

REPORT 2017-2019

Dyer Island Conservation Trust

DISCOVER, PROTECT, EDUCATE

MESSAGE FROM OUR CHAIRMAN

Scientists will often tell you that it is only through long term data that you can truly assess patterns of behaviour in animals. Looking back over the last three years we saw some real shifts in marine animal behaviour - from the flight response of white sharks to orca predation; bronze whaler sharks that moved into the area and stayed; and erratic numbers of southern right whales.

Our team has been at the forefront of monitoring these species – through our eco-tourism partnership we have in fact almost 20 years of cetacean data from Dyer Island Cruises and 15 years of shark data from Marine Dynamics.

Shark cage diving is the only effective monitoring tool of white sharks in South Africa and without it we would not have been any wiser of the fragility of this species.

At government level we are addressing issues of overfishing, bycatch and loss of biodiversity and the impacts on our marine ecosystem. Just like the African penguin is an indicator species, one that has also faced more threats recently such as avian influenza, so too is Dyer Island an indicator system, one which the Dyer Island Conservation Trust has promised to protect. We have built on the work we started in 2006, as per our decade summary, and we have not sat idle but started more work in the direction of research, conservation and education. This addendum showcases just how much can happen in three years.

As a small trust we are frugal with our sponsors money so that it can go the distance. We have a network of contacts, suppliers and highly skilled technical people, so we can often do something at *a third of the cost.* We believe in sustainability to continue to do this work in the long term.

At a recent ocean economy meeting, delegates were asked what the ocean means to them. I invite you to think what it means to you. For some it was a resource, some a place of healing, for a few it was about conservation and protection, surprisingly no one mentioned oxygen. FOR ME, IT IS MY LIFE!



Wilfred Chivell
Founder and Chair of Trustees
Dyer Island Conservation Trust

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SUPPORTED BY

Marine Dynamics
MARINE BIG 5 WHALE WATCHING TOURS
SHARK CAGE DIVING
ACADEMY

TRUSTEES

Wilfred Chivell, Susan Visagie, Hendrik Otto, Brenda du Toit

UK / US FUND FOR CHARITIES

UK and US residents can sponsor us through the UK and US fund for charities thereby capitalising on the tax benefit.

Everything we do in terms of penguin conservation is part of the African Penguin Biodiversity Management Plan for the species - Our team has played a critical role in the development of the BMP. Penguins play a vital role in fertilising the fish nurseries around islands - they are part of the biodiversity of our ocean. The African penguin is an indicator species, and the numbers more fragile than ever. Latest counts indicate 13300 breeding pairs in South Africa (1000 breeding pairs on Dyer Island).

NEST PROJECT UPDATE – PENTHOUSES FOR PENGUINS

Since DICT initiated the penguin project in 2006, we have learnt much and have been working on an upgraded model over the last two years. Research told us that the guano burrows provided the penguins with a constant micro-climate, high relative humidity, buffered temperatures, minimal exposure to the wind; shelter from rain & predation.

We could therefore reach the following conclusions:

- Temperature inside the nest is the most important aspect – material must try to mimic conditions of guano burrows.
- Nest size – must be able to accommodate 2 adults & 2 chicks
- The penguins must be able to defend the access to the nest
- Must have adequate ventilation
- Ideal temperature: 24 – 26°C
- Humidity: 80 – 90%

The nest team spent 3 months rigorously field-testing 15 different nest prototypes, each equipped with high-precision sensors, to provide us with information about the microclimate conditions inside the various test nests.

The "winning" nest material is a ceramic based slurry. The interior volume of the nest was based on measurements of wild guano nests and the nest entrance mimics the entrance hole of the old guano burrows. The new style penguin 'penthouses' were revealed to the penguin populations of Bird Island in the Eastern Cape and Dyer Island in the Western Cape in February 2018. Continued environmental monitoring proved that the new design meets all the environmental requirements, but ultimately, we need to know that the penguins will successfully breed and raise their chicks in these newly designed penthouses. During 2019 we have been rolling out this new penguin home to various colonies.







Dyer Island Conservation Trust

2018 | **13300 breeding pairs of African penguins remain in South Africa**

Only 1000 breeding pairs left on Dyer Island

AFRICAN PENGUIN & SEABIRD SANCTUARY

Every year the APSS has 22 000 visitors, at least 3000 of those are various school groups. APSS acts as a marine education centre with global reach. Open every day to the public from 9am to 4pm, there is a feeding at 3pm that can be viewed on a big screen. We are grateful to every person that supports our onsite coffee and curio shop that in turn supports our funding model. We also have some loyal supporters who work at the sanctuary and other Trust events and you make our lives that much better – THANK YOU!

REBUILDING THE ISLAND POPULATION

The African Penguin and Seabird Sanctuary has released penguin chicks on Dyer Island for four years now and we hope to see these penguins return to Dyer to breed.



AVIAN INFLUENZA UPDATE

During 2018, the highly pathogenic H5N8 strain of avian influenza caused the death of just over a hundred African penguins in South Africa. The prognosis for successful treatment after neurological symptoms have set in is not good. APSS set up quarantine protocols and worked with a private lab ensuring faster test results, as well as following best practice of cremation of carcasses, all at cost to APSS.

Up to ten species of seabirds were affected, with the greatest amount of deaths in the common and swift terns. Unfortunately in early 2019 the Namibian colonies were also affected and lost over 600 breeding adults.

