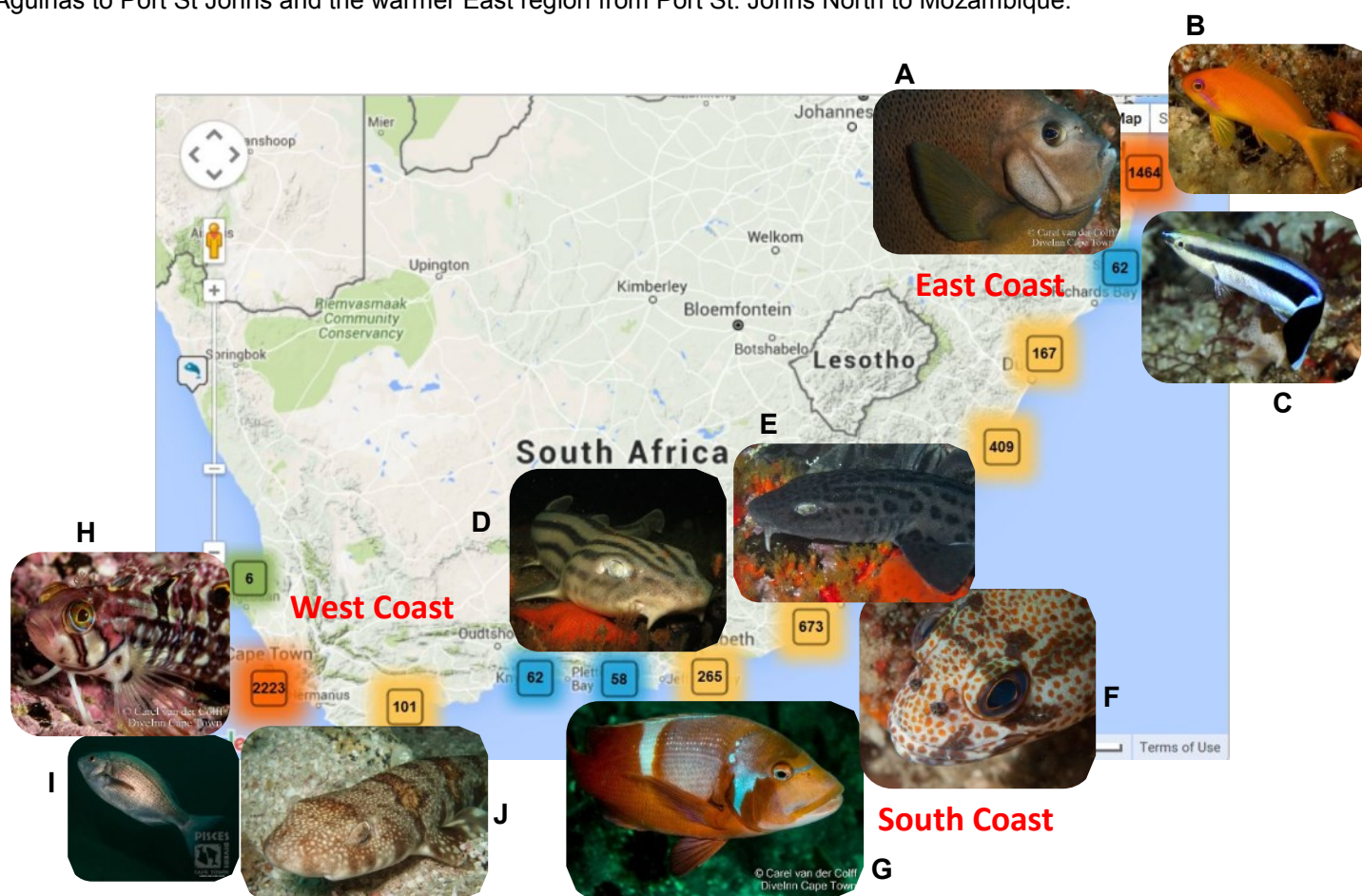




SeaFishAtlas Newsletter

Welcome to the third instalment of the Sea Fish Atlas newsletter! I hope you have survived the winter and are ready to hit the beach once again and make that last push through to December. Thanks to all our participants for the valuable contributions to the Sea Fish Atlas so far. There are now over 5500 georeferenced images in the Sea Fish Atlas representing over 550 different fish species. We have had submissions from Langebaan all the way up to the Mozambique border with input from a great variety of citizen scientists, from ROV pilots, SCUBA divers and students in volunteer programmes to fishermen and beachgoers. Each group contributes a unique and valuable set of images to the database.

