

ORCA Times

ORCA FOUNDATION'S QUARTERLY NEWSLETTER



RESEARCH

WE WELCOME THE
CAPE FUR SEAL
BREEDING SEASON

CONSERVATION

VOLUNTEERS ASSIST
WITH ANNUAL ROCKS
TO ROBBERG EVENT

EDUCATION

STUDENTS
GRADUATE FROM
SIYAKULA CRECHE

DECEMBER 2018

Editor's Note

And just like that, a whole year has come to an end. And what a year it has been! We have seen the full annual cycle of Plettenberg Bay's marine life. We have seen our migratory whales come, and go; and, in this last quarter, the arrival of this year's Cape fur seal pups. During the year we have also learnt and grown so much. We thank our volunteers for their hard work during the year and we hope next year will be just as amazing!

Danielle Conry



Contributing Authors

Danielle Conry – Cetacean Research (top left)

Frikkie van der Vyver – Pinniped Research (top left)

Laura Bakker – Conservation and Education (bottom left)

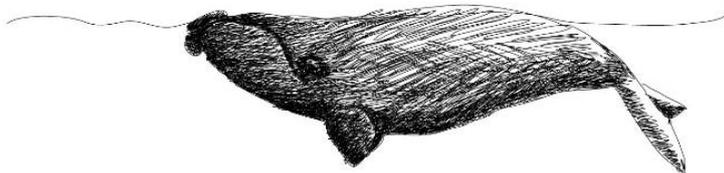


Photo credit

Cover: Frikkie van der Vyver

This page: Danielle Conry

Seal stranding response and necropsy

October remained a quiet period in terms of seal strandings, except for a handful of reports in areas outside Plettenberg Bay. However, November saw the start of the annual Cape fur seal breeding season on Robberg Peninsula, and with this came the usual increase in seal carcasses washed ashore on nearby Robberg beaches, especially new born pups that had drowned after getting knocked off the rocks by big swells during easterly storms. Our biologist continued to monitor this natural mortality and collect samples over the breeding season as part of long-term research of the Port Elizabeth Museum.



Hundreds of dead Cape fur seal pups like this one washed ashore on Robberg beach between November and December. This is part of a natural mortality event thought to be associated with easterly storms during the annual breeding season on Robberg peninsula. Pinniped Biologist Frikkie van der Vyver has been monitoring these events closely over the past two seasons as part of long-term research of the Port Elizabeth Museum.

Photo credit: Frikkie van der Vyver)

We are very grateful for the Bitou Municipality in their support and assistance with carcass disposal over the busy festive season. Although members of the public were quite concerned about the large number of carcasses washed ashore on Robberg's blue flag beaches, our biologists were able to interact with many of them during sampling events where they used the opportunity to educate them on natural mortality levels of Cape fur seals during the breeding season.

Cetacean stranding response and necropsy



In the last term of 2018 our biologists responded to two cetaceans ashore. Both of these stranding events occurred in December and were of bottlenose dolphins that had washed ashore after dying. The first of these was a male, with what appeared to be a shark bite, which came ashore at Brenton-on-sea. The second was a little male calf that came ashore at Wilderness. As our volunteer program was closed at the time of these strandings, we thank Chanel Hauvette from Ocean Odyssey for her assistance at the Brenton-on-sea dolphin.

A male bottlenose dolphin ashore at Brenton-on-sea. (Photo credit: Danielle Conry).

Monitoring seal-shark interactions



A great white shark patrols the shallow waters at the Cape fur seal colony on Robberg Peninsula. Volunteer sightings of this species during dedicated observation sessions from cliff-top vantage points has shown a marked decline during October – December.

(Photo credit: Bettina Kaiser)

During October to November volunteers recorded a marked decline in great white shark sightings in the Robberg MPA, but an increase in sightings of other species such as hammerhead sharks, especially juveniles. As expected our biologist's preliminary analyses revealed that the decline in white shark sightings in the MPA were followed by declines in the average group size of seals travelling to and from the colony. As Cape fur seals have been shown to display safety in numbers ('selfish herd hypothesis') at other breeding colonies along our coastline, it appears that

logically this behaviour is also part of the Cape fur seals anti-predator tactics at Robberg Peninsula. More data and analysis is however needed to test the influence of other factors potentially effecting seal traffic at the colony, such as seasonal prey availability and other behaviours associated with their annual breeding cycle. Our biologist and his collaborators at the Port Elizabeth Museum looks forward to volunteers continuing these observations through 2019 so that trends over two seasons can be assessed.

