

AgulhasNPark eBulletin

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Water and Jobs

www.sanparks.org



World Water Day ~ March 22

World Water Day was declared an international day in 1992 by the United Nations General Assembly and was first celebrated in 1993. Each year, World Water Day highlights a specific aspect of fresh water. Under the theme *Water and Jobs*, 2016 provides an important opportunity to consolidate and build on the previous World Water Days to highlight the two-way relationship between water and the work agenda in the quest for sustainable development. (SOURCE: *A Year of Special Days 2016*, Sharenet; www.worldwetlandsday.org)



Celeste and team

Women doing it for themselves – Patricia Olckers, Agulhas BSP Training Officer

Celeste Josephs, a contractor for Agulhas Working for Water (WfW), believes women owe it to themselves to explore being self-employed and seek out those jobs which offer better pay and advancement potential than many of the lower-paid, traditionally female-dominated jobs. Celeste started with the Working for Water programme as a contractor in 2005 with a team of 12 participants. WfW provides short-term contract jobs and aims to recruit women (60%), youth (20%) and disabled (5%). Celeste found that women are capable of doing any work. She caters for the project's social days and for Cape Agulhas Municipality. Celeste believes that women should be self-employed. She says being a contractor has given her self-confidence, strength and independence, and has taught her much about business.

Agulhas National Park: conservation of an important biodiversity and water area in the face of change – Nicola Van Wilgen, Cape Research Centre

Agulhas National Park makes a key contribution to the conservation of lowland Fynbos as well as several types of wetland, representing the largest continuous lowland conservation area in the Fynbos biome. Past land uses have resulted in a high number of alien species being present in the park and have also altered the distribution of native species previously used in the cut-flower industry. Key threats to the area include increased fire intensity and/or frequency that may result from high alien densities and the increasing temperatures that are being observed. Impacts on fresh water systems that result from management practices on adjacent properties, as well as the abundance of roads through wetland areas are also a concern. Key opportunities in the area include continuation of the great work that is ongoing to rehabilitate rivers and wetlands in the park to combat erosion, restore the hydrological functioning and improve the conservation status of fresh water ecosystems. Research and monitoring are required on several fronts, including the health of rivers, species of special concern, the potential for the spread of diseases such as *Phytophthora*, a fungus causing root and collar rot of *Protea* species, and options for climate change adaptation and mitigation.



Fresh water diversity

South Africa has 791 wetland ecosystem types. A high diversity of wetlands are represented in Agulhas National Park: 23 ecosystem types, which can broadly be grouped into four groups on a scale of increasing salinity – 0.2g/kg in the freshest systems to 198g/kg in the most saline; in total the wetland area in the Park is about 40km². These diverse wetland types contribute to sustaining the high floral diversity of the region and a lot of work has been done on wetlands in the park. The total river length in the Park is about 26km with six of South Africa's 223 river ecosystem types represented in the park. While none of the river area is in good ecological condition, the majority is modified, but not critically so, meaning that restoration should be a priority. The region is an important fish support area. The Ratel River, for example, supports populations of the indigenous endangered Cape Kurper *Sandelia capensis* and Cape Galaxias *Galaxias zebratus*. These native Galaxias fish do not have scales. (Pictures of fish provided by Rondevlei Research Centre)



Alien species

88 species (75 plants and 13 animals) have been documented in Agulhas National Park. Of these three alien fish and 35 alien plants are listed as invasive in the NEMBA (the Biodiversity Act) regulations and require active control. This is the fifth highest total number of alien species across SANParks (Kruger, Table Mountain, Garden Route and Addo Elephant parks have more alien species recorded). All areas affected by the 2009 fire have been cleared of alien plants, but will require two to three year maintenance and immediate action following new fires. High rainfall in 2015 has resulted in many seedlings for which BSP and Working for Water (WfW) will have to work out a special eradication programme. Major problem species include Port Jackson, Rooikrans, Spider gum and Australian myrtle. *Banksia* species (previously cultivated for the cut-flower market) are also an emerging problem following the 2009 fire. Future clearing plans are being revised based on new legislation (regulations to the Biodiversity Act, NEMBA).