MARCH FOR THE PENGUINS

March for the Penguins is a 5km family friendly walk/run that is held annually on 21st December. The event attracts almost 200 participants and has two primary objectives: Fundraising and Awareness.

GANSBAAI PENGUINS

Tourism and conservation align in promoting the area of Gansbaai and the plight of the African penguin in this campaign of eight colourful penguins to be found at various businesses.







Volkswagen South Africa has been supporting our work for a decade and is a key sponsor of the African Penguin and Seabird Sanctuary.

ACADEMIC PUBLICATIONS 2017-2019

SHARKS

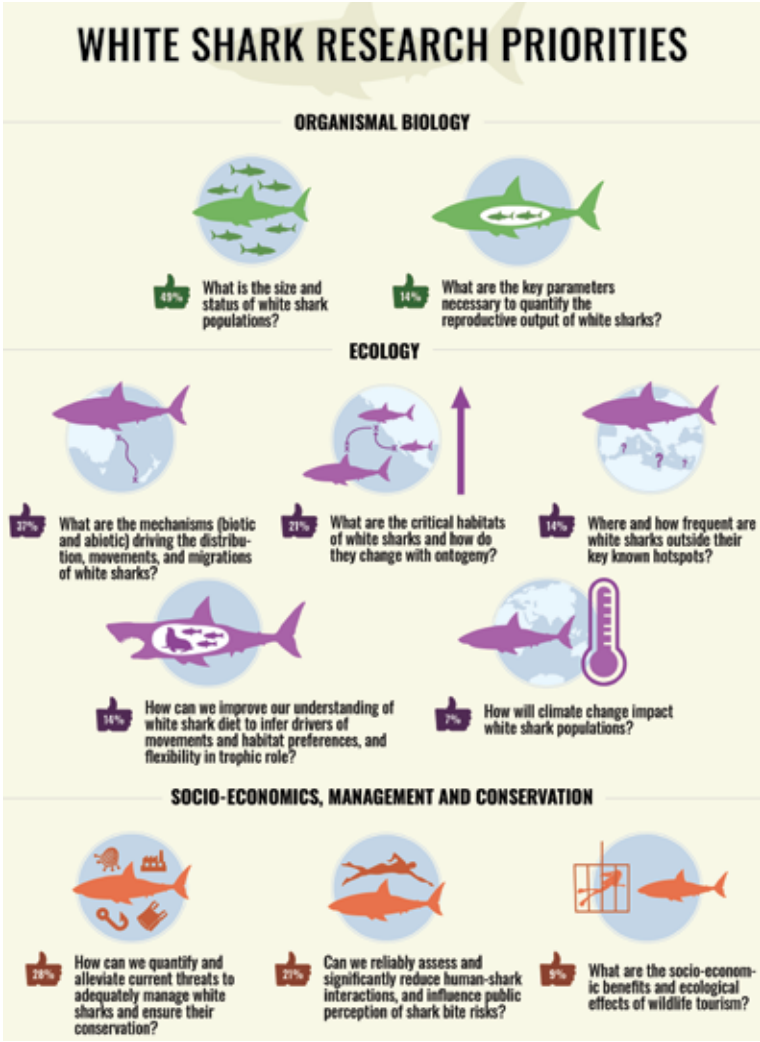
Queiroz, N., Humphries et al (2019) *Global spatial risk assessment of sharks under the footprint of fisheries. Nature 572(7770), 461-466*

Jewell, O. J., Gleiss, A. C., Jorgensen, S. J., Andrzejaczek, S., Moxley, J. H., Beatty, S. J., Wikelski, M., Block, B. A. & Chapple, T. K. (2019) Cryptic habitat use of white sharks in kelp forest revealed by animal-borne video. *Biology letters, 15(4), 20190085.*

Huveneers, C., Apps, K., et al (2018) Future research directions on the 'elusive' white shark. *Frontiers in Marine Science, 5, 455.*

French, G. C. A., Stürup, M., Rizzuto, S., Van Wyk, J. H., Edwards, D., Dolan, R. W., Wintner, S. P., Towner, A. V. & Hughes, W. O. H. (2017) The tooth, the whole tooth and nothing but the tooth: tooth shape and ontogenetic shift dynamics in the white shark Carcharodon carcharias. *Journal of fish biology, 91(4), 1032-1047.*

Rogers, T. D., Cambiè, G., & Kaiser, M. J. (2017) Determination of size, sex and maturity stage of free swimming catsharks using laser photogrammetry. *Marine biology, 164(11), 213.*



Infographic by David 'Ed' Edwards (www.dgedwards.com) for 'Future Research Directions on the "Elusive" White Shark'

NATURE SCIENCE JOURNAL

Shark biologists Alison Towner and Oliver Jewell are co-authors on a ground-breaking new study published in the science journal Nature.

The work confirms that sharks have very limited spatial refuge from industrial longline fisheries in open oceans, worldwide. This is one of the most substantial collaborative datasets between shark scientists to date, with 150 authors from 26 countries around the world combining their satellite tagging data. Led by David Sims from the Marine Biological Association in the UK, the work identified crucial areas in the high seas across the globe known as 'pelagic hotspots' which both sharks and longline fisheries highly utilise. Pelagic longline vessels can deploy up to 100km of line with as many as 1,200 baited hooks daily. The team of scientists were then able to quantify the extent of overlap between 1,681 shark tracks from 23 species with the industrial fishing fleets and found a striking overlap between them. Protected shark species listed on CITES such as the Porbeagle and White sharks showed some of the highest space use overlap with longline fleets - as much as 64% for white sharks in the Western Indian Ocean *(which includes the South African population).*



An estimated 64% of white sharks overlap with longline fleets.