Cape fur seal population monitoring

Between October and November volunteers assisted biologists with Cape fur seal counts during ten boat-based trips to Robberg Peninsula. The information will be used as part of long-term population size monitoring efforts of the Port Elizabeth Museum and Cape Nature, including monitoring of entanglements, shark-inflicted wounds, tag re-sights and the presence of vagrant species.



Cape fur seals hauled out in their thousands on Robberg Peninsula during the annual breeding season.

(Photo credit: Frikkie van der Vyver)

Cape fur seal diet monitoring



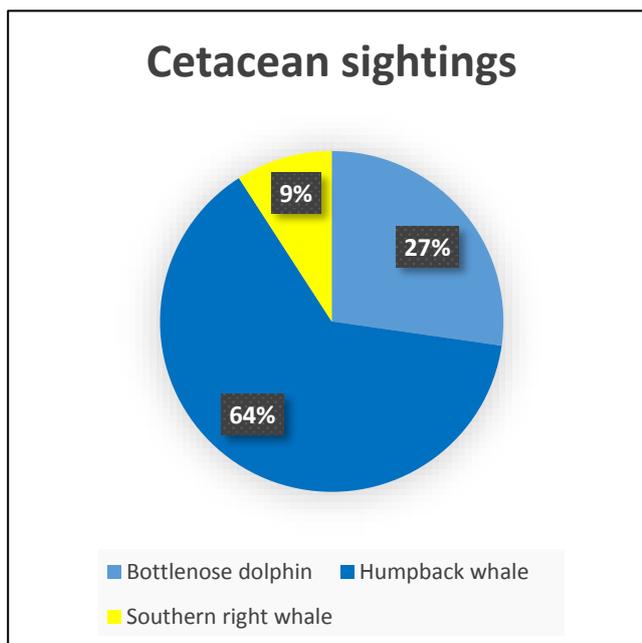
Prey remains such as chokka squid beaks are commonly found in Cape fur seal scats collected at Robberg Peninsula. Other common prey remains not pictured here include octopus, crustaceans, seabirds and a wide variety of fish species.

species such as sardine and anchovy. All samples were transported to the Port Elizabeth Museum for further analyses. The data will be used to update the current diet of Cape fur seals that haul out on Robberg Peninsula, and results may also aid in future studies that aim to examine the role of Cape fur seals in the Agulhas Current.

In October volunteers continued to assist biologists with routine processing of seal scat samples that were collected at the Robberg colony. Over 40 scats were individually soaked and prey remains from a variety of species of fish, crustaceans, cephalopods and seabirds separated using fine meshed sieves. Volunteers continued to find large numbers of chokka squid and Cape horse mackerel remains in the samples. Both are pelagic species that formed only a minor contribution in the local seal population's diet during a previous study conducted over a decade ago. This finding is important in terms of recent changes that has taken place in the ecosystem, including geographical shifts in the distribution of previously important prey

Opportunistic boat based surveys with Ocean Blue Adventures

During the past quarter we managed to conduct only 5 opportunistic surveys with Ocean Blue Adventures to collect data on the cetaceans and marine life of Plettenberg Bay. This low number of surveys was due to bad weather, low seat availability for volunteers at Ocean Blue Adventures, as well as the closing of our volunteer program towards the end of November. During this quarter we had 11 cetacean sightings. Not surprisingly, the majority of these are made up by humpback whale sightings (7 sightings) as this quarter is still whale season. Although the number of southern right whales has been very low in Plettenberg Bay this year, we at least had one sighting of two individuals off Lookout beach in



The percentages of cetacean species encountered during 5 opportunistic trips.



