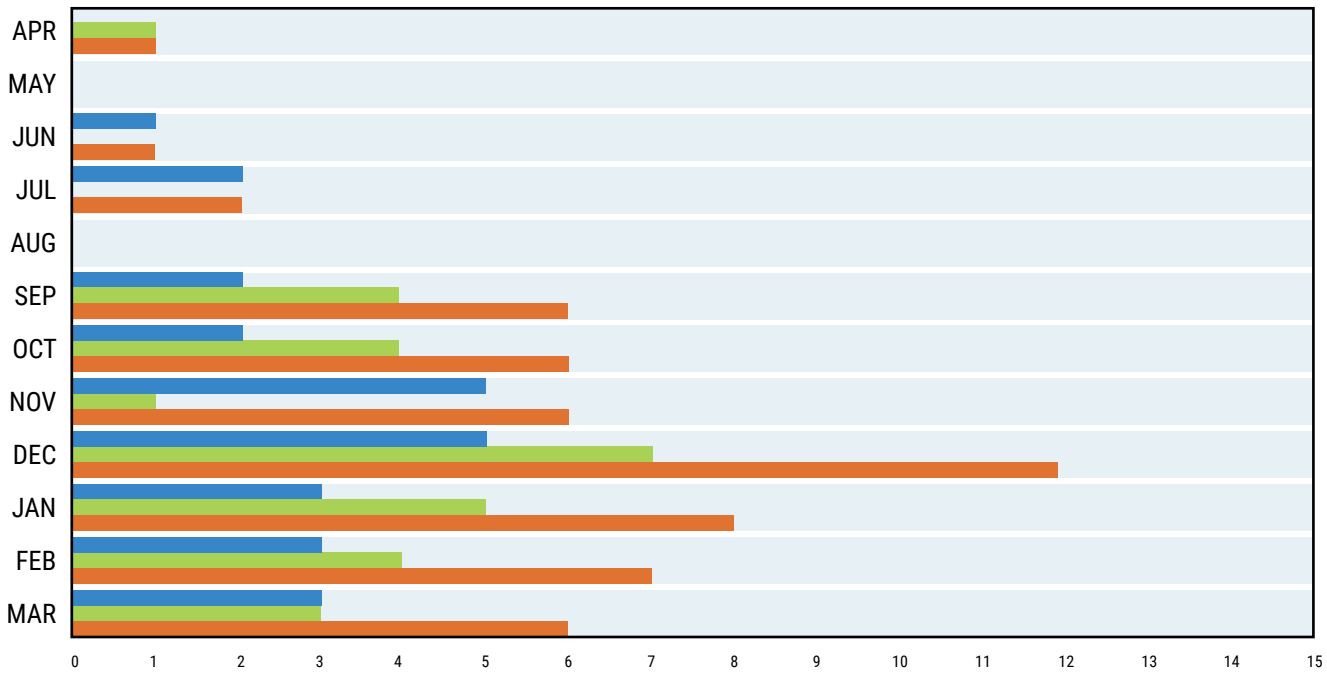


African Penguin*
TOTAL 36 | AVERAGE 4

Other Seabirds
TOTAL 5 | AVERAGE 1

Both
TOTAL 41 | AVERAGE 3

X-RAYS AT SANCCOB GQEBERHA

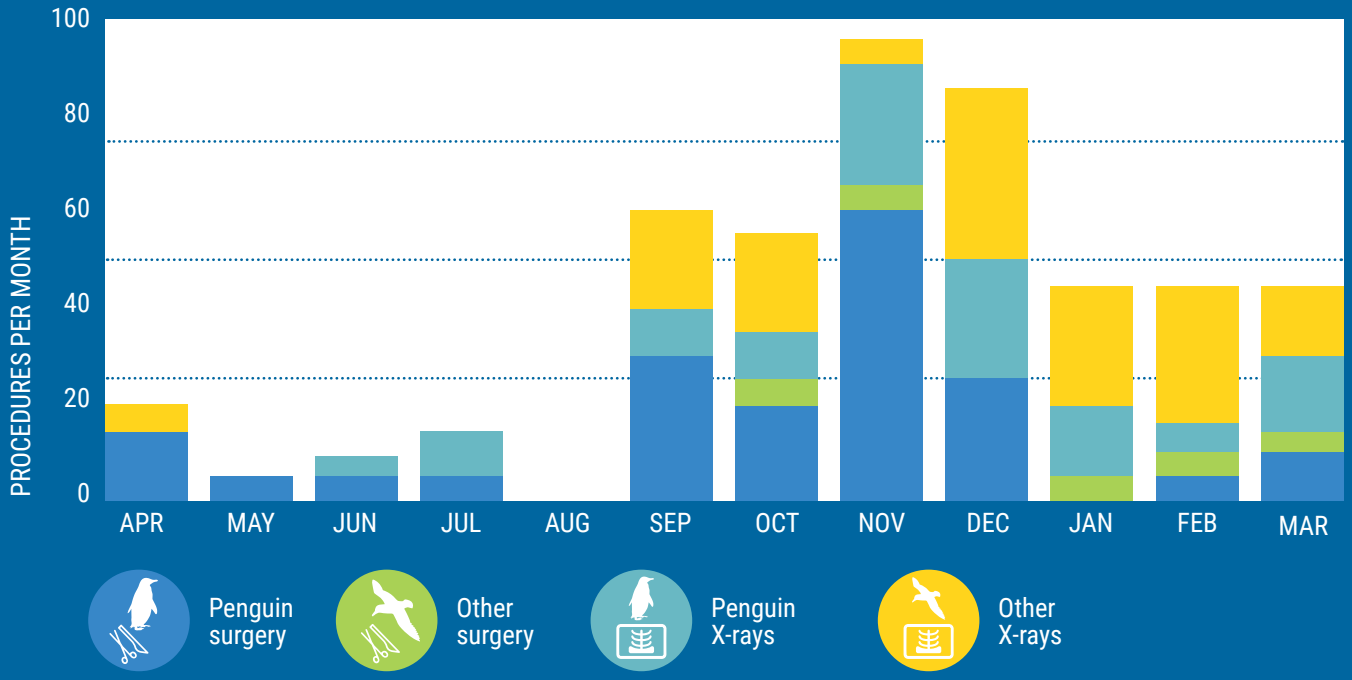


African Penguin*
TOTAL 26 | AVERAGE 3

Other Seabirds
TOTAL 29 | AVERAGE 4

Both
TOTAL 55 | AVERAGE 5

VETERINARY PROCEDURES AT SANCCOB GQEBERHA



NEW COMPUTER-BASED RECORD-KEEPING SYSTEM

All SANCCOB patients are now recorded on the web-based Wildlife Rehabilitation MD record-keeping system, which has replaced the manual card register. The huge job of migrating to the new system is now paying off. The vets and rehabbers can access any bird's full history while working in the pen or ICU, and even when working off-site. It is now easier to update someone with the progress of a bird they've brought in to SANCCOB, or anyone calling to check on a bird they've adopted. A host of other information can be gathered and used – for example, we can easily see how many patients of a certain species are or were in our care.

Seabird rehabilitators receiving nursing training

IMPROVEMENTS IN NURSING SKILLS, AND ANAESTHETIC AND ANALGESIA MANAGEMENT

During the period under review we were able to improve the welfare of our patients through better pain management and anaesthetic monitoring. For most of 2020, SANCCOB enjoyed the assistance of Sister Fran Bell, a volunteer veterinary nurse from Australia. While she was with us, she helped to develop a pain-scoring system for our ICU patients and coached the rehabilitation team in its use for monitoring patients' analgesic (painkiller) needs. She also trained the team members to improve their anaesthetic monitoring and other nursing skills.

VETERINARY RESEARCH

TESTING AN AVIAN INFLUENZA VACCINE FOR AFRICAN PENGUINS

SANCCOB worked with the University of Pretoria to test the effectiveness of avian influenza (bird flu) vaccines in African penguins. Twenty-four of the birds in our home pen were vaccinated against avian influenza as part of this trial, which tested the antibodies produced by the penguins after vaccination, how long the antibodies lasted, and the effect of boosting the vaccinations. The penguins mounted a short immune response against avian influenza, which waned over time. Further investigation would be needed to produce a longer lasting vaccine.

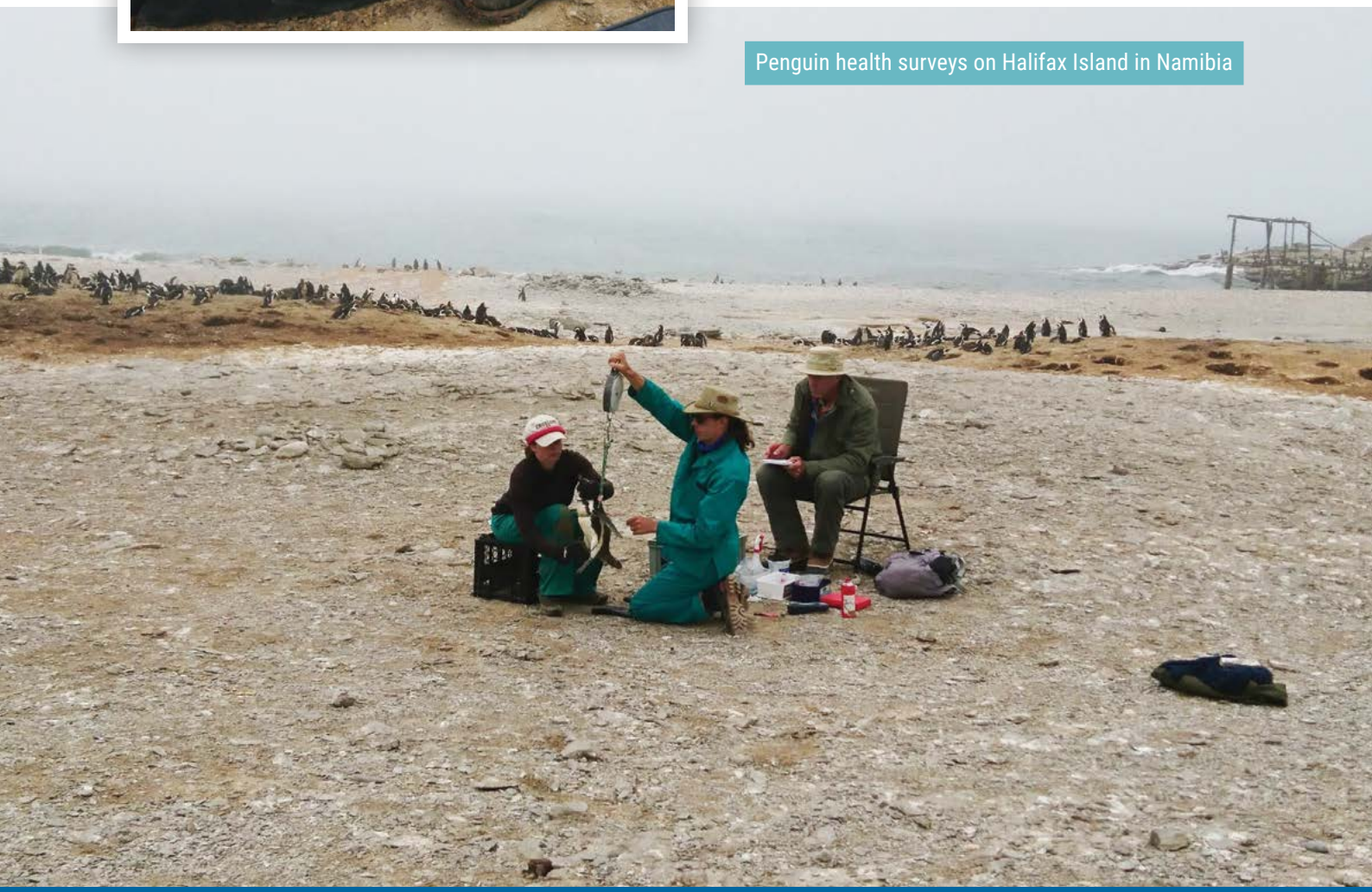
Vaccinating one of our home penguins


Monitoring after vaccination and blood collection

AFRICAN PENGUIN HEALTH SURVEY

SANCCOB is assisting in a wide-range African Penguin Health Survey in collaboration with several researchers and universities linked to the German MeerWissen initiative (found in the research report in this publication). A major aspect of this study includes expeditions to all major African penguin colonies. In early 2021, SANCCOB researcher Albert Snyman assisted with field work on Dassen Island, and SANCCOB clinical veterinarian Dr David Roberts joined the expedition to Halifax Island in Namibia.

Penguin health surveys on Halifax Island in Namibia



MEMORABLE CASES

AP037 Large maggot-filled wound

One of the most rewarding cases of 2020 was AP037. Admitted as a very weak juvenile unable to stand, he had what appeared to be a small bite wound. Closer inspection revealed a deep, infected wound filled with maggots that had caused a large area of skin on the right leg to die. It took 13 surgical procedures to clean and close the wound. The bird moulted at SANCCOB and was released on 15 July 2020 after a full recovery that took 167 days.

