

# BBWild

## Nurturing Nature

### **BBWild – Vol 1.No2 July 2021**

The second in a series of triannual digests produced by Rooiels, Betty's Bay and Pringle Bay. The Bulletins bring nature research, anecdotes and pictures on the wonderful diversity in the unique terrain of mountains, fynbos and coastal plains of the Kogelberg Biosphere Reserve



**R30** - towards funding of future editions



The Betty's Bay Conservancy (BBC) is a voluntary association and residents who support the BBC vision and mission can join at R100 per year.

Non-residents "Friends" can join as associate members (without a vote) at R50 per year. In order to achieve its objectives, the BBC looks forward to engaging with members in establishing "Conservation in Action" projects and Task Teams to address the conservation issues highlighted by the members.

The BBC also looks forward to collaborating with associations and organisations with similar objectives. Visit and join our Facebook page and contact us on [bettybayconservancy@gmail.com](mailto:bettybayconservancy@gmail.com).



*Harold Porter National Botanical Garden – Leopard's Kloof hike*

Thanks to the van Rensburg, Lippai, Watson, Jacobs, Urbaniak, Joubert, Halpaap, Lundie, Homan, Jenman, Lubbe-Smart, Watermeyer, Immelman, Elliot and Clark families for initial print financing

## **BBWild Vol 1. No 2**

**T**he Betty's Bay Conservancy (BBC) would like to thank Rooiels for taking the initiative to produce the fabulous REWild Bulletin. How nice to have something tangible as a safe-keep rather than another digital file!

The REWild Vol 1. No.1 publication is a timely reminder that we, as a community of coastal villages of the Kogelberg Biosphere Reserve, have a role to play in preserving our natural heritage for future generations. The very same natural heritage that gives reason for most of us choosing to live here in the first place. Rather than embracing 'progress' which ultimately leads us down the slippery slope of becoming 'just another place by the beach', we too believe that our role is one of custodianship of a biome we are borrowing from future generations.

We would like to extend our thanks to REWild for handing over the reins of Vol 1 No 2 and allowing us to focus on what makes Betty's Bay special. It is our sincerest wish that we do our village justice! The aim of this, and future editions, is that we bring greater appreciation, awareness and a sense of pride to all of our three coastal villages of the KBR. We each are immersed in a setting both stunningly beautiful and, proudly, of global importance.

The **Betty's Bay Conservancy** (BBC) was initially established in 2005 and officially endorsed by Cape Nature on 1st October the same year. After many years of dormancy, the Conservancy was relaunched in April 2021 with the belief that as custodians of this rich natural heritage, the community has a role to play in ensuring that everyday living, proposed development, property maintenance and recreational activities are appropriate, sustainable and compatible with the conservation ethos of the Kogelberg Biosphere Reserve (KBR). The BBC would like to engage all stakeholders to contribute proactively to maintain and promote the environmental integrity of Betty's Bay and the surrounding area.

**The Vision** of the BBC is that Betty's Bay, located in the KBR, will be a place where people live in a harmonious and sustainable relationship with their natural surroundings, guided by conservation principles.

**The Mission** of the BBC is to promote and coordinate environmentally sustainable living in Betty's Bay and to protect the long term ecological integrity, biodiversity and global significance of the region; thereby enabling the wonder, beauty and importance of our rich natural heritage to endure for future generations.

**The Goal** of the BBC is to promote and facilitate the sustainable use and management of the environment in the area of the Conservancy, thereby protecting the natural heritage and upholding the premise on which the KBR was designated international status by UNESCO in 1998.

**The Objectives** of the BBC are to:

- Protect the biodiversity and ecosystems of the Conservancy area and so contribute to the integrity of the KBR.
- Build and share knowledge, raise awareness and interest in conservation

of the landscapes, fauna and flora of Betty's Bay and its surroundings through conservation-in-action projects and informative events and talks.

- Promote the adoption of environmentally sustainable practices by residents and landowners, businesses, local authorities and civil society organisations in the area of the Betty's Bay Conservancy.
- Promote collaborative and effective environmental management through facilitating co-ordinated partnerships between government, the private sector and civil society.
- Support the activities of members and other organisations having objectives consistent with those of the Betty's Bay Conservancy.
- Work and collaborate with neighbouring coastal conservancies in the KBR.
- Raise funds and develop resources to enable the active pursuit of the Conservancy's Vision, Mission, Goal and Objectives.

## Brief Outline of Local Geology

*Dave Mourant*

I would like to take you back a few (million) years. Around 600 - that is 600 million years ago. The great continental mass that became Gondwana, containing pretty well all of the present land masses in the Southern Hemisphere, was accumulating, powered by the planet wide power of what we now call Plate Tectonics, or Continental Drift.

### Break-up of Gondwanaland

500 Ma - Pre-Gondwana southern continents



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6

Significantly, to us here, South America was approaching from the west. In the narrowing gap between it and what is now the west coast of the African continent an ocean was being steadily closed. The sediments, muds and sands that were being washed down from the land, were lifted up, became rock. These rocks became what we now call the "Blousteen" that we can see along Clarence drive towards Gordon's

Bay. Next time you drive along there, just take a few moments to look down at the dark blue gray rocks in Kogel Bay. They were formed in the Adamastor Ocean that was present in this gap between Africa & S America more than 600 million years ago!

Gondwana formed: S. America, Australia, Antarctica India and Africa were the main constituents. All was relatively peaceful for a few tens of million years.

Then around 500 million years ago a down-warping of the southern-most part of Gondwana was initiated. This caused an open basin to form in what is now South Africa. Into this basin – we call it the Agulhas Ocean - was deposited a lot of sediment, brought down by rivers from the hinterland. These, mainly sands, were laid down in a shallow sea, the bed of which was formed by the rocks that had been formed in the Adamastor Ocean to which we were referring above. We refer to them now as the Malmesbury Group rocks as they are particularly well exposed in that area.

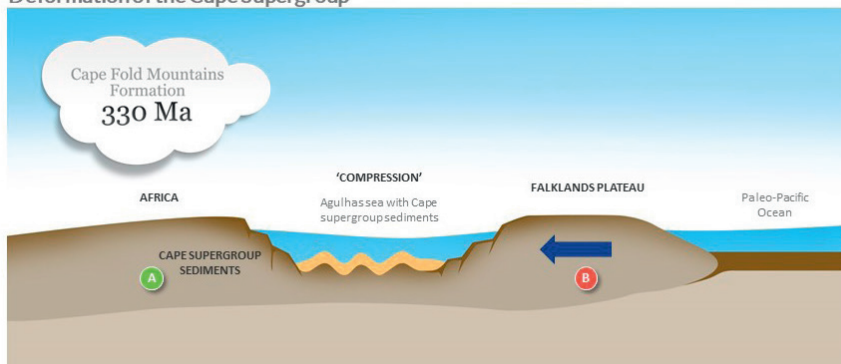
These sediments were largely pure white sands, though over time the continents moved, and were near the South Pole. As we know, that usually means cold conditions and such features as glaciers and ice caps. Indeed, if you look at the rocks that form the Aasbank and Sea Farm between Betty's Bay and Pringle Bay you will notice a rather strange rock that consists of rounded white pebbles in a darker sandy matrix. This is a Tillite, formed by the action of glaciers grinding out valleys on land and then depositing the material in the ocean as they reach the sea and begin to melt.

This slow accumulation of sands and muds continued for a long time, tens of millions of years. But in the end there was more activity initiated by Plate Tectonics. The basin in which vast amounts of sediments had been deposited began to shrink.

What is now the southernmost tip of S America, the Falkland Island plateau and the tip of the Antarctic Peninsula closed the Agulhas Sea and the sediments that had been laid down in it. These had become rocks – mainly Sandstone layers. They were deformed as the ocean closed, pushed up and folded, fractured and buckled. They now form the mountains around us and throughout the western and Eastern Cape: the Cape Fold Belt.