October. The remainder of the sightings were of bottlenose dolphins (3 sightings). Unfortunately, we had no sightings of any Indian Ocean humpback dolphins during the opportunistic surveys.



Top: Volunteer Sofia Sokolowski takes dorsal fin identification photos of a group of humpback whales.

(Photo credit: Danielle Conry)

Left: The characteristic dorsal fin of a humpback whale.

(Photo credit: Sofia Sokolowski)

Monitoring Cape fur seals in estuaries

During October and November volunteers assisted biologists during eight boat-based photo-ID surveys in the Keurbooms River as part of long-term research of the Port Elizabeth Museum. One to five seals were present in the estuary during these surveys. A vast majority of the seals still appear to be sub-adult and adult males, but a few yearlings were also encountered. Once our biologist has established a more long-term dataset researchers will be able to examine the seasonal presence of specific individuals in the estuary, their movements, behaviour and potential impact on vulnerable estuarine fish species that are also of recreational and conservation concern. Eventually long-term data can be used to place



the possible impact of river specialists into context with current recreational fishing pressure, which volunteers also record during surveys.

'Stompie' a known Cape fur seal that is thought to have adapted to feed almost exclusively in the Keurbooms River estuary. With a uniquely identifiable scar on his left fore-flipper, volunteers have encountered stompie during many of our dedicated boat-based surveys over the past year.

(Photo credit: Frikkie van der Vyver)

Plettenberg Bay Humpback Dolphin Project

Since starting the project in June 2018, we have conducted 28 dedicated research surveys aimed at collecting data on the endangered Indian Ocean humpback dolphin. During 113 hours and 52 minutes at sea, we encountered humpback dolphins on 27 occasions and collected 6215 photographs in order to identify individual dolphins by the unique notches and nicks on their dorsal fins. This project, run in collaboration with Nelson Mandela University, aims to add to previous data collected on Indian Ocean humpback dolphins in this area in order to better understand and conserve this Endangered species. The data will be used to better understand aspects such as trends in population numbers, movement patterns and social structure.

The project aims to carry out four surveys in quick succession each month and to record and photograph every humpback dolphin encountered during these surveys. During our 12 surveys over the last quarter we have had an incredible number of 14 humpback dolphin encounters and seen some amazing things!

In November we observed some very interesting behavior from some of the individuals. One individual repeatedly lay on its back at the surface with its flippers up in the air, while another, on occasion, would swim upside down and then suddenly somersault, thrusting its tail out the water and rotating round till its head was exposed. This behaviour was truly fascinating and we can only wonder what they were up to! In December, we were delighted to see a recently born calf, still showing foetal folds. Unfortunately, it was not clear who the calf's mother was as it surfaced next to different individuals within the group. But, we will definitely be keeping an eye out for it in future surveys!



Top left and right: A young humpback dolphin calf observed in November.

(Photo credit: Danielle Conry)



Left: A humpback dolphin lies on its back at the water's surface.

(Photo credit: Danielle Conry)

During the surveys we were also lucky to see some of our bay's other charismatic species. In November, we delighted in a bay full of life. The frequent easterly winds, which often prevent us from getting to sea, were to thank for this as they cause upwelling which brings nutrient rich waters to the surface. Here, these nutrients result in plankton blooms which attract bait fish into the bay, which in turn are followed by a multitude of top predators. During these trips we saw over 10 different top predator species! This included cape gannets, Bryde's whales, humpback whales, bottlenose dolphins and cape fur seals, just to name a few. We were also happy to see some of the first Cape fur seal pups born on Robberg Peninsula and Solo, the vagrant Southern elephant seal!



Left: A bottlenose dolphin calf jumps exuberantly.
(Photo credit: Danielle Conry)

Below: A Bryde's whale surfaces offshore of Nature's Valley.

(Photo credit: Danielle Conry)

Bottom left: Cape fur seal pups on Robberg Peninsula.

(Photo credit: Danielle Conry)

Bottom right: Cape gannets take flight after diving for bait fish.

