



10 June

New Scientist's Graduate Special

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letters



Useless abilities

Matt Walker reports the work of zoologist Xavier Bonnet and his colleagues, who discovered that blinded tiger snakes survived just as well as healthy ones (This Week, 22 May, p 10).

The article says these results "may be the first direct evidence suggesting some animals have abilities they could just as well do without". However, reports of such phenomena are not new. My studies of cave fish in the mid-1980s showed not only that blind, subterranean individuals of the characid *Astyanax fasciatus* were able to respond to light, but also that these responses change in intensity during development--a behaviour totally superfluous in a dark environment.

One of my colleagues, W. Pfeiffer from Germany, reported in 1966 that *A. fasciatus* produces the "alarm

substance" (a chemical that warns conspecifics of an immediate danger), but does not respond to it.

My interest in this type of phenomenon was prompted by similar observations by Walter Bock, who in 1959 showed that primitive woodpeckers, which had switched to the behaviour of climbing on tree trunks and branches, still had essentially the same diet as terrestrial birds.

ALDEMARO ROMERO

Macalester College
St Paul, Minnesota

Walker's article reminds me of the stingrays that I used to study off the Sussex coast in the 1950s.

They used to swarm each summer over the sandy bottom on the incoming tide to mate, during which time they ceased to feed. Anglers generally remained unaware of them for this reason but for trawling fishermen it was a different matter. One year two fishing boats trawled a sand bank covered with mating stingrays. About 400 of them were caught in the nets.

As well as having the venomous barb on the tail, these are difficult animals to handle as they are covered with a slippery mucus. So the fishermen cut off their tails before picking them up and returning them to the sea. For a few years after this I caught and examined several specimens without tails. They were quite healthy and taking part in mating.

This appeared to prove two things: first, that they came back to the same area each year and second, that they did not need their tails.

JON MILLER
Helston
Cornwall

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