AP037'S wound healing

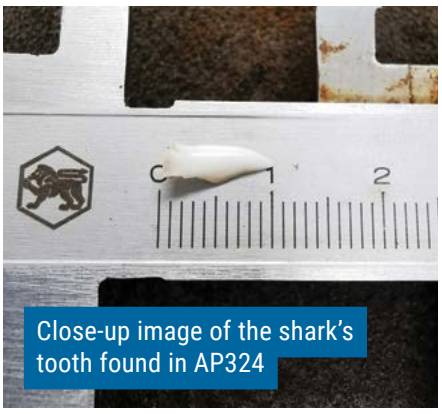
AP324 Shark bite

AP324 was found by SANCCOB's seabird ranger on Robben Island and the National Sea Rescue Institute (NSRI) stepped in to help transport the bird to the mainland. While cleaning one of the deep wounds on the penguin's leg, the team removed a shark tooth. We've often suspected that some of the injuries we see are caused by sharks, but this was our first real proof. With expert help we were able to determine that the penguin was most likely attacked by a sevengill shark. After the bite wounds had healed, AP324 was released in January 2021.

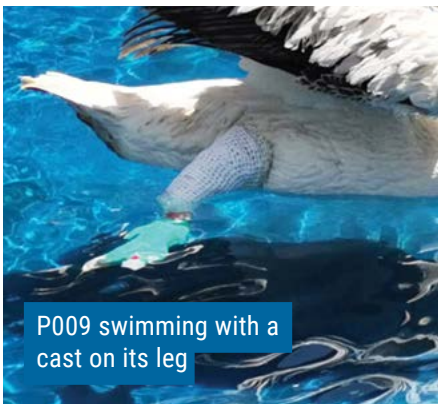
Treating AP324's wounds under anaesthetic

P009 Pelican with a leg cast

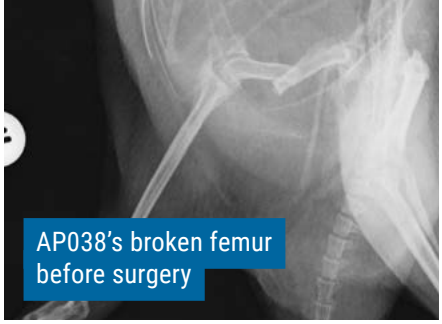
In November 2020 we admitted P009, a Great white pelican that presented with a collapsed right tibiotarsus (lower leg bone) and a bent left tibiotarsus. These injuries were probably caused in part by a poor diet, leading to calcium deficiency. The right leg was placed in a cast for three weeks, which allowed it to heal and the bird was released on Christmas Eve.



Close-up image of the shark's tooth found in AP324



P009 swimming with a cast on its leg



AP038's broken femur before surgery

AP038 Fractured femur

AP038 was admitted in January 2020 with a fractured femur, a bone that is rarely broken in penguins. Luckily, our veterinary team was able to stabilise the injury surgically with orthopaedic pins. After the bone had healed and the pins were removed, AP038 spent most of the year in our temporary home pen until its feathers had regrown. AP038 was successfully released in March 2021.

AP038's femur after metal pins had been inserted to stabilise the bone

AP007 Dislocated hip

In January we admitted an emaciated and newly moulted penguin with a dislocated hip. Fortunately, the hip was relatively easy to replace under anaesthetic. We strapped both legs together for 10 days to prevent a repeat dislocation. The bird subsequently recovered very quickly and was soon walking again. AP007 was released after reaching a good body weight.

On admission, AP007's dislocated right hip caused him to hold the corresponding leg at an odd angle

SPECIES SEEN AT SANCCOB FROM APRIL 2020 TO MARCH 2021

- African darter
- African oystercatcher
- African penguin
- Antarctic prion
- Antarctic tern
- Arctic tern
- Bank cormorant
- Black-headed heron
- Blacksmith lapwing
- Broad-billed prion
- Cape cormorant
- Cape gannet
- Caspian tern
- Common tern
- Crowned cormorant
- Great white pelican
- Greater crested grebe
- Greater flamingo
- Great-winged petrel
- Grey heron
- Grey-headed gull
- Hartlaub's gull
- Kelp gull
- Lesser flamingo
- Little grebe
- Northern giant petrel
- Red-footed booby
- Reed cormorant
- Sandwich tern
- Soft-plumaged petrel
- Southern giant petrel
- Subantarctic skua
- Swift tern
- Western cattle egret
- White-fronted plover
- White-breasted cormorant
- White-chinned petrel
- White-headed petrel

10 YEAR REVIEW OF AFRICAN PENGUINS & OTHER SEABIRDS ADMITTED TO SANCCOB

*Common name

Explanation: The peak in Other Seabirds in 2018–2019 is due to flamingos; in 2020–2021 we received an increased number of Cape cormorants.

Alison Kock (SANParks) deploying an African penguin in Boulders (Simon's Town) with a GPS device, assisted by Tegan Carpenter-Kling and Alistair McInnes (both BirdLife South Africa)

RESEARCH

TRACKING

SANCCOB researchers and their collaborators had great plans for several tracking studies to be carried out in 2020, but the outbreak of COVID-19 meant that many projects were put on hold. However, despite numerous of our international collaborators not being able to travel, our local team of highly competent penguin scientists managed to complete some of the planned work. By the time the adult African penguins were breeding successfully and could be deployed with GPS tracking devices, the strictest lockdown restrictions were lifted, enabling us to reach two mainland colonies: Simon's Town and Stony Point. In collaboration with BirdLife South Africa, SANParks (in Simon's Town) and CapeNature (at Stony Point), African penguins were deployed with GPS trackers, along with depth and accelerometer loggers to better understand their foraging behaviour at sea.

In 2019, we had collected data about the foraging habits of the penguins in Simon's Town. With the onset of 2020, a year far different from the previous year in all aspects, we were able to compare how False Bay was being used by foraging African penguins. In 2020, we saw the penguins foraging closer to the western side of False Bay, some travelling towards Muizenberg or staying near Simon's Town – unlike their behaviour in 2019, when they'd ranged all across the bay. This change in foraging areas could be explained by various factors: the reduced amount of human activity in the Simon's Town area because of lockdown restrictions, and the availability of fish. (Fish seem to have been plentiful on that side of the bay in the winter of 2020. We could speculate that the fish were drawn to the calm usually absent from these highly disturbed waters, but as yet insufficient small-scale data on fish distribution is available to confirm this hypothesis.) We will continue to study the foraging areas of penguins in False Bay and also look at the impact of noise pollution by including hydrophones, both on the birds themselves and positioned in the bay. A similar study is planned for foraging African penguins in Algoa Bay, an area with an alarming rate of ship traffic and underwater noise, as well as Stony Point, a more pristine bay with little human activity.

TRANSPONDER WORK

The onset of our transponder work in the wild was slightly delayed due to COVID-19. Thankfully, population assessments, especially of endangered species, was deemed an 'essential service' by the South African government, and by mid-May 2020 we were given the green light to go ahead. It turned out to be a very productive year: 210 adults and 290 fledglings were fitted with transponders in the colonies in 2020.

Working at the colonies was such a treat after several weeks of strict lockdown. We were able to observe the birds enjoying the surrounding peace and quiet, especially those in our mainland colonies, which in normal times see hundreds of visitors a day.

The ground readers continued to work in the various colonies and to record the transponder numbers of birds crossing into the colonies. These readings give us valuable information on the survival and movement of birds fitted with transponders, and we now have sufficient data to answer some of our questions. We started to look at the long-term survival of both adults rehabilitated at SANCCOB and SANCCOB hand-reared chicks, and compared their status to that of birds that have never been admitted to rehabilitation centres. The analyses are ongoing, but the sight of many of our former patients successfully surviving and breeding in the wild means we can already confirm that the work done at SANCCOB is extremely valuable to the survival of the African penguin in the wild.

An important milestone in the transponder project was reached in early 2021 when a combined transponder ground reader and weighbridge system was successfully installed on St Croix Island, the world's fourth-largest African penguin colony (previously world's largest), situated in Algoa Bay. This project – a collaboration involving SANCCOB, BirdLife South Africa and the University of Cape Town – aims to install automated monitoring systems at important African penguin breeding colonies. The systems, which transmit data almost in real time, can provide information on the availability of food around the colonies by comparing the time that adult penguins spend foraging at sea with their weight gain (or loss) as an indicator of the amount of food provided to their chicks. Ideally, this information would be used to limit fishing around colonies in times of limited food availability.

DISEASE SURVEILLANCE

Diseases, viruses and vaccines have been on top of everybody's mind in the past year and the situation for our seabirds is no different (despite their not having to wear masks and stay home during lockdown). Since the outbreak in South Africa and Namibia of avian influenza in 2018 and 2019, which affected numerous seabird species including the endangered African penguin, more intense disease surveillance work has been carried out by SANCCOB researcher Albert Snyman. Thanks to funding from the Rupert Nature Foundation, samples from birds with unclear reasons for death (often found in the colonies and brought to SANCCOB by the managing authorities) are being sent for testing for known diseases. We're happy to report that very few positive cases have been detected, but we keep a watchful eye on the situation as new cases of avian influenza have been reported from the poultry industry in other areas of South Africa.

MEERWISSEN AFRICAN HEALTH PROJECTS

Building on SANCCOB's Memorandum Of Agreement with the University of Pretoria, SANCCOB's Veterinary and Research departments have become increasingly involved in a number of projects linked to the German MeerWissen initiative, African-German Partners for Ocean Knowledge, funded by the German government (GIZ/ BMP). SANCCOB assists with research into the prevalence of avian influenza in African penguins, and the sampling of wild birds is being conducted from southern Namibia all the way to Algoa Bay. Research into vaccines for avian influenza has been carried out at SANCCOB that will help to inform plans for future outbreaks. Carcasses admitted to SANCCOB from the colonies are sampled for toxins, with special focus on birds from areas known to be pollution hotspots, and the effect of toxins on reproductive organs and sperm quality. The development of an App is planned that can be used by the general public when finding deceased birds along the shore. This will not only provide valuable data on distribution and mortality hotspots, but may also assist SANCCOB to respond more rapidly to alerts about live birds in need of rescue. The MeerWissen project has a strong focus on stakeholder engagement and SANCCOB plays a crucial role in bringing together its partners from government, academia and other NGOs.

PUBLICATIONS

PEER-REVIEWED PUBLICATIONS

- Shannon L & **Waller LJ** (2021) A cursory look at the fishmeal/oil industry from an ecosystem perspective. Frontiers in Ecology and Evolution
- Favaro L, Cresta E, Friard OP, **Ludynia K**, Mathevon N, Pichegru L , Reby D, Gamba M (2021) Passive acoustic monitoring of the endangered African penguin using autonomous recording units and ecoacoustic indices. Ibis
- Snyman A, Mostert E, **Ludynia K** (2021) Sex determination of Kelp Gull Larus dominicanus vetula using bill measurements. Ostrich
- Scheun J, **Ludynia K**, **Snyman A**, Ganswindt A (2021) Non-invasive hormone monitoring as a robust method for determining adrenocortical activity in injured, emaciated and oil-contaminated African penguins undergoing rehabilitation. General and Comparative Endocrinology
- Hurtado R, Parsons NJ, Gous TA, **van der Spuy S**, **Klusener R**, Stander N, Van Wilpe E, Vanstreels RET. (2020) Outbreak of cryptosporidiosis in African penguins Spheniscus demersus. Diseases of Aquatic Organisms
- Espinaze MPA, Hui C, **Waller L**, Matthee S (2020) Intercolony health evaluation of wild African penguins Spheniscus demersus, in relation to parasites, along the southwest coast of South Africa. African Journal of Marine Science
- Espinaze MPA, Hui C, **Waller L**, Matthee S (2020) Nest-type associated microclimatic conditions as potential drivers of extoparasite infestations in African penguin nests. Parasitology Research
- **Snyman A**, Vanstreels RET, Nell C, Schaefer AM, Stracke T, Parsons NJ, **Ludynia K**, Pistorius PA (2020). Determinants of external and blood parasite load in African penguins (Spheniscus demersus) admitted for rehabilitation. Parasitology Research
- Sherley RB, Crawford RJM, de Bloque AD, Dyer BM, Geldenhuys D, Hagen C, Kemper J, Makhado AB, Pichegru L, Tom D, Upfold L, Visagie J, **Waller LJ**, Winker H (2020) The conservation status and population decline of the African penguin deconstructed in space and time. Ecology and Evolution

BOOK CHAPTERS, MAGAZINE ARTICLES AND BLOGS

- Foden W, van Wilgen N, **Ludynia K** (2021) African BirdLife magazine Jan/Feb 2021
- Kelway P, **Stander NJ** (2020) The Treasure Oil Spill – 20 years on. What one of the largest animal rescue missions in history can tell us about wildlife response preparedness.
- **Stander NJ**, **Klusener R** (2020) African penguins. In: Duerr RS, Gage LJ (eds) Hand-rearing birds. Wiley-Blackwell

CONFERENCE PRESENTATIONS

- African Penguin Bioacoustics Conference
- UNEP/AEWA Workshop (United Nations Environment Programme/Agreement on the Conservation of African-Eurasian Migratory Waterbirds)

WEBINARS AND VIRTUAL PRESENTATIONS

SANCCOB offered far more presentations and virtual talks than in previous years in keeping with the trend of online sharing to stay connected during the lockdown months of COVID-19. Webinars and live talks included the following:

- Dr David Roberts: Interesting veterinary cases (2-Part webinar)
- Dr Lauren Waller: Why African penguins are important and are top predators
- Dr Katta Ludynia: Climate change and the endangered African penguin: SANCCOB's involvement in important management interventions
- Dr Katta Ludynia: Tracking seabirds: The How, the Why and What we've learned so far
- Nicky Stander: What is Offshore Ship-To-Ship Bunkering and how has it impacted South Africa's seabirds so far?
- Dr Lauren Waller: 20th year commemoration of MV Treasure Oil Spill
- Dr David Roberts: Diseases of African penguins in the wild and in rehabilitation centres
- Margot Collett: SANCCOB Gqeberha centre tour and update
- Nicky Stander - Presents SANCCOB to Oil Spill Response Limited (OSRL) audience
- Romy Klusener: Journey of an African penguin hand-reared at SANCCOB, from egg to release
- Nicky Stander: MV Treasure Oil Spill commemoration with OSRL
- Dr Katta Ludynia and Romy Klusener: Present SANCCOB's work to European Association of Zoos and Aquaria (EAZA)
- Dr Katta Ludynia: Presents to the WAVE Foundation
- Dr Katta Ludynia: Presents to Bristol University
- Dr David Roberts: AquaDocs podcast on veterinary and conservation work at SANCCOB

FACEBOOK LIVE BROADCASTS

- Nicky Stander: Facebook live tour of SANCCOB Cape Town centre
- Angela Wilmot: Volunteer Open Day
- Alex Rogers: Educational tour and lesson via Facebook live

PREPAREDNESS & RESPONSE

South Africa is positioned on one of the busiest shipping routes in the world, with passing vessels transporting millions of tonnes of oil and bunker fuel each year. This traffic, when encountering the harsh oceanographic conditions along our coast, renders the country vulnerable to maritime-related incidents and potential oil spills. SANCCOB, with its long and esteemed history of responding to oiled seabirds along the South African coastline, must constantly remain alert and prepared.

