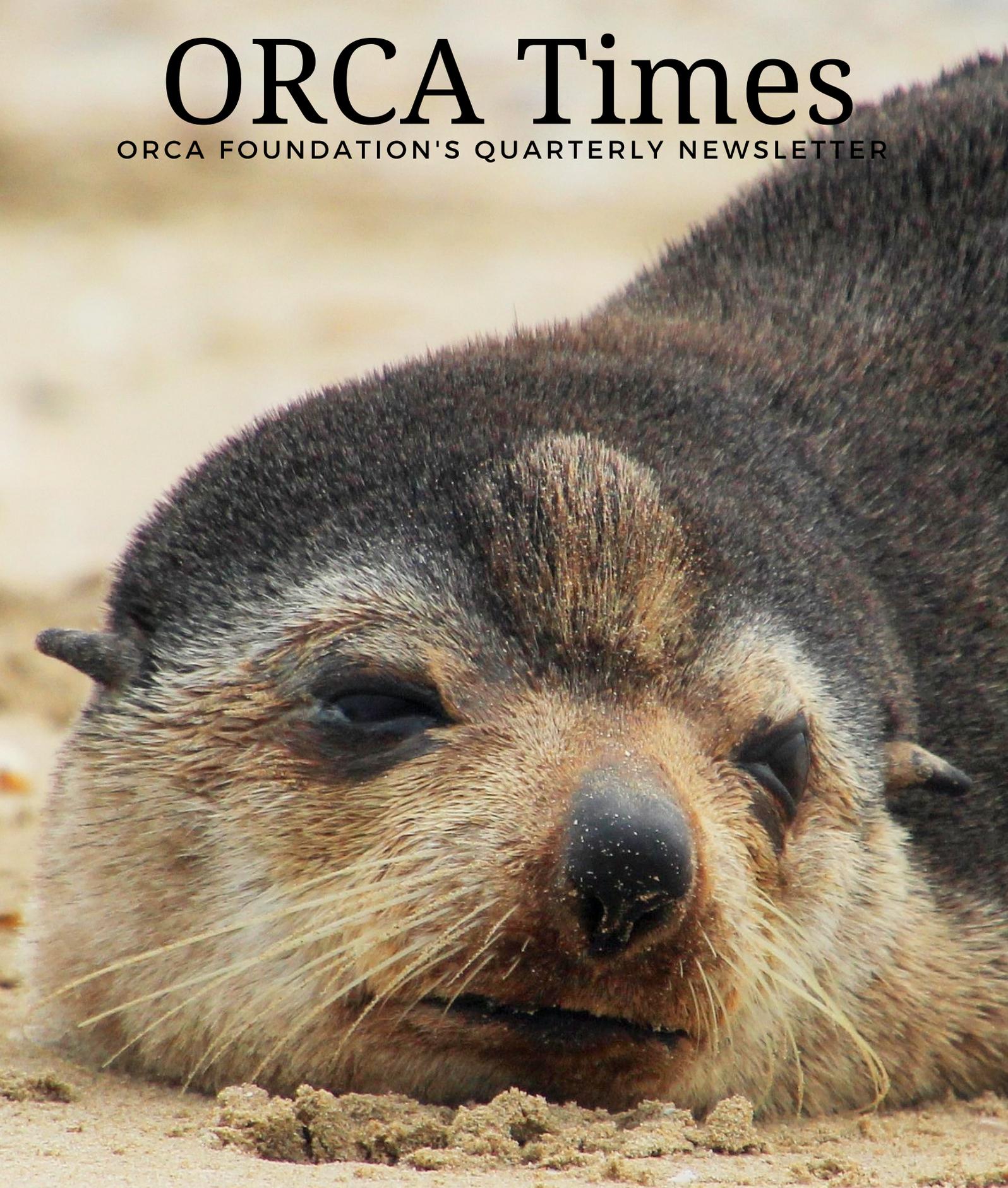


ORCA Times

ORCA FOUNDATION'S QUARTERLY NEWSLETTER



RESEARCH

MALE SUBANTARCTIC
FUR SEAL VISITS
ROBBERG BEACH

CONSERVATION

WORLD OCEANS DAY
BEACH CLEAN-UP

EDUCATION

DIE STERREWEG
CHILDREN LEARN
ABOUT OUR OCEANS

JUNE 2019

CONTRIBUTING AUTHORS



Danielle Conry, MSc Zoology

(Cetacean Biologist)

Experienced in cetacean field research, Danielle runs various projects on Plett's local whale and dolphin populations in collaboration with the Nelson Mandela University and the Port Elizabeth Museum.