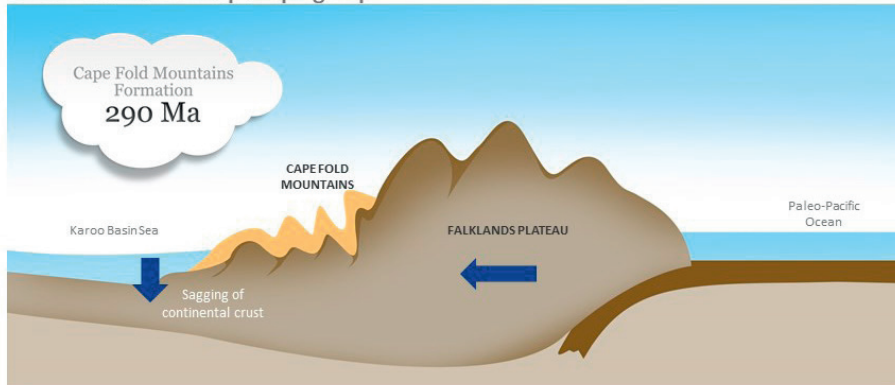
## Formation of the Cape Fold Mountains

### Deformation of the Cape Supergroup



## Formation of the Cape Fold Mountains

### Deformation of the Cape Supergroup



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12

So the sands laid down in the ocean became mountains and are now being eroded to form sands in our present ocean, a cycle that has been happening over the Earth for thousands of millions of years.

We will deal with what happened from then up to the last few thousand years in the next article.<sup>1</sup>

## Six different environments, one small village

*Tim Attwell*

**B**etween the mountain and the sea bracketing Betty's Bay are six different environments. The houses perched among rocks scattered on the mountainside continue down to the rocky sea-shore, some nestle on the flat coastal plain. A line of low, shrub covered hills are ancient sand dunes separating the flat coastal plain from the beaches. That's four different environments. Tall trees hide some houses. That's environment number five. A chain of reed lined lakes stretch along half the length of the village. That makes six different environments in a narrow, twelve kilometre strip of coastal village. These environments are all different in soil, hydrology, vegetation and animal life.

The mountainside vegetation and among scattered rocks extending to the rocky shore in the east of the village is Kogelberg Sandstone Fynbos. This acidic, nutrient poor soil derived from Table Mountain sandstone shouldn't support much vegetation, but it does. It is regarded as 'the heart of the Cape flora – a true crown jewel of the temperate flora of the world.'<sup>2</sup> Look for an astonishing variety of species

<sup>1</sup> If you would like to watch a more detailed presentation please log onto this YouTube site:

<https://www.youtube.com/watch?v=jLXsyckD7FQ>

<sup>2</sup> Mucina L and Rutherford M. C. (eds) *The Vegetation of South Africa, Lesotho and Swaziland* SANBI Pretoria 2006 pg

in the Protea family, among other wonders such as multiple Erica species.

Secondly, the rocky shore. Here things are completely different. The calcareous soil isn't normal. Formed by relentless wind and frequent storms, it contains large amounts of shell fragments. Most vegetation is succulent and what isn't survives by staying small. It grows very slowly, easily damaged by careless trampling.

The third environment, the flat coastal plain vegetation is fynbos, but different from Kogelberg Sandstone Fynbos. 'Hangklip Sand Fynbos' consists of ancient eroded sand dunes and 'bottomlands' –accounting for its high water table and acidity. It's home to a few Protea and Erica species, notably the lovely *Erica perspicua* or 'Prince of Wales' heath<sup>3</sup> in damp areas, but has many other plants of its own, such as *Berzelia*. This vegetation is listed as Endangered due to invasive alien vegetation and housing development.

The fourth environment is 'Dune Strandveld' – those low hills between the flat coastal plain and the beaches. These 'dunes' are much more alkaline than the soil metres away and have hardened over time to support a variety of tall shrubs and small trees. Sheltering under their cover are wonders such as the 'Wood orchid' *Bonatea speciosa* and the exquisite endemic *Gladiolus carmineus*.

Environment number five, Afrotropical forest, begins in the mountainous ravines above Betty's Bay and extends downwards to the plain. Fed by mountain streams and peat created by leaf litter over hundreds of years, Afrotropical forest boasts majestic trees such as Yellowwood, *Podocarpus latifolius*, Rooiels, *Cunonium capensis*, Cape Holly, *Ilex mitis*, Cape Beech, *Rapanea melanophloeos* and more.

The sixth environment is different again. That chain of reed lined lakes are Cape Lowland Freshwater Wetlands dominated by Fluitjiesriet, *Phragmites australis* and Bulrushes, *Typha capensis*, home to a rich variety of bird, reptile and mammalian life.

## Octopods

Pete Oxford

If there is one group of invertebrates that I really enjoy it is the cephalopods. Loosely translated as 'head foot' it is a reference to their arms or 'feet' emanating directly from their heads.

They are, of course, the octopus, cuttlefish and squid family. To concentrate on the octopods I want to mention in particular the familiar (although totally bizarre) common octopus (*Octopus vulgaris*) and the paper nautilus (*Argonauta arga*).

While working as a marine biologist I kept, sequentially, several octopus in large marine aquaria. They fascinated me and it wasn't long before I realized that they learned to tell me apart from others as an individual. They were smart in other ways too, one even learning to bang a rock against the glass walls signaling it was hungry, obliging me to go down to the sea and find a nice juicy shore crab for it to eat –

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<sup>3</sup> See photo of *Erica perspicua* on page 12

their favourite prey. Once having enveloped a crab (or small lobster) in its mantle an octopus will inject a particular enzyme that dissolves away the crab's connective tissue making the flesh fall away from the shell and easy to eat. To do this it uses its beak. As strange as it may seem all of the cephalopods have a hard, keratin-based, beak, similar in shape to that of a parrot, that they use for biting food morsels into small enough pieces to easily ingest. It is the beak that also injects the enzyme. So venomous, is the blue-ringed octopus of Asia and Australasia that a bite from the species can kill an adult human. Luckily ours are not dangerous at all!

They are eaten by many predators including, fish, otters, fur seals and man yet, surprisingly, they are often very approachable if you meet one underwater. As is the case with most species, close encounters are all about your body language and a smooth slow approach is necessary to avoid that the octopus does not squeeze itself deep into the recesses of its lair and out of view. Indeed in my very first octopus encounter here in Betty's Bay the animal remained fully exposed at the entrance to its hole, reached out a tentacle and touched my hand, exploring the sensations of my skin in the process. Mostly benthic, they 'crawl' over the bottom slowly searching for prey which they catch with their heavily suckered tentacles. However if threatened they will escape quickly, often releasing a cloud of black ink to confuse the potential predator (a nautilus does not do this).

We are honoured that local lad, Craig Foster and his team at Sea Change, who produced the Oscar-winning film, 'My Octopus Teacher', has brought so much global attention to these fabulous creatures. Perhaps more importantly he, in turn, has taught us the value of empathy towards our fellow species as well as the global significance of the Great African Seaforest, the very same kelp forest right in front of our village. Octopus, as well as cuttle fish, are remarkable for their ability to camouflage. I have watched a mimic octopus in Indonesia change, almost instantly, its colour pattern, texture and even shape. As I watched it transformed completely from looking like an octopus to looking like a flounder - even down to the swimming movement!

Our common octopus is generally of a reddish hue but can change very well both its texture and colour to blend exactly into its surroundings. Amazingly it can virtually disappear before your eyes. I visited my new 'friend' in Betty's Bay for fourteen consecutive days and it very quickly became totally accustomed to me. The individual animals are often hard to spot until a visual search image is formed in your brain to look, not for an octopus per se, but what an octopus might look like in its surroundings. A major clue is to find a little spot strewn with clam shells or the parts of exoskeletons of crabs and lobsters devoured by octopuses. Even then, to find the culprit may take a minute or more.

More remarkable perhaps is that an octopus has nine 'brains', one central dense cluster of nerve ganglia and then another eight - one as the base of each arm! The tentacles are seemingly capable of individual action and 'thinking' always surprising you with the dexterity of their movement. The well-developed eyes too show signs of a sentient being. Similar in many ways to our own, there is an undeniable contact and 'recognition' when meeting their gaze. As if that was not enough, an octopus' blood is blue, based on a haemocyanin, rather than our own iron red haemoglobin!





Regarding the paper nautilus, I have yet to see one alive. They are elusive pelagic creatures found out to sea off our shores. We are all familiar with their delicate spiral shells which can be sometimes found washed up on the beach. This shell is only secreted by the female, who is much larger than the male and it is used as a chamber to brood her eggs. Nautilus too are octopuses, both species use jet-propulsion for fast movement through water. After sucking in water through the mobile siphon, when forcibly expelled, the animal moves quickly through the water in the opposite direction.

It is hard to believe that octopuses are molluscs, in the same family as slugs, mussels and the common snail. We have still much to learn about this incredible group. Sadly they do not usually live more than a year or two. In Betty's Bay our Marine Protected Area is under threat, both from the heavy onslaught of abalone poaching and over-fishing. Yet, there are still a plethora of species to find amongst the kelp fronds. We encourage you, that when you go for a swim to don mask, snorkel and flippers and explore another world here on our doorstep.