The map below shows a summary of the number of records at different spots along the coast, the number in each coloured square showing the number of images uploaded in each place. As you can see False Bay and Sodwana Bay are hotspots for our citizen scientists! The fish shown on the map also represent the most camera friendly (most commonly photographed) species in each regions of our coast; the West region is from Langebaan to Cape Agulhas, the South region from Agulhas to Port St Johns and the warmer East region from Port St. Johns North to Mozambique.



A: *Pomacanthus rhomboides* - Old woman angelfish

C: *Labroides dimidiatus* - Bluestreak cleaner wrasse

E: *Poroderma pantherinum* - Leopard catshark

G: *Chrysoblephus laticeps* - Roman

I: *Pachymetopon blochii* - Hottentot

B: *Pseudanthias squamipinnis* - Sea goldie

D: *Poroderma africanum* - Pyjama catshark

F: *Acanthistius sebastoides* - Koester

H: *Clinus venustris* - Speckled klipfish

J: *Haploblepharus edwardsii* - Puffadder shyshark



New distribution records

Seapen goby: new species for Sodwana Bay

Brian Ring photographed this 4-5 cm goby on a seapen at 40 m in Sodwana Bay. He was certain that it was the seapen goby, *Lobulogobius morriganus*, which had never been recorded in the South Africa and even in the Western Indian Ocean before. Helen Larson, the “goby queen” from Australia, confirmed his ID. This seapen goby was only known from the Western Central Pacific region and even there is very elusive so a beautiful photograph such as this one taken by Brian is a fantastic record. Although Brian originally took this photograph back in 2011, it is a new record for the Sea Fish Atlas so please keep a look out if you are diving in the warmer waters up North, it would be great to get another sighting on record.



Seapen Goby, *Lobulogobius morriganus*, photographed Brian Ring in Sodwana Bay

Slopefish: range extension and new record for SA

Earlier this year, the ACEP (African Coelacanth Ecosystem Programme) Biodiversity Surrogacy Project team in association with Ezemvelo KZN Wildlife revisited the deep reefs in the area off Kwa-Zulu Natal aboard the *Angra Pequena*. The team had done initial surveys on in 2014 with the aim of mapping the region and quantifying the deep reef biodiversity. As part of this 2015 trip the team also mapped the



Indian Bunquelovely, *Symphysanodon xanthopterygion*, from KZN, a range extension for this species and a new species record for SA (pic Ryan Palmer, ACEP)



Indian Bunquelovely, *Symphysanodon xanthopterygion*, from KZN (pic Ryan Palmer, ACEP)

profile of a canyon system off Protea Banks. They were desperate to get the ROV down into this canyon for a first look at the biodiversity but conditions proved extremely tricky, with very strong currents preventing them from getting the ROV down into the canyon. Ryan Palmer, the ROV pilot, and the team finally managed to get the ROV into “Protea Canyon” after two weeks of attempts where they photographed over 30 species of fish, with several exciting finds.

A slopefish was photographed on the steep canyon walls, it is thought that it may be the Indian Bunquelovely, *Symphysanodon xanthopterygion*, the name *xanthopterygion* is from the Greek *xanthos* (yellow), *pterygion* (fin) - referring to the yellow coloration of the lower lobe of the tail. Before Ryan captured these photos from the ROV, this fish was only known to occur in the Comoros and Mozambique so, once the species is confirmed, this will represent a new range extension AND a new species record for South Africa.



