



# AgulhasNPark eBulletin



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Safeguarding Life on Earth

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**"The future of all life now depends on us" - Sir David Attenborough joins world experts in calling for action for nature.**

## International Day for Biological Diversity 2018: celebrating 25 Years of Action for Biodiversity



The UN Secretariat has announced that the theme for 2018 is: "Celebrating 25 Years of Action for Biodiversity". Celebrations will be organised world-wide to mark the 25th anniversary of the coming into force of the Convention on Biological Diversity and to highlight progress made in the achievement of its objectives on national and global levels. (SOURCE: <https://www.cbd.int/idb/2018/>)

## The diversity of Agulhas Limestone Fynbos (Limestone Proteoid Fynbos)

Limestone Fynbos is an intriguing flora that occurs on the southern coast, wherever there are limestone hills or cliffs, for example locally, Ocean View heights. Most of the plants occur in a broad sweep from Gansbaai to the Gouritz River. The Southern Overberg is the centre of limestone fynbos, an endemic-rich vegetation associated with the Bredasdorp Formation limestones, formed from dunes blown into place during a glacial regression of sea level in the Late Pleistocene (about 12 and 11 thousand years ago). Soils are alkaline, organic-rich and usually confined to small potholes in the limestone pavement. This flora can be divided into three natural units, Agulhas Limestone, De Hoop Limestone and Canca Limestone. Unlike normal fynbos soils, lime-rich soils are mainly alkaline (pH values greater than 7.5, whereas other fynbos soils are acidic, with a pH value of between 4.5 and 6.5) which makes these vegetation type very unique amongst the fynbos. The largest expanses of limestone are found around Heuningrug and Soetansberg with the most southerly patch within 300m of the southern tip of Africa. Limestone Fynbos is threatened by urban development and cultivation. (SOURCE: OBERHOLZER, L. 2010. *Limestone Fynbos of the Vermaaklikheid area*. Duiwenhoks Conservancy. (Mucina & Rutherford), (Mustart, Cowling, Albertyn)

## The diversity of species of Limestone Fynbos

This vegetation type is represented by species like *Mimetes saxatilis*, *Protea obtusifolia*, *Leucadendron meridianum* and *Watsonia fergusoniae*. In the wetter, western areas (Hagelkraal and Soetansberg hills), other typical proteoids include *Leucospermum truncatum* and *Leucadendron muirii* are representative of the drier east. The restioid component of limestone fynbos is not particularly diverse. *Thamnochortus paniculatus* predominates in the east and the graceful *Ischyrolepis leptoclados* is widespread. *Ficinia truncata* is an interesting sedge, endemic to limestone fynbos. The ericoid component includes many limestone endemics, especially among the Rutaceae. Species such as *Diosma guthriei*, *D. haelkraalensis*, *Euchaetes longibracteata* and *E. meridionalis* each have their own unique scent but collectively contribute to the fragrance of the limestone landscape. Surprisingly, for they are generally strongly acid-loving plants, ericas are very common in limestone fynbos. Some conspicuous species are *Erica calcareophila*, *E. mariae*, *E. propinqua* and *E. spectabilis*. Other typical ericoids include *Jamesbrittenia calciphila*, *Metalasia calcicola*, *Muraltia lewisae*, *Phyllica selaginoides* and *Euryops linifolius*. Most of the plants found on the lime-stone soils of Agulhas have been used in the nursery and landscape industries around the world as they are both spectacular display plants and grow easier in gardens than the common acid loving fynbos species. (Edited by Carly Cowell, SANParks Plant Ecologist)



