



Shark researcher Niels Brevé

Sharks live apart

Many starry smooth-hound sharks (*Mustelus asterias*) swim off the coast of Zeeland in the summer, but they disappear in winter. Where do they go and why?

The angling association Sportvisserij Nederland and 25 fishers have joined forces with Wageningen Marine Research to solve the mystery. 'The starry smooth-hound shark is on the IUCN Red List of endangered species,' says Niels Brevé, the project manager and a PhD candidate at Marine Animal Ecology and Aquaculture & Fisheries.

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'To be able to protect the species in the North Sea, we want to know what they do in the winter,' explains Brevé. The researchers know that the sharks come to Zeeland in the summer to give birth to their pups. 'But we don't know whether they also mate here,' says Brevé.

Brevé and his colleagues attached labels to the fins of around 4000 starry smooth-hound sharks with a phone number and website. Fishers or researchers who caught the

sharks could report this. That happened in 230 cases. The researchers published their findings in the *Journal of Fish Biology*.

Speed dating

After the summer in Zeeland, females and smaller males swim to the warmer waters south of Brittany, where the females remain for the rest of the pregnancy. Some of the larger males swim to Scotland or Norway.

The sharks only meet up again in the spring. It is not entirely clear why the females and males split up for long periods. The warmer waters may be better for the development of the unborn pups. The pregnancy costs a lot of energy and there is more food available in the southern waters.

This knowledge will help in the protection of the starry smooth-hound shark. Brevé: 'The species is particularly at risk of overfishing because the females take about seven years to reach sexual maturity and they give birth to just a few young after a pregnancy of a year.' TL