Frikkie van der Vyver, MSc Fisheries Science

(Pinniped Biologist)

With extensive experience in fisheries and seal field research, Frikkie runs various projects on Plett's local Cape fur seal population in collaboration with the Port Elizabeth Museum.



Laura Bakker, BTech Nature Conservation

(Volunteer Coordinator and Conservationist)

With experience in Nature Conservation, Laura runs various projects on alien clearing, river health assessments, beach clean-ups and rural community education in Plettenberg Bay.



Melissa Nel, BTech Oceanography

(Field Assistant)

With a healthy dose of enthusiasm and interest in the marine environment, Melissa assists with the daily running of all fieldwork projects at the ORCA Foundation.

CONTENTS

CONTRIBUTING AUTHORS.....	1
RESEARCH	
Dwarf sperm whale dissection at Bayworld.....	3
New website launched in support of research.....	4
Beaked whale strands at Boggomsbaai.....	5
Robberg MPA land-based observations.....	6
A slow start to whale season.....	7
Keurbooms river seal surveys.....	8
Michelle, the humpback dolphin, has a new calf.....	9
A special visitor on Robberg beach.....	10
What's up with the baboon scats?.....	11
CONSERVATION	
Ecobricks.....	4
River health evaluation (miniSASS).....	6
Alien clearing.....	8
Beach clean-ups.....	12
World ocean's day.....	15
EDUCATION	
Aquarium maintenance.....	9
Fieldband Foundation.....	10
Siyakula crèche.....	12
Die SterreWeg.....	13
Lunchbox theatre.....	14
SOCIAL	
Extramural activities.....	15
Testimonials.....	16
SPECIAL THANKS.....	17

Dwarf sperm whale dissection at Bayworld!

This quarter, our volunteers had the amazing opportunity to help dissect a Dwarf sperm whale (*Kogia sima*) during one of our routine trips to the Port Elizabeth Museum.

The adult male washed ashore on Wilderness beach already dead, and was transported to the museum for a full dissection. Dr. Greg Hofmeyr, the senior marine mammal curator at the museum, led the dissection and fascinated our volunteers by teaching them about the anatomy of dwarf sperm whales and other marine mammals in general.



Volunteers inspect the strange looking animal before the dissection begins (Photo: Danielle Conry).

Dwarf sperm whales are found in the deep waters of tropical and warm-temperate seas and are rarely seen at sea. Therefore, much of what is known about the species comes from the collection of data from stranded animals such as this one.

This unusual looking animal is the smallest of two small sperm whale species in the genus *Kogia*. Dwarf sperm whales reach a maximum length of about 2.7 m and are considered the smallest whale species. They appear somewhat shark-like in appearance with a blunt head, a narrow underslung jaw with sharp, curved teeth and even a strip of light pigment behind the eye which resembles a gill slit. Another unique feature of these small sperm whales is the presence of a sac along the lower intestine which is filled with a dark, viscous liquid. When threatened these animals release a cloud of this liquid to evade and deter predators.

During the dissection our volunteers assisted with the collection of standard measurements and samples of the animal's organs which will be stored at the Port Elizabeth Museum Marine Mammals for future research on the species. Unfortunately there was no obvious cause of death but our volunteers had an exciting opportunity to see and help dissect such a rarely seen animal while learning about marine mammal biology.

New website launched in support of research



Our marine biologists recently launched a website to help create awareness and support for collaborative research they facilitate on some of Plett's charismatic marine species. You can learn more about their various research projects, which we support, by visiting www.wildocean.org.za or following the Wild Ocean facebook page. Once their science-based conservation initiative is registered as a nonprofit you will be able to make a difference by choosing to sponsor or donate to various unfunded aspects of their work.

Ecobricks

At the beginning of 2019, we started our Ecobrick project, a method we are using to help us in reducing the amount of non-recyclable materials we are introducing into the environment. These non-recyclable materials include polystyrene trays, silver packets such as chip and chocolate wrappers, just to name a few. An ecobrick is a plastic bottle which is stuffed full of waste which is not biodegradable, a completed ecobrick can weigh between five hundred and six hundred grams. They can then be used as a brick to help with the building of structures and furniture. All the ecobricks which the ORCA Foundation produces will be donated to community projects in Plettenberg Bay who require them. A box is kept in the kitchen whereby we collect all the materials needed to make the ecobricks, and we are shocked to see how quickly this box gets filled during the week. One day we will



An empty 2L bottle next to a completed ecobrick (Photo: Laura Bakker).



