

**SCIENTISTS BAFFLED**

# Marine life takes new direction in warm seas

**Michelle Wheeler**

Whale sharks off the coast of Perth, irukandji jellyfish at Ningaloo Reef and humpback whales giving birth 2000km from their usual calving grounds have left biologists baffled as they investigate whether an ocean heatwave is to blame for marine life turning up in unexpected places.

At Ningaloo Reef, scientists are looking into a spate of stings last month from highly venomous irukandji jellyfish, which are usually found near Broome.

Department of Environment and Conservation Ningaloo Marine Park co-ordinator Peter Barnes said one theory was that it was related to unusually high water temperatures in the past three years.

“Usually over a summer we might get one sting, maybe two, sometimes none, but we had 13 reported stings over about a month, which was an extremely unusual occurrence,” he said.

Closer to Perth, the Fisheries Department has recorded tropical fish at Rottnest Island never before seen so far south or in greater numbers, while University of WA scientists last year published a study in the prestigious journal *Nature Climate Change* suggesting

the proportion of tropical fish at Jurien Bay had risen from 5-10 per cent to up to 20 per cent.

Fisheries principal research scientist Gary Jackson said reports of unusual species appearing off Perth and further south began two years ago.

The ocean heatwave, first reported in the summer of 2010-11, has been cited as the reason for recreational fishers catching tropical species off the coast of Perth and blamed for coral bleaching at Ningaloo.

Fisheries has also claimed that cool water forced towards the WA coastline by warmer tropical water flowing south may have been responsible for an increase in shark activity off the metropolitan coast.

Southern WA is not immune either, with Weather Bureau data showing water temperatures on the south coast this year are the highest on record.

DEC whale expert Doug Coughran, who has been keeping records for 30 years, said there had been reports of humpback whales giving birth off the south coast, up to 2000km from their usual calving grounds.

In March, a Japanese devil ray,

usually found in tropical waters in the Pacific and Atlantic oceans, washed up on Cheynes beach, east of Albany. It was photographed by Fisheries and reported to Redmap, a website that logs unusual marine sightings.

Redmap chairwoman Gretta Pecl said the site was set up in response to research suggesting between 18 and 80 per cent of animals worldwide were shifting their range.

“There’s a lot of things all around the world that are shifting and the vast majority of these shifts are going towards the poles,” she said.

Ecocean director Brad Norman said whale sharks were cryptic animals and it was possible they had always gone south or the sightings were simply a case of “one lost shark”.

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Ningaloo Marine Park co-ordinator  
**Peter Barnes**





## UNUSUAL MARINE SIGHTINGS

**Ningaloo Reef**

Irukandji jellyfish, usually found off the coast of Broome, stung 13 people last month.

**Jurien Bay**

The proportion of tropical fish increased from 5-10 per cent to 20 per cent.

**Rottnest Island**

Tropical fish increased including some species that have never been recorded so far south.



Western  
Australia

0 200km

**Perth**

Whale sharks spotted off Rockingham last month, City Beach in January and Floreat beach last year.

**Albany**

Tropical Japanese devil ray washed up on Cheynes beach in March. Humpback whales seen giving birth 1500-2000km south of usual calving grounds.