## **Harold Porter National Botanical Garden**

*Delicia Appel*

**T**he beautiful Harold Porter National Botanical Garden is situated in the centre of the coastal fynbos, where the flora is at its richest. It is an important guardian of biodiversity and a reservoir of seeds for the Kogelberg Biosphere Reserve. It provides visitors to Betty's Bay with a chance to see up close the rich variety of our flora and the birds and insects that pollinate them.

Stepping into the Harold Porter NBG at any time of any day is always a joy. The stunning beauty is enhanced by the fact that you can experience four major types of flora in the Harold Porter NBG: fynbos, afro mountains forest, wetlands, and coastal dunes. Another amazing part of the garden is a Khoisan section of medicinal plants with very informative boards that share the interesting botanical history of the local peoples.

Harold Porter, Arthur Youldon and Jack Clarence acquired land in the 1930s that included Betty's Bay (named after Youldon's daughter, Betty), Pringle Bay and Rooiels. In 1940, after a fire, Harold Porter established a garden and private

nature reserve, Shangri-la. After his death it was added to, renamed Harold Porter Garden, and in 1959 it was handed over to the National Botanical Gardens of South Africa. In 1962 more land was added that included Disa Kloof and Harold Porter Garden continued to acquire additional parcels of land. The Harold Porter National Botanical Garden is now 200.5ha and stretches from the Kogelberg mountain range to the sea encompassing the whole river system. Ten hectares have been developed as garden and the rest is managed as a natural reserve included in the core area of the Kogelberg Biosphere Reserve.<sup>4</sup>

Hiking trails in the natural areas can keep you busy for between 1 and 5 hours, or stay in the gardens and stroll through the indigenous nursery and the botanical sections reflecting different local environments before settling down for a picnic in the shade. The restaurant has been closed since the Covid-19 pandemic. There is often a pop-up coffee kiosk at weekends.

There are several walking trails within Harold Porter but **Leopard's Kloof** is a particularly beautiful, and relatively easy morning hike, only 1.5 km each way. It offers spectacular scenery of fynbos and renosterveld, river crossings, as well as a variety of unique ecosystems. The hike is well signposted, with the final section being steep and aided by a series of wooden ladders. This trail is for the reasonably fit and requires a permit obtainable at the entrance. Winter is wet and rainy so this is when the waterfalls are at their best.

**Disa Kloof Walk** is a wheelchair-friendly, short trail through lovely shady glades. Follow the Dawid's Kraal river up as far as the beautiful Disa Kloof waterfall. It is named after the red disa orchids (*Disa uniflora*) which flower on the cliff faces from mid-December to the end of January. These orchids also grow at Leopard's Kloof waterfall. Every year visitors make this journey to Harold Porter Garden to come and see these orchids flower. It truly is a worthwhile treat and must-see when you visit our garden during December and January - so bring along those binoculars. Apart from the amazing flora you should also see lots of Cape river frogs, many different bird species, with extreme luck a Cape clawless otter or two, and you might even see our local baboon troop who are regular visitors.

There is nothing better than an al fresco treat in the fresh air. On the first Tuesday of every month over-60's get free entry. Being outdoors and with so much space, it's the ideal social-distancing family excursion. With the Covid-19 pandemic still ongoing, the Harold Porter Gardens have safety rules in place for both staff and visitors. The garden is currently running a staff capacity of 50 percent with two rotational teams.

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<sup>4</sup> SANBI History of the Harold Porter National Garden, <https://www.sanbi.org/gardens/harold-porter/history/>

# African Penguins

*Lauren Waller*

The African penguin is a southern African endemic species, and Africa's only breeding penguin species. Its breeding range extends from Namibia through to islands in Algoa Bay off South Africa's south coast. Sadly, it is a species in deep trouble. It is currently listed as Endangered by the IUCN and the population continues to decline, with recent declines driven largely by reduced availability of food. It's an unfortunate conservation threat status it shares with three other endemic southern African seabirds, the Cape Gannet, Cape Cormorant and Bank Cormorant.



Seabirds worldwide are considered ocean sentinels, providing us with an indication as to the health of our oceans. While they spend much of their time at sea, they do come to land to breed. This makes them easier to monitor than some other marine top predators and so we're able to obtain accurate details on their population numbers, as well as other demographic information that contributes to providing a picture of how they are responding to the state of our oceans. They are thus the proverbial canary in the coalmine, and right now, they are telling us that there is a problem.

The African penguin is a charismatic species with the two land based colonies in South Africa at Simon's Town and Stony Point providing the only opportunities currently for the public to watch and observe them throughout the various phases of their life cycle on land. Visiting Stony Point is an absolute must, particularly during the main African penguin chick season (March – October) where it's possible to see loads of fluffy chicks loafing in the sunshine and their parents preening them. Summer is moulting time for African penguins, a period during which they replace all their feathers in order to maintain their waterproofing to feed in these cold waters. From end November to early January, you'll see thousands of penguins moulting along the shoreline, some of which we suspect come to Stony Point from other colonies to moult. During this moulting period on land, they do not eat for 21 days after having a pre-moult fattening feed at sea for about 4 weeks.

Stony Point is in fact a seabird colony of National importance. This seabird colony is an important breeding site for 3 endangered seabird species, the African penguin, Cape Cormorant and Bank Cormorant and is also a site where you can see four of South Africa's five cormorant species (Cape, White breasted, Bank and Crowned), as well as a number of other coastal shorebird species.

Counting of all the African penguin breeding colonies is currently underway to determine the size of the breeding population for 2021. Estimates from 2019 however, which is when we have the last complete national census figures for African penguins, shows that the Stony Point African penguin colony was the 4th largest African penguin breeding colony in South Africa and 2nd largest in the Western Cape. Unlike the colonies along the West coast and in Algoa Bay, which have seen alarming population crashes, the African penguin population at Stony Point has grown steadily

since the first African penguins started breeding in the early 1980s to a peak in 2015.

The Stony Point seabird colony is managed by CapeNature. They conduct counts of all the breeding birds, monitor the breeding success and chick condition of African penguins and conduct moult counts. All this data is important in understanding how the birds are responding to their environment and can be used to guide management decisions. Additionally, CapeNature improves the breeding habitat of the birds, implements measures to minimise losses due to flooding, and mitigates against predation threats and other disturbance. The staff are also on the constant lookout for oiled, diseased or injured birds and abandoned chicks which are rescued and sent to SANCCOB for rehabilitation and release. SANCCOB also supports CapeNature by providing an Assistant Seabird Ranger to assist with all this important work.

Stony Point is most certainly a jewel in the Overstrand crown. It's a site to be treasured by the residents; and well worth the visit by tourists.

## **Invasive alien plants and their management in the KBR**

*Brian van Wilgen<sup>5</sup>*

**F**or the past 300 years, and more, farmers, foresters and gardeners have been importing into South Africa a range of plants from other parts of the world, and trying to establish them as crops or in pastures, in forest plantations, or in gardens. Many of these alien species cannot survive without active support, but some do establish by themselves, and manage to reproduce. A relatively small proportion of these naturalized alien plants then become invasive, spreading across the landscape and replacing the native vegetation. The Kogelberg Biosphere Reserve is now home to a number of invasive alien plant species, some of which are potentially very damaging.

The main invasive alien species in the Kogelberg Biosphere Reserve are Australian acacias (Port Jackson and rooikrans trees), eucalypts (spider gums) and myrtles, and North American or European pine trees. The core area (Kogelberg Nature Reserve) is still relatively free of alien plants, but the municipal and private land between the mountains and the sea is in real danger of becoming badly invaded. This is of concern, because the alien trees replace the unique fynbos vegetation, potentially driving many of our unique fynbos species to extinction, reduce the streamflow from mountain catchment areas, and increase the intensity of wildfires.

The fynbos vegetation that is being invaded by these plants is subject to regular burning, and this helps to spread the invasive aliens. Pine trees store their seeds in cones, which open after fires to release hundreds of seeds. Each pine seed has a wing, and can be carried aloft over long distances by the wind to establish new populations far from the parent plant. Australian acacias produce millions of hard-coated and long-lived seeds which accumulate in the soil between fires. Fires stimulate these seeds to germinate en masse, making it very difficult to remove all of them. Given the ability of pine seeds to travel long distances, they will eventually cover the entire Kogelberg, as has happened in other nearby areas. See photo of invasive alien pine trees in the mountains above the Theewaterskloof Dam near Villiersdorp. These pines, which spread from nearby forestry plantations, have now completely replaced the native

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<sup>5</sup>Brian van Wilgen is Emeritus Professor at the Centre for Invasion Biology, Stellenbosch University.