Some of the ecobricks produced by our volunteers (Photo: Laura Bakker).

make ecobricks and the next day the box will be half full again. Our volunteers have been hard at work with the production of the ecobricks and to date they have managed to produce thirty completed ecobricks and a few more which are half completed. Our volunteers have fun partaking in this activity, some of them never having heard of an ecobrick before. They find the concept incredible and are shocked as to how much non-biodegradable waste can fit into one two litre bottle. They have gone so far as to say that it is an idea which they would like to implement in their own households when they are back home.

Beaked whale strands at Boggomsbaai

On 26 June, our volunteers had the amazing opportunity to assist the Plettenberg Bay Stranding Network with a dissection of a beaked whale in Boggomsbaai near Mossel Bay. The animal, originally believed to be a True's beaked whale, is now believed to be a Cuvier's beaked whale and, like all beaked whales, it is a deep water species that is rarely seen alive. Such strandings are therefore a valuable contribution to our knowledge of the species.

The Cuvier's beaked whale currently holds the title as the longest and deepest-diving mammal. In 2014 an individual was recorded diving to depths of almost 3km with the dive lasting for 2 hours and 17 minutes! What an amazing experience for our volunteers to see and learn about such a rarely seen species!

The dissection was done on behalf of the Department of Environment, Forestry and Fisheries (DEFF), and to which all samples and information on the stranding will be sent. A big thank you to Stranded Marine Animal Rescue Team and the Oceans Research team for their help during the dissection!



ORCA biologist, Danielle Conry, briefs the volunteers before beginning the dissection of the Cuvier's beaked whale (Photo: Laura Bakker).

Robberg MPA land-based observations

Between April and June volunteers performed 42 dedicated observational sessions from seven cliff-top monitoring sites located along the Robberg Peninsula hiking trail. This equated to 79 hours of observations during which a total of 66 white shark sightings were made. Volunteers continued to record the movement and group sizes of seals travelling to and from the colony, and recorded sightings of other marine species such as dolphins, whales, African penguins, and commercial and recreational boat activity. The data will go a long way in assisting our biologists and conservation managers with ongoing research and monitoring within the marine protected area.



ORCA Foundation volunteers assist with recording white shark sightings such as these made from cliff-top vantage points along the Robberg Peninsula hiking trail (Photos: Frikkie van der Vyver).

River Health Evaluation (miniSASS)



Volunteer, Bethany Roney, using a magnifying glass to help her identify the macroinvertebrates (Photo: Laura Bakker).

As part of a citizen science project, our volunteers conduct river health evaluations at two locations along the Bitou River. In order to conduct these evaluations, our volunteers make use of the miniSASS (Stream Assessment Scoring System) protocol. This is an activity which can be done by anyone in order to monitor the health of a river. The sampling method is easy, you collect the different macroinvertebrates in the river and then they are identified. These macroinvertebrates are broken down into different groups, namely damselflies, minnow mayflies, true flies, etc. Each of these groups is given a score based on their sensitivity to disturbance. The score that you achieve is then divided by the number of groups which was discovered in the river. This will then give you the river's sensitivity score which in turn tells you the health class of the river, and this ranges from very

poor condition to natural condition. The first site which we test up the Bitou river, near the Wittedrift Primary school we have found to have degraded since last quarter, dropping from fair condition to very poor condition, with our second site we test near the Keurbooms caravan park also being of a very poor condition, obtaining a score of less than 5.3.