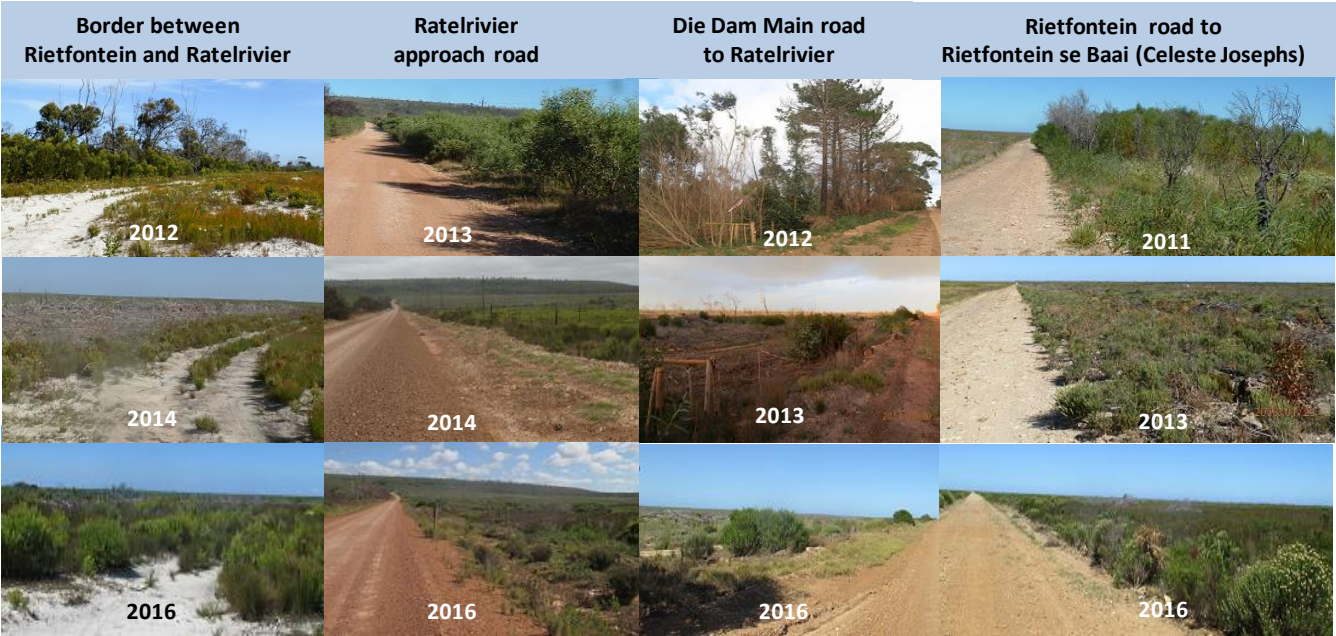


Alien clearing changing habitats and bringing in the birds – Dr Wim De Klerk

Habitats in the Agulhas National Park (ANP) changed dramatically during the past five years; firstly because of the "big fire" in 2009 and secondly the alien clearing programmes. **Southern Black Korhaan**, Swartvlerkkorhaan, *Afrotis afra* has been recorded only twice during a project by Dr Wim de Klerk to map and record species of the ANP - and that was during the first two years of the project. A male showed itself in the Rietfontein area and the hope is that the clearing of aliens will open up enough renosterveld in the ANP for this species to recover. The **Hottentot Buttonquail**, Kaapse kwarteltjie, *Turnix hottentottus* survey proved to be highly successful and 11 Buttonquail were identified in three days. The habitat of the Hottentot Buttonquail should be managed by alien clearing and occasional burning of thickening vegetation. The survey will shed some light on their needs. **African Marsh-Harrier**, Afrikaanse vleivalk, *Circus ranivorus* is a common species in the Agulhas Plains, but never before were so many immature and juveniles spotted and in such large numbers. The most likely reason is due to the increase in habitat as part of the alien clearing programme. For the same reason **Black Harrier**, Witkruisvleivalk, *Circus maurus* breeding pairs are seen all over the Park. It appears as if the **Caspian Tern**, Reusesterretjie, *Sterna caspia* has returned to roost on the Springfield Salt pans! This is good news as they all disappeared after the aliens were removed which exposed their nests to the nearby gravel road. The natural flora has now replaced the aliens and forms a natural protective fence. Future bird hides should be built far enough from this roost. Often real estate developers are allowed to develop land because "the land has already been irreparably damaged" and overgrown with aliens. The alien clearing programme in the Agulhas and the Nuwejaars Special Management Area (SMA) is proof that any land can be rehabilitated! Well done!



