



Rare sharks were far from home, scientists find

By Aleisha Orr

Two years ago, recreational fisherman Steve Downs was deep-sea fishing near Rottneest Island when he caught two sharks he was unable to identify.

It turns out the species had never been seen in Australian waters before.

Mr Downs contacted the Department of Fisheries, which then brought in shark biologist Ryan Kempster, of the University of Western Australia's oceans institute, to try to determine what type of shark it was and whether or not it was a new species.

Fisheries experts have spoken about how much there is still to be learnt about sharks, which, in addition to the recent five fatal shark attacks in the state, is why the government has put millions of dollars into shark research.

What followed was a two-year investigation, which included DNA sequencing.

Mr Kempster said this process proved difficult.

"DNA sequencing between closely related sharks can be tricky, as it can be so similar," he said. "When I saw them, they had characteristics of many different sharks but not all the characteristics of one species."

The mystery sharks were a male that

was just under one metre long and a pregnant female about 1.2 metres long.

The sharks have now been identified as Mandarin dogfish (*Cirrhigaleus barbifer*), pictured above, a species previously found only between Indonesia and Japan, and also in New Zealand.

It is not known why the sharks were found so far from their normal habitat.

The find has scientists re-evaluating their understanding of the species.

"The female shark found off Rottneest had 22 unborn pups and is only the second-ever recorded specimen of a pregnant female of this species," Mr Kempster said. "Previously, it was thought that the maximum number of pups for this species was 10."

Mr Kempster said only a few specimens of this species had ever been found and the female caught near Rottneest, although small for a shark, was the largest specimen ever to be found.

Mr Kempster said it was very unlikely that these were the only two of their kind in the area.

The researchers' findings were announced this week in the *Marine Biodiversity Records* journal published by Cambridge University Press.



MYSTERY: A Mandarin dogfish, a rare species of shark found off the WA coast.