A slow start to whale season

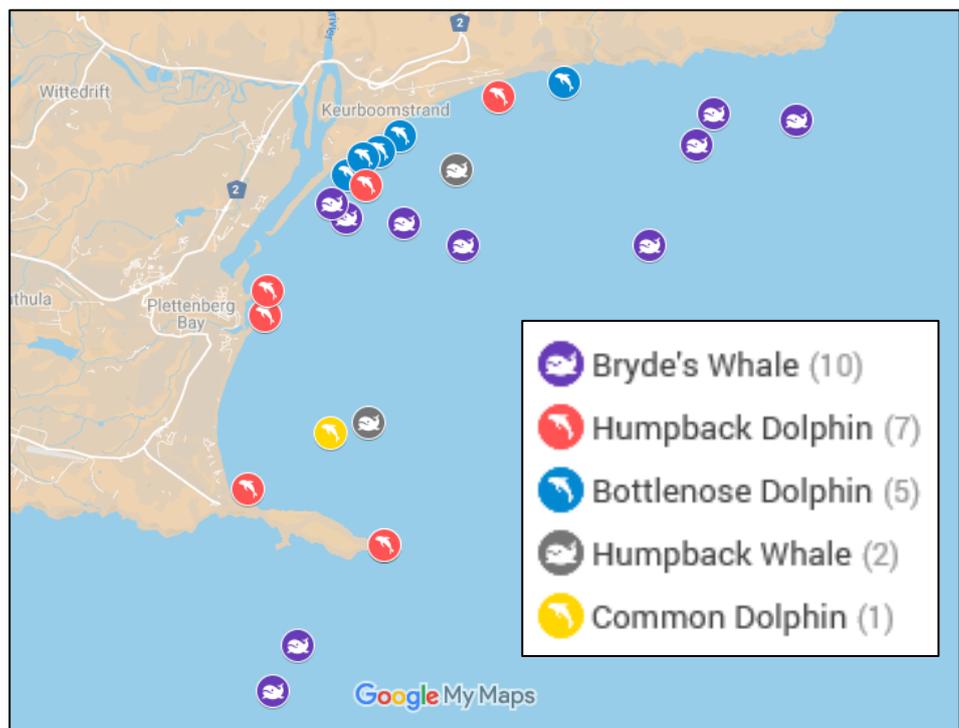


An encounter with a Bryde's whale offshore of Keurbooms beach (Photo: Melissa Nel).

During the past quarter we managed to conduct only 15 opportunistic surveys with Ocean Blue Adventures to collect data on the cetaceans and marine life of Plettenberg Bay. During this quarter we had 25 cetacean sightings. The sightings were dominated by our resident whale species, the Bryde's whale (10 sightings), and sightings were largely distributed further offshore in the northerly part of the bay, with the exception of two

sightings offshore of Robberg Peninsula's wildside. We also had a fair number of sightings of our two inshore dolphin species, the Indian Ocean humpback dolphin (7 sightings) and the Indo-Pacific bottlenose dolphin (5 sightings). While the bottlenose dolphins were only seen along Keurbooms beach, the humpback dolphins were found in shallow waters across the bay. Our volunteers were lucky to encounter Common dolphins offshore of Robberg beach on one occasion. Seeing this species is always a special treat as these dolphins are pelagic in nature and venture into the bay rather infrequently.

We also recorded our first two humpback whale sightings for the year! While we are very excited to start seeing the first of our migratory whales, we can't help but notice that the number of sightings is far lower when compared to this time last year when we had recorded 20 sightings by the end of June. We certainly hope to see more of them next quarter!



The distribution and number of sightings of cetacean species seen in Plettenberg Bay over the last quarter .

Keurbooms River seal surveys

Between April and June volunteers participated in seven boat-based surveys to monitor the presence and behaviour of Cape fur seals that frequent the estuary. After being absent in the Keurbooms River since November last year, one of Plett's



A photograph of 'Stompie', taken shortly after he chased a school of mullet onto the banks of the Keurbooms River estuary during a recent boat-based survey (Photo: Frikkie van der Vyver).

famous river seals named 'Stompie' has returned. With the help from the public and our volunteers, researchers have been building a record of the estuarine presence and behaviour of Cape fur seals since 2017. You can help by reporting opportunistic sightings to Frikkie van der Vyver on 076 661 5741.

Alien Clearing

Our efforts to remove the *Acacia Salignas* (Port Jackson Willow) continues. This evergreen shrub, a native to Australia, invades our indigenous Fynbos and coastal dunes. Originally introduced into South Africa for dune stabilization this shrub has spread and become a problem in the Eastern and Western Cape. Our method of eradication is to remove as many of the plants as possible. For the smaller individuals, we will loosen the soil around the roots with a garden fork and pull it out by hand. For the bigger individuals, this task is a lot more difficult, given their strong tap roots. Therefore, the plant will be cut down with the use of a panga (machete) and will then be sprayed with a poison mixture. Our volunteers are doing a remarkable job at clearing the aliens and we are pleased to see how different the site is starting to look.



Volunteer, Emma Lavold, posing with her panga (Photo: Laura Bakker).

Michelle, the humpback dolphin, has a new calf!



