



Sustainably Yours...

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TALK ABOUT DECEPTION!



Jeremy Midgley's talk on 16 August will take us into a world of intriguing and devious plants.

Many plants have evolved to attract animal pollinators by deceitful means. Some do it by looking attractive but not offering nectar rewards, while others attract male insects to flowers by looking and smelling like sexually receptive female insects. However, few plants are able to dupe animal seed dispersers. Presumably this is because the rewards are more obvious (such as the flesh on ripe fruits) than are floral rewards such as nectar hidden in floral tubes. *Ceratocaryum argenteum*, a restio that occurs in sandplain fynbos, produces large, smelly, brown, round seeds that are avidly rolled and buried by two species of local dung beetles. The strong seed scent has

many compounds also found in dung. The dung beetles are deceived into burying the seeds as they do with dung. Since the seeds are too hard for adult or larval dung beetles to eat, this is a remarkable example of chemical and visual deception in seed dispersal. Having its seeds dispersed and buried is a great benefit for the plant as it prevents intense seedling competition, as well as seeds from being incinerated in fynbos fires. We found no dung beetle eggs attached to buried seeds, so the beetles did not lay eggs on them. The cost to dung beetles is irritation rather than a more serious loss of reproductive energy.

Professor Jeremy Midgley is the Harry Bolus Professor of Botany at UCT. He is very interested in natural history stories which involve plant-animal interactions and which fynbos is full of.

COMMEMORATE A CANINE

Have you lost a beloved canine companion who used to love walking with you on the Hermanus Cliff Path? Would you like a way to commemorate this partnership?

Whale Coast Conservation is installing a number of dispensers for doggy doo bags along the cliff path, in partnership with the Cliff Path Management Group, the Hermanus Ratepayers Association and the Overstrand Municipality. There is space for a commemorative label on a limited number of these bins. To raise funds Whale Coast Conservation will accept the five highest bids for a bin with one of these special labels.

Bids between R1,000 and R5,000 (or more) will be considered. All funds raised in this way will be used in anti-litter education.

The 5 highest bids received by 30 August will secure a bin with a sticker to remember a beloved pet. To support this worthwhile project please email anina.wcc@gmail.com with your bid.



Beth Rettig and Dominic Lee with Max

A CAUTIONARY NOTE

A related issue has recently been raised through the Botanical Society. People have noticed that there seem to be fewer dung beetles around and many dead ones have been seen on the cliff path. They wondered whether it could be related to the new systemic anti-parasitic (flea control) product for dogs called Bravecto.

BotSoc's Lee Burman has been in touch with local vet Dr Sandy Waddingham who has confirmed that the product is not metabolised (i.e. broken down) in dogs and is excreted unchanged in the faeces. What is its effect on insects in the environment? And on insect predators? Sandy has contacted the manufacturers and Rhodes University for more information and research.

In the meantime we urge dog owners to err on the side of caution. Please be extra vigilant in picking up after your dogs. After all, it's the right thing to do.

FOOD FOR THOUGHT

A near capacity audience attended our July talk by George and Margo Branch on the ecosystem effects of the seafood we eat.

George used several examples of the ecosystem consequences of harvesting marine products, but the one perhaps most pertinent for us on the Whale Coast is the interrelationships between over-fishing, rock lobster migration, sea urchins and abalone.

Climate change has caused warming of the land with resultant increased off-shore wind activity leading to upwelling of cold nutrient-rich water in areas such as Walker Bay. Cold-water rock lobsters from the West Coast have moved into the more favourable environment in large numbers. In a balanced ecosystem the numbers of lobsters would be controlled by large predator fish. But overfishing has wiped out large numbers of these natural predators.

The rock lobsters prey on sea urchins and urchin numbers have now dropped dramatically. What effect does this have on our other iconic species? Urchins play a very important role in the life of abalone. Urchins graze on micro-algae that grow on encrusting corallines (the pink crust seen on many rocks) which enables abalone larvae to settle on the clean coralline. Urchins also provide physical protection under their spines for young abalone. Sadly, the combined effects of lobster invasion and poaching has now decimated the abalone population.

So who is happy in this scenario? Well, the otters are. They just love a lobster for lunch.



George and Margo Branch are seen above with WCC's Anina Lee and Sheraine van Wyk.

Incidentally, just because there are many lobsters in this area, it doesn't mean that rock lobsters are abundant overall. They are in fact down to less than 10% of their historic numbers due to over-exploitation - and may soon appear on the SASSI red list.

MOUNTAINS OF MOSS FROGS

In the first week of July WCC conducted a thorough survey of the occurrence of the endemic Drewes' Moss Frog in the Fernkloof Nature Reserve.



Michael Brits, a postgraduate student at Stellenbosch University and Denfred Bruintjies, WCC's frog enthusiast were the indefatigable field workers who criss-crossed the reserve for 4 days mapping the occurrence and population of these elusive little frogs. No bigger than a thumb nail and cryptically camouflaged, they are almost impossible to see, but fortunately they are enthusiastic breeders and the mating calls of the males are surprisingly loud for such a tiny creature. Calls were recorded and numbers estimated.

It became a challenge, if not a matter of personal pride, for the two field workers to physically find one of these tiny cryptically coloured frogs. And on the very last day they did.



And here it is - on a finger.

Project leader, Sheraine van Wyk, will give us the full story once the GIS mapping has been completed. Thanks to the Hermanus Botanical Society for sponsoring Michael's participation in the project.

HOLIDAY PROGRAMME IN ZWELIHLE

WCC's Sheraine van Wyk and Shirley Mgoboza ran an educational (but fun) programme for learners from Zwelihle Primary School in the last week of the winter holidays.



The first day was all about plants – water-wise plants, food gardening and healthy eating. The learners decorated tins in which they planted water-wise plants to take home.



Nicholas McClean, Ecological and Wellness Coach, donated fruit and spoke to the group about healthy (colourful) eating.

Denfred Bruintjies showed the learners how to make their own food garden in a box using the compost made from kitchen waste such as fruit and vegetable peels and used tea bags. The learners were given seeds to take home to plant their own food gardens.

On the second day the group visited the Waste Water Treatment Plant in Zwelihle.



Here the group was conducted around the plant by facility staff who showed them all the processes that take place in the treatment of waste water.



The day ended with bird watching and ID.

On the last day the learners saw how the Overstrand Municipality manages waste.



But first the group put their backs into picking up litter while walking to the transfer station.



Municipal Waste Manager Johan van Taak led the group through the transfer station explaining each step and why it is important to divert as much waste as possible to recycling, composting and reuse options.



Our thanks to Layna Fischer for sponsoring the learners' lunch for the 3 days.

The Zwelihle Holiday Programme was made possible by Grant-in-Aid funding from the Overstrand Municipality.

Proudly supported by:



Johan and Catherine Conradie

Compiled and written by Anina Lee