FISH

DEADLY MIMICRY

Dusky dottybacks are pretty little coral reef fish with ugly habits. On the Great Barrier Reef, in the Coral Sea off Australia's north-eastern coast, they are either brown or yellow to mimic the colour of various species of damselfish, on whose babies the dottybacks prey.

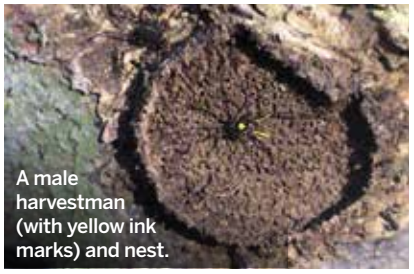
It has traditionally been assumed that a dottyback's colour was determined genetically. But zoologists have now discovered that they can switch between the two forms depending on whether they find themselves among yellow or brown damselfish.

An added benefit of the mimicry is that it protects the dottybacks from attack by predators, because the damselfish are themselves camouflaged against their preferred habitat – yellow ones live on live coral, while brown ones live on rubble.

And the story might be more complicated still. "We would like to travel to Papua New Guinea to investigate the pink, grey and orange morphs that don't occur on the Great Barrier Reef," said Fabio Cortesi of the University of Basel in Switzerland. "It will be very interesting to see why they adopted different colours there."

SOURCE *Current Biology* LINK http://bit.ly/1NdOL3Y

Dottybacks change their colour to match their prey and blend in with their surroundings.



A male harvestman (with yellow ink marks) and nest.

INVERTEBRATES

DADDY-LONGLIVED

Various arachnids and flies get called daddy-longlegs, but it may most suit the Panamanian harvestman *Zygopachylus albomarginis* with its long limbs and males that guard eggs in mud nests for months. It turns out, though, that house-husbandry is the easy option: doting fathers have higher survival rates than either bachelors or females.

SOURCE *Oikos* LINK http://bit.ly/1IrAOu9

PLANTS

PALM TREE OFFERS PRIME PARENTING

The coco de mer palm of the Seychelles is most famous for its suggestively shaped fruits. It's almost as famous for the fact that those fruits are the world's largest, containing the heftiest of all seeds.

But new research shows that well-provisioned seeds are not the only head start that coco de mer palms provide for their offspring. Botanists have found that the mother plant's huge leaves are arranged so as to channel rainwater, along with the nutritious animal droppings and pollen that accumulate on their surfaces, onto a small patch of ground around the base of the stem – which is precisely where the huge seeds will inevitably fall.

SOURCE *New Phytologist* LINK http://bit.ly/1FkwztZ

IN THE FIELD

TITANOBOCHICA MAGNA

Researcher Ana Sofia Reboleira

Current focus The fauna and flora of the world's deepest cave systems

Why are you so drawn to caves?

I was a cave explorer before becoming a biologist. I was attracted by the unique environment, the beauty of subterranean spaces and the challenge of exploration – we know more about the surface of the Moon. And caves, as islands, are truly laboratories of evolution. It's the perfect combination of profession and hobby.

What is your most exciting discovery to date?

Probably the giant cave species from southern Portugal, including perhaps the world's biggest pseudoscorpion *Titanobochica magna* (*pictured*) because its discovery was so unpredictable. More recently, we have described four species of fungi that parasitise cave millipedes – the inhabitants of cave inhabitants!

Isn't it dangerous down there?

I feel very comfortable in caves, but getting lost, rockfalls and floods are always an issue. Most caves are extremely cold, wet and muddy, too, which is particularly hard when we are several days from the surface.

Is there anything that you dream of finding one day?

I'd like to know what makes an animal a cave animal. Is there any special predisposition to cave life that explains why only some groups of animals have evolved underground?

Ana Sofia Reboleira is based at the Natural History Museum of Denmark (http://sofiareboleira.weebly.com).

Dottyback fish: Universität Basel/Christopher E Mirbach; scorpion: Ana Sofia Reboleira; harvestman: Gustavo S Requena