Michelle and her calf travelling off Central beach in May
(Photo: Melissa Nel).

We had not seen our favourite humpback dolphin, Michelle, in the bay for quite a few months, until her distinctive dorsal fin rose up to greet us during an encounter with four humpback dolphins along Robberg Peninsula on 11 April. We were overjoyed to see that in the time since we had last seen her she had become a mother to a beautiful little calf!

We have since seen Michelle and her calf in the bay every month. In

May they were spotted at Central beach during data collection with Ocean Blue Adventures, and in June we found them in Nature's Valley during one of the surveys for the Plettenberg Bay humpback dolphin project.

Although we have been seeing Michelle in the bay every month, this does not mean that she has been spending all her time here. Indian Ocean humpback dolphins are highly mobile in nature, travelling average distances of 120 km along the coast and with some individuals travelling up to 500 km along the coast! This means that humpback dolphin groups can enter the bay and exit again in a matter of a few hours!

Aquarium Maintenance

At Ocean Blue Adventures there is an aquarium which is maintained by our volunteers. This aquarium holds a collection of fish which represent species which may be found in the bay. Volunteers collect natural food for the fish. This food is gathered from the Piesang river where the volunteers do prawn pumping to catch the prawns which are fed to the fish. They are also responsible for the cleaning of the aquarium. Volunteers climb inside the tank with the fish and will use a scrubbing brush to scrub the glass and the walls of the aquarium.



Volunteers collecting prawns (Photo: Laura Bakker).

A special visitor on Robberg beach!

This quarter proved very quiet in terms of seal strandings in and around Plettenberg Bay. Nevertheless, volunteers assisted biologists in collecting basic samples from 5 washed-up carcasses for the Port Elizabeth Museum. On Tuesday 30 April, the Plettenberg Bay Stranding Network was also alerted to a large live seal on Robberg beach. It was soon clear that this was no ordinary Cape fur seal but a male Subantarctic fur seal! Subantarctic fur seals inhabit isolated islands north



A male subantarctic fur seal on Robberg beach! As regular vagrants this species often comes ashore to rest along the South African coastline. (Photo: Melissa Nel).

of the Antarctic convergence in the Southern Ocean. During the winter months they forage at sea and every year a few individuals travel as far north as South Africa. These vagrant individuals generally come ashore to rest after travelling so far, or when they are sick or injured. This male was the first vagrant subantarctic fur seal for the season and also came ashore quite early for the season. After a day of rest, with signs put up to keep the public at a safe distance, he returned to sea to resume his travels.

Fieldband Foundation



Volunteer, Emma Lavold, playing the drums at one of the practises (Photo: Laura Bakker).

The Field Band Foundation, based in Plettenberg Bay, is proudly sponsored by Ocean Blue Adventures. This is a great foundation and programme to help improve the quality of living for students at different schools in the disadvantaged areas around Plettenberg Bay. The foundation gives these students an opportunity and helps them to improve their futures. By learning music, the student members are a part of a team, being in a positive and joyful environment. Our volunteers occasionally attend the Fieldband practises where they can listen to how the band plays. The tutors also teach our volunteers some beats which they can play on the instruments.

What's up with the baboon scats?

Over the last quarter, we have seen a reduction in the number of scats found within the four sites we survey along the coastline. 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.



Volunteers enjoy the cliff-top views after a successful baboon scat hike at Harkerville (Photos: Melissa Nel).

The highest numbers of scats were found at Robberg indicating that that area was the most utilised this quarter. Very low numbers of scats were found during three sampling occasions at Noetzie, indicating low utilization of tidal resources in this area over the last quarter.