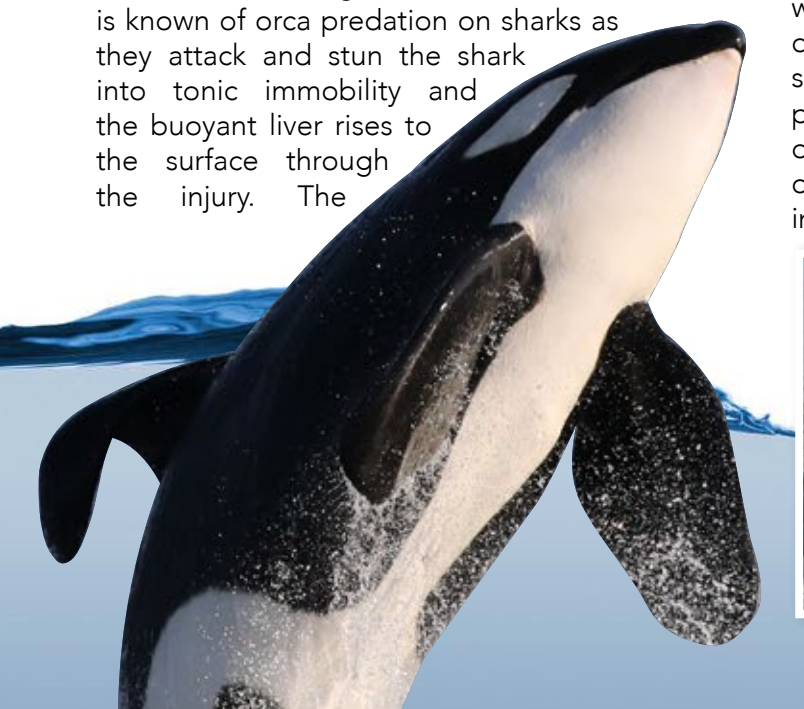
SOUTHERN AFRICAN SHARK & RAY SYMPOSIUM 2019

Eco-tourism partner, Marine Dynamics, co-sponsored the Shark and Ray Symposium held at the Two Oceans Aquarium in October 2019. The theme of the 2019 Symposium was: Elasmobranchs in the Blue Economy. Alison Towner presented one of her PhD chapters on the ecological changes post Orca predation of white sharks in Gansbaai.

ORCA PREDATION ON WHITE SHARKS

May 2017 was an interesting yet trying time for the team of Marine Dynamics and the Dyer Island Conservation Trust. Being called out to retrieve a deceased beautiful white shark female of 4,9m was bad enough but within a few days there were another two – both males at 3,6 and 4,5m. By June, a 4th shark had washed up – a 4,1m male. This then related back to a white shark that washed up in February earlier in 2017, the day after the orcas were seen. Whilst it had no obvious injury, a necropsy was not done on this animal. All sharks were identified from our extensive database.

Our shark biologists, Alison Towner and Kelly Baker, assisted by our team and experts in their field including Dr Malcolm Smale, and with the permission of the Department of Environmental Affairs, did the dissections on site in Gansbaai. All four sharks had consistent bite wounds and were found to be missing their livers. This indicates what is known of orca predation on sharks as they attack and stun the shark into tonic immobility and the buoyant liver rises to the surface through the injury. The squalene rich liver is the only part that the orcas are interested in, although the one male shark was also missing a heart.



In the last two years we have had more frequent sightings of orcas and there has always been speculation as to how the orcas affect shark behaviour and now we have confirmation that some orcas do indeed pose a serious threat to our already vulnerable population of great white sharks on the South African coastline.

The orca (Orcinus orca), also known as the killer whale, belongs to the dolphin family and is the only know natural predator of the very legendary apex predator, the great white shark. In this case, it is just two individuals, Port and Starboard, both have flipped over dorsal fins, one to the left and one to the right respectively. These two were first documented hunting seven gill sharks in False Bay prior to the white shark attacks. As these individuals have been documented on the South African coastline for some years, it is assumed that there may be some pressure on their food source thus their seeking out of the nutrient rich liver of sharks. With the presence of longliners and other fisheries there is a definite impact on the food chain.



This is the first time globally that white sharks have been dissected after orca predation and this is the first official observation in South Africa, stunning researchers and shark lovers.

This affected sightings in the bay as the white sharks, sensing a threat, temporarily left the area. In their absence the bronze whaler shark, also known as the copper shark, moved into the area. White shark sightings were erratic and there seemed to be an eastward shift of the species during this time.

Sightings are more regular once again, although patterns not predictable, but the longliners remain a cause of concern for the team as white sharks can be caught as bycatch - a threat the white sharks can not afford as their numbers are at an all-time low in South Africa.

Marine Dynamics provides all financial and logistical support for shark carcass retrievals.

The cost of retrieving shark carcasses that weigh close to a tonne and can be in remote locations, autopsy equipment such as knives, scientific vials, ethanol etc can add up. Thank you to the community who contacts us with stranding information.



BRONZE WHALER SHARKS

Bronze whaler sharks *(Carcharhinus brachyurus)* otherwise known as the copper shark because of its distinctive colouration, is the new star at the shark cage diving boats in Gansbaai. This species is found in temperate waters and usually seen in groups. Bronze whalers can grow up to 3.3m in length during its 25 to 30-year lifespan.