The changing landscapes in Agulhas National Park



Agulhas Working for Water project 2016/17

Twenty teams for the Annual Plan of Operations for Agulhas Working for Water were approved. They are: Elim one team with 12 participants, Struisbaai three teams with 36 participants, Bredasdorp 16 teams with 192 participants, in all 260. At the moment there are 21 teams in the field with 296 participants. It will increase to 22 teams with 308 participants in March. With these teams the remaining 1336ha initial areas of alien infestation will be tackled. After 2017 it will be follow-up work to keep alien re-growth in check.

Special wetland species spotted in 2015 (continue) – Dr Wim De Klerk

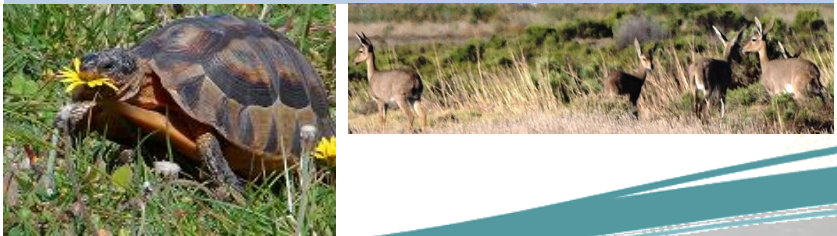
Some more very special wetland species recorded during 2015. They are: African Rail, Grootriethaan, *Rallus caerulescens*; **Black Crake**, Swartriethaan, *Amaurornis flavirostra*; **Grey Plover**, Grysstrandkiewiet, *Pluvialis squatarol*; **Common Greenshank**, Groenpootruiter, *Tringa nebularia*; Marsh Sandpiper, Moerasruiter, *Tringa stagnatilis*; **Wood Sandpiper**, Bosruiter, *Tringa ochropus*; Common Sandpiper, Gewone ruiter, *Actitis hypoleucos*; **Little Stint**, Kleinstrandloper, *Calidris minuta*; SA Shelduck, Kopereend, *Tadorna cana*; **White-faced Duck**, Nonnetjie-eend, *Dendrocygna viduata*; and Whiskered Tern, Witbaardsterretjie, *Chlidonias hybridia*.



World Meteorological Day ~ March 23
Hotter, drier, wetter. Face the Future
(www.wmo.int and www.weathersa.co.za)



World Wildlife Day ~ March 3
On this World Wildlife Day, I urge all consumers, suppliers and governments to treat crimes against wildlife as a threat to our sustainable future. It is time to get serious about wildlife crime. United Nations Secretary-General Ban Ki-moon (www.wildlifeday.org/ or www.environment.gov.za/event/international/worldwildlifeday.)



Documenting the Buffeljagsberg stone-wall



Stonewalls were stacked to demarcate borders between farms before wire was introduced into the country. They were most probably stacked between 1780 and 1820 and according to the dry wall method, up steep cliffs and in a very straight line. Stone walls can be seen all over South Africa.

Ratelrivier restoration – interesting features



Fire-place from early 1800s

Shipwreck wood used as lintels

Hooks for hanging lamps

Building material

The first light of the Cape Agulhas Lighthouse

On March 1 1849 the light of the Cape Agulhas Lighthouse was lit for the first time. It produced a stationary white light of 4 500 candlepower from a four-wick *Argand* burner. The first optical apparatus was manufactured by *Le Paute* in France. It had no turning movement and consisted of an intricate arrangement of a lens, reflectors and refractors. Initially fat from the tails of the local fat-tailed sheep was rendered in the two fireplaces in the building to supply fuel for the lamp. In 1905 the light was replaced by an oil burner which provided a white light of 470 000 candlepower. In 1908 the vapour burners were altered to consume white rose oil. In March 1910 the light apparatus was replaced by a rotating lens system, currently still in use. The apparatus consists of four lens panels fixed on a turntable which floats in a circular trough containing mercury (called the mercury bath), making one revolution in twelve seconds. The weight of the revolving section is approximately eight tons and that of the mercury approximately 750 kg. Originally it rotated by means of a weight-driven clockwork mechanism which was powered by a weight of approximately 181 kg, like a big grandfather clock, descending the height of the tower in a weight tube. It produced a single white flash every four seconds. In 1915 a new lantern house was installed and in 1921 a petroleum vapour burner was installed. The light was only electrified in 1936 with a 4kW incandescent lamp producing a light beam with the intensity of 12 000 000 candlepower. In March 1988 the automatic light came into operation with a 1 500 watt electric filament lamp producing a light of 7 500 00 candelas. It is presently equipped with a 400 watt metal halide lamp. The optic produces a light every five seconds with a range of 30 nautical miles (55km).



The 400 watt metal halide lamp

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