More fish from the 2015 ROV surveys in KZN

A species of waspfish, from the family Tetraogidae, was also photographed in the Protea canyon. Some exciting video footage also captured the fish feeding on the swarms of small crustaceans that were attracted to the ROV lights. This beautiful fish has been seen in the canyons in Sodwana but these observations from the ROV represent a range extension for this species.

We are not certain exactly which species of waspfish this particular one is, confirming the ID of a fish without an actual specimen in hand is often difficult. At this stage it is thought that it may be *Snyderina yamanokami* which is known from the Western Pacific. Specimens from this region (Western Pacific) appear to have the same morphometry (physical measurements) as the Southern African fish but, before this can be confirmed, genetic analysis is needed to support these findings.



This waspfish from in the canyon off KZN represents a new range extension for this species in South Africa (pic Ryan Palmer, ACEP)



A juvenile moray, *Gymnothorax* sp, photographed in a vast bed of polychaetes could potentially be a new species (Pic Ryan Palmer, ACEP)

This beautiful juvenile moray eel, photographed in a vast bed of polychaetes surrounding the margin of the Protea Canon, is yet another fish ID mystery that could potentially be a new species. Moray eels are notoriously difficult to identify from photographs as often “hidden” characters such as a teeth define separate species.

The pictures (above) were send to Davis Smith who has done a lot of work on this family and he reported back as follows:

“another one of the ever-confusing white-spotted *Gymnothorax*. I’m not sure if the dark spot at the front of the dorsal fin is real or an artefact; it also looks like there might be a spot over the gill opening. Those would be characters I have not seen before in combination. However, until a specimen is collected, it will be difficult to put a name on it.”

Hopefully further surveys of this canyon system will produce more observation on these species that will help pin IDs onto them!



Interesting “sandy” fish species

As well as surveying the canyons and deep reefs in the area the ACEP team also “flew” the ROV over surrounding sandy areas to compare biodiversity. Although very different from the fish assemblages in the canyons, those on the sandy regions were no less interesting. The dominant sightings were lionfish and gurnards (which require some serious sneaking-up-on to captures images such as the one below). Interestingly, photos of this particular gurnard have been sent off to experts on the chance that it might be a new species; the patterns on its pectorals are different to any described from South Africa.



A “mystery” gurnard sent off for ID confirmation (pic Ryan Palmer, ACEP)

Four species of firefish were photographed over the duration of the trip, including the familiar common lionfish, *Pterios miles* but with a couple of interesting finds as well. The species shown below is the Blackfoot firefish, *Parapterois heterura*. The name “blackfoot” comes from the striking black markings underneath the pectoral fins, visible in the left hand picture below. The lionfish flashes these bright markings to warn predators (similar behaviour to gurnards)



The Blackfoot firefish, *Parapterois heterura*. The bright black and blue colours underneath the pectoral fins (left) can be flashed to startle predators and “herd” prey (Pic Ryan Palmer, ACEP).

and are also thought to use this display while hunting, to “herd” and corner prey. This particular specimen is a young one: as they mature the long filaments on the ends of the tail become even more extended. This species was initially described from a specimen taken in a trawl that had these rays broken off, which is why if you look this species up in Smith’s Sea Fishes the illustration shows a rounded tail with no filaments. The widespread but uncommon Zebra lionfish, *Dendrochirus zebra*, was also photographed.



The strangely beautiful threestick stingfish, *Choridactylus natalensis* (Pic Ryan Palmer, ACEP)

This very strange looking specimen (above) is a Threestick stingfish, *Choridactylus natalensis*, the only species in its Genus known from Southern Africa. They are known from a fairly limited distribution from Mozambique to Durban. One of the defining features of this species is the very threadlike elongated top ray on the pectoral fin which you can see beautifully in the top picture.

Luckily the team will be doing another survey of this area next year so we can look forward to some more exciting images from them!

Bulk uploads on iSpot

Fantastic news – the bulk upload function is working smoothly on iSpot: if you have larger sets of photographs you no longer have to upload each one manually! Please get in contact with me (see opposite) if you would like some more information on this function. Thanks for reading and please keep submitting your photographs, remember you can also post them to our Facebook page.

Contact us



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