Their copper/gold colour is distinctive, and this species is very active around the boats leaving nature lovers and divers enthralled. It is not known to be predatory to humans, but itself faces fishing pressures and is considered near threatened by **IUCN – International Union for Conservation of Nature**. Marine Dynamics, together with other operators, is working towards a no catch policy in the Kleinbaai area.

Bronze whalers first appeared at the shark boats in 2013 and it has been amazing to see how they have adapted to the area in the absence of white sharks. The only other way that people are able to see bronze whalers is if scuba diving on the sardine run, which is limited to a few weeks in June and July so this opportunity for a regular non diver to see them is in fact quite rare.

Bronze whalers are generally regarded as seasonal visitors in the greater Gansbaai area seen in highest numbers during summer months. They prey on small pelagic fish such as sardine and anchovy which are also more abundant in this area during summer.

Even though they were likely present here before, they have now become a key shark species visiting the cage diving boats. At first it was assumed due to their lack of competition with the larger white sharks which can also be potential predators to them. However, even once white sharks returned to the area, the bronze whaler sharks have remained.

The behaviour of bronze whalers is being investigated with the team collecting daily boat-based data on the species and documenting their appearance, numbers, and interactions.





Dyer Island Conservation Trust

- **Grow up to 3.3m in length**
- **Usually seen in groups**
- **Have a lifespan of 25-30 years**
- **Considered near threatened**

TRACKING STUDIES

South Africa has the **Acoustic Tracking Array Platform (ATAP)** which consists of over 120 underwater acoustic receivers deployed from Angola to Mozambique. This network of receivers spans South Africa's coastal zones, from depths of 5 to 60 m. ATAP connects scientists from a range of different marine disciplines and geographic regions, providing them the opportunity to share tracking data on various tagged marine species Our white shark tagging research project, funded by the Save Our Seas Foundation in collaboration with ATAP, aims to expand this array further, adding more receivers and tags on white sharks specifically at the Southern tip of Africa, where there is a considerable gap in the network.

South Africa was the first country to protect the iconic great white shark, almost thirty years ago, in 1991. However, unlike some other countries with large white shark populations, such as the United States, there has been no notable increase in the population over time. A great deal of media attention and speculation has been extenuated around the topic of where and why Southern African white sharks have gone (or moved to). Headlines about white sharks are often dramatic, generally misleading, and the articles answer questions with opinion as opposed to science.

Ongoing monitoring of the population through sightings records and tagging, in addition to analysis of existing data are essential to determine what is happening. ***This research project is a multi-species approach aimed at quantifying potential regime shifts, to advise and mitigate detrimental marine cascades which can happen as a result of altered species abundance and distribution.***

Furthermore, this information will be used to facilitate the most effective protection of these fragile marine ecosystems by informing government on critical areas of habitat use.

The white shark tagging data will be analysed in conjunction with killer whale, penguin, and bronze whaler shark data, using a combination of boat based, satellite and acoustic tracking methods. The key objectives will be to understand the movement patterns of these species and how these animals influence one another.

The research will combine expertise from scientists to provide a comprehensive picture of how Western Cape marine ecosystems are responding to a complex mix of pressures from environmental, fisheries and prey species removal as well as predation from killer whales.





DEEP BLUE STUDENTS

The Dyer Island Conservation Trust's Environmental Education Programme known as DEEP works with dedicated groups of young learners from a disadvantaged background and runs for three years to monitor and evaluate the impact and growth of each individual learner. Our aim is to expose these young learners to the field of science and conservation and serve as a forerunner for future skills training.

The students learn about the marine world, participate in beach clean ups, go out to sea with partners Dyer Island Cruises and Marine Dynamics and go on special excursions relevant to the programme, including a year-end camp. The students learn to present to an audience, understand the Marine Big 5 and some of the other animals in the area, learn about our crucial wetlands and issues related to marine pollution. They are exposed to any special conservation moments that the staff of the Dyer Island Conservation Trust experience.

At the beginning of a year, the next group of students start their three-year programme. We truly believe that this long-term effort will ensure these young ambassadors protect our environmental heritage. We believe that we are making a big difference in the lives of these students with ripple effects to the community. Their growth in confidence is testament to the dedication of our main educator, Pinkey Ngewu, who is supported by staff and other conservation organisations. Two education manuals have been produced to guide lesson development.

Our first group graduated in 2018 and are now in high school. We continue to engage with them as a club meeting less frequently but ensuring they prepare themselves to pursue the marine sciences curriculum being rolled out in schools.





"Education is the most powerful weapon which you can use to change the world." – Nelson Mandela

MARINE MONTH

The Marine Month competition has now run for four years and reaches an estimated 10 000 students in the Overstrand area, from Pringle Bay to Gansbaai. The aim and objective of the competition is to improve the knowledge of learners regarding our marine environment and environmental issues. Topics change every year and the level of entry is dependent on grade:

- Grade 1 till Grade 3 - Colouring competition
- Grade 4 till Grade 7 - Poetry competition
- Grade 8 till Grade 11 - Essay competition

The winners enjoy a boat cruise with Dyer Island Cruises.

Partners in this project are: Overstrand Municipality, BirdLife Overberg, Department of Environment, Forestry and Fishery (DEFF) Marine Dynamics and Dyer Island Cruises.



FILMING

We work with many film crews from across the world throughout the year. Our film packages ensure that the Trust benefits financially.