SANCCOB has continued its work with government agencies to improve South Africa's level of preparedness in the event of an oil spill incident, specifically ensuring an integrated oiled wildlife response. The National Oil Spill Contingency Plan for South Africa was finalised in 2021 and has been adopted by the Director-General of Transport, with SANCCOB named as a response organisation for oil-affected seabirds. It is recognised that seabirds are particularly vulnerable to damage by oil spills due to their distribution, foraging and breeding behaviour. Documented estimates of cumulative seabird mortality attributable to oil pollution worldwide between 1937 and 1999 exceed one million birds. In South Africa, we are historically aware and understand the devastating effects of oil spills on seabirds. We are also well aware of the fact that many species' populations are declining at a rapid rate. Another oil spill could be catastrophic.

NEAR-MISS INCIDENTS ALONG THE COASTLINE – THE IMPORTANCE OF PREPAREDNESS

SANCCOB was one of the emergency services placed on standby when a Chinese crude oil carrier ran into difficulty on Wednesday 27 May 2020, a mere 1.5km from Port St Johns on the Wild Coast. The *Yuan Hua Hu* was en route to Angola and, fortunately, was carrying no cargo other than 4,000 tonnes of operating bunker fuel. The Department of Forestry, Fisheries and the Environment placed its Tier 1 Oil Pollution Response team on alert (a tiered response system is recognised internationally to define levels of oil spill response capabilities. A Tier 1 response would require resources necessary to handle a local spill and/or provide an initial response.). An Oiled Wildlife Response team was rallied to be on the scene within eight hours. Luckily, its members were advised to stand down as the vessel was being towed to Durban by salvage tugs.

Two months later, on 13 July 2020, Cape Town experienced gale-force winds and high sea swells, and South African port authorities advised 10 vessels anchored in Table Bay to reposition closer to Robben Island to ride out the storm. It soon became clear that a container ship had become stuck fast in the bay, just off Sunset Beach, a stone's throw from SANCCOB's Cape Town facility. The 263-metre Liberian-flagged container ship, *JPO Libra*, was reportedly struggling to hold position. The vessel's port anchor had become fouled on other cables and chains during an attempt to lift it, preventing the ship from moving to a more secure position. Fortunately, once the weather improved, a tug was able to pull the *JPO Libra* back to sea. The South African Maritime Safety Authority (SAMSA) confirmed that it believed the vessel was not in immediate danger. However, the proximity of the vessel to the shoreline drew a lot of attention from local residents, including the SANCCOB team.

WIDELY REPORTED OIL SPILL IN MAURITIUS

Disaster struck in July 2020 when a Japanese vessel, the *MV Wakashio*, ran aground on the east coast of Mauritius. The vessel grounded on a reef off Pointe D'Esny, a designated Ramsar protected area for internationally important wetlands, and Île aux Aigrettes, an islet opposite Pointe D'Esny that is home to numerous endemic species and conservation successes.

The vessel, en route from China to Brazil, had no cargo on board other than 3,800-plus tonnes of operating fuel. On 6 August 2021, a breach was observed and oil started leaking out of the vessel into the ocean. As the closest oiled wildlife response organisation, SANCCOB immediately reached out to the Mauritian wildlife authorities and offered assistance. The Mauritian government activated a Tier 3 (international) level response and mobilised relevant authorities. Clean-up techniques such as booms, skimmers and sorbents were utilised, and the remainder of the oil was pumped out of the *MV Wakashio*. Nevertheless, an estimated 1,000 tonnes of heavy fuel oil had been spilled into the environment. Two weeks later, the Mauritian government declared a state of National Emergency. Locals took matters into their own hands and started cleaning the soiled shoreline themselves, even manufacturing containment booms by hand and cutting their hair to act as sorbents.

It was an ecological disaster for which Mauritius was ill-equipped and inadequately prepared. The South African government made bold attempts to deploy an assessment team, which included members from SANCCOB. A wildlife response was not approved despite media reports of oiled cetaceans and reptiles. In the absence of a shoreline assessment, and subsequent search and rescue, it was not possible to determine the impact on wildlife. COVID-19 travel restrictions presented the biggest challenge as borders were closed and no direct commercial routes were possible. It was a truly challenging time for Mauritians and if anything was learned from this high-profile incident, it's that preparedness is vital for a successful outcome.

GLOBAL OILED WILDLIFE SERVICES

Global level preparedness

Initiated in 2015, the GOWRS service aims to deliver a Tier 3 (international) system for oiled wildlife response. The industry-funded project brought together 11 of the world's leading oiled wildlife and response organisations, including SANCCOB, which represents the only response organisation of its kind on the African continent. This is a niche area, and oiled wildlife preparedness is a highly specialised field that requires expertise and equipment for it to be effectively implemented. There is a need to offer industry this service.

Despite not being able to meet in person, the group continued monthly virtual meetings to maintain momentum and continue to make progress. Readiness is tested regularly by SMS and email notifications are sent to all team members to check that everyone responds and how rapid that response is.

Effort developing the assessment team service

In 2021, Oil Spill Response Limited, through which GOWRS has a service level agreement, launched information on the wildlife service on their webpage, informing members of this new supplementary service. The GOWRS Project is now ready to grow from project status into an operational, professional, effective wildlife preparedness organisation. Having an oiled wildlife response plan in place is proactive and will minimise animal mortality.

EXTENDING SEABIRD CONSERVATION INTO NAMIBIA

Much progress has been made during this reporting period. Debmarine-Namdeb Foundation committed to funding oiled wildlife equipment to be stockpiled in Lüderitz and Oranjemund, strategically positioned for an effective response. The funding encompasses national oiled wildlife contingency planning for Namibia, as well as a contingent of 20 people selected to receive training at the SANCCOB facility in Cape Town over the next two years.

Debmarine-Namdeb and SANCCOB have joined forces with the Namibian Chamber of Environment, the Namibia Nature Foundation, Dr Jessica Kemper, and The Maryland Zoo in Baltimore, US, to form the Namibian Foundation for the Conservation of Birds (NAMCOB). This organisation has been established to address the threats facing Namibia's African penguin population and other threatened seabirds. The founder members will work together on important strategic decisions and fundraising.

During a site visit to Lüderitz last March, we looked for a property on which to develop a seabird rehabilitation facility and identified 'Burenkamp', owned by the Namdeb Diamond Corporation, as a likely site. The existing rehabilitation facility, which adjoins the Ministry of Fisheries and Marine Resources, is insufficient in terms of space, particularly in the event of an oil spill. The Debmarine-Namdeb Foundation has donated a portion of the Burenkamp property to NAMCOB for the purpose of seabird conservation. Funds are required to convert the existing buildings into a seabird rehabilitation facility and to start building operational capacity.

SANCCOB PREPAREDNESS

Following a series of standby incidents, including the major spill off the Mauritius coastline, SANCCOB focused its efforts on its preparedness. We refer to times where there are no oil spills as 'peace time', and this is when staff attend to facility maintenance, equipment checks and ensuring team members are ready for call-outs. SANCCOB's oiled wildlife responders are formally trained in the Incident Command System, a standardised method of responding to an incident that is scalable and used globally. Should SANCCOB responders be deployed internationally, they have received the necessary vaccinations against various diseases. Proof of these vaccinations is a prerequisite for many countries, in particular those in Africa, and enables the team to deploy within 24 hours. Also vital are 'Go-Bags', which are critical for emergency response organisations such as SANCCOB and must be on standby 24/7, 365 days a year. These bags are issued to each responder and contain personal protective equipment (PPE), a first-aid kit, COVID-19 compliant masks and sufficient gear that responders will need if deployed. The Go-Bags and vaccinations were sponsored by AZA SAFE.

TOTALENERGIES RETAINER

The oil and gas company TotalEnergies (TEPSA) has licences to conduct oil and gas exploration off the South African coast. In 2019 the company discovered gas (and some oil) in their blocks about 180 nautical miles off Mossel Bay. TEPSA is planning to drill up to four additional wells and SANCCOB will be on stand-by during Q3 or Q4 of the year, for which we will invoice a monthly fee.

SANCCOB STAFF TRAINED IN INCIDENT COMMAND SYSTEMS (ICS)

We live in a complex world in which responding to seabird emergencies such as oil spills often requires the cooperation of several agencies. The ICS provides guidance in organising assets to respond to an incident and the processes required to manage the response through its successive stages. Incident Command Systems have been tested for more than 30 years of emergency and non-emergency applications throughout all levels of government and within the private sector. All SANCCOB staff have completed ICS 100 & 200, which can be a prerequisite for global deployment.

ALGOA BAY

BUNKERING ENVIRONMENTAL WORKING GROUP

The Bunkering Environmental Working Group (BEWG) is a sub-group formed to identify environmental matters pertaining to ship-to-ship fuel bunkering in Algoa Bay. The group is chaired by the South African Maritime Safety Authority (SAMSA) and SANCCOB, with other environmental organisations from government and nonprofit entities serving as advisors.

Two oil spills have occurred as a direct result of this economically driven practice, placing endangered seabirds at high risk. Ship-to-ship bunkering is permitted in close proximity to St Croix Island, home to endangered African penguins. Three operators currently have licences to bunker fuel in the bay; however, a moratorium prevents any further licences being issued until certain criteria have been met.

The BEWG's role is to advocate strongly for the highest protection of seabirds along the Eastern Cape coastline. This is often challenging during a time when maritime shipping traffic is at its highest, and South Africa is trying to optimise the blue economy – which encourages better stewardship of the ocean – via the utilisation of marine resources.

During the reporting period, SANCCOB's Seabird Ranger stationed on Bird Island observed oil-affected Cape gannets on several occasions. Each observation was directly reported to SAMSA and the DFFE by both SANCCOB and SANParks. In addition to bunkering, it's important to remember that many vessels pass the coastline every day, each carrying the threat of oil pollution. SAMSA investigated each report and confirmed that no oil had been spilled in the Algoa Bay vicinity and the probable cause was due to illegal dumping. We remain concerned that South Africa does not have ocean surveillance capability, and this leaves our marine environment vulnerable to oil pollution.

Research into the impact of maritime traffic and its associated noise pollution around the southern tip of Africa

Research shows that the increase in maritime traffic and associated amplification of noise fields have an important bearing on marine animals that utilise the same environment. The impact of increased shipping traffic on seabirds is likely to become a major concern for those birds that breed and forage close to busy maritime areas. St Croix Island is situated adjacent to one of the busiest marine traffic regions in South Africa – which is not good news for its colony of endangered African penguins.

It is well documented that oil pollution has had a profound effect on marine species, particularly seabirds, over many decades. In addition, anthropogenic activities such as shipping are a significant cause of noise pollution. SANCCOB is working with researchers from BirdLife South Africa, the Nelson Mandela Bay University and others to analyse data revealed by the enormous increase in maritime traffic since 2012. The paper aims to analyse the type of vessels, the frequency of the transit, time spent in the bay and the noise generated, and the potential impact of these factors on seabirds.

Powership tender for Port of Ngqura, Gqeberha

Each year, SANCCOB reviews several industry proposals in an environmental capacity. One such proposal was that posed by Karpowership, a fleet of floating power plants, to generate power from floating gas ships. Intended to address the power crisis in South Africa, the tender and environmental processes received a high level of media attention, with the Minister of Environment revoking her original decision. SANCCOB raised concerns over increasing further greenhouse gas emissions, noise pollution and contributing further to the climate crisis. The approval of this powership deal would certainly have a negative affect on the marine environment and seabirds, including endangered African penguins.

OIL SPILLS

DURBAN HARBOUR OIL SPILL

In October, SANCCOB was informed that a crude oil spill had occurred in Durban harbour and we were requested to stand by for a possible response. Media reports stated that oil had spilled into the Umbilo River (which flows into Durban harbour), posing a threat to wildlife, including wading birds.

The cause of the spill was unclear: Transnet reported attempted fuel theft, while environmental groups claim that an old corrosive pipeline had leaked. The spill was contained and cleaned up, with a small number of oil-affected birds taken to uShaka Marine World for rehabilitation.

DIESEL POLLUTION IN THE PORT OF COEGA, EASTERN CAPE

In November 2020, SANCCOB was notified of a diesel spill in the Port of Coega, with both the quantity spilled and its source unknown. Fortunately, no seabirds were reported to be affected and SAMSA reported back that the oil had broken up naturally. SANParks conducted a field assessment around Bird and St Croix Islands by boat to look for affected birds. These incidents test the 'readiness' of each organisation involved in oil spill response, requiring each stakeholder to be prepared to respond at short notice.