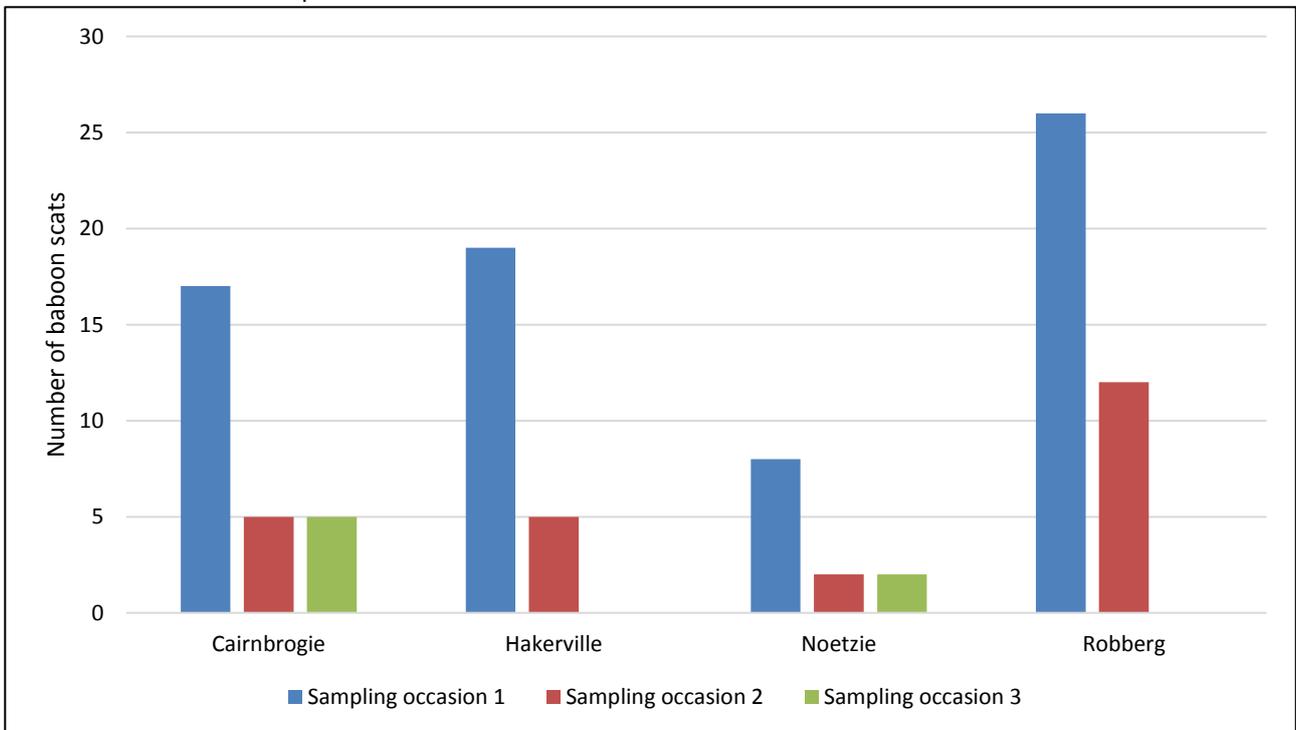


Figure showing the number of baboon scats found at the four sampling sites at various occasions during the quarter.

Beach Clean-ups

Since April volunteers have conducted six beach clean-ups along Central Beach, Lookout Rocks and Robberg Beach. In total 3918 pieces of rubbish have been collected. Cigarette butts dominate the findings with 1526 butts collected. Plastic came in at a close second with 1179 pieces collected. Central Beach was our main source of cigarette butts, bringing in 1111 individual butts. Along the Lookout rocks, we collect the most fishing gut as this is a popular fishing spot. In total 33 pieces of fishing gut were collected from the rocks. We also stumbled upon some interesting finds during our clean-ups, these include diapers, condoms, toothbrushes, shoes and batteries. We are reducing our use of plastic bags to collect the rubbish during our beach clean-ups. We now use the SOS (Save our Streets/Seas/species) refuse bags produced by HMRP packaging, which are not made from plastic, but rather from plants. This, therefore, means that these bags are biodegradable and may be used in home composting.



Volunteer, Victoria Kirkpatrick, holding one of the SOS refuse bags (Photo: Laura Bakker).

Siyakula Creche



Occupational Therapist, Heidi Berger, having some fun with the students at Siyakula (Photo: Laura Bakker).

The Siyakula Creche in the Qolweni township is visited by our volunteers almost every two weeks. At the school, our volunteers help to teach the students some basic English words, usually based on the ocean or nature. We show them pictures and ask them to identify the image. Once the picture has been identified correctly, we teach them how to spell the word. An example of such a word is "jellyfish". The students are then asked to try and write out the word on their chalkboards while our volunteers walk around helping them wherever they can. This task can sometimes be difficult as the children's mother tongue is isiXhosa. We teach them in English (translated by the teachers into isiXhosa)

because we want them to learn some basic English words and to develop their communication skills before they graduate from the creche and head off to the first grade, as a second language is of great importance. On Ascension Day, 30 May, we were joined at the creche by Die Sterreweg's occupational therapist, Heidi Berger. This was a great opportunity and she was able to advise us on better methods of teaching. For example, when the volunteers help the students, they should write the word out for them and then assist the children with tracing the letters with their fingers. By doing this it allows the children to learn the path which they need to take when writing out the letters.