One of the most popular shows on American television is Air Jaws which is hosted on Discovery's Shark Week and draws over million viewers. Our biologist Alison Towner and Dickie Chivell have both featured on this show, bringing the mysteries and magic of the great white shark to a whole new generation of viewers. Shows such as these may be dramatized but have also helped share the importance of sharks as critical apex predators in a delicate marine ecosystem. Air Jaws 2018 told the tale of the orca as a natural predator of white sharks in South Africa - orca themselves likely facing food pressures due to overfishing. Air Jaws 2019 showcased a team of researchers, including Alison Towner and shark expert Chris Fallows, observing a newly discovered shark vs. seal battleground at the base of a 200-foot cliff in Plettenberg Bay. The viewing statistics around shows such as this are 35 million viewers / 48 million fans across social media platforms / 3,5 million streams across Discovery digital platforms.

TEN YEARS OF EDUCATION AT THE HERMANUS WHALE FESTIVAL

The eco tent at the Hermanus Whale Festival is a drawcard for the many families that visit the festival to look out for the southern right whales – the whales enjoy the sheltered bays at this time of the year for mating and calving.

The Dyer Island Conservation Trust/Marine Dynamics team has supported this opportunity for the past ten years to educate the over 100 000 visitors, and has excellent engagement with children and adults alike.

The displays encourage children to understand our marine species and how scientists study them. As such, we match shark fin images, as well as matching of whale callosities. Our team of marine biologists is on hand to answer everyone's questions.

We host talks on sharks, penguins, marine pollution and solutions, and even entertain all with a fun penguin dance. Many 'surfed' the wave of change made from recycled plastic bottles that was sponsored by our corporate donor Volkswagen SA.

MONTHLY MARINE EVENINGS

The Trust hosts monthly marine evenings at the Great White House base. Topics range from marine species research and conservation; marine pollution; travel experiences; animal photography; and more.



BEACH CLEAN UPS

Monthly beach clean ups and the International Coastal Clean Up Day in September provides an opportunity to engage and educate the public. All data from clean ups is shared to the global statistics of Ocean Conservancy. Data such as this helps identify trends in areas and can motivate change from manufacturers in terms of packaging or how to manage waste.









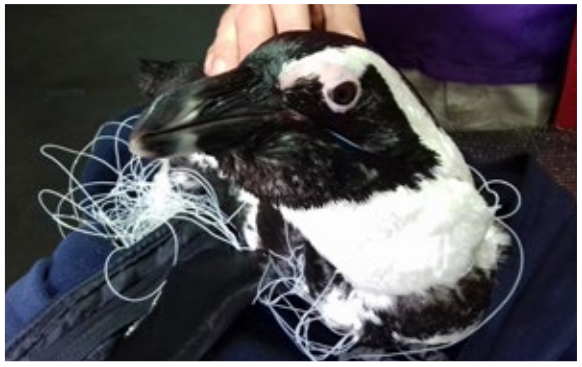
One of our main priorities in addressing marine pollution is to avoid impact on our marine species.

INGESTION AND ENTANGLEMENT

Ingestion and entanglement are too often the cause of death.

FISHING LINE BINS

Since 2010, our fishing line bin project has grown along the South African coastline. All positions are logged and mapped on our website. Fishing line is a difficult material to recycle as it is often in various bits and pieces and bulk is required to effectively do anything with it. One recycler uses 30% recycled monofilament in weed eater line. The material for the bins was historically sponsored by DPI Plastics and since 2019 is now sponsored by MacNeil Plastics as arranged by Plastic|SA. Marine Dynamics Academy students are involved in the production of the bins. In 2019, we launched a poster designed to appeal to young and old. A caricature of an African penguin that has lost a leg to fishing line makes a plea to the public to discard their line responsibly.



Seabirds are particularly vulnerable to ingesting plastics because most species feed at or near the ocean surface. They forage along eddies and oceanic convergence zones – the same areas where marine plastics accumulate. The carcass of a young African penguin was found on Grotto Beach in Hermanus and brought to the African Penguin & Seabird Sanctuary to determine the cause of death. Sr Theanette Staal conducted a necropsy and found that the bird died of starvation caused by plastic ingestion. The ingested plastic caused internal ulcers and inhibited the bird's feeding capacity. On a more positive note, we were able to save a penguin from fishing line entanglement. The penguin was heavily entangled with line tightly wound through the beak, around the neck, flippers and feet preventing the bird from swimming or diving. These are just some of the issues we face daily at APSS.



NEWSPAPERS HAVE A SECOND LIFE

The Trust's key project, the African Penguin and Seabird Sanctuary, started making bags of newspaper a few years ago, but they needed an extra pair of hands. That was when Mariaan Burger, a local Gansbaai resident, stepped in offering her time and energy to the project. Mariaan was encouraged by Trust founder, Wilfred Chivell, to start a



'production line' so that the Great White House and any other interested businesses could buy and use these newspaper bags. Now a group of dedicated residents from the Silwerjare service centre for older persons in Blompark, meet regularly to enjoy some time together whilst producing bags of varying sizes. These bags are then purchased for use at the Great White House curio shop and have proved to be quite a hit with guests from all over the world. The extra income from the bags is used for the group outings.

TRASHION SHOW

The Dyer Island Conservation Trust's Environmental Education Programme known as DEEP celebrated recycling day by hosting a Trashion Show at Masakhane Primary School to show that we can turn **Trash into Treasure.**

EDUCATIONAL EXHIBITS

Together with corporate sponsor **Volkswagen South Africa,** the Trust was involved in displays highlighting marine pollution – from the first 'lighthouse' in Johannesburg to surfing a wave of plastic at a local surf series. These displays aim to capture the attention of the public, encourage discussion and change public behaviour with an emphasis on minimising the use of single use plastics.