1 Invasive alien pine trees in the mountains above the Theewaterskloof Dam near Villiersdorp. These are pines which have spread from nearby forestry plantations and have completely replaced the native fynbos vegetation.

2. Galls caused by an introduced biological control agent on black wattle. The galls are produced by the larvae of a deliberately-introduced Australian fly that lays its eggs in black wattle flowers, preventing seed production because the flower develops into a gall instead of a seedpod. This has practically stopped seed production in black wattles, reducing their invasiveness and making them easier to control. It is also safe, because the fly only attacks black wattles, and will not attack any native plants species.

## Conserve our Floral Heritage

3. Endangered *Haemanthus canaliculatus*

4. *Erica Perspicua* – Prince of Wales heath



The endangered *Haemanthus canaliculatus* is a local endemic restricted to damp depressions between Betty's Bay and Rooiels that flowers February to March with leaves showing from May to December. Prince of Wales heath flowers

fynbos vegetation. The government has taken a number of steps to address these issues. First of all, it is now illegal to have declared invasive alien species (such as pines, acacias, spider gums and myrtles) on your property, and by law you have to remove them<sup>6</sup>. Secondly, the Department of Environment Affairs provides funding for job creation in the form of alien plant clearing teams, in a programme known as “Working for Water”. Thirdly, the government provides funding for research into biological control of some alien species, and this has led to reducing the invasiveness of some species including *Acacia mearnsii*, one of the Australian acacias in our area, see photo<sup>7</sup>. In addition, local hack groups staffed by volunteers have in the past done sterling work in keeping some areas clear of alien plants.

The problem is that, despite the efforts listed above, many alien species are still spreading much faster than they can be cleared. This is especially true in the case of pine trees, which have no effective biological control agents. Our research has shown that the area invaded by alien pine trees will double within 10 – 15 years given current levels of spending on control programmes. Preventing this from happening would require a doubling in the level of funding, which is unlikely given the current economic downturn and the severely depleted state of government coffers. The only viable solution would therefore be to practice what is known as conservation triage, abandoning control in certain areas, or of certain species, to make the scarce funds available for other, higher-priority areas or species. This would ensure that at least some areas receive sufficient funding to be able to reverse the spread of alien plants in priority areas. The alternative (business-as-usual by funding many projects all over the place at sub-optimal levels) will result in our fynbos protected areas becoming over-run in the near future. My personal recommendation would be to focus on a few priority fynbos protected areas, and then to put all of the available funding in those areas into the control of pines only, as they are the species that will eventually invade every available square meter of ground, as can be seen in the photo from the Theewaterskloof dam area.

I believe that the Kogelberg should be one of those priority areas, as the core of the reserve is not badly invaded – yet. The main threat will come from a multitude of pine trees on private and municipal land around the borders of the core protected area. These landowners should be required, and if necessary assisted, to clear invasive pines from their properties. If this can be achieved, the Kogelberg Biosphere Reserve can be saved from a threat that will otherwise simply overwhelm the area, resulting in the loss of most of its unique biodiversity. A comprehensive and effective alien plant control strategy will require a collaborative management plan that covers the entire Biosphere Reserve (and not just for the core protected area), with buy-in and support from Working for Water, CapeNature, the Overstrand Municipality, volunteer hack groups and the majority of landowners. This will not be easily achieved, but it is a goal worth striving for.

<sup>6</sup> National Environmental Management: Biodiversity Act, Section 71(1) which prohibits possession of a listed invasive species without a permit

<sup>7</sup> The photo shows galls caused by an introduced biological control agent on black wattle (*Acacia mearnsii*), an Australian acacia species invasive over large parts of South Africa. The galls are produced by the larvae of a deliberately-introduced Australian fly that lays its eggs in black wattle flowers, preventing seed production because the flower develops into a gall instead of a seedpod. This has practically stopped seed production in black wattles, reducing their invasiveness and making them easier to control. It is also safe, because the fly only attacks black wattles, and will not attack any native plants species.

## Birding in Betty's Bay

*Keith Hamilton*<sup>8</sup>

Betty's Bay is already well known for its birding, thanks to the Stony Point Penguin Colony and Harold Porter Botanical Gardens. These two locations on their own provide essential stop off points for all birders passing through or staying in Betty's Bay. What makes an area great for birding can be largely dependent on how many habitats can be found in that area. The more habitats, the more variety of birds there will be to find. This is one of the main reasons why Betty's Bay as a whole is a brilliant birding location. It has the open ocean, rocky and sandy beaches, fynbos, wetland marshes, freshwater streams and lakes, mountains slopes, indigenous forest, a botanical garden, and the residents' gardens.

Starting with Stony Point, apart from the much-loved African penguins and seagulls, one can find four species of cormorant breeding there - Cape, White-breasted, Crowned and the endangered Bank Cormorant. Take your time to scan through the crowds of Cape Cormorants and you will find the others. The outermost lookout deck also provides a stable platform for doing some pelagic bird spotting during winter cold fronts. The wind can be quite extreme, but that's what brings the birds closer to shore as they seek some relief from the storms. Shy Albatross, Black-browed Albatross, Giant Petrel, White-chinned Petrel, Sooty Shearwater, Brown Skua, and Parasitic Jaeger can be seen.

Before leaving the beach area one should also walk the shore path to find the African Black Oystercatcher, Kittlitz's Plover, Three-banded Plover, and White-fronted Plover. The entertaining Egyptian Geese and Sacred Ibis have also increased in numbers in recent years.

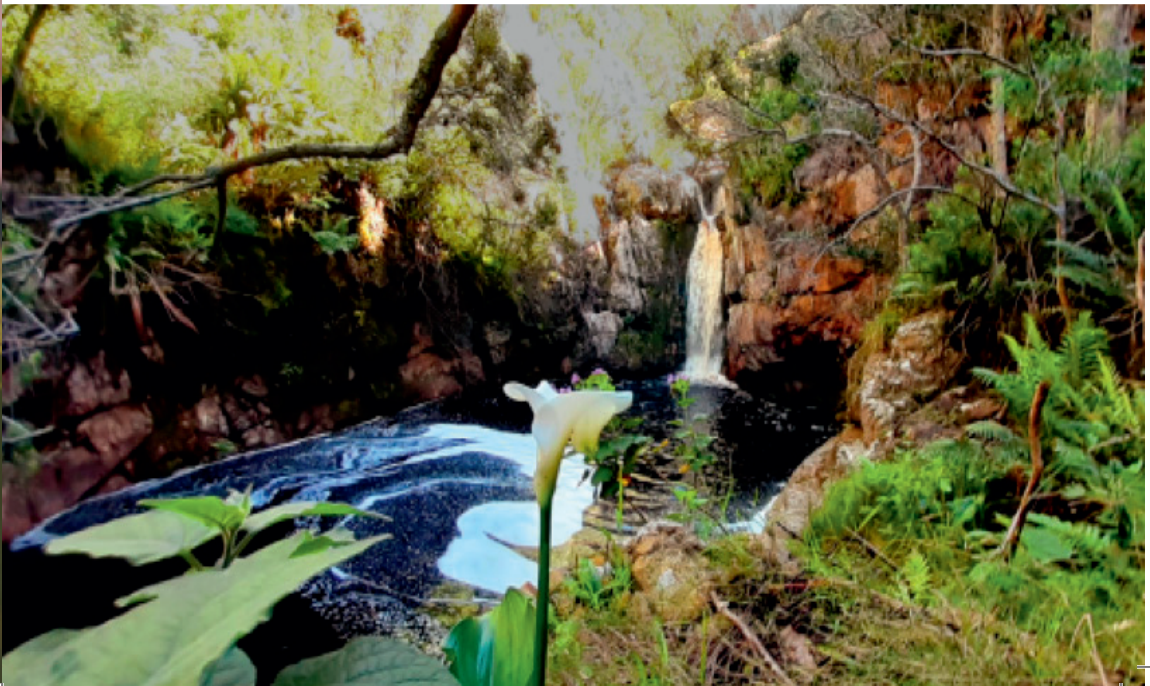
Harold Porter requires a bit more time as there is a large area to cover and a lot to see, with nearly 100 species recorded. The garden provides the ideal settings for bird photography with proteas, aloes and ericas providing the perfect perch for four different Sunbird species and the Cape Sugarbird. The forest area requires good listening skills to pick up on what's going on in the dense green canopy above and the river below. Blue-mantled Crested Flycatcher, African Paradise Flycatcher, African Olive Pigeon, African Black Duck, Olive Woodpecker, Cape Batis, African Goshawk and Reed Cormorant can usually be found here. Higher up in the gardens, the fynbos, which is recovering well from the fire, can be very rewarding too, with Victorin's Warbler, Cape Siskin, Cape Bunting, African Hoopoe, Cape Grassbird and Neddicky being regulars here. Keep a look out in the skies above for Verreaux's Eagle, Rock Kestrel, Jackal Buzzard, Black Saw-wing, Rock Martin and a few Swifts. The gardens are also a hot spot for vagrant birds such as the White-fronted Bee-eater which appeared recently. The best part about Harold Porter is that if the birds aren't showing one can still just enjoy walking the gardens and appreciate all the hard work that is put in to