(Photo credit: Danielle Conry)



On one of our November surveys, we also came across a dead humpback whale floating at sea offshore of Nature's Valley which had been reported the previous day. We relayed its coordinates to the Plett Stranding Network while

Right: A humpback whale carcass floats offshore of Nature's Valley.
(Photo credit: Danielle Conry)





Above: Searching for humpback dolphins during a humpback dolphin survey.
(Photo credit: Laura Bakker)

checking to see if any sharks had been attracted to the bounty of decaying flesh. Unfortunately, there were no sharks in the area just yet, and we headed off to start our survey.

We would like to thank everyone who has contributed towards making these surveys a success. We are ever grateful for the use of Ocean Blue Adventures vessel, Gaia, as well as the contribution towards the costs of the launch fees by Plett Tractor Services. We also thank our volunteers for their hard work at sea!

Intertidal Baboon Scat Survey

During the last quarter we conducted a total of seven intertidal baboon scat surveys at four different sites between Plettenberg Bay and Knysna. These sites are surveyed monthly for baboon scats as part of a PhD study by Maxine Whitfield-Smit based at the Centre for Coastal Palaeoscience at Nelson Mandela University. Maxine's study aims to determine whether Chacma baboons forage intertidally along certain stretches of the Cape South coast and what factors influence their preference for certain areas of the coastline.

In October we did our first intertidal baboon scat surveys at Harkerville and Robberg Peninsula. The coastline of the Harkerville forest is situated within the Garden Route National Park. Here we found a whopping 66 baboon scats! The hike took us across roughly 4 km of fairly tough terrain with absolutely spectacular coastal scenery. We also managed to observe a group of 6 baboons on the slopes above the Crooks river and enjoyed seeing humpback whales breaching and lobtailing throughout our hike.



Top right: The dramatic coastline of Harkerville national park.
(Photo credit: Frikkie van der Vyver)



Bottom right: Baboons sitting on the slopes at Harkerville.
(Photo credit: Sofia Sokolowski)



After our hikes, we treated ourselves to some delicious Italian ice cream at Ice Dream Land, a little ice cream shop at a beautiful Italian restaurant out in the country along airport road! We will definitely be back again after future hikes!

Left: The picturesque Ice Dream Land.
(Photo credit: Danielle Conry)

MiniSASS

A river health assessment following miniSASS (Stream Assessment Scoring System) protocol is conducted at 2 different sites along the Bitou River. One volunteer is required to go into the river, where they will hold a net downstream to catch the macroinvertebrates in the river. This same volunteer will disturb the different microhabitats in order for the invertebrates to be found. The catch is put into a container filled with water whereby the other volunteers will make use of an identification guide book to assist them with identifying the different invertebrates. Each group of macroinvertebrates falls under a group (e.g. dragonflies, damselflies, snails) and each group is provided with a sensitivity score. With this information our volunteers are able to determine whether or not the river is in a good condition. Unfortunately, throughout this quarter our volunteers have found the river to be in very poor condition. Our volunteers have fun trying to identify the different species of macroinvertebrates, even though they may be seen as “creepy crawlies” or the volunteers just do not like them.



Above left: Volunteer, Sofia Sokolowski, collects macroinvertebrates in the river.
(Photo credit: Laura Bakker)



Above right: Volunteers identify the macroinvertebrates from the river.
(Photo credit: Laura Bakker)

SANCCOB

On the 24th of October 2018 our volunteers went and assisted at the Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) in Port Elizabeth. Here they assisted the centre with general maintenance that needed to be done. They assisted with moving their JoJo tanks for rainwater, cutting down reeds which are seen as a fire hazard, washing windows and their rescue vehicle. Our volunteers' favourite activity for the day was scrubbing the bricks in the rehabilitation pen. The reason for this being their favourite activity was because they were able to see the African penguins up close as they swam in the pool while they scrubbed the bricks.

Alien Clearing

Our efforts continue to remove the alien plant species *Acacia saligna* (Port Jackson). With our first quadrant of our site almost complete we are pleased to see just how many Port Jacksons have to be removed. A tiring activity for our volunteers indeed, however their hard work can be seen by the amount of Port Jacksons which they have cleared. In the new year we are looking to complete this quadrant by walking through the quadrant by use of the step point method to make sure that every individual plant has been removed, and we plan on moving on to our second quadrant.