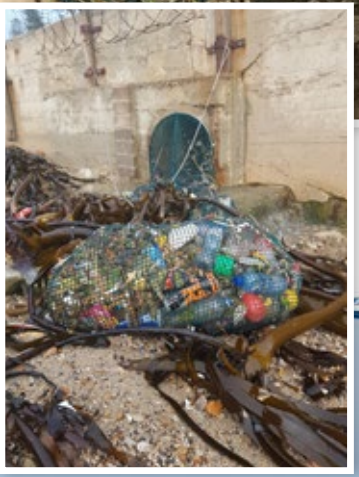




Inspired by a project in Australia, Wilfred Chivell, realised the need for a net system over the storm water drain outlets in Gansbaai. The nets are designed to prevent pollutants and solid waste, carried by storm water from the local road network, from flowing into the marine environment, thereby minimising impact on marine animals. The first identified site was Gansbaai Harbour, an area notorious for plastic pollution and a prime spot to test the efficacy of the net and attachment design. Project leaders Hennie Otto (Marine Dynamics) and Benjamin Kondokter (Overstrand Municipality) placed the first net in June 2019, the start of the rainy season.

Unfortunately, most of the waste will probably not be suitable for recycling, but we will do this where possible. The net is being monitored to assess the 'catch', by the Dyer Island Conservation Trust team, with the assistance of students at the Marine Dynamics Academy. The top three items found thus far are cigarette butts, microplastics, and food wrappers/containers. With 63 storm water outlets in Gansbaai alone, this project will be a long-term collaborative effort with the Overstrand Municipality, with an initial focus on the most problematic areas. This is a worldwide problem and our dream is to roll this out in the Overstrand and in South Africa. All nets will be mapped on the Trust website.







PROJECT
STORM
Storm Water Drain Net Project

Munisipaliteit • U-Masipala • Municipality
OVERSTRAND

MARINE DYNAMICS ACADEMY

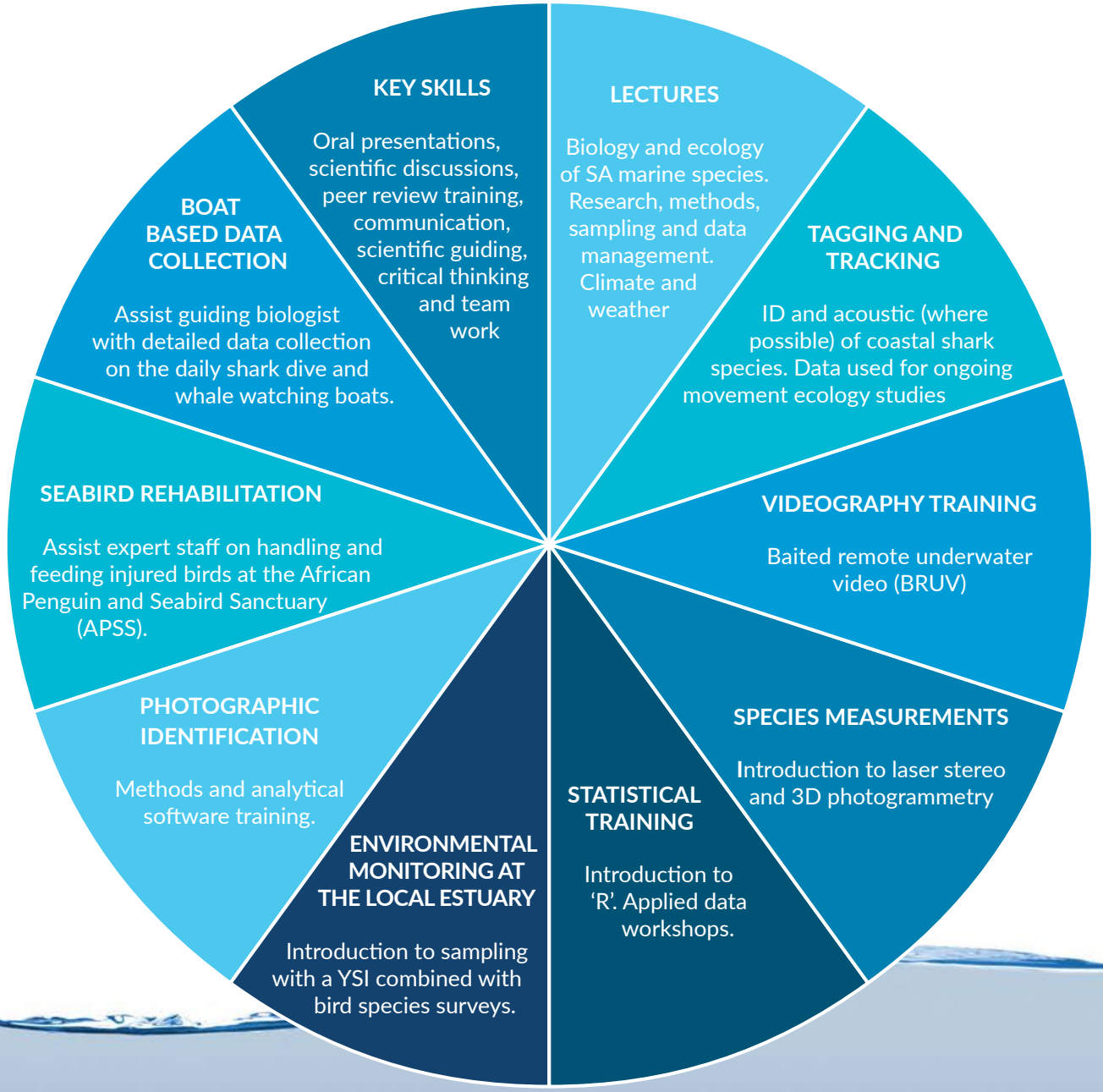
The International Marine Volunteer Programme supports the conservation projects of the Trust. Volunteers from all over the world form an integral part of the team. In 2018 we established an internship and learnerships for students studying in the marine field.