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<sup>8</sup> **Editor's note:** Keith is in the final stages of completing a magnificent photographic book on the birds of Betty's Bay! It is a limited, small edition. Keith can be contacted through [bettybayconservancy@gmail.com](mailto:bettybayconservancy@gmail.com)







maintaining this special place. Other good birding spots are the fynbos flats on the left of Clarence Drive as you enter Betty's Bay from the Pringle Bay side. There are plenty of Orange-breasted Sunbird, Grey-backed Cisticola, Yellow Bishop and a few African Stone Chat. This is also the best spot to find Fynbos Buttonquail and Grey-winged Francolin. Dawidskraal and the river to the south of Harold Porter are also worth a visit as there is a Tern roost on the beach and a wetland area with Kingfishers and Warblers.

The three fresh water lakes surprisingly appear to not hold too many birds, but they are there. The middle lake, Grootvlei, is the best to visit, but access can be difficult due to the invasive bull rushes that have encircled the lake. If you can get through you may be lucky enough to find African Snipe, African Swamphen, Black Crake, Common Moorhen, African Spoonbill, Red-Knobbed Coot, Caspian Tern and the usual Herons and Egrets. When water levels are lower the lake provides a roosting site for hundreds of Hartlaub's Gulls and a few Grey-headed Gulls.

Out of all the habitats, the residents' gardens are the most important as they take up the majority space and are influenced greatly by what we do with them. Many residents have done well to keep sections of natural growth and to plant more indigenous plants. As a result, garden birding in Betty's Bay can be extremely rewarding as birds move from one garden to the next. The Cape Rock-thrush, Cape Francolin, Karoo Prinia, Cape Bullbul, Cape Robin-chat, Bar-throated Apalis, Sunbirds, Rock Martins, Starlings, Pigeons, Doves and Sparrows keep us all company.

All in all, there are probably 170 to 190 bird species to be found in Betty's Bay. There can't be many better places to get outdoors, admire the surrounding landscape, and engage with nature!

## **The Marine Protected Area (MPA)**

*Mike Markovina*

**D**ue to its ecological importance, the Kogelberg Biosphere Reserve (KBR) was the first Biosphere Reserve to be declared in Southern Africa and forms part of UNESCO's worldwide network of Biosphere Reserves. The KBR is approximately 103,629 hectares in size. Within the KBA, a core marine reserve known as the Betty's Bay Marine Protected Area, formally known as the H.F.Verwoerd Marine Reserve, promulgated in 1973, accounts for only 1,629 hectares with an extended coastal marine buffer zone of approximately 23,000 hectares. Dr Allan Heydorn describes the marine component of the KBR as exceptionally productive due to the mixing of two major oceanic currents, the sub-tropical Agulhas Current and the cold Benguela current, which through a process of upwelling provides nutrient-rich waters along the coastline. This productivity enables commercial and recreational fisheries.

Historically whaling played a crucial economic role in the region in the early 1900's. The remnants of the Betty's Bay whaling station situated at Stony Point, which was closed in the 1930's is still observable, and along with the African penguin population (*Spheniscus demersus*), which has become more established at Stony Point since the 1980s, the area has become a key tourist "hotspot".

The largest fishing community is Kleinmond, with only a handful of fishing rights holders from Betty's Bay and Pringle Bay. Typically boat-based fishers would target reef-associated species, including Hottentot seabream (*Pachymetopon blochii*), Red Roman (*Chrysolephus laticeps*) and Carpenter (*Agyrozona argyrozona*) year-round within the MPA. Boat-based fishers targeted the Stony Point reef extending from the old whaling station lighthouse seaward from 18 – 40m depth in the late 1980s and early 1990s for reef-associated species like the Red Roman, which were quickly fished beyond their sustainability. The south-easterly summer winds trapped warmer dirty water in the kelp beds within the Bettys Bay MPA, which is when the fishers targeted the summer migrating Geelbeck and Kob stocks. The key to catching Geelbeck and Kob was to watch the barometer, and as it dropped after a few days of south-easterly high pressure and if the water "had good colour" the fish was on. The fishermen had unique "holes" in the kelp, known by name, for example, "Blougat", a very productive spot in the kelp less than 100m from the Bettys Bay main beach. These high valued species provided local fishers with invaluable boosts in revenue. Arguably one of the essential economic fisheries is the winter snoek migration; however, this migration has become inconsistent and infrequent over the past two decades. Shore-based angling is another import activity within the Bettys Bay MPA. Residents, holidaymakers and local fishers target common species like Galjoen (*Dichistius capensis*), Cape Stumpnose (*Rhabdosargus holubi*), Kob, Geelbeck, Blacktail Seabream (*Diplodus capensis*) White Steenbras (*Lithognathus lithognathus*) and Zebra Seabream (*Diplodus hottentotus*, commonly known as wildeperd). Of the species mentioned, only Galjoen, Kob and Geelbeck are most readily caught today, although in far fewer numbers.

Since the early 1990s, the escalation of poaching for both abalone (*Haliotis midae*) and west coast rock lobster (*Jassus lalandii*) has proliferated uncontrollably, fuelled by declining fish stocks, an abundance of resource, lack of management and enforcement and a booming international market. Despite intensifying law enforcement activities, an increase in marine conservation awareness over the last decade within the KBR, mediocre marine management, lack of continuity in law enforcement, inadequate prosecution of perpetrators, corruption and organised crime continue to undermine conservation efforts. Today, there is no part of the coastline within the KBR that is safe from the overexploitation of these resources.

The consequences of poaching within the KBR and the Bettys Bay Marine Reserve are prolific, both socially and biologically. Socially, the notion of what an artisanal fisher represents, hopes, dreams, income, family, marine knowledge, self-worth, sacrifice and skill are lost. Instead, fishers are objectified as poachers, gangsters and thugs who care little for the resources. The loss of trust and value of the greater community within the KBR underlines the immensity of the challenge we as a community need to overcome if we are to successfully achieve effective marine conservation interventions that benefit society and ecology. The effects of poaching within the MPA, coupled with poor management and intensive fishing, have contributed to the decline in diversity of species, both vertebrate and invertebrate. By continually stripping abalone from the rocks, the environmental niche it fulfils as a grazer diminishes. Anecdotal evidence from personal observations throughout the Bettys Bay MPA over the last



three decades describes a proliferation of subsurface algae. Thick clumps of algae now represent areas of reef previously inundated with red bait, worms, sea urchins, abalone and encrusting corals. These once vibrant, diverse reefs are barren, algae dominated with low fish diversity (dominated primarily with Hottentot), yet packed with west coast rock lobster. Although it is difficult to quantify, the decline of biodiversity has resulted in the marine ecosystem in the KBR seems to have equilibrated at a lower level of biological diversity. It is difficult to determine the ecological loss definitively because there is a porosity of historical long-term scientific data and information for the area. Despite these harsh realities, three interesting observations after a two-year research program may provide a sense of hope for the future.



Since 2017, WWF-SA, the Kogelberg small-scale fishing communities and the KBR Marine Working Group worked collectively to implement the Kogelberg Small Scale Fishery Improvement Project (KB-SSFIP) action plan to help sustain it. One of the strategic acts of the KB-SSFIP is to catalyse an inclusive research and monitoring regime in the small-scale fisheries sector. This project utilised Baited Remote Underwater Video Systems (BRUVS)<sup>9</sup> to conduct a multi-species survey of line fish and west coast rock lobster (WCRL) in the Kogelberg Region. This project aimed to enhance the current research and data collection approach by introducing an inclusive sampling and monitoring system in the Kogelberg Region. By focusing on community-driven research and engagement, the project facilitated legitimate participation in data collection and information sharing; it encouraged involvement by the fishing communities in research activities. Twice per year, once in summer and once in winter from February 2017 through to August 2018, nearly 250 BRUV cameras were deployed following a scientific plan inside and adjacent to the Betty's Bay MPA at depths ranging from 5 to 45 meters. Data collected were compared to BRUV data from the Walker Bay Whale Sanctuary in Hermanus by the South African Shark Conservancy (SASC).