Oiled Cape gannets

20-YEAR *MV TREASURE* COMMEMORATION

On 23 June, SANCCOB hosted a webinar to commemorate the 20th anniversary of the *MV Treasure* oil spill. We shared video clips of the personal experiences of some of the thousands of coordinators, animal professionals and volunteers who'd taken part, many of whom continued to contribute to the conservation sector and the plight of the endangered African penguin after the incident. The webinar was hosted by Dr Lauren Waller, Leiden Conservation Fellow at SANCCOB, who volunteered to wash oiled birds in 2000. We were joined online by members of government entities, conservation authorities, previous SANCCOB staff, international animal professionals and existing funding partners. It was a nostalgic experience, even for those who were not part of the operation all those years ago.

The 20-year commemoration was celebrated widely in the months that followed and SANCCOB was invited to represent its role then and now. SANCCOB's Nicky Stander joined forces with Oil Spills Response Limited (OSRL)'s Wildlife Preparedness and Response Manager Paul Kelway to write an article about the *MV Treasure* oil spill. In it, they highlighted what the rescue effort had taught us about wildlife response preparedness good practice, and how this has improved over the past 20 years. The article was posted on the OSRL website blog and LinkedIn site, as well as SANCCOB's webpage.

SANCCOB, International Bird Rescue (USA) and Aiuká (Brazil), presented to OSRL members and to their greater global staff, providing a case study of the historic response and lessons for preparedness and promoting good practice. SANCCOB has strong ties with both organisations not only through the Global Oiled Wildlife Response System network, but originally through the *MV Treasure* oil spill operation too.

Satellite facility set up in Salt River for oiled birds after the *MV Treasure* oil spill of 2000

Approximately 19,000 African penguin and seabirds were washed and rehabilitated

INTERESTING FACTS FROM THE FOLLOW-UP OF THE *MV TREASURE* SPILL

Compiled by Peter and Barbara Barham

Background

The *MV Treasure* sank in Table Bay on 23 June 2000. Around 19,000 penguins as well as many other seabirds were oiled. In addition, a further 19,000 or so clean birds were removed from Robben and Dassen Islands and translocated to Gqeberha to avoid them becoming oiled and totally overwhelming the rehabilitation operations. Some 3,500 or so larger chicks, which were left 'orphaned' as their parents were either oiled or had been translocated, were removed from Robben and Dassen islands and taken to a number of centres around the country to be raised by hand.

Several papers have been written about the fate of many of these birds. Recently, new data came to light when a bundle of documents containing records from the satellite rehabilitation station set up at Salt River came to light. These records provide a range of useful data on the identity of many of the birds, their blood work and release dates. Thanks to a grant from the Oiled Wildlife Care Network to SANCCOB Research Manager Dr Katta Ludynia, the data have now been digitised and work is in progress to carry out a full analysis. The numbers referred to in the paragraphs that follow include those recorded in the recently unearthed documents, so many will differ from those in previous publications. As the analysis of the recently discovered records is still ongoing, please treat these data as provisional.

Thousands of volunteers joined us to ensure the best outcome possible for the affected birds

Numbers of birds involved

The number of oiled birds that were released after rehabilitation at either Salt River or SANCCOB totals 17,934, all of which were fitted with steel flipper bands. The number of clean birds taken from Robben and Dassen Islands was around 19,500, of which 3,748 were fitted with flipper bands to allow their future progress to be tracked. Around 3,500 chicks were removed from Robben and Dassen islands, some 3,000 of which we believe were released, with 2,315 fitted with flipper bands.

Estimates of the total number of birds that were actually oiled vary, but records reveal that at least 19,000 were collected and taken to rehabilitation centres. It is likely that at least 1,000 more died at sea or on beaches before being found.

Long-term monitoring of the released birds

During the past 20 years, conservation and research staff at all colonies have carefully read the band numbers of birds as and when they see them – these re-encounters of the *MV Treasure* birds are collected together with resightings of other penguins in a single database. The data are used mainly to estimate survival rates and movements of the birds.

The Earthwatch project on Robben Island carries out routine monitoring of a set of some 150 nests each year, and also studies breeding success.

Some of these nests have in the past 20 years been occupied by birds from the *MV Treasure* spill, so we have good data on the breeding success of saved spill birds compared to birds not affected by the spill. CapeNature staff on Dassen Island have also performed nest monitoring over the past 20 years. However, as the majority of the available data on breeding success relates to birds on Robben Island, we will restrict our discussions of breeding success in this document to what happened to the *MV Treasure* birds that chose to return to breed on the latter island.

Places where *MV Treasure* birds were seen breeding after they were released

Most of the sightings of *MV Treasure* birds actually nesting have been on Robben and Dassen Islands. On Robben Island around 3,000 *MV Treasure* birds have been seen at a nest since 2001, with about 100 being hand-reared chicks and 2,800 being oiled birds. On Dassen Island some 2,000 have been seen nesting: 23 hand-reared chicks and just over 1,000 oiled birds.

Almost 50 birds have bred on Dyer Island, just under 20 at Boulders and eight at Stony Point. A further six were found nesting in the Eastern Cape on Bird Island (5) and St Croix Island (1). We suspect these were juvenile birds from the Eastern Cape that had managed to get caught up in the oil spill on their 'gap year', when young birds tend to travel west and north along the coast.

It is generally accepted that penguins, once they start breeding at a particular colony, are faithful to that colony and do not attempt to breed elsewhere. However, at least 40 oiled birds seem to have been rather confused after the spill and apparently tried to breed on both Dassen and Robben Islands (another tried breeding at both Robben and Boulders) at some time between 2001 and 2004. Most of these birds were not seen again, but at least 12 settled down to breed either at Robben or Dassen Islands in later years. In addition, there is some evidence that a few of the oiled *MV Treasure* birds may have chosen to move their breeding colony more than five years after the spill.

A14059 a.k.a. Peter the Penguin

Undoubtedly the best known of all the penguins involved in the *MV Treasure* spill was Peter (band number A14059).

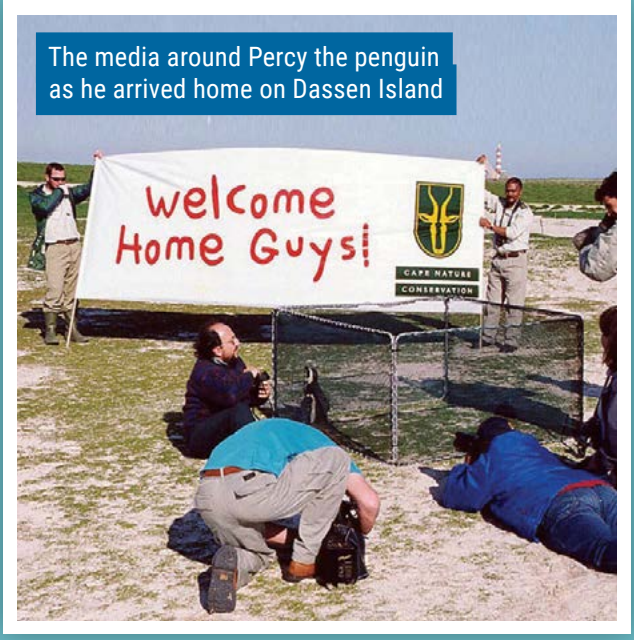
When it was decided early in the emergency that it was necessary to prevent large numbers of clean birds from entering the contaminated sea around Dassen Island, the problem emerged of where to re-home them. There were no facilities at which they could be kept and insufficient volunteers to keep feeding them. So a plan was made to collect all the clean birds still on the islands, place them in boxes and move them via sheep transporters some 700 kilometres east to Gqeberha. Here, they would be released back into the ocean and, hopefully, would swim back home. It was also hoped that the birds' estimated return journey of two to three weeks would allow sufficient time for the oil in Table Bay to be cleaned up.

As nobody really knew what would happen, scientists from the Department of Environment Affairs (DEA) decided to put satellite trackers on three of

Peter the penguin on Robben Island on 1 April 2004

the birds released in the Eastern Cape. However, as they had no such devices readily available they 'borrowed' some that had been intended for use on seals as part of another research project. These valuable devices were worth thousands of dollars so, unsurprisingly, the seal researchers were keen to have them back. The first release of translocated penguins on 2 July 2000 turned into a bit of a media circus. The fitting of the first of the transponders (by Leshia Upfold from DEA) was much photographed, and the journalists were invited to ask questions. Leshia, who had carefully brushed up on the technical details of the devices, was prepared for almost any question except, that is, the only question the journalists seemed interested in asking. 'What is the penguin's name?' Thinking quickly, Leshia named him Peter. Later, as the other penguins were fitted with satellite trackers and released they were given names in advance: Pamela and Percy.

Daily maps of the progress of all three penguins were published by the Avian Demography Unit at the University of Cape Town, and their journey was followed not only on the front pages of South African newspapers, but also on the papers' placards along the streets of Cape Town. International interest rapidly followed, with updates released by numerous news outlets around the world. In the UK, for example, the map of the penguins' progress appeared every day in the weather forecast after the lunchtime news on BBC television; in the USA, Peter was featured as *Time* magazine's personality of the week.



The media around Percy the penguin as he arrived home on Dassen Island

Satellite details reveal that Peter arrived back at Robben Island on 18 July. A few days later, Pamela and Percy landed at Dassen Island, where their satellite trackers were quickly recovered. However, Peter himself was not located on Robben Island despite the best efforts of staff from the island's museum, UCT and DEA, who searched thoroughly for a week or so using the location data from the satellite – until the batteries on his tracker failed. So only two of the precious devices were returned to the seal researchers. Peter hung on to his and it probably only fell off when he moulted later in the year.

Although he was ringed, no one actually saw Peter after he was released by Leshia on 2 July in Gqeberha. People working on Robben Island made considerable efforts to find the bird by reading the band numbers of every penguin they came across, as did people working at all the other colonies. But Peter was not seen again in 2000, 2001, 2002 or 2003, leading most people to believe he had died. Then, out of the blue, on 1 April 2004, he suddenly popped up on a rocky shoreline of Robben Island, where he simply hung out for a few hours before disappearing once again. He has not been seen since.

Peter seemed to have a proper sense of the dramatic – he chose to arrive back on Robben Island on Nelson Mandela's 72nd birthday, making sure he got his share of the headlines that day. Then he evaded discovery for years, only to reappear after four years, on April Fool's Day 2004. Indeed I well recall trying to persuade the three people who had spent so long trying to find him back in July 2000 – Mario Leshoro from Robben Island, Bruce Dyer from DEA and Phil Whittington from UCT – that we had actually found him that they all believed I was trying out an April Fool stunt. Luckily, we managed to get several more witnesses to look through our telescope and confirm that the bird was indeed Peter, and Sandra Bouwhuis (a Dutch student working on the island) actually paddled out into the sea to get a photograph or two.

SEABIRD RANGER PROJECT – ROBBEN ISLAND MUSEUM: CAPE CORMORANT RESPONSE

HEROIC RESCUE OF ENDANGERED CAPE CORMORANTS BY SANCCOB RANGER

During the routine vehicle patrol on Robben Island on 12 January 2021, Seabird Ranger Andile Mdluli, observed Kelp gulls predating on small Cape cormorant chicks. Besides being attacked by Kelp gulls (and later also by Sacred ibis), the chicks were exposed to extreme heat, as they didn't have their parents to protect them. In consultation with the Department of Forestry, Fisheries and the Environment, it was suggested that we wait until the evening to observe whether the parents returned to their nest sites. Sadly, no sign of the parents confirmed that the chicks had been abandoned and that intervention was necessary.