Our volunteers also read the students a storybook (which is also translated into isiXhosa) and afterwards ask them questions to help with the development of their comprehensive skills. Our volunteers read them a book about the different sounds that animals make, and they even made the sound effects which the kids really enjoyed. They've also read them a book called "the big yellow bus" which is an animal version of "the wheels on the bus". The children really enjoyed this because instead of just reading the story the volunteers sang it and got the children to sing along with them.

The school also provides its students with a cooked lunch, of which our volunteers assist with the plating up of about ninety odd plates of food. The children at the creche really love it when our volunteers visit them and shower them with lots of hugs and affection. Our volunteers in turn absolutely love being able to make the difference they are making in the children's lives.



Volunteer Victoria Kirkpatrick helping to dish up the lunch for the students (Photo: Laura Bakker).



Volunteer, Archie Gooding assisting with the magnetic fishing game (Photo: Heidi Berger).

Die Sterreweg

This year the world ocean's day was held on Saturday the 8th of June. Occupational Therapist, Heidi Berger, took this opportunity and asked the ORCA Foundation to teach the children at Die Sterreweg about the ocean. Our volunteers very quickly researched fun facts about the ocean to teach to the children. Their fun facts included how loud a whale's call is and that the eye of the Giant Squid is as big as a basketball (which was demonstrated). All the children were then asked to try and make the sound of a whale. The volunteers then asked the children if they could tell what animal was being shown to them by looking at different pictures, which they did very well. A story about a starfish



Volunteer, Emma Lavold, playing with the students in the playground (Photo: Heidi Berger).

was then read to the children and they were asked to name the animal that was featured in the book. Our volunteers also printed out various colouring pages for the children to enjoy. But the crowd favourite was the homemade magnetic fishing game which our volunteer coordinator had made. The children were lining up to have their turn at trying to catch a fish and some of the children even decided to try the game more than once. Six magnetic fish and the fishing rod were therefore donated to the school. One of Die Sterreweg's youth was so happy to have our

volunteers come and visit that he took them over to the youth room to show them all the different projects that they had done. They were shown all the different bracelets and necklaces which the youth had made, our volunteers thought that they were beautifully made. The volunteers also played in the playground with some of the children, while two students were fascinated with our field assistant and volunteer Ariane's hair, playing with it the entire time. Going to Die Sterreweg can sometimes prove to be quite emotionally challenging for some of our volunteers, but we are very happy that they all took part in the different activities at the school as the students absolutely love it when our volunteers come to visit.

Lunchbox Theatre

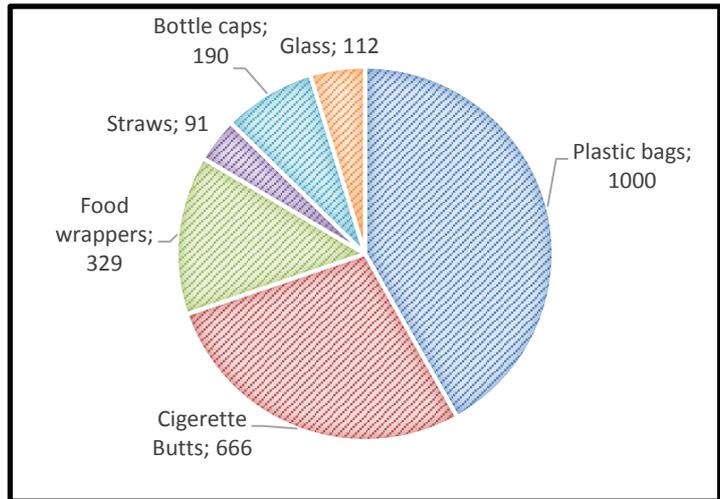
The ORCA Foundation is a proud sponsor of the Lunchbox Theatre, a group of actors who perform for schools teaching them about various environmental issues. On the 4th of June our volunteer, Victoria Kirkpatrick, attended the Lunchbox Theatre's "Tree show" at the Phakamisani and Formosa Primary Schools. This show was very informative in teaching the students about planting trees and the importance of trees. They got the students to sing along to a song with actions teaching them that trees are important because they give us oxygen, reduce the carbon dioxide in the atmosphere, give us shade and shelter for those hot days and that they also provide us with food. The students enjoyed singing along with the actors and doing the actions that went along with the song. After the play, the actors took the students out into the schoolyard where they got the students to plant their own tree. They also told them that they need to look after the tree and not let it die. The students are, therefore, required to water the tree every day. Victoria really enjoyed the shows, saying that they were really entertaining and informative and that it was really great to see the students engaging with what was being taught to them.