The overriding goal of the Marine Dynamics Academy, is to give people who love the marine environment a chance to immerse themselves within it, developing skills and experiences which they can use to enhance their own careers and life goals. We offer a series of initiatives which are informed and continuously updated by the feedback we receive from our Alumni, Academic Institutes and our various commercial partners.

Each program has been designed to ensure that we can turn our student's passion for the marine environment into measurable, employable skills and knowledge.

These students stay for weeks at a time and contribute to the local economy.





FOSTERING EXCELLENCE IN MARINE RESEARCH, CONSERVATION AND OUTREACH FOR OVER A DECADE

BRUV STUDIES

BRUVS are Baited Remote Underwater Video Systems. A metal frame houses a GoPro camera and a bait canister to attract fish in order to investigate the community structure and diversity at specific locations. This non-invasive sampling method is becoming critical around the world, especially in marine reserves and for sampling species of conservation concern. This study is done at the very minimum every quarter, but where possible, on a monthly basis. All data is shared to SAEON - South African Environmental Observation Network – for analysis that forms part of a national study. This data will influence Marine Protected Areas.





MARK/RECAPTURE

This is a long-term collaborative marine environmental project with the Oceanographic Research Institute (ORI). The overall aim is ensuring the wise and sustainable use of southern Africa's marine linefish resources. Tagging of fish species supports studies of stock identification, migrations, behaviour, age, and mortality rates.

ESTUARY MONITORING

A consistent monitoring programme of the Uilenkraalsmond Estuary helps in assessing the health of this important system and is essential to our understanding of the important role wetlands play in the ecosystem.

SHARK EGG PROJECT

The collection of shark egg cases on designated beaches helps identify species distribution and breeding timing of smaller shark species.





WE WORK IN COLLABORATION WITH

- The Department of Environmental Affairs Forestry and Fisheries
- CapeNature
- Overstrand Municipality
- Mammal Research Institute Whale Unit
- Affiliated to National and International Universities

STRANDINGS

Marine Dynamics, sister company Dyer Island Cruises and the Dyer Island Conservation Trust have handled animal stranding for two decades. Now a stranding network has been formed for the area. This is a collaborative effort of the following organisations: CapeNature, Department of Environment, Forestry and Fisheries, Dyer Island Conservation Trust, Lower Breede River Conservancy, Mammal Research Institute Whale Unit, NSRI, Overberg District Municipality, Overstrand Municipality, South African Shark Conservancy and Southern Wildlife and Environmental Society.

Whilst sad to see one of our marine life deceased, the team takes scientific samples that contribute to critical studies.





Marine Dynamics

LOGISTIC AND FINANCIAL SUPPORT IS PROVIDED BY THE MARINE DYNAMICS TEAM FOR ALL STRANDINGS

Responsible Tourism is tourism *'that creates better places for people to live in, and better places to visit'*.

A responsible tourism approach aims to achieve the triple-bottom line outcomes of sustainable development ie. Economic growth, environmental integrity, and social justice.

Marine Dynamics and Dyer Island Conservation Trust are focused on the following Sustainable Development Goals:

SDG 15 Live below Water

SDG 14 Life on Land

SDG 12 Responsible Consumption and Production

SDG 8 Decent Work and Economic Growth

Marine Dynamics and Dyer Island Cruises have been Fair Trade Tourism certified since 2008.

Marine Dynamics Academy (International Marine Volunteers) was certified in 2016.

The Fair Trade Tourism certification label represents best-practice responsible tourism – defined by fair wages and working conditions, fair purchasing and operations, equitable distribution of benefits and respect for human rights, culture and the environment.

The companies vessels are endorsed by Blue Flag. Blue Flag is the prestigious, voluntary eco-label for beaches, boats and marinas that is recognised as a trusted symbol of quality and is regarded by the World Tourism Organisation as the most well-known global eco-label.



SUSTAINABLE DEVELOPMENT GOALS

15 LIFE ON LAND

14 LIFE BELOW WATER

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

8 DECENT WORK AND ECONOMIC GROWTH

CASE STUDIES AND AWARDS

The Marine Dynamics / Dyer Island Conservation Trust eco-tourism model has been used in case studies worldwide.