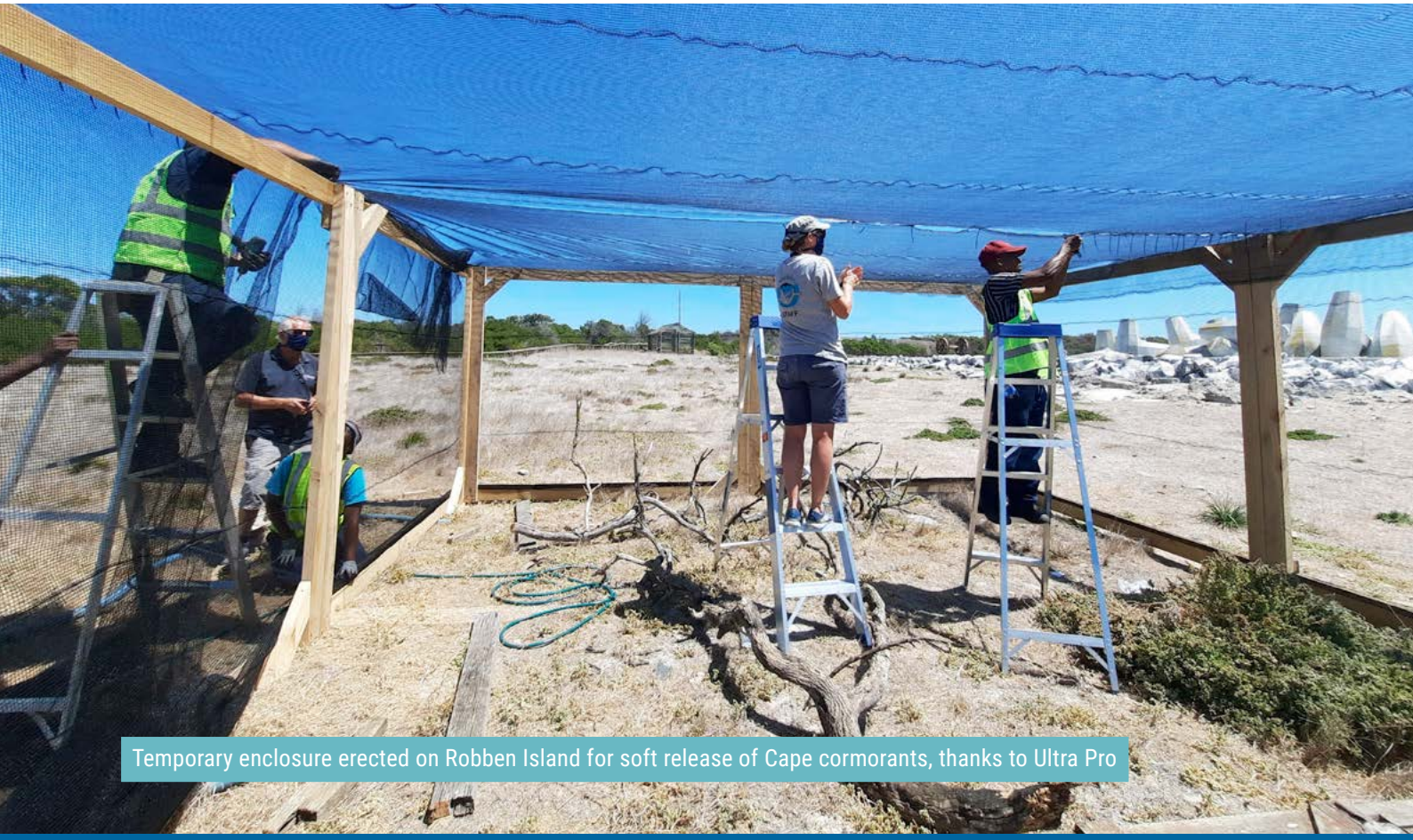
The following day, even more chicks were found abandoned and it was decided to start rescuing the young birds for hand-rearing at SANCCOB. With the help of Robben Island Museum's Environmental Unit, Two Oceans Aquarium and the National Sea Rescue Institute, 1865 Cape cormorant chicks were rescued over a three-day period. Many more chicks were lost to predation, heat stress and also hypothermia, as the temperature had dropped overnight. One week later, a similar situation unfolded on Jutten Island and a further 173 chicks were rescued with the help of SANParks and the Pelican Watch volunteers. In total, 2,038 Cape cormorants were rescued and sent to SANCCOB for hand-rearing and rehabilitation, making this the second-largest seabird rescue since the *MV Treasure* oil spill in 2000.

Cape cormorants are known to be a challenging species to care for in a rehabilitation facility due to their tendency to imprint on humans. Many chicks were in poor condition when they were rescued: the capture, transportation and initial stabilisation at SANCCOB unavoidably caused additional stress and many of the most compromised chicks did not survive the first week. 90% of all mortalities observed happened within the first eight days after rescue. During the following four months, the team hand-reared more than 1,000 birds.

Young Cape cormorants during rehabilitation at SANCCOB Cape Town

SANCCOB was assisted by Two Oceans Aquarium and the NSRI to transport the cormorant chicks from Robben Island

Lack of food is the suspected reason for the mass abandonment, with low levels of small pelagic fish stocks, primarily sardine, cited by environmental scientists. The mismatch between timing of breeding and hot weather conditions was also a factor. Rising temperatures due to climate change will further negatively affect fish availability, so these mass abandonments may become more frequent. Cape cormorants are listed as Endangered by the IUCN, and further reductions of their main prey, extreme weather events and other threats may well take this previously abundant species to the brink of extinction.



Temporary enclosure erected on Robben Island for soft release of Cape cormorants, thanks to Ultra Pro

SOFT RELEASE OF CAPE CORMORANTS ON ROBBEN ISLAND

Cape cormorant chicks require prolonged parental care, even after they have fledged the nest. During this time, parents provide supplementary fish to their young to increase their chances of survival until they have improved their hunting skills. A temporary enclosure was built on Robben Island for the purpose on conducting soft releases. The structure was built next to the long arm at Murray's Bay Harbour to allow birds to acclimatise to the new environment before being released for integration into the wild colony. An enormous thank you to Gerhard Hootsen and the Ultra Pro construction team, who donated the structure and labour at very short notice. The first 89 hand-reared Cape cormorant chicks were sent to Robben Island to start the soft release process on 20 February 2021.

SANCCOB's Penguin and Seabird Ranger on Robben Island has been an invaluable asset. It's a credit to his knowledge of the island's seabirds and his swift actions that the intervention could be implemented. In addition, SANCCOB and Robben Island Museum's partnership in conserving seabirds has been fortified during these unusual circumstances. Much has been learned during this rescue and SANCCOB is committed to improve its response plans and work together with managing authorities to be able to successfully respond to similar events in the future, as well as to improve the protection of seabird species in the wild.

By 31 March 2021, 459 cormorants had been released at Robben Island.

Ringed Cape cormorant resighted at Sunset Beach

GOVERNMENT LIAISON & WORKING GROUPS

SANCCOB places high value on supporting our government partners as we work together to achieve our goals of effective seabird conservation. We engage at a local, provincial and national government level in order to further our objectives.

NATIONAL SEABIRD TECHNICAL TEAM

The Seabird Technical Team is chaired by the Department of Forest, Fisheries and the Environment (DFFE)'s Oceans and Coasts unit, and deals with scientific matters related to South African seabirds. Issues that have been discussed over the course of the year include the seabird census of 2020 and how the estimates will be dealt with due to gaps enforced by COVID-19 restrictions, island closures, mortality trends in two endangered seabirds in Algoa Bay, transfer of Passive Integrated Transponders (PITs) data to the DFFE's Marine Information Management System (MIMS) and seabird bycatch thresholds. At the May 2020 meeting, Dr Richard Sherley took the group through his results on the updated analyses of the island closure. The evidence revealed that the closure had a positive impact on penguins. It was decided that this information would be taken up by the DFFE's Top Predator Working Group and the Small Pelagic Scientific Working Group (SWG-PEL), both of which advise the Minister of the DFFE. Unfortunately, the results have been disputed by the Fisheries Management branch, scientists employed to advise Fisheries Management, and scientists employed by the fishing industry. So a clear way forward is still not available on this issue. Further details are to follow.

SMALL PELAGIC SCIENTIFIC WORKING GROUP (SWG-PEL)

During the year, we've written a number of documents to the scientific Working Group in which we raised our concerns about the sardine stock status and food availability for top predators such as the African penguin. Topics we've covered in the documents include:

1. Our concerns about the volume of Total Allowable Catch (TACs) awarded, given the status of the stock, and urged a more precautionary approach;
2. Our recommendations for island closures around African penguin colonies;
3. Our concerns about proposals to increase sardine TACs: '*We are concerned that proposals to increase the TAC for sardine based on recent recruitment and biomass estimates base these decisions on estimates that have a high degree of uncertainty. We are concerned that any decision to increase sardine TACs (developed using) the datasets available may compromise the ability of this stock to rebuild to levels that have a significant influence on the longer-term sustainability of this stock. The long-term sustainability of the sardine population at relatively high biomass levels is critical for marine top predators such as African Penguins, whose survival and breeding success have been shown to be significantly affected by these biomass levels* (FISHERIES/2020/AUG/SWG-PEL/80)';
4. The reasons to adopt a more precautionary approach; and
5. The urgency of closing St Croix in light of recent population declines.

Since South Africa is not implementing an Ecosystem Approach to fisheries, we are particularly concerned about broader ecosystem situations, such as the rapid decrease in top predator numbers since the turn of the century. While the results of analyses on impact of island closures, carried out under the leadership of seabird scientist Dr Richard Sherley and to which SANCCOB contributed, showed benefits to penguins, these findings have been disputed by fishery scientists. At an international stock assessment panel meeting in December 2020, it was stated that there was merit in both sets of analyses and that, should a decision be required, there was enough data to do so. Sadly, a decision on island closures was not made and the experiment continued for a further year. This additional year saw two of the islands (St Croix and Dassen Islands) having seasonal closures for the first time, thereby effectively ending the experiment. The seabird observers requested that this decision be revisited and also requested that the rationale for these decisions be provided to the Working Group in writing. Unfortunately, the decision was not revisited, and we have grave concerns about the African penguin population at St Croix.

SWG-PEL Working Group Documents submitted this year:

- Christina Hagen, Lynne Shannon, Alistair McInnes, Craig Smith, Monica Stassen and **Lauren Waller**. Resource management considerations of the anchovy stock under exceptional circumstances. FISHERIES/2020/JUN/SWG-PEL/43

- Alistair McInnes, Christina Hagen, Craig Smith, Monica Stassen, **Lauren Waller**, Lynne Shannon & Tegan Carpenter-Kling. Comments on the influence of different levels of observer coverage (landings and vessel-based) on estimates of sardine bycatch in 2020 and implications for the management of the sardine fishery and setting additional sardine TABs in the anchovy fishery. FISHERIES/2020/JUL/SWG-PEL/64

- McInnes AM, **Waller L**, Shannon L, Hagen C, Carpenter-Kling T & Stassen M. Concerns about increasing TACs for sardine under exceptional circumstances. FISHERIES/2020/AUG/SWG-PEL/80

- Richard B Sherley, Christina Hagen, **Katrin Ludynia**, Alistair M McInnes, Lynne Shannon, Monica Staasen, **Lauren Waller**. Some observations on the relative impacts of different drivers on change in the African Penguin population growth rate. FISHERIES/2020/SEP/SWG-PEL/92

- Azwianewi Makhado, Alistair McInnes, Christina Hagen, Richard Sherley, **Lauren Waller**, Lorien Pichegru, Lynne Shannon, Kevin Shaw, Alexis Olds, **Katrin Ludynia**, Astrid Jarre, Rob Crawford, Peter Barham, Makhudu Masotla, Tegan Carpenter-Kling & Monica Stassen. 2020. Recommendations for island closures around African Penguin colonies. FISHERIES/2020/OCT/SWG-PEL/105REV

- AB Makhado, AM McInnes, C Hagen, **K Ludynia**, M Masotla, L Pichegru, LJ Shannon, RB Sherley and **LJ Waller** and RJM Crawford. Motivation for urgent need to implement closures to purse-seine fishing around South Africa's six largest African Penguin colonies. FISHERIES/2020/DEC/SWG-PEL/126

- Shannon L, **Waller LJ**, Crawford RJM, Hagen C, Makhado A, McInnes A, Sherley RB, Stassen M. Comments on the Precautionary Principle as it relates to the South African Small Pelagic Fishery and the African Penguin. FISHERIES/2020/DEC/SWG-PEL/128

- AB Makhado, C Hagen, L Pichegru, LJ Shannon, RB Sherley, **LJ Waller**, T Carpenter-Kling, **K Ludynia** and AM McInnes. The seasonal significance of at-sea habitat for African Penguins around St Croix Island and the importance of full-year fishery closures. FISHERIES/2021/JAN/SWG-PEL/03

- **Lauren J Waller**, Christina Hagen, Azwianewi Makhado, Alistair McInnes, Lynne Shannon, Richard B Sherley, Monica Stassen. Comment on "Interim Recommendations of The Small Pelagic Scientific Working Group For The Sustainable Management Of Small Pelagic Resources For The Season 2021. FISHERIES/2020/DEC/SWG-PEL/137

AFRICAN PENGUIN BIODIVERSITY MANAGEMENT PLAN (AP-BMP)

SANCCOB has continued to support the DFFE in the compilation of the second version of the African Penguin Biodiversity Management Plan. In August 2020, SANCCOB submitted its comments in response to the public consultation process. The gazetting of this BMP has subsequently been delayed, largely as a result of some stakeholders being of the view that the BMP puts fishing as the main reason for the decline in the African penguin population, and that the AP-BMP second version is biased in this regard. This is an incorrect interpretation of the BMP, since reduced food availability is as a result of more than fisheries alone, although this industry certainly does contribute to the problem. Additionally, much detail is provided on the various threats that face African penguins and the mitigation measures required to address them. Given the crisis in which the penguin finds itself, it is hoped that this BMP will be gazetted in the upcoming year.

SANCCOB AND IUCN

SANCCOB is a proud member of the International Union for Conservation of Nature (IUCN) and is actively engaged in a number of IUCN initiatives. Members of SANCCOB's management team form part of the IUCN Penguin Specialist Group (PSG). This year, a member survey was completed, with the Steering Committee engaging the membership on various aspects relating to the specialist group, including demographics, region of work, affiliation, penguin species involved, research areas, conservation actions involved, and thoughts on the strategic role and primary objectives of the PSG.

SANCCOB continues to be a member of the IUCN South African National Committee. This year the committee engaged with national government and the Minister of Forestry, Fisheries and the Environment Barbara Creecy to see how the NGO sector could support the government during the COVID-19 crisis. Simultaneously, the link between our health and that of the economy was emphasised, as was the importance of the Green Economy as we 'build back better'. A (virtual) meeting was held with Minister Creecy and the IUCN South African National membership on 15 May. It was agreed to create four NGO-Government dialogue groups whose aim would be to develop solutions and activities that the Minister is able to take forward inter-ministerially as a member of Parliament/Cabinet and the National Coronavirus Command Council.