C. Cowell



## Waterscapes of the Agulhas Plain – LoveGreen Communications

The Black Oystercatcher Wine farm, a member of the Nuwejaars Wetlands Special Management Area, is running a campaign to promote the special waterscapes of the Agulhas Plain for tourism purposes. A major and very special wetland on the Black Oystercatcher Farm and surrounds is crucial because it is surrounded by seven types of natural vegetation. Each vegetation type plays its role in ensuring the wetland can operate as nature intended: that water drains appropriately between the river, vleis and wetlands. Four of the main vegetation types and the role they play are: 1. The Black Acidic Vlei, extremely valuable - the name is very apt: the water is black, thanks to the tannins that have leached out from the fynbos vegetation along the catchment area. This vegetation type has not been well studied, but it is known that it is threatened by invasive species. 2. Restioid Wetland, extremely valuable - this habitat is also quite poorly studied. It is dominated by restioids like the *Chondropetalum* spp. Experts highlight the importance of protecting this habitat, especially the sources of water drainage in this vegetation type. It can be easily disturbed and in some instances has been invaded by rooikrans. 3. Elim Fynbos, extremely valuable - the species richness and endemism is very high in this habitat. It usually occurs at open river valleys. It is a dwarf shrub land, home to fewer restios than other fynbos habitats. Grasses are flourishing here after fire. 4. Elim Acidic Fynbos, intermediate value - this vegetation type is also exceptionally high in terms of species richness, endemism and the number of threatened species. Elim Acidic Fynbos likes the cool and moist air created by the proximity to the coast, but can also be found on mountain peaks above 1000m. (SOURCE: [www.blackoystercatcher.co.za](http://www.blackoystercatcher.co.za))

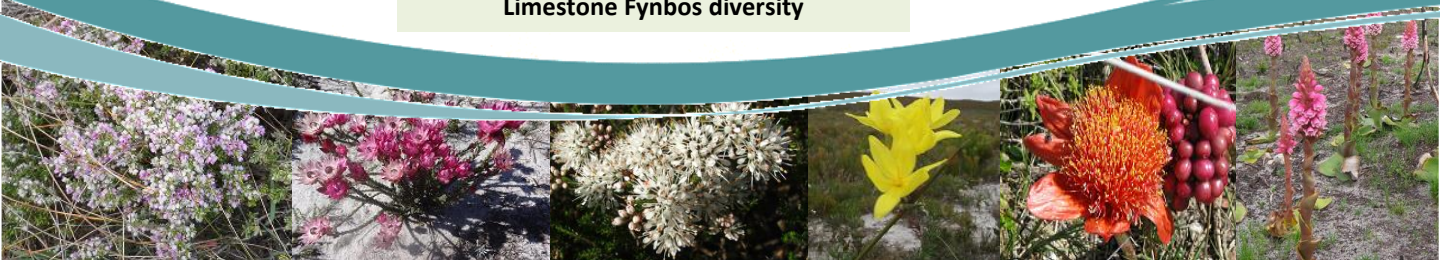


## Groundwater and biodiversity – Marlese Nel

The hydrological cycle was discussed in the April eBulletin. Groundwater reappears above ground and may discharge into streams, rivers, wetlands, lakes, springs and oceans. What has groundwater to do with biodiversity? The interaction between groundwater and surface water is where things get very interesting. Wetlands and vleis are present in climates and landscapes that cause groundwater to discharge to the land surface, or that prevent rapid drainage of water from the land surface. Similar to the interaction with streams; wetlands can either receive groundwater inflow, or recharge groundwater, or both. Not all wetlands are entirely reliant on groundwater, but most have a dependency on groundwater. Wetlands are important for a number of reasons. Apart from being rich in biodiversity, they regulate stream flow and reduce floods, purify water and provide erosion control. Within this unique water environment, containing both groundwater and surface water with distinct water quality and volumes, specific plant and animal species prosper. When these conditions change, due to either quality or water volume, the population of plants and/or animals could be threatened. It is important to understand (and quantify) the groundwater contribution to a vlei, wetland or the ocean to protect these potential unique biodiversity environments. (More reading: Colvin, C., Le Maitre, D. & Hughes, S. 2002. *Assessing terrestrial groundwater dependent ecosystems in South Africa*. Water Research Commission, Pretoria. WRC Report No. 1090-2/2/03. ISBN NO. 1-77005-038-8 MAY 2003.)



## Limestone Fynbos diversity



**Strategic water source areas for urban water security: making the connection between protecting ecosystems and benefiting from their services, abstract from - Jeanne L. Nel, David C. Le Maitre, Dirk J. Roux, et al.**

Strategic water source areas are those areas that have a relatively high natural runoff in the region of interest, which is made accessible for supporting the region's population or economy. These areas contribute substantially to development needs, often far away from the source. This disconnect between ecosystem service supply and use means that the social-ecological impacts of development decisions in these areas may not be obvious to users and decision makers. 22 strategic water source areas in southern Africa linked to major urban centres were identified. The population size and economy they support, and their current levels of protection were quantified. It was found that strategic water source areas form only 8% of the land area but contribute 50% of the runoff. When linked to downstream urban centres, these areas support at least 51% of South Africa's population and 64% of its economy. Yet only 13% of their land area is formally protected. A multiple strategies for the legal protection of these areas are recommended. Identifying strategic water source areas and their links to downstream users offers an opportunity for achieving synergy in spatial planning across diverse policy sectors, and enables new patterns of collaboration between government, business and civil society. (SOURCE: Ecosystem Services, 2017; [www.elsevier.com/locate/ecoser](http://www.elsevier.com/locate/ecoser))