Initial results analysed by Dr. Osgood, a visiting PhD student using the BRUV data to analyse chondrichthyan (sharks, rays and chimaeras) diversity and abundance were encouraging for the Betty's Bay Marine Protected Area. By analysing three metrics, total mean fish abundance, total mean species richness per BRUV, and mean west coast rock lobster per BRUV, the Betty's Bay MPA showed its importance.

### **Mean total fish abundance:**

There is a significantly higher mean total abundance of fish (Poisson GLM,  $p < 0.001$ ) and sharks (Poisson GLMM  $p < 0.001$ ) in the Betty's Bay Marine Protected Area compared to sites in Walker Bay (both inside and outside the Whale Sanctuary).

<sup>9</sup> IMAGE 1: BRUV deployed in Betty's Bay MPA on a 15m deep shallow sand patch close to the edge of the kelp forest.

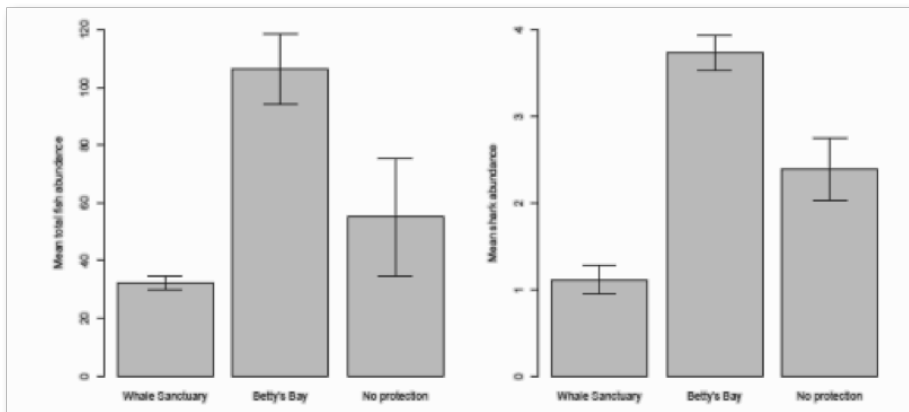


Image 2: The Betty's Bay MPA showed not only a higher mean fish abundance but a higher mean shark abundance compared to other sample locations. The reef off Stony Point is dominated by Hottentot but it also showed higher numbers of Red Roman than anticipated.

### Total mean fish species richness per BRUV:

There is a significantly higher species richness of fish and sharks in the Betty's Bay Marine Protected Area than in Walker Bay (both inside and outside the whale sanctuary).

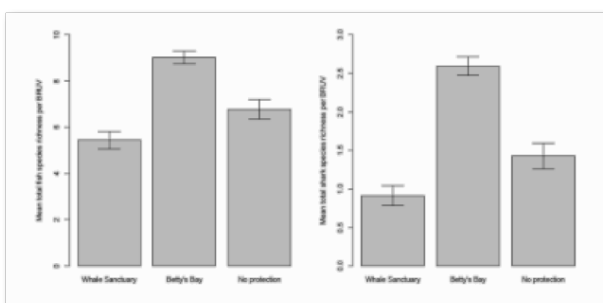


Image 3: Species richness, or the number of different species represented per BRUV (relative measure), is higher for both fish and sharks in the Betty's Bay MPA. The associated image of a 7-gill cow shark (*Notorynchus cepedianus*) approaching the BRUV at 20 meters depth on a deep sand habitat off the main beach in Betty's Bay.

### Mean west coast rock lobster abundance per BRUV.

The mean abundance of west coast rock lobster in Betty's Bay MPA was incredible. Historically the west coast rock lobster migrated south-eastwards from the west coast for reasons largely unknown. However, this migration results in impressive abundance estimates on every BRUV at each depth range and across all habitat

types. The Bettys Bay MPA, therefore, plays a significant role in lobster conservation in the area. Despite the migration of lobsters to the area, the high abundance constantly observed is likely due to the high rugosity (structural complexity) of the habitat.

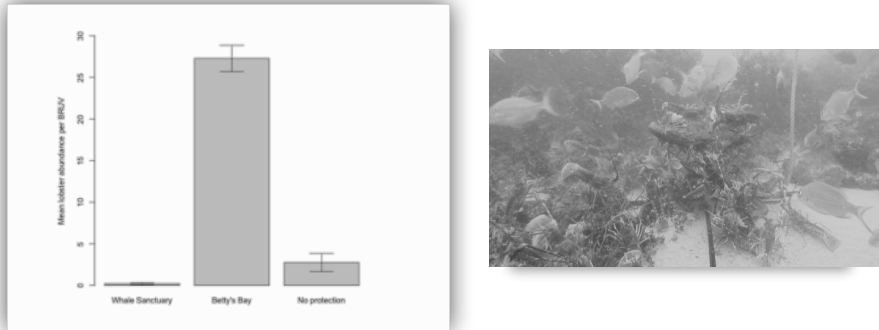


Image 4: The west coast rock lobster abundance per BRUV in the Bettys Bay MPA is significantly more significant than all other areas sampled. The associated image shows lobsters swarming the bait canister. Often data analysis, which includes counting each lobster to determine the maximum amount of lobsters in any frame of footage (referred to as MaxN – maximum number), could not be done as there were so many lobsters that they blocked out the camera entirely.

What were the three observations made that may provide a sense of hope for marine conservation in the Bettys Bay MPA? In summarising the results, the first observation is that regarding species abundance and richness, Bettys Bay MPA outperforms all other areas sampled. Let's be clear; the results do not mean that marine management of the MPA is effective; instead, it suggests that despite poor marine management, the rugosity and different types of habitat incorporated within the MPA boundaries are providing significant refuge for species. These results imply that with more effective leadership, and an improved marine conservation outlook from the community, the Bettys Bay MPA may be one of the most critical marine refuges in the area. The second observation is that the diversity and abundance of chondrichthyans, i.e. sharks, rays and chimaeras, are significantly higher than all other areas sampled. The data is starting to inform us that maybe the Bettys Bay MPA plays a more significant role in shark and ray conservation than we ever previously considered. The third observation is that species like the Red Roman and even the Red Steenbras (*Petrus rupestris*) were observed on deep reef locations within and adjacent to the Bettys Bay MPA. Although it is difficult to suggest that these species are recovering from severe overfishing as there is no historical data for comparison, their presence in the BRUVs indicates a recovery, which is very encouraging.

In addition to scientific publications, the data is visualised on a map, which will

be live online for scientists and managers to access (see inside back cover). The colour of the rings on the map denotes species, which is described in the leger on the left of the map with the corresponding colour block. The size of the circle represents the relative abundance of that species. A wider audience can appreciate the results by visualising the data without having to read or consult a scientific publication. This platform will be crucial when delivering community engagement presentations regarding marine conservation and the importance of the Bettys Bay MPA. The BRUV project has received funding to continue until 2023, thereby creating a comprehensive database of relative species abundance and richness within the KBR. Furthermore, the data collected by fishermen in the KBR can be used by managers to make informed decisions, thereby ensuring the process is inclusive of stakeholders.

## **Edged out: Urban edge policy & endangered plants in our Biosphere Reserve**

*Tony Cunningham*

**T**he urbanization trajectory we are on today started in the 1930's when Harold Porter, Arthur Youldon and Jack Clarence established the Hangklip Beach Estates, dividing the area into three townships (Betty's Bay, Pringle Bay and Rooiels), which were subdivided into residential plots. At that time, there was neither the population pressure of today, nor of conservation as a global need. And houses were small in relation to plot size. But at the time, the increase in housing density in what is now a Biosphere Reserve, was unimaginable. Further increases in housing density supported by Urban Edge policy come at what cost to the beauty and biological diversity of this area?

All conservation conscious people in the Overberg will know of the IUCN Red List ([www.redlist.org](http://www.redlist.org)), which ranks the world's species according to conservation threat status. And it's national equivalent, the Red List of South African plants (<http://redlist.sanbi.org/>). But have you ever heard of the "Urban edge", a policy tool since the early 1990's that advocates higher density housing within urban areas?<sup>10</sup> Although regarded as a failure in some parts of the world, the "Urban edge" is the standard "fall back" position of the municipality whenever queries are raised about houses being built in environmentally sensitive sites within Betty's Bay, Rooiels or Pringle Bay. You may even have had a common response from the municipality to a query about inappropriate development. If not, then here's an example of a reply from the municipality in relation to loss of a wetland under housing at Betty's Bay: "Unfortunately there are no regulations that protect a wetland on erven established before 1998 (pre-NEMA) within the Urban Edge. If the property was outside of the urban edge, EIA regulations would apply". Surely it is possible to do better than do nothing?