Topics discussed by these dialogue groups are:

1. Financing for conservation (recognising that revenue streams have gone);
2. The role of nature-based tourism in economic recovery (recognising that our protected areas are under huge threat without tourism revenues);
3. Linking biodiversity and climate change practitioners in the recovery (since Government recognises that this crisis is an opportunity to re-think issues);
4. Mapping of national green infrastructure efforts (so we can better understand of who is doing what and where, and where the gaps are, because green infrastructure projects enhance the environment and create employment).

The Minister, in closing, summarised her most important messages to the conservation NGO sector, saying she needs us as a sector to survive to fight another day; that to do so, the rest of the subcontinent must not be forgotten; and that we all, collectively, should think about innovative and creative ways in which to fund the conservation sector through this time. (Taken from the minutes of the meeting.)

SANCCOB contributed to dialogue groups 1, 2 and 3. A follow-up meeting was held with Minister Creecy to discuss the outcomes of these groups on 30 July 2020.

Penguins being fed before being released at the new De Hoop colony

DE HOOP NEW COLONY

SANCCOB was approached by BirdLife South Africa to partner in its exciting initiative to encourage African penguins to return to their previous breeding site at De Hoop Nature Reserve. As members of their project Steering Committee, we are able to provide insights into the planning and implementation of actions, with the aim of releasing penguins at the site in mid-2021. Actions this year have focused on ensuring the fence is complete and sufficiently sturdy to withstand extreme weather and storm surges, and that all areas where animals have been seen to get through are blocked. Additional matters discussed have included increasing fence height and voltage monitoring; maintenance of the footpath and road; remote monitoring; a leopard survey; seals; heritage application; translocation; research into parasites; the composition of the committee; and property access. BirdLife South Africa has installed a system of camera traps along the fence to monitor animal activity adjacent to and, on the odd occasion, through the fence.

LEWIS PUGH FOUNDATION

Endurance swimmer and ocean advocate Lewis Pugh and his Lewis Pugh Foundation partnered with SANCCOB to raise awareness of the critical state facing African penguins. The project included posts on the Lewis Pugh social media platforms, with Lewis joining SANCCOB for African penguin and Cape gannet releases, interviews on Facebook, and influencer events. Lewis Pugh also wrote a special feature in the Daily Maverick, conducted interviews on Cape Talk, SAFM, Radio 702, Herald Live and Radio Expresso. Unfortunately, some of the in-person meetings and events we'd planned were postponed due to COVID-19. This aimed to raise public awareness of the state of African penguins in general as well as the issues of food availability and the island closure debate.

CONFERENCES

SANCCOB was invited to attend the Benguela Current Forage Fish Workshop from 2–4 November 2020. The workshop was hosted by the DFFE in collaboration with the Secretariat of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds (UNEP/AEWA Secretariat), the Benguela Current Convention (BCC) and BirdLife South Africa. With funding provided by the Government of the United Kingdom through its Department for Environment, Food and Rural Affairs (Defra), the workshop's aim was to develop and agree on a set of recommendations for the management of the Benguela Current's forage fish resources and their fisheries so as to ensure their long-term sustainable use as a critical food resource for seabirds. The output was presented in a report to the BCC along with the workshop's proceedings and recommendations. SANCCOB was invited to present, and Lauren Waller and Lynne Shannon, senior researcher at the Marine Research Institute of the University of Cape Town, complied with Drivers of the Benguela's seabird populations: insights from system models.

Some recommendations emanating from the workshop report were:

1. To *Develop* a toolbox for the flexible and spatially appropriate management of forage fish in relation to threatened endemic Benguela seabird species in an effort to increase the availability of sufficient forage fish in key foraging areas throughout the annual cycle. This would include consideration of applicable management and conservation options, such as:

    - Setting ecosystem thresholds (i.e. sizes of forage resource populations below which a range of precautionary measures related to fishing would be implemented at various spatial scales);
    - Closing of key foraging areas to fishing adjacent to major seabird colonies during the critical stages of their life cycle;
    - Implementing spatial management of fishing pressure in important foraging areas for non-breeding seabirds;

2. To *Facilitate and Prioritise* the recovery of seabird colonies to sufficient size to minimise known and potential Allee effects, thus reducing the probability of colony extinction.

All documents of the meeting and the full set of recommendations can be accessed at unep-aewa.org

EASTERN CAPE

EVENTS

Planned events decreased significantly during the reporting period as the various COVID-19 restrictions either limited numbers of people attending an event, or access to the beaches for walks, clean-ups or public penguin releases. A local auction event, the Goodnight Market, and a number of walks to the lighthouse were cancelled due to lockdown.

In June, we contacted our schools to encourage their learners to take part in the BOATS virtual coding event in collaboration with the Department of Computing Sciences at the Nelson Mandela University. BOATS is an educational application that engages with under-resourced learners regarding ocean conservation, through its coding platform. SANCCOB benefited from this event as we were selected as a beneficiary and received a portion of income from AWS InCommunities, who were co-funders of the project.

In October, SANCCOB was one of the many organisations in Gqeberha that hosted clean-up sites for International Coastal Clean-up Day. Approximately 80 people attended the event and many bags of rubbish were collected along the Cape Recife shoreline. October also saw the Annual Penguin Festival take place, but due to bad weather and very high sea swells, the public release of penguins to the Islands was unfortunately cancelled.

In March, we hosted our first Market Day event with 290 visitors on the day. Donated items were sold at the market and we successfully raised in excess of R28,000.

Learners show off their homemade binoculars

Dr Annie Mears, volunteer vet assisting with rehabilitation

EDUCATION

Due to COVID-19, we were not able to host school groups at the Centre; however, in January 2021 we reignited the education portfolio and attracted school groups to visit SANCCOB for engaging and interactive environmental education lessons. The Little Blues (age 7–11) and Penguin Protectors Clubs (12–17) have also started up again. These groups meet once a month and take part in many activities including beach clean-ups, hanging towels, arts, crafts and fun games.

Yonela Mahamba, the National Research Foundation (NRF) Education Intern left SANCCOB for a permanent position at the South African Environment Observation Network (SAEON) in October. In March, this position was filled by Zikhona Magopeni, who was placed at SANCCOB by the Wildlife and Environment Society of South Africa (WESSA).

VOLUNTEERS

Our volunteers and interns continue to play a crucial role in the functioning of our Centre. Unfortunately, during the hard lockdown, all our international volunteers were sent home and we had local volunteers and interns assist in rehabilitation, education and front-of-house duties. Drs Annie Mears, Shona Scott and Imke Kumm offered their veterinary assistance to us on a number of occasions during the year. Three FirstRand interns started the FirstJob internship programme in October and WESSA also allocated a front-of-house intern for the duration of the year. These dedicated internships contributed to the functioning of the Centre by increasing capacity in a number of important areas.

FirstRand rehabilitation intern, Octavia Johnson, with a juvenile Cape gannet

NATIONAL LOTTERIES COMMISSION
LOTTO FUNDED

CAPITAL PROJECT

REHABILITATION POOL AND ASSOCIATED PENS AT SANCCOB GQEBERHA

Developments on the new rehabilitation pool and associated pens slowed during the lockdown, but from the beginning of 2021 moved towards completion. The stainless steel gates, balustrades, sump and fencing were installed and the contract to complete the shade cloth covering was finalised. A donor board was installed to acknowledge the companies and individuals who had contributed financially and in kind. The rehabilitation team is looking forward to being able to make use of the new state-of-the-art facility, especially as it will streamline the rehabilitation process of birds at SANCCOB and contribute to their recovery process.

BIRD ISLAND MONITORING

Monitoring of the important African penguin and Cape gannet colony on Bird Island commenced throughout the COVID-19 national lockdown period. Different data has been collected during this time and includes vital aspects of the breeding season of the endangered African penguin and Cape gannet species, with a major focus on behavioural data collection of the African penguins during breeding season to help inform the managing authority, SANParks.

The primary focus of this monitoring project is to identify injured or distressed birds that need to be taken into care and sent for rehabilitation to SANCCOB, in the hope of a better chance of survival and recovery from any injuries or harsh weather events that may put the seabirds' lives in jeopardy. Continuous patrols in the colonies, during both breeding and moulting seasons, ensured that a number of birds were located either with physical wounds or lacking physical condition to sustain themselves for a long period of time, along with birds that were entangled, and abandoned chicks that were unable to fend for themselves. Chicks were monitored closely, especially during extreme weather conditions (cold and wet weather spells) to ensure a greater survival rate. The chicks were located before and during a severe storm, placed in the safety of the stabilisation unit on the Island and returned to marked nests that were deemed suitable after the storm had subsided. The chicks were monitored for at least two days afterwards to ensure that adults were still attending to and feeding them. When these birds were deemed to be in poor condition or otherwise abandoned, they were rehydrated to the best possible degree and

sent to SANCCOB Gqeberha as soon as possible for rehabilitation. The same applied to any injured birds that were located and rescued on the Island.

Between March 2020 and February 2021, there were 17 cases of African penguin adults and juveniles rescued from the colony that needed stabilising and were sent to SANCCOB; African penguins in arrested moult were also tended to in this manner. The cases ranged from severe injuries such as broken legs and seal bites to birds that were found to be weak or completely emaciated during the moulting season. Most of the chicks sent to SANCCOB Gqeberha were cases of abandonment during or after a bad weather event and this was of concern, as was emaciation and the lack of physical characteristics present in healthy chicks. A total of 136 chicks (including blues) were sent to the Eastern Cape facility during this period, where they were tested and treated for diseases according to other deficiency or health parameter concerns raised. Two cases of oiled African penguins occurred on the Island.

Monitoring procedures for Cape gannets on Bird Island were limited to keep disturbance in the tightly packed colony to a minimum, and patrols around the gannetry were still completed at least five days a week on days without rain. Any injured or distressed birds located on the fringes of the colony were captured, stabilised and admitted for rehabilitation. Over this period, four Cape gannet adults were sent to SANCCOB for rehabilitation, along with birds that needed to be disentangled from ropes. Unfortunately, 33 cases of oil on gannets were recorded. Other species of bird cases include a White-chinned petrel and a Red-footed booby that were identified to be very weak and these birds were taken into care on the Island. The White-chinned petrel did not survive; the Red-footed booby was sent to SANCCOB.

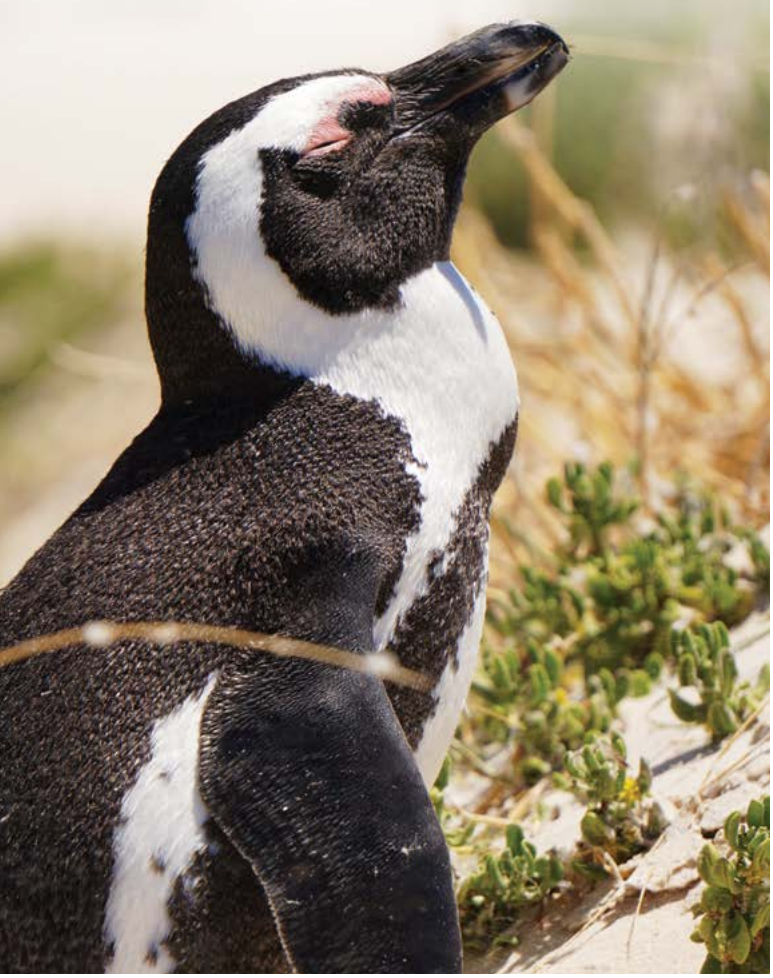
Other weekly information that was gathered on the Island included: artificial (100 in total) and natural (80 in total) nest monitoring; the number of predated eggs taken by gulls during the breeding season; African penguin moult counts during the moulting season; bird mortality statistics; and identification of tagged or ringed individual birds that were located in the colonies. To establish breeding success of the African penguins, data recorded for nests included: nest occupancy, number of adults, number of eggs and chicks; and life stages. The number of broken and predated eggs that were located around the Island perimeter where gulls tended to sit and feed on them were also recorded to try to quantify the amount of active predation at the native colonies. On a less frequent basis, hand-held transponder work and complete counts of African penguin nests were done and any rare or vagrant bird sightings were recorded. The rare and vagrant species detected on the Island included a Red-footed booby, Pacific golden plovers, a Sooty tern, a Red-tailed tropicbird and Australasian gannets.

Monitoring of the largest breeding Roseate tern colonies in South Africa, which migrated to the Island during winter months, also occurred between June and August 2020 with at least 62 individual ringed bird sightings being recorded within this tern colony. An additional 20 individual resightings occurred as the breeding season commenced.