- **Linking Wildlife Watching Tourism and Marine Conservation** — Eberswalde University for Sustainable Development (Marine Dynamics) - Simone Fraas
- **The Contribution of Shark Cage Diving Tourism to Coastal Economies** – Cape Peninsula University of Technology – Nolwazi Mabaleka
- **A Sustainable Management Framework for Marine Adventure Tourism Products** – North West University, Potchefstroom Campus – Linda-Louise Geldenhuys
- **New Tourism Ventures: An Entrepreneurial and Managerial Approach** – Dimitri Tassiopoulos
- **Africa - Continent of Economic Opportunity** – David Fick
- **Linking Tourism & Conservation Blue Solution**: http://www.ltandc.org/join-us/cape-whale-coast/#more-1834
- **Blue Solutions from Africa** (IUCN / UNEP GRID / GIZ)
- **Tourism and Animal Welfare**
  By: Neil Carr, University of Otago, New Zealand, Donald Broom, University of Cambridge Veterinary School, UK - Chapter 8: The Tourism Industry and Shark Welfare

AWARDS

The company and conservation model has been recognised globally through the following awards:

- **African Responsible Tourism Award 2018:** Silver for Marine Habitat & Species Conservation
- **World Travel Market Responsible Tourism Awards 2017:** Highly Commended
- **Skål International Sustainable Tourism Award 2017:** Marine Based, Shark and Whale Eco-tourism Benefitting Conservation and Community
- **African Responsible Tourism Award 2016:** People's Choice
- **African Responsible Tourism Award 2015:** Best for Wildlife Conservation
- **World Responsible Tourism Award:** Best for Responsible Wildlife Experiences Shortlisted 2013/Longlisted 2014
- **Cape Town Tourism:** Leading Edge for Visitors Experience 2019
- **Lilizela Provincial Award 2019:** Best Visitor Experience in the Marine Adventure category
- **Lilizela National Award 2018:** Best Visitor Experience in the Marine Adventure category
- **Cape Town Tourism:** Future Forward Thinking for Visitor Experience 2018
- **Lilizela Provincial Award 2018:** Best Visitor Experience in the Marine Adventure category
- **Lilizela National Awards 2015:** Marine Adventure



Dyer Island Conservation Trust

"We owe it to ourselves and the next generation to conserve the environment so that we can bequeath our children a sustainable world that benefits all"
- Wangari Maathai

TO THE TRUSTEES OF THE DYER ISLAND CONSERVATION TRUST

I have compiled the accompanying financial statements of DYER ISLAND CONSERVATION TRUST based on information you have provided. These financial statements comprise the statement of financial position of DYER ISLAND CONSERVATION TRUST as at 28 February 2019, the statement of comprehensive income, the statement of changes in trust funds and the statement of cash flows for the year then ended, a summary of significant accounting policies and other explanatory information.

I performed this compilation engagement in accordance with International Standard on Related Services 4410 (Revised), Compilation Engagements.

I have applied my expertise in accounting and financial reporting to assist you in the preparation and presentation of these financial statements in accordance with International Financial Reporting Standards for Small- and Medium-sized Entities (IFRS for SMEs). I have complied with relevant ethical requirements, including principles of integrity, objectivity, professional competence and due care. These financial statements and the accuracy and completeness of the information used to compile them are your responsibility.

Since a compilation engagement is not an assurance engagement, I am not required to verify the accuracy or completeness of the information you provided to me to compile these financial statements. Accordingly, I do not express an audit opinion or a review conclusion on whether these financial statements are prepared in accordance with IFRS for SMEs.

Almira Business and Financial Management Services

AJ Jansen van Vuuren
Professional Accountant (SA) 30060

15 July 2019

17 De Beers Street
Strand
7140

BALANCE SHEET AT 28 FEBRUARY 2019

STATEMENT OF FINANCIAL POSITION

Figures in R	Notes	2019	2018
ASSETS			
NON-CURRENT ASSETS			
Property, plant and equipment	3	4,719,068	4,778,203
CURRENT ASSETS			
Inventories		153,354	147,959
Trade and other receivables	4	59,059	473,831
Cash and cash equivalents	5	2,011,765	1,562,921
		2,224,178	**2,184,711**
TOTAL ASSETS		**6,943,246**	**6,962,914**
TRUST FUNDS AND LIABILITIES TRUST FUND			
Retained earnings		6,025,901	5,433,171
CURRENT LIABILITIES			
Trade and other payables		39,019	97,283
Borrowings	7	847,586	1,413,043
Current tax liability		30,740	18,271
Bank overdraft	**5**	**-**	**1,146**
		917,345	**1,529,743**
TOTAL FUNDS AND LIABILITIES		**6,943,246**	**6,962,914**

INCOME SHEET

STATEMENT OF COMPREHENSIVE INCOME

Figures in R	Notes	2019	2018
INCOME	8	3,953,085	3,828,109
Cost of sales	9	(333,414)	(351,694)
Gross profit		3,619,671	3,476,415
Other income		-	4,602
Operating costs		(3,076,600)	(3,070,139)
OPERATING PROFIT		**543,071**	**410,878**
Finance income		67,572	70,339
Finance costs		(209)	(21,360)
PROFIT BEFORE TAX		610,434	459,857
Tax expense		(17,704)	(18,271)
Net profit after tax		**592,730**	**441,586**

The Dyer Island Conservation Trust, whilst a small organisation at the tip of Africa,
reaches the entire world through its work on iconic species.

Special thanks to our corporate sponsor, Volkswagen South Africa, for their support since 2010.

Thank you to each and every donor that makes our work possible. You are part of our conservation story.

"The ocean stirs the heart, inspires the imagination and brings eternal joy to the soul."
– Robert Wyland

www.dict.org.za

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@DyerICT TheDyerIslandConservationTrust

Charity registration PBO 930023214 / NPO 052-024
Section 18, Broad Based Economic Empowerment Level 1
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