

Chinese takeaway in the Wadden Sea

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Shore crabs catch their food at food-rich spots and subsequently eat it elsewhere. With this takeaway strategy the crabs maximize their food uptake and keep competing crabs at a distance, says Dutch researcher Isabel Smallegange.

Food is not available everywhere in the Wadden Sea so you have to search for it. Yet if you do not have much time then where is the best place to go? Initially the food rich spots always seem to be the first choice. But there you can find other animals of course and that gives rise to food competition. With plenty of competitors there is little time left to consume the prey caught.

Experiments revealed that shore crabs always first attempt to catch their prey at the richest food spot. However, the shore crabs do not consume their prey there. Instead, they take these with them to a nearby food poor spot where there are fewer competitors who want to share the meal.

With this takeaway meal strategy shore crabs are ensured of their dinner and they avoid greedy comrades. Field observations in the Wadden Sea suggest that shore crabs take both factors into account in their final choice of food spot when the alternatives are far away from each other.

The research into strategies in food searches was done using behavioural models and behavioural experiments with food searching shore crabs in experimental set ups in climate chambers at the Royal Netherlands Institute for Sea Research (NIOZ).

Source: Netherlands Organization for Scientific Research

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