African penguin release on Bird Island

African Penguin in an artificial nest

EDUCATION



GUIDED TOURS

Although the COVID-19 pandemic impacted heavily on our visitor numbers, we still managed to see 472 visitors during this reporting period.

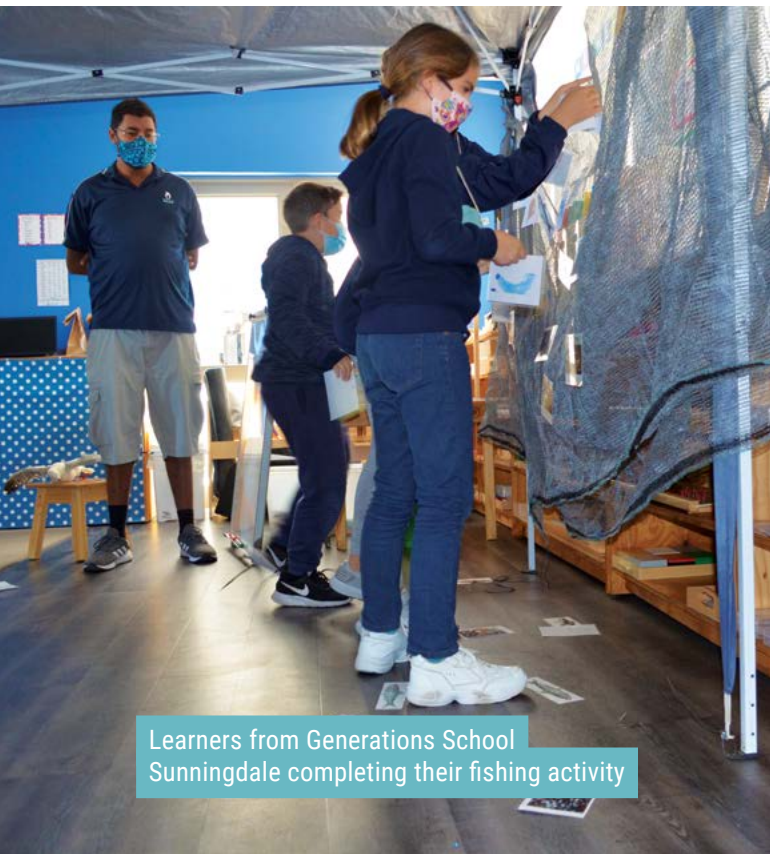
SCHOOL GROUPS

The Education team was able to host lessons with 283 learners from September to December 2020. We adapted the lessons to ensure that all COVID-19 protocols were adhered to and provided exciting lessons and tours without close contact, which were well received by all. Several participating schools also raised funds in order to adopt a penguin as a class project, which was a lovely initiative.

ONLINE LESSONS

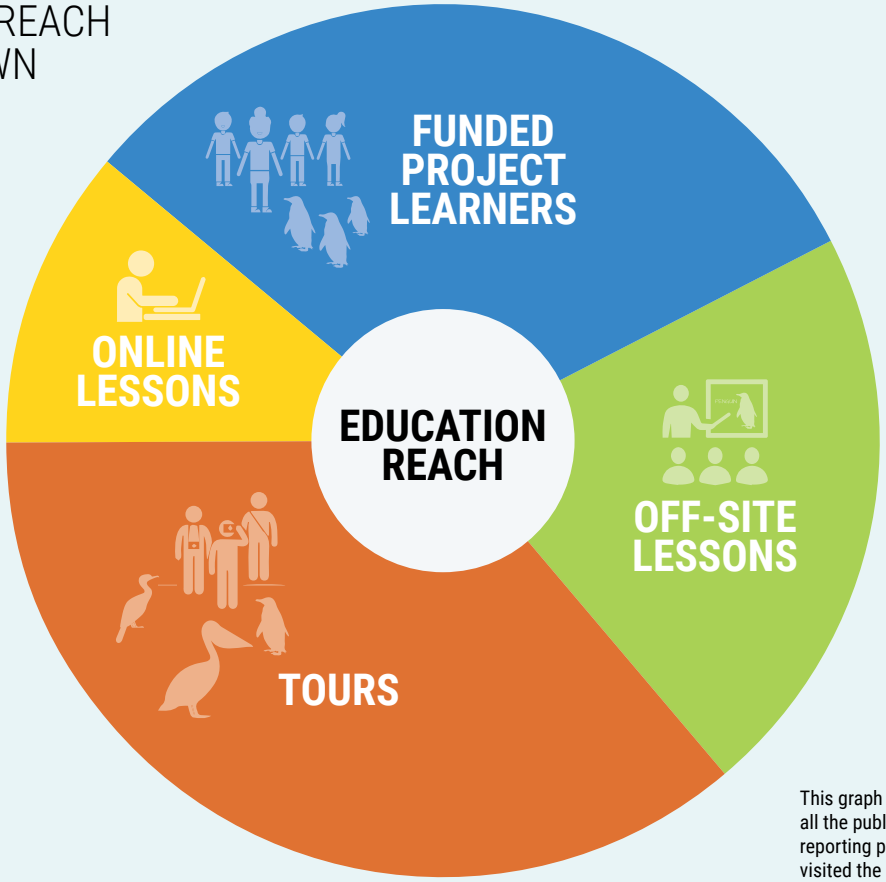
While SANCCOB Cape Town has always made an effort to utilise online platforms for education purposes, with most schools going online in 2020 to teach learners, our team focused on presentations to engage with learners. Our online lessons were adapted to the three education phases (foundation, intermediate and senior phases) and each lesson included a virtual tour of the seabird hospital, a 25-minute lesson on seabird conservation, and an activity pack for the teachers.

We also had 158 learners from all over the world join our online lessons and learn about SANCCOB.

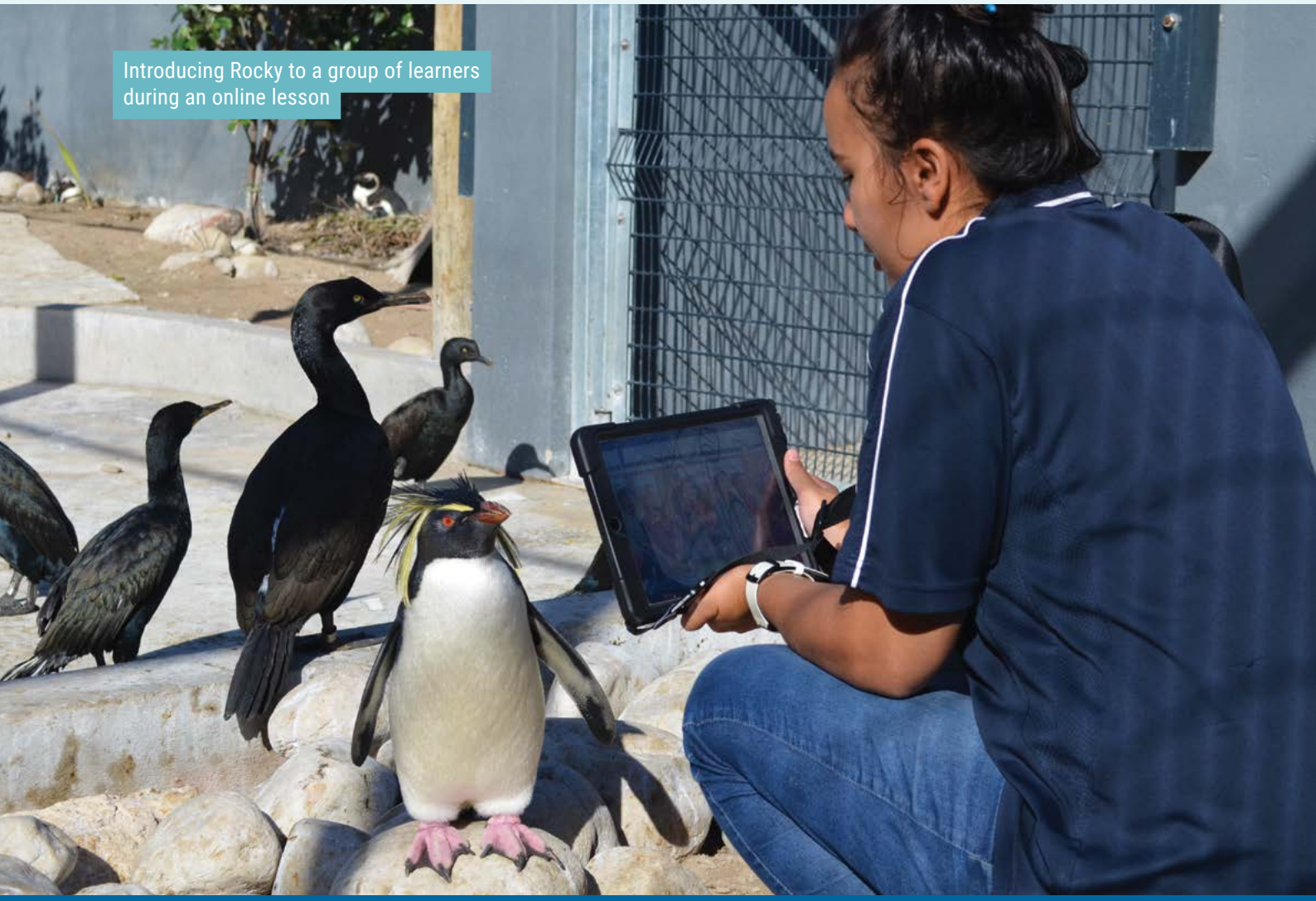


Learners from Generations School Sunningdale completing their fishing activity

EDUCATION REACH IN CAPE TOWN



This graph shows a breakdown of all the public interactions for this reporting period. In total, 1328 people visited the Western Cape centre.



Introducing Rocky to a group of learners during an online lesson

PROGRAMMES FOR LEARNERS WITH SPECIAL NEEDS

The second year of our three-year programme, created in collaboration with our generous sponsor, Rand Merchant Bank, enabled SANCCOB to create 415 resource packs, each including a stationery set, hand sanitiser, a fabric face mask and a toiletries. These packs, together with DVDs of the annual Penguin Festival and Penguin Palooza, were sent to the schools in order to showcase SANCCOB's vital role in rehabilitating African penguins and releasing them back into the wild.

During the reporting period the education team were able to:

- Provide off-site lessons to 542 learners
- Host 197 on-site tours of our seabird hospital between September and December 2020
- Train two new volunteer guides to host tours and assist with spreading SANCCOB's educational message
- Design a new activity booklet suitable for all ages

EDUCATION OUTREACH

In partnership with CapeNature, SANCCOB hosted four lessons with two schools in the Dassenberg Coastal Catchment area. This initiative was funded by the Table Mountain Fund and benefited 40 Grade 7 learners from Mamre Primary School and Chatsworth AME Primary School.

ANNUAL PENGUIN PALOOZA

This annual event is a celebration of the collaboration between SANCCOB and CapeNature, and highlights the importance of our joint conservation efforts at the Stony Point penguin colony.

The release of seven rehabilitated African penguins was filmed by Joshua Rubin, a talented and well-known videographer, on 17 November 2020. Joshua created an amazing video of the entire experience, including interviews with key speakers in attendance, such as Martin Albertus, Dr Stephen van der Spuy, Dr Lauren Waller, Lewis Pugh and Councillor Fanie Krige of the Overstrand Municipality. The video premiere was promoted and widely shared on SANCCOB and CapeNature's social media platforms on Saturday, 21 November.

ANNUAL PENGUIN FESTIVAL

Unfortunately, the Penguin Festival event for African Penguin Awareness Day could not take place due to COVID-19 restrictions on gatherings in South Africa; however, we did not let this deter us from celebrating this special day. We offered an exclusive filmed African penguin release experience in Simon's Town, where participating individuals received a tour of the Cape Town centre on the morning of the release in order to witness the pre-release process that birds undergo before being transported to the release site. Thereafter the staff, supporters and birds travelled to Seaforth Beach and enjoyed the company of acclaimed South African comedian Nik Rabinowitz as the master of ceremonies.

VOLUNTEERING & TRAINING

VOLUNTEERS

SANCCOB would not be able to achieve its objectives without the unwavering support of its volunteers and interns. The dedicated volunteers are an extension of the staff and form an integral part of the team. Not only do volunteers assist with the hands-on work with seabirds, they also assist in other functions such as education, research, marketing and administration.

Mid-2021 brought some hope with the roll-out of COVID-19 vaccinations; however, even though travel restrictions eased somewhat at the beginning of 2021, the international volunteer numbers visiting SANCCOB did not improve as much as we had hoped. In total, Cape Town's international volunteer programme hosted nine international volunteers for six to ten weeks from five different countries.

To sufficiently capacitate the Cape Town centre during this time, extra effort was made to recruit local volunteers and we received tremendous support from members of the public. We are thankful to each and every person who donated their time and effort to SANCCOB during the year in review. With the support from our local volunteers, we managed to continue the high standard of animal care at both of our seabird rehabilitation centres.

INTERNSHIPS

Interns join SANCCOB through both internal (independent) internship programmes that are managed directly by SANCCOB, as well as through external internship programmes, where SANCCOB hosts interns facilitated by external stakeholders. The majority of our interns during the 2020/2021 period were South Africans, mainly due to travel restrictions in other countries and the closure of the South African border. We did, however, host international interns in the last quarter of 2020, and in 2021 we saw an increase in international enquiries and applications.

During the past year, we appointed 36 new interns at SANCCOB. The majority were South Africans, with five interns from three other countries.