A dry river bed – Nuwejaars River April 2018

A. Appel

**Small mammals on the Agulhas Plain**

**Ystervark, Cape porcupine, *Hystrix africaeaustralis***

The Cape porcupine is the largest rodent in Africa, the world's largest porcupine and seems to be the world's fourth heaviest living rodent. The body is covered in long spines up to 50cm in length, interspersed with thicker, sharply pointed, defence quills up to 30cm long, which are used to make a rattling sound to scare away predators. Cape porcupines inhabit a wide range of habitats, from sea level to 2000m. They eat mostly plant material: fruits, roots, tubers, bulbs, and bark and are often considered pests by local farmers, because they can feed on crops and they can feed on crops and damage trees. In urban areas they love to uproot bulbs in gardens. The home range varies depending on the local habitat and availability of food. They are nocturnal and monogamous, typically living as mated pairs of adults. They mate throughout the year, although births are most common during the rainy season, between August and March. Females typically give birth only once a year. Gestation lasts around 94 days, and results in the birth of a litter of up to three young, although over half the births produce only one offspring. They are weaned at about 100 days old and grow rapidly for the first 20 weeks, reaching adult size, and sexual maturity, at the end of their first year. Cape porcupines are long-lived, surviving for 10 years in the wild, or up to 20 years in captivity. (SOURCE: STUART, C. & T. 2008. *Field guide to mammals of Southern Africa*. Struik.)



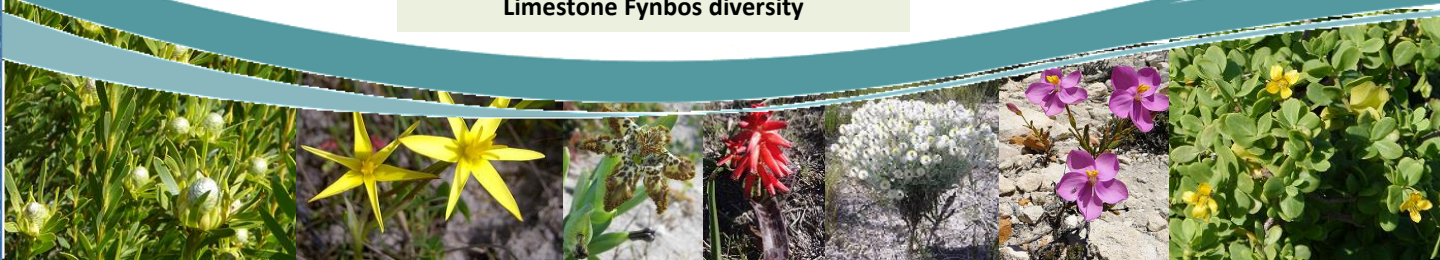
**Welcome to ...**

**Pontsho Ramila, Field Assistant, Agulhas Working for Water**

Pontsho is from Midrand, Gauteng, born and raised in Johannesburg. After Grade 12 he completed a Field Ranger Law Enforcement (armed) certificate at the South African Wildlife College and a Firearm certificate with the AIM Training academy. He also completed a National Diploma in Nature Conservation (Marine and Terrestrial) and a Degree in Project Management through UNISA and UCT, as well as a higher certificate in Project Management in the built environment at the Business Management Training College. He started working at the National Zoo in Pretoria as a volunteer in 2010, then became a Conservation Assistant at Telperion Game Reserve from 2011 until 2014 and then joined the Marakele National Park BSP as an Armed Environmental Monitor from 2014 to January 2018. He was appointed as a Field Assistant: Monitoring and Compliance at the Agulhas Working for Water project in February 2018. He brings with him vast experience in administration and management from the different conservation spheres he has worked in. He is passionate about his work, takes pride in being professional at all times and perform his duties to the highest standard and compile data in a readable manner. We wish him all the best with this stage in his working life.