Top: Volunteers scrub the bricks around the pool in the rehabilitation pen.
(Photo credit: Laura Bakker)

Above: Volunteers, Celia Oswald and Stefanie Regener, cut down the reeds that were a fire hazard.
(Photo credit: Laura Bakker)



Above: Volunteer, Celia Oswald, and Volunteer Coordinator, Laura Bakker, work to remove the alien species known as the Port Jackson.

Left: Sofia Sokolowski, demonstrates how long the root of the Port Jackson can be.
(Photo credit: Laura Bakker)

Knysna Animal Welfare Society



A visit to the Knysna Animal Welfare Society continues to be a favourite activity for our volunteers who have a love for the dogs and cats. A visit almost every two weeks was enough to put smiles on our volunteers' faces. Being able to take the dogs for a walk and helping to get them accustomed to their leashes was always fun. Also the opportunity to be able to play with the dogs and the cats is enough to make our volunteers' feel a bit homesick missing their own pets. Our volunteers also took home their own souvenirs for their pets back home, KAWS sold them dog collar tags each with their dogs' names printed on them with contact numbers.

Top left: Volunteer, Celia Oswald, plays with puppies at the Knysna Animal Welfare Society. (Photo credit: Laura Bakker)



Left: Volunteers walk the dogs from the runs at the Knysna Animal Welfare Society. (Photo credit: Laura Bakker)

Beach Clean-ups

We continue to strive to keep our beaches clean from marine debris. Conducting a beach clean-up once a week we are astonished to see just how much rubbish can accumulate over the course of a week or two. Alternating between Central Beach, Robberg Beach and Lookout Rocks, our volunteers work hard to pick up as much rubbish as they can find. Our most popular findings being glass, cigarettes, sweet wrappers and straws. We also came across some interesting finds, such as a toy car, condoms and even shoes. We are very interested to see how much rubbish will be found along our shores in the new year after the holiday season.

Top right: Volunteers, Millie Salmons and Sofia Sokolowski, showing the amount of rubbish that they collected along Lookout rocks.

(Photo credit: Laura Bakker)

Right: A toy car found on Robberg Beach.

(Photo credit: Laura Bakker)





The Greenwood Bay College hosted their annual Rocks to Robberg event whereby the children that were there conducted a beach clean-up along Robberg Beach. A few days later our volunteers along with our volunteer coordinator went through to the Greenwood Bay College campus where they assisted the students with sorting out and counting of the rubbish which was collected. The children's enthusiasm was very much appreciated.



Volunteers assist the students from Greenwood Bay College with the sorting of the rubbish collected at the Rocks to Robberg event.

(Photo credit: Laura Bakker)

Teaching at Siyakula Creche

A smile says a thousand words, and the smiles that appear on the children at Siyakhula's faces is enough to make anyone's heart melt. Helping the children to learn how to write is an activity our volunteers enjoy wholeheartedly. Being able to help make an impact in these children's lives is an amazing opportunity. A big highlight this quarter was Siyakula's annual graduation. More than forty of the students at the creche graduated this year and are moving on to the first grade. Our volunteers can be happy to know that they have helped them to develop their cognitive phase of their development, helping them to identify objects and to spell. A great impact for their futures. During the past three months we got to see the students practising their dances for the graduation ceremony. Our volunteers enjoy seeing the different styles in which they dance. Our one volunteer, Anaelle Schaffer, who is an avid dancer enjoyed herself by joining in with the students while they were practising.



Volunteers, Celia Oswald and Anaelle Schaffer, assist the children at Siyakula creche with their spelling.
(Photo credit: Laura Bakker)

A Big Thank You

We would like to extend a big thank you to the volunteers who were a part of our programme during the past 3 months. Without their participation our programme would not have been the success that it was. These volunteers are as follows:

- Melanie de Kaenel
- Sofia Sokolowski
- Stefanie Regener
- Lisa Michalek
- Millie Salmons
- Dana Bienz
- Celia Oswald
- Josephine Peukert
- Annaelle Schaffer
- Nicole Aumuelle
- Monet Bruwer