In 2020, SANCCOB partnered with FirstRand, who offered to fund three interns for a one-year period at the SANCCOB Cape Town facility. SANCCOB was delighted with this partnership and we are hopeful to continue hosting FirstRand interns in the future.

SANCCOB partnered with WESSA and hosted two beach stewards for a one-year paid internship. In December 2020, SANCCOB hosted nine Research Assistants with funding provided by the South African National Biodiversity Institute (SANBI), for which funding was provided by the government as a COVID-19 recovery programme. Of the nine selected candidates, seven were based at our Cape Town facility. Of these,

three were placed in our Seabird Rehabilitation department, one in our Education department and three in the Research department. The intern from our Education department was subsequently appointed as a permanent staff member and has joined the Resource Development department as a Data Administrator. One of the nine interns was placed at Stony Point to assist our Penguin Ranger and CapeNature, and the remaining intern was based at our Gqeberha facility.

We are extremely grateful to SANBI for providing the support and we hope to benefit from future programmes.

MENTOR WORKSHOP

With the increase in interns appointed at SANCCOB, a mentoring workshop was held internally with all of the SANCCOB mentors. This event was hosted by our Cape Town Volunteer Coordinator at the time, Angela Wilmot. Mentors in the Rehabilitation and Education departments participated in a 3-hour training session, where both theory and practical mentorship training was provided.

VET EXPERIENCE

The SANCCOB Vet Experience programme exposes participants to a career in veterinary medicine. The experience is offered for one or two weeks and participants are supervised and instructed by a qualified clinical veterinarian. The participants have access to veterinary textbooks, research papers and veterinary Standard Operating Procedures for self-study. In 2020, SANCCOB received eight Vet Experience participants: three were inte national participants and five were local participants. Due to the COVID-19 pandemic, we received 10 cancellations. One of our international participants, Frances Bell (affectionately known as Fran), who originally signed up for 11 weeks in 2019, stayed at SANCCOB for more than a year and she is sorely missed by all who worked with her at SANCCOB.

No fewer than 50 volunteers were on site each day to assist with operational tasks after the admission of the Cape cormorant chicks. On the right is Lindsey MacDonald, long-term member, volunteer and First Responder

BBC Wildlife Presenter Michaela Strachan volunteered during the cormorant crisis and assisted with publicising SANCCOB's needs

CAPE CORMORANT CRISIS

With the mass rescue and hand-rearing of 2,038 Cape cormorant chicks, we appealed to local members of the public for volunteers and were overwhelmed by the incredible response. During the cormorant crisis, SANCCOB received close to 600 volunteers on site over a four month period. A huge thank you to our First Responders who assisted us day and night; the drivers who spent many hours on the road collecting birds, fish, equipment and anything we needed transported; and the ladies and gentlemen who assisted with the endless loads of laundry.

VOLUNTEER APPRECIATION

Showing our appreciation to our volunteers is very important to us at SANCCOB and we did this in various ways during the reporting period. We arranged fun activities throughout the year, such as penguin paintings, a wall of gratitude, ice-breakers, lunchtime meal swaps, yoga sessions, bird releases on the vlei, beach clean-ups and many more. One special activity was a penguin painting exercise, where each volunteer and intern were given a wooden penguin figurine to paint. Each person had to name their penguin and give their penguin a story.

To celebrate World Penguin Day, the team did a squat exercise challenge and three of the volunteers wore penguin outfits to add to the fun of the routine. SANCCOB also received a visit from Lewis Pugh (United Nations Patron of the Ocean) who arranged a penguin-themed cake to thank the staff and volunteers and he shared an inspirational message of appreciation with everyone. Some other memorable events at the Cape Town centre included handing out certificates of appreciation and online shopping vouchers to integral team members, as well as a fun Christmas Day celebration.

STATEMENT OF COMPREHENSIVE INCOME

The financials reported on cover a 12-month period from 1 April 2020 to 31 March 2021. Our conservation work is supported by a variety of local and international partners and so all our achievements made to bolster the wild population of seabirds in southern Africa are achievements of our funders too.

SANCCOB NPC (Registration number: 2001/026273/08)

ANNUAL FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 MARCH 2021

Figures in Rands	12 Months ended 31 March 2021	12 Months ended 31 March 2020
Revenue	14 930 843	15 071 533
Cost of sales	(191 090)	(505 627)
Gross profit	**14 739 753**	**14 565 906**
Other income	786 897	1 156 539
Operating expenses	(17 085 821)	(16 751 223)
Operating loss	**(1 559 171)**	**(1 028 778)**
Investment revenue	633 981	963 025
Fair value adjustments	925 232	(645 204)
Finance costs	(42)	(362)
Loss for the year	**-**	**(711 319)**
Other comprehensive income	-	-
Total comprehensive loss for the year	**-**	**(711 319)**

Conclusion:
The above is an extract of the Statement of Comprehensive Income reflected on page 9 of the audited Annual Financial Statements. The Annual Financial Statements are available on request.

CURRENT STAFF & BOARD OF DIRECTORS

AIDAN BELLINGAN
Bird Rehabilitator

ALBERT SNYMAN
Researcher

ALEX ROGERS
Educator

ANDILE MDLULI
Robben Island Seabird Ranger

BRITTANY LOWE
Volunteer & Intern Coordinator

CURTLY AMBROSE
Bird Rehabilitator

CYRSTIN WINSTANLEY
Receptionist

DR DAVID ROBERTS
Clinical Veterinarian

DEBORAH LAYNE
Bird Rehabilitator EC

DELENE GOCH
Accountant

EDUARD DROST
Seabird Monitor EC

GAVIN PETERSEN
Assistant Marine Ranger – Stony Point

DR KATTA LUDYNIA
Research Manager

KYLE MAURER
Bird Rehabilitator

DR LAUREN WALLER
Leiden Conservation Fellow

MARGOT COLLETT
Centre Manager EC

MEGAN MCCARTHY
Data Administrator

MELISSA CADMAN
Chick Rearing Unit Supervisor

MELISSA-ANN KNOTT
Head of Operations

MICHELLE BRACKENRIDGE
Administrator EC

NATALIE MASKELL
Chief Executive Officer

NICOLA STANDER
Head of Conservation

NOLEEN CHITEWERE
Housekeeper

NOLIEN JANSE VAN VUUREN
Bird Rehabilitator EC

PETER VAN DER LINDE
Bird Rehabilitator

ROMY KLUSENER
Rehabilitation Manager

RONNIS DANIELS
Resource Development Manager

RUSHAAN MARTHEZE
Procurement & Inventory Officer

SHARNAY WAGNER
Education Supervisor WC

SIBONGILE GEORGE
Rehabilitation Assistant

TARYN JOSHUA
Education Supervisor EC

TONIA WYNGAARD
Resource Developer: Individuals

XOLA TSEWU
Marketing & Fundraising Coordinator EC

ZAMOKUHLE LAZOLA
Rehabilitation Assistant EC

BOARD OF DIRECTORS

DR SAMANTHA PETERSEN
Chairperson

NATALIE MASKELL
Chief Executive Officer

INGE CILLIERS
Treasurer

DR AZWIANEWI MAKHADO
Board Director

DR ANTON WOLFAARDT
Board Director

VERNON BOULLE
Board Director

In addition to staff listed, SANCCOB also funds the placement of four Penguin and Seabird Rangers in Simon's Town.

FUNDERS & SUPPORTERS

R5,000 – R9,999

- 10X Investments (Pty) Ltd.
- Andermann, N.
- Baber, J.
- Bandey, R.C.
- BirdLife Plettenberg Bay
- Cape Bird Club
- Catherwood, L.
- Digital Planet
- Goss, R.
- Kaneko, M.
- Kohler, G.
- Kellogg, K.
- Kunkel, C.
- Lamadé, H.
- Lincoln Park Zoo
- McOwen, B.
- Milwaukee County Zoo
- Misselbrook, P.
- Namibia Bird Club
- Peddie, A.
- Pixel Maniacs
- Sarangi, P.
- Sherry, R.
- Smith, C.
- Sun, Y.
- Tannam, C.
- The American Fund for Charities
- Towers, D.
- Two Oceans Aquarium Education Foundation
- Wiget, L.
- Zoological Society of Hertfordshire

R10,000 – R19,999

- Aquazoo - Löbbecke Museum
- Berlin Zoo
- CBC St John's
- Estate Late Slabbert
- Fort Wayne Children's Zoo
- Jacobs, J.
- La Palmyre Zoo
- Laskey Attorneys
- Lisbon Zoo (Jardim Zoológico e de Aclimação)
- Meldrum, S.A.
- Mills, N.J.
- Newall, A.
- Oberhösel, G.
- Pamela Barlow Charitable Trust
- Penguin Fund of Japan
- Phillips, V.
- Sea Life Paris
- Side Saddle Investments (Pty) Ltd.

R20,000 – R49,999

- Ackerman, W.
- Antwerp Zoo - Koninklijke Maatschappij voor Dierkunde
- Approach Guides
- Attfield, D.
- Bargain Auto South Africa CC
- Birdworld Conservation Fund
- Campkin, J.
- CapeNature
- Cincinnati Zoo and Botanical Garden
- Daikoku, Y.
- EG Wood Will Trust
- Fort Wayne Zoological Society
- Henry Vilas Zoo
- Honolulu Zoo
- Ingram, E.
- Kalitz, R.
- Katie Adamson Conservation Fund
- Little Rock Zoo
- Monterey Bay Aquarium
- Nausicaá Centre National de la Mer – Boulogne sur mer
- New York City AAZK Chapter
- Noakes Family Charitable Trust (BoE private clients)
- Robben Island Museum
- Ross, V.
- Saginaw Children's Zoo (Saginaw Valley Zoological Society Children's Zoo at Celebration Square)
- Sanlam Life Insurance Ltd.
- Schwarz Upliftment Trust (aka Harry and Annette Schwarz Foundation)
- Six Flags Discovery Kingdom
- South African Marine Fuels (Pty) Ltd.
- Spar Eastern Cape: A Division of the Spar Group Ltd.
- Stichting Cari (Cari Foundation)
- The Leers Charitable Trust
- The Relate Trust
- Tulsa Zoo
- Zoo Duisburg

R50,000 – R99,999

- Aachener Tierpark
- Astron Energy
- Adventure Aquarium
- Clairmont, C.
- Discovery Life
- Estate Late Adriaan Vermaak
- Jenner, D.
- Klopper, S.
- Leipzig Zoo
- Lemar, E.
- Lomas Wildlife Protection Trust
- Riverbanks Zoo and Garden (Satch Krantz Conservation Fund)
- Runhaar, S.L.
- Schneier, S.
- Seneca Park Zoo Society
- von Leesen, A. and K.
- W J Weise Charitable Trust
- Walker World Wildlife Fund, A. and R.
- Wrocław Zoo Foundation DODO
- Zoo Basel

R100,000 +

- Aachener Tierpark
- Abax Foundation
- ACTIF Foundation
- ARTIS Amsterdam Royal Zoo (known as Natura Artis Magistra)
- Barbara and Edwin Courtenay Charitable Trust
- Bristol Zoological Society
- CAF America Donors
- Christopher A. Holder Private Philanthropy
- City of Cape Town
- Columbus Zoo and Aquarium
- Dallas Zoo
- Estate Late IN Putter
- Estate Late Laureen Borngräber
- FNB Fiduciary Wealth and Investments
- Georgia Aquarium
- Hans Hoheisen Charitable Trust
- Igala Holdings (Pty) Ltd.
- International Fund for Animal Welfare
- Isdell, P.
- Le PAL NATURE Foundation (also known as Le Pal Zoo)
- Leiden Conservation Foundation
- Mapula Trust
- MariaMarina Foundation
- MySchool MyVillage MyPlanet
- Pick n Pay Retailers
- Ripley's Aquarium of the Smokies
- RS Nussbaum Foundation
- SeaWorld Busch Gardens
- Steinhart Aquarium at the California Academy of Sciences
- Stichting Wildlife
- The Maryland Zoo in Baltimore
- Toronto Zoo
- World Wildlife Fund International
- Zoo Basel

IN-KIND SUPPORTERS

- Aqua-Net
- Arbalest (Pty) Ltd.
- Atlantis Foods
- Awesome Tools
- AZA SAFE
- Baits 4 Africa
- California Academy of Sciences
- CFC Scaffolding
- Chris Baker and Associates
- CMB Consulting Engineers
- Community Chest
- Decor Pro
- Ecomed Medical (Pty) Ltd.
- First Technology (Pty) Ltd.
- Form-Scaff
- Generation Schools
- HellermannTyton
- Industroclean
- Kieser, J.
- JoJo
- Joubert Construction East Cape CC
- Kate Routledge
- Midea
- Ocean Basket Buying Division (Pty) Ltd.
- Oceanstar Products (Pty) Ltd.
- Peninsula Roofing
- PhambanoTechnology Development Centre NPC
- PPG Protective and Marine Coatings
- Protech Building Products
- PW Electrical CC
- Radshield
- Red Tree Nursery
- Savage, T.
- Sigma Switchboard Manufacturing CC
- Sika South Africa
- StonCor Africa
- Ultra Pro
- Voltex
- Winstanley, C.
- Woolworths (Pty) Ltd.

CAMPAIGN PARTNERS & SPONSORS

- African Creative
- Bare Kind
- Coastline Kitesurfing
- Ford Wildlife Foundation
- ProGreenism
- Spar Eastern Cape
- Spec-Savers South Africa
- Stellenbosch Vineyards (Pty) Ltd
- WaddleOn by Marts

IMAGE SOURCES

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	Cape Cormorant: Dr Jessica Kemper
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