Consequently, it is worth asking what the Overstrand municipality's "Urban edge"

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<sup>10</sup> <https://www.overstrand.gov.za/en/documents/town-planning/strategic-documents-1/overstrand-municipality-spatial-growth-management-strategy-2010/1336-02-section-1-7-1/file>



policy matter means for us, as residents in South Africa's first UNESCO Biosphere Reserve (and to the world's smallest and richest plant floristic region, the Cape Floral kingdom). Unlike the Urban Edge policy, which less than 30 years old, the Cape Floral kingdom is an ecosystem that evolved over hundreds of thousands of years. With many species found here and nowhere else in the world. One of the major threats to those species is dense development of coastal housing. As you read this article, for example, a home is being completed on what until recently was half the world's population of the Betty's Bay blood flower (*Haemanthus canaliculatus*). This beautiful endangered species<sup>11</sup> is only known from the area between Betty's Bay and Rooiels and was first described as new to science in 1966. In 2007, Dr Dee Snijman and her colleagues<sup>12</sup> pointed out that "*Haemanthus canaliculatus* was known from three locations with fewer than 1 000 mature individuals in the total population". The population may have been larger. There were 500 – 600 plants in a single coastal seep (possibly half the world's population of this species) in Betty's Bay. This entire population was been destroyed to build an ultra-modern home near Jock's Bay.

Similarly, recent clearing of a development site at Betty's Bay totally removed habitat of the endangered orchid *Satyrium hallackii* on that plot, the Western Cape sub-species of which is now extinct or endangered throughout its range due to coastal and urban development<sup>13</sup>. To my knowledge, there was no coordinated effort to salvage plants from these sites.

What can you do as residents and ratepayers?

- (1) Familiarise yourself with the Overstrand Municipality's urban edge policy and call for revisions where needed, so that the Urban Edge policy is not a "blunt instrument" that wrecks the buffer zone of the Kogelberg Biosphere Reserve. What is needed is a "policy scalpel", not a sledge hammer;
- (2) ask for Environmental Impact Assessments (EIA's) to be carried out where these are required;
- (3) if you are planning a home here on an environmentally sensitive site, raise awareness amongst architects and builders on how to minimize impacts; and
- (4) if development is inevitable, find out what organizations such as Cape Nature, the Harold Porter Botanical Garden can do, together with the Botanical Society and public support, in order to salvage plants that will be destroyed.

## Oystercatcher Watch

*Myrna and Colin Cook*

We are happy to report that the African black oystercatchers (*Haematopus moquini*) under our watch have had a successful breeding season this year. There are a number of people who have taken on responsibility for monitoring and nannying the oystercatchers in Betty's Bay. Sarah and Richard Starke pioneered

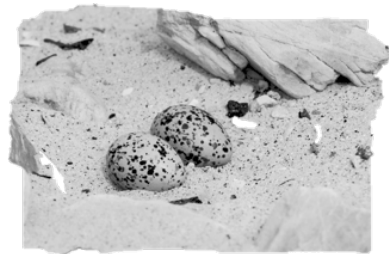
<sup>11</sup> See photo on on page 12

<sup>12</sup> Snijman, D.A., Raimondo, D. & Victor, J.E. 2007. *Haemanthus canaliculatus* Levyns. National Assessment: Red List o South African Plants version 2020.1. Accessed on 2021/02/11

<sup>13</sup> von Staden, L., Liltved, W.R. & Oliver, T.A. 2006. *Satyrium hallackii* Bolus subsp. *hallackii*. National Assessment: Rec of South African Plants version 2020.1. Accessed on 2021/02/11

oystercatcher conservation efforts more than 25 years ago, and Richard continues to monitor the breeding pairs on the beach between the Bass Lake river outlet and Dawidskraal. Judy New does so between Dawidskraal and the Dawidskraal eastern river outlet. In 2019, Judy recruited Wendy and Mark Lucas and ourselves to do likewise in our respective areas. Wendy and Mark take responsibility for Silversands, and we take responsibility for the area between the rocks to the west of the main beach swimming area and Sandbaai near Stony Point. In the 2020-2021 breeding season, we have had seven breeding pairs, nine breeding attempts, eighteen eggs laid, nine eggs hatched, and seven chicks fledged. This compares favorably with the 2019-2020 breeding season, when we had five breeding pairs, eleven breeding attempts, twenty-three eggs laid, seven eggs hatched, and four chicks fledged. As we understand, it is only necessary for each breeding pair to successfully fledge one chick every three years for the population to remain stable. Any more than this will result in population growth. By this measure, both seasons were a success, but the 2020-2021 season more so. An important difference between the two seasons was the Covid beach access prohibition in January 2021. The oystercatchers must have appreciated our absence during this critical breeding period.

From the numbers above, it seems that loss of eggs is an important cause of breeding failure. One of the causes is high spring tides. Judy has encouraged us to monitor the nests daily and to move the eggs higher up the beach if they are threatened by high tides. This is something we can do to facilitate success.



Another cause of failure is likely to be disturbance of the nesting adults by Homo sapiens and their accompanying *Canis lupus familiaris*! And this is another intervention we can make. These oystercatchers are endemic to southern Africa, including our Betty's Bay shoreline. There is a total population of only 6000 individuals! We put up "Share the Shore" signs at the start of the breeding season. We are unsure if anyone actually reads them or takes cognizance of them. If we could all keep our dogs on leads, and if we could avoid disturbing the nesting adults and young chicks, this would go a long way to helping our oystercatchers in their breeding attempts.

Early in the season, we were treated to a magnificent aeronautical display one evening in front of our house by Die Eiland. Our first breeding pair had two new

chicks just two days old. A persistent rock kestrel wanted oystercatcher chick for dinner, but the oystercatcher parents would have none of it. The oystercatchers prevailed, the rock kestrel lost out, and both chicks were eventually successfully fledged. Congratulations to the parents; good job done!



*African black oystercatcher with chick.*

## **Cape Clawless Otters**

*Pete Oxford*

Our three coastal villages of the KBR can count themselves very fortunate to have families of Cape clawless otters (*Aonyx capensis*) living close to the shore, mostly shy and crepuscular or nocturnal in habit, they are a good indicator that our ecosystem is still relatively healthy. Otters are mustelids, in the same group as badger and weasels. There are twelve species worldwide of which I have been privileged to see eight. Here in Betty's Bay, it is only the Cape (African) clawless otter that we see. They live throughout most of Sub-Saharan Africa including deep within rainforest. Their clawless spoor is readily seen on our beaches yet, despite their name, they are not entirely clawless, having three small grooming claws on each hindfoot. They are unusual amongst their clan here in Betty's as spending a lot of time feeding in the marine habitat. Although they live far from shore in the Harold Porter Botanical Garden and are sometimes seen below the waterfall in Disa Kloof.

Based on the premise that 'the harder you work the luckier you get', I have been fortunate to see them dozens of times along our shoreline feeding, grooming, mating and even coming right up to sniff me! They are mostly social and spend time in family groups or male/male associations and I have seen up to seven together at one time. They may also travel large distances and one particular radio-tracked individual in South Africa had a range of about 20km of coastline! Despite their strong affinity for the marine environment, they require freshwater to drink and are therefore strongly dependent on freshwater drainages. Indeed, after a feeding

bout in the ocean I have watched them all in turn, drink from freshwater before they head inshore where they sleep in densely vegetated areas. Personally, I have only seen them feeding on crabs, octopus, shellfish and fish. Their vibrissae (whiskers) are extremely sensitive as is their sense of touch. Most prey is found by grubbing around in shallow water under rocks and in crevices. Their presence is best indicated by the spraint sites or latrines where droppings, full of crushed lobster shells, are left communally. They often combine with them padding around in circles as they mark with a pungent scent gland which has a very distinctive smell – another giveaway. Even if you do not get to see them for yourselves at least it is easy to find evidence of them. As you walk along the shoreline you may also pick up their very high-pitched call which is somewhat bird-like. They are shy so patience is required. I have noticed that dogs without leads seem to be a deterrent for them whereas dogs on leads seem to be recognized as little threat!



Good luck Ottering!