Lunchbox theatre members helping the students to plant the tree in the school yard (Photo: Laura Bakker).

World Oceans Day

World Ocean's Day is a global initiative that provides an opportunity to raise awareness about the importance of protecting and conserving our oceans. This year, on the 8th of June, our volunteers took part in a community beach clean up hosted by Natures Valley Trust and Pick 'n Pay. A total of 85 people from the community joined to help and in one short hour we found over 2000 items of litter. Plastic bags dominated the items of litter found, followed by cigarette butts.



The number of litter items picked up on Plettenberg Bay beaches during the World Ocean's Day beach cleanup.

Extramural activities

It isn't always about blood, sweat and tears at the Orca Foundation. The volunteers are lucky enough to be based in the small vibey town of Plettenberg Bay. Traditionally this is a seasonal town, but there are many things to do in town or in the surrounding Garden Route area throughout the year. The volunteers have been lucky enough to enjoy some of these attractions at no cost at all.

Birds of Eden

Birds of Eden is home to about 220 different types of birds, and more than 3500 birds live in the sanctuary.

It is an award-winning bird sanctuary that provides a forever home for previously caged birds that can now live a life of free-flight in a habitat as large and natural as is possible. The feathered inhabitants of the aviary are comprised of a mixture of exotic, as well as African birds. This includes previously caged pets, hand reared and imprinted individuals.



Monkey Land

Monkeyland is the world's first free roaming multi-species primate sanctuary. Its mission is to educate and foster greater understanding of our primate cousins and the threats and challenges they are facing. Monkeyland has captured the hearts of our volunteers that visit for sunny and sound reasons - the primates are happy, healthy and they are not caged, instead they free-roam the indigenous Monkeyland forest.

Testimonials



“I had two beautiful and exciting weeks with the Orca Foundation in March. First, I have to say, that I never thought I could collect so many experiences in just two weeks. We sifted stranded dolphins and seals; I made many hikes with breath-taking views including cute baboons. Furthermore, I experienced a couple of great boat tours where I was able to see dolphins and seals. Of course we also learned a lot about them and their behaviour.

My favourite moment was the day when I was counting seals at the beautiful Robberg reserve. Sunshine, a wonderful view and some music, it felt like meditation. I can totally recommend that. But it became even better! Suddenly I saw a dark shadow in the sea, “travelling east” I wrote down. It was a whale! I couldn’t believe that I just saw a whale. It was such a huge one! And guess what? That happened again a week later. Normally it isn’t very usual to see whales at this time of the season. And that is my summary for the whole stay. Sometimes you have no idea what happens next, what you’re going to see and that was so exciting! I loved being part of the Orca Foundation, these guys are all so nice and they’re doing their job with passion. That’s all that matters. Thank you for the great time!” – **T**atjana Eichelbaum

“In all honesty it is very difficult to pick my favourite moment. It was such an incredible and special experience and I wish I could do it every year! The highlights of the trip for me were definitely seeing the sharks, being the Whites at the seal colony or the Thresher shark jumping; It was truly an honour and a memory I’ll never forget. Seeing whales and dolphins in their natural habitat was spectacular, as well as a privilege. We were lucky enough to experience a dissection of a dwarf sperm whale in which I was in my element. The opportunity to teach disabled children was the most wholesome and rewarding experience, it was a true eye opener. If you’re passionate about the ocean, willing to learn and want to make great friends, then I couldn’t recommend this incredible trip more!” – **B**ethany Roney



SPECIAL THANKS

From all of us here at ORCA, we would like to thank the following volunteers who contributed their time to assist with our work between April and June 2019. We appreciate your motivation and hard work to help further our projects, sometimes during physically and mentally challenging conditions. The success of our projects would not be possible without your contributions.

- Verena Schöttl
- Siyu Guan
- Luca-Leon Adis
- Victoria Kirkpatrick
- Hannah Cockett
- Emma Lavold
- Morgan Klenke
- Bethany Roney
- Archie Gooding
- Ariane Wagner
- Eilish Bowers
- Caoimhe Lincoln
- Hannah Shaw
- Luke Owen