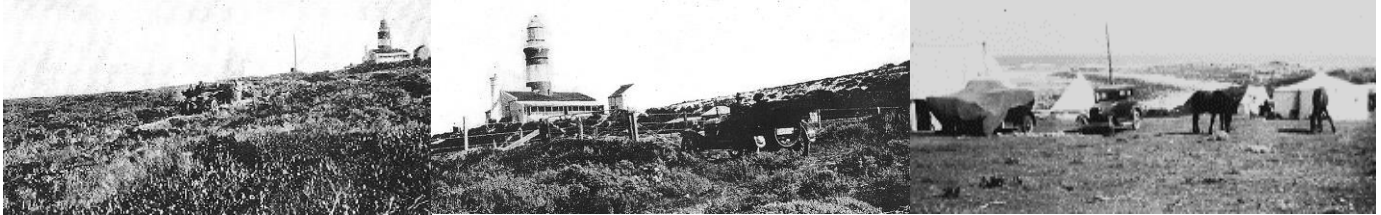


**Limestone Fynbos diversity**



## L'Agulhas village as a heritage site

L'Agulhas village is the only settlement in South Africa to develop around a lighthouse. In the early 1900s local farmers holidaying camped near the lighthouse where a freshwater spring was accessible. A well was built in 1848 by the light keepers and from which fresh water was drawn for the campers and their animals – and later for the first house owners. Between 1926 and 1933 a hand pump was installed and a water trough was built. The first six houses were built between 1929 and 1936. At low tide a second tidal swimming pool was constructed and at high tide they turned their attention to the houses. By 1953 there was not many houses in L'Agulhas. The road from Struisbaai to L'Agulhas was a sandy limestone road. (T. Auret, 2007) In 1937 the first village management board was established and was only replaced by a municipality in 1974. The town's coat-of-arms bears the motto: *Ne Plus Ultra*, which means **Nothing More Beyond**. In 1985 the municipality's function was taken over by the Bredasdorp/ Swellendam Divisional Council and is today officially part of the Cape Agulhas Municipality.



## The name Agulhas

Ponta de Sao(n) Brandao was the original name given to the Southernmost Tip of Africa by Portuguese mariner, Bartolomeu Dias, when he sailed passed on May 16 1488. From 1502 the name Cabo das Agulhas has been used with a variety of spellings: 1679 Caab Aguilles/Agguilles, 1683 Caab Auquilhas, 1803 Caab Agullas, 1825 Cape L'Aguillas, 1968 Cape L'Agulhas and in 1972 it became Cape Agulhas. Directly translated, *Cabo das Agulhas* means the "Cape of the Needle". The early Portuguese navigators found that, in these waters, the compass needle showed no declination between true north and magnetic north. However, the 1937 official *Yearbook of the Union of South Africa* attributed the name to the sharp rocks on the coast of Cape Agulhas.



## Southern Tip Day Meal, 18 May 2018

Meal: *Captain's Dinner* with a Portuguese flavour, Sea Shack, Struisbaai, 19:00. Tickets: R175 and R200 pp. Bar facilities available. First Sighting wine tasting by Strandveld Vineyards. Contact: Emmerentia De Kock, 028-4356078; Janine 072 455 4460.

## 530 Years of sea travel around Cape Agulhas (1488-2018) – Jimmy Herbert continues

No fewer than 14 Portuguese East Indiamen came to grief along the east-coast of South Africa. The ship that had the highest cargo value, the *Nossa Senhora de Los Milagros* (translated: "Our Lady of Miracles"), struck the Cape Agulhas coast during a full moon and spring high-tide in April 1686. It belonged to the King of Portugal. On this particular voyage, she was also carrying embassy personnel from Siam (Thailand). The ship was also transporting valuable gifts of gold and silver cups, plates and other gold and silver items, tortoise shells, musk, silk fabrics, carpets, a large quantity of porcelain (about 1 500 pieces of porcelain), as well as lacquered furniture - for the Kings of Portugal, France and England. The *Nossa Senhora de Los Milagros* was astonishingly valued at almost as much as a whole Homeward Bound Dutch fleet (Eastern goods) and Outward Bound Dutch fleet (silver and gold pieces) collectively. Being valued at two million Guilders (the value of an average ship's cargo at the time was about 11000 Guilders), she can be regarded as the most valuable ship yet to have been lost in South African waters. Of all the ships to pass Cape Agulhas since Bartolomeu Dias in 1488, the *Nossa Senhora de Los Milagros* (1686) is the only ship that has left her bones resting in the light of the Cape Agulhas Lighthouse.



Gold cage buttons



Gold diamond ring

*≠nu//khab* = "black moon (grass and veld food begin to grow)"



L'Agulhas 1920s 1930s