# SeaFishAtlas Newsletter

Welcome back to another issue of the Sea Fish Atlas newsletter. Thanks again for all your uploads and your continued interest in the project. This issue covers some rare klipfish sightings in Cape Town, interesting pelagic species from KZN and the first images of deep water fish off the Cape from the Deep Secrets cruise.

We also excited to announce our partnership with DIVESouthAfrica. DIVESouthAfrica is an orientation course aimed at explaining just what makes South African diving unique, how to dive on the different coasts around the country, what gear you'll need for local conditions, and what interesting animals and marine spectacles to see in the various regions. For more details have a look at the last page of this newsletter and check out the DIVESouthAfrica webpage. Course participants have already been contributing to the atlas via iSpot and you can see their observation via the "baieBIO" tag.

## Rare klipfish sightings

The klipfish opposite is a leafy klipfish *Smithichthys fucorum.* The picture was taken by Eleanor Yeld Hutchings and she had the following to say about the sighting, "we were just rock-pooling, at Dalebrook, near the Brass Bell end of the beach (about 20-30 m before the end of the sand stretch). It was in the large shallow lagoon pool between the outer rock reef and the inner rocks, which was exposed beautifully on the amazing low tide. The fish was actually lying in the ulva that was exposed to the air when the tide receded and wasn't covered by water at all. I picked it up and popped it back into the water where it swam into the seaweed".

Leafy klipfish (*Smithichthys fucorum*) by Eleanor Yeld Hutchings

Stripe klipfish (*Blennophis striatus*) Georgina Jones

Leafy klipfish are very rarely seen and this sighting sparked a lot of excitement amongst the Cape Town "fundis" so I'm sure there was more that one person wading around in the kelp in the days after this! The identifying feature of this species is the white spot behind the pectoral fin and although they are found from Cape Point to the Mbhashe River, they are very rarely seen.

Another interesting sighting is this rarely seen striped klipfish *Blennophis striatus* (left) photographed by Georgina Jones in on Atlantis reef. They are found subtidally from Saldanha Bay all the way to East London but again are very seldom seen.

# Pelagic bluebottle fish

Danie Fouche spotted this juvenile bluebottle fish, *Nomeus gronovii* at Gereckes punt in Sedgefield in February. He managed to capture these pictures which is fantastic as these fish are notoriously difficult to photograph. Young bluebottle fish like this one are pelagic and live among the tentacles of the blue bottle. This is the only species in the genus *Nomeus* which are part of the driftfish family Nomeidae.

Bluebottle Fish (*Nomeus gronovii*) Danie Fouche

Bluebottle Fish (*Nomeus gronovii*) Danie Fouche

Bluebottle fish do not use mucus to protect themselves from the stinging tentacles of their host like other species but rather actively avoid touching the tentacles! They do have a very complex skin design and at least one antigen to the toxin and have a high number of flexible vertebrae possessed that are thought to allow them to be agile enough to avoid being stung. The risk of being stung is obviously compensated for the protection they receive from the same stinging tentacles!

# Deep Secrets Cruise off the Cape

In October last year a team from the CEP Deep Secrets project undertook a month long cruise aboard the Department of Environment's Research Vessel Algoa. The Deep Secrets project aims to develop an understanding of shelf edge and slope ecosystems and their geological and oceanographic drivers to support improved integrated ecosystem based management in multiple sectors in South Africa. The cruise is a project of the multi-disciplinary African Coelacanth Ecosystem Programme through a joint initiative with the Oceans and Coast Branch of the Department of Environmental Affairs and the Department of Science and Technology facilitated through the Presidential Operation Phakisa Oceans Economy Laboratory. The expedition was led by the Principal Investigator Dr Kerry Sink, a scientist at the South African National Biodiversity Institute (SANBI). The project team included researchers and technicians from 8 South African institutions and Scripps Institution of Oceanography, and also supports the Women in Ocean Marine Science and Management Mentoring Group.