## Betty's Bay Baboons

Renee Bish

**B**etty's Bay has two baboon troops, one living in the far west of Hangklip and Silver Sands, the other concentrates in the central area above Disa Circle to Jock's Bay, while their full range goes all the way past Kleinmond to Heuningklip. There is a third, larger troop, which we call the Oudebosch troop that lives to the immediate north of the village just over the mountain top. It was this same troop that we watched in an impressive altercation with our baboons where our three adult males, led by the infamous Scarface, saw them off and prevented them pouring into the village. Our central troop is small, currently standing at only 20 individuals (compare that to 90 strong frequenting the Tokai area). 20 animals ranging over a 15 km stretch should surely not be the problem we have let it become.

Whether you love them or hate them they are undeniably incredible animals, highly intelligent and extremely adaptive. Even though they outsmart us constantly, it is not an unreasonable goal, given our superior brain power, to keep one step ahead of the curve and deny them access to our homes where they indeed can cause damage and take our food.

Of all our mammals, porcupines, buck, mongoose, dassies and others, our Cape chacma baboon (*Papio ursinus*) is the only species with which we can commonly have a truly reciprocal interaction. Many of us consider it a privilege to be able to have such a sentient encounter with a fellow mammal – another primate.

After spending more than two years of direct observation we have identified differing relationships and characters of the troop members. Much like ourselves,

every individual is unique and each has a particular personality. The Cape chacma baboon is a magnificent animal (especially those individuals not under 'management'). Our troop members are in prime condition, with a gene pool obviously superior to many troops still ranging on the peninsula. With adult males capable of reaching 45kg, ours are close to that threshold. The mane of such an animal is resplendent, best seen when buffeted by our gnawing winds. During the placement of the GPS collar on Scarface we were able to measure the hairs of his mane at 18cm long! Thunder, a second adult male, has an even thicker, longer coat! In conditions of sufficient food they are almost entirely vegetarian, ours having only having been witnessed to feed on insects and shellfish from our rocky shores as a supplement to the wide range of plant species they consume.

Opportunistic and adaptable by nature, hence their success, they have been noticed to concentrate their feeding areas somewhat seasonally according to the dominant flowering species at the time.

With few trees in the fynbos, our baboons are mostly terrestrial in habit, choosing crevices in the dramatic cliff face to shelter from the wind, rain, cold (and even the threat of natural predation from our Cape leopards). This is unlike the more arboreal, lanky and skinnier chacma baboons found further north which habitually roost in trees.

Adult male canines are long, reaching upwards of 4cm in length, and although they may appear threatening we do not know of a single human baboon bite in Rooiels in 60 years where the resident troop regularly wanders throughout the village.

In Betty's Bay central troop, there are three adult males: Scarface, Thunder and Brutus, Scarface being the most recent addition, likely having migrated in from the from the Silver Sands side.

Brutus is the troop's most integral and cohesive male. When he is in charge (they each take their turn, vying for dominance when the opportunity presents itself) he effuses an air of calm authority. He is pair-bonded with Portia (which usually means in the case of a pair-bonded male that he will live longer) who in turn is the mother of Jenni, Pearl and Petrus. He is also the father of Brisa and Cysta's soon-to-be-expected offspring. Females of a troop stay together from birth. All of the individuals in our troop have lived their entire lives in close association with the village, particularly enjoying the vegetation in the low lying areas that we ourselves also prefer. In these generally damper soils digging for early sprouting bulbs is a lot easier for them. This leaves more time for the all-important sessions of play and mutual grooming. At these times hierarchies are reinforced, favours are given and reciprocated, and social bonds are solidified. In scientific terms chacma baboons have been described as keystone species in the biome and as such are extremely important in the maintenance of its well-being.

There is no doubt that baboons are polemic. Humans have long had a love / hate relationship with them but with a considerate and collaborative community approach, it may just be possible to live as neighbours listening to the iconic sound of their impressive 'wahoo' calls booming down from the cliff face.

## LIST of USEFUL CONTACTS in BETTY'S BAY

Chacma Lock baboon proof bins : Cornelia 079 515 0553

Baboon proof bins: Marco 082 459 3907

**Betty's Bay Baboon Action Group** 060 656 7341

[www.facebook.com/groups/649121038833237](http://www.facebook.com/groups/649121038833237)

**Betty's Bay Conservancy** - email: [bettybayconservancy@gmail.com](mailto:bettybayconservancy@gmail.com)

facebook : Betty's Bay Conservancy

**Betty's Bay Ratepayers and Residents Association**

email: [finance@bettybay.info](mailto:finance@bettybay.info) 082 940 4619

**Betty's Bay Neighborhood Watch** 082 928 1260

**Betty's Bay snake catcher** 076 081 2028

**Betty's Bay Volunteer Community Fire Fighters** 074 141 7600/

072 616 8418

**Cape Nature** 082 78 38585

**Kogelberg Nature Reserve** Duty phone 082 783 8585

**Stony Point Nature Reserve** 028 272 9829

**Harold Porter Botanical Gardens** 028 272 9311

**Kogelberg Branch of the Botanical Society** 082 343 2501

<https://www.facebook.com/BotSocKogelberg/>

**Kogelberg Garden Circle** 082 963 3804

**Betty's Bay Hacking Group** 082 9235366

**Kogelberg Biosphere Reserve Company** 021 023 0587

email: [info@kbrc.org.za](mailto:info@kbrc.org.za) <https://www.kbrc.org.za/>

**Kogelberg Nature Reserve** 028 271 5138

**Overstrand Environmental Dept** 028 271 8420

**Penguins** SANCCOB at Stony Point 087 158 2082

**Recycling** The Butterfly Effect. 082 883 0580

### **Emergencies:**

Overstrand Emergency Control Room 028 3138111

Overstrand Fire and Rescue: 028 3122400

Overstrand Disaster Management 028 3138980

National Sea Rescue Institute (NSRI) 082 3803806

Mountain Rescue 021 9370300

### **Contributing photographers:**

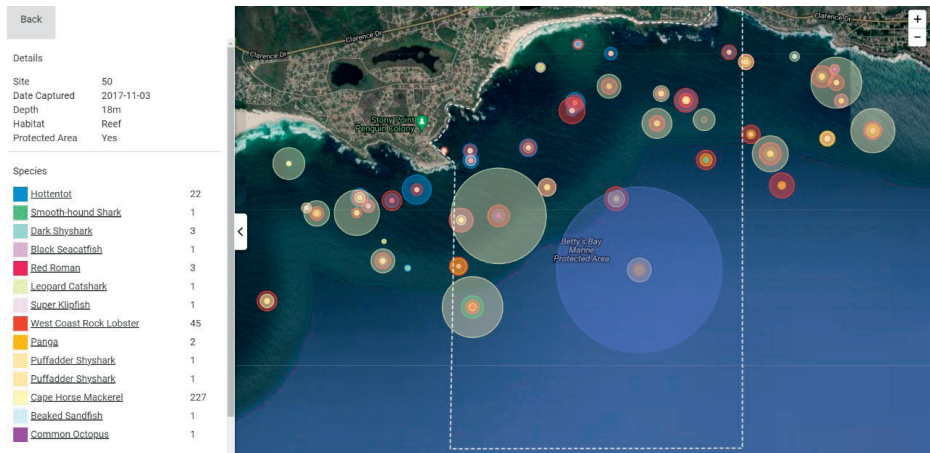
Pete Oxford (PO), Sandy Immelman (SI), Keith Hamilton (KH), Jean Da Cruz (JC), Brian van Wilgen (BW), John Hoffman (JH), Mike Markovina (MM), Tony Cunningham (TC), Harold Porter Botanical Garden (HP), Dave Mourant graphics (DM). Images are credited clockwise from top left.

Front cover: PO, PO, SI; Pg2: JC, PO, HP; Pgs 4,5,6:DM; Pgs 9,11 PO; Pg13: BW,

JH, KH,SI; Pg16: PO; Pg17: PO,JC,KH,PO,PO,JC; Pg20: PO,TC,PO,PO; Pgs21,22,23: MM;

Pgs26,27: KH; Pg28: PO; Pg31: MM,PO; Back cover: PO

# Map of the Betty's Bay Marine Protected Area



The colour of the rings on the map denote species described in the legend on the left of the map with the corresponding colour block – this information will be accessible to researchers by linking to the database



An important species in our ecosystem - Portia and baby Pearl of the Betty's Bay central troop.



*A two-tone fingerfin with two parasitic isopods swims in the shallows of the Great African Seaforest off Betty's Bay.*



*A common octopus shrouds a small spiny lobster with its mantle.*