Data and sample collection are were done by a towed camera, drop camera and epibenthic sled, grab, CTD casts (measures water temperature, oxygen and salinity at different depths) and an echosounder to map the seabed and look for gas bubbles. Sampling in this deep water environment is extremely tricky especially with the tricky and unpredictable weather of the cape thrown in. Despite challenged the sampling revealed a suite of hard ground, coral rubble, coral mound, sandy, gravel and other ecosystem type. This project was the deepest exploration by visual tools in South Africa with first images from 1035m and they managed to document South Africa's first deep-water coral habitats, with a mix of live scleractinian corals, octocorals, stylasterine corals, sponges, bryozoans and tunicates. Enjoy the pictures on the next page of some of the deep water fish photographed by the team.

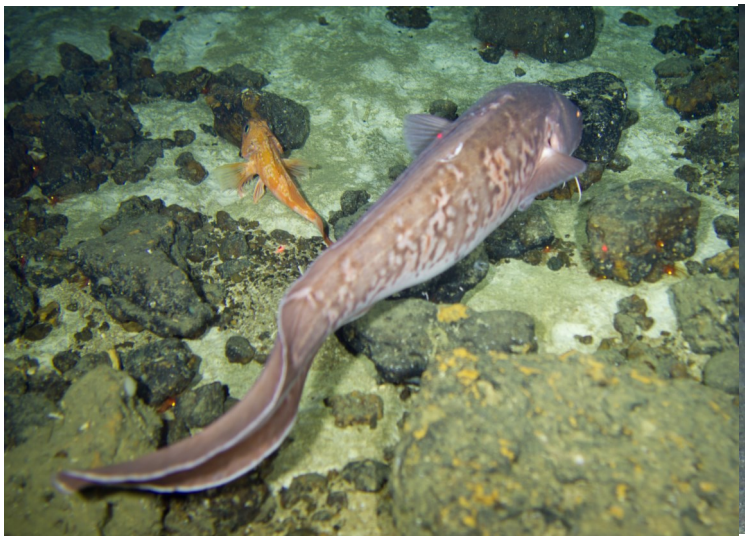
Stylasterine lace corals at 300m

Roughskin dogfish (*Centroscymnus owstonii*) 600m (ACEP, Deep Secrets)

Ribbonfish (*Lepidopus caudatus*) 300m (ACEP, Deep Secrets)

Hulley's skate (*Cruriraja hulleyi*) 550m (ACEP Deep Secrets)

*Coelorinchus coelorinchus* 340m (ACEP, Deep Secrets)



Kingklip (*Genypterus capensis)* Jacopever (*Helicolenus dactyl*opterus) at 600m (ACEP Deep Secrets)

Cape hake (*Merluccius* sp.) at 490m (ACEP Deep Secrets)

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# baie Fundi DIVE South Africa

An orientation course explaining just what makes South African diving unique,
how we dive on the different coasts around the country,
what gear you'll need for local conditions,
and what interesting animals and marine spectacles to see in the different regions.


The course has two levels:
**baieBIO** for people wanting a good grounding in the dive customs, conditions and marine life in one of the three broad marine regions of the country,
and **Fundi** for an overall understanding of all three regions.


South Africa's shores are impacted by no less than three oceans, and so has extraordinary marine biodiversity. From the big stuff like sharks and whales, to the deep stuff -- coelacanths at (technically) diveable depths, to the 'greatest shoal on earth', the Sardine Run, unsual fishes and a huge range of invertebrates found nowhere else in the world, South African diving has oceans of life to explore. DIVESouthAfrica will give you an insight into these lives and how best to investigate them.
The varying conditions around the coast mean different sorts of dive gear requirements, differing diving techniques, and of course different ecosystems to explore.
Go to the DIVESouthAfrica website at http://www.southafricandiver.co.za/moodle/ and find out more.