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OBSERVATORY

## How Seabirds Follow Fishing Boats' Routine

By [HENRY FOUNTAIN](#)

It's a typical sight in fishing areas: a trawler or other boat being followed by seabirds eager to gulp down the unwanted fish the crew throws back. Research has shown that the supplemental food such discards provide can affect bird populations, in some cases improving reproductive success.

Now a study has shed light on a different impact of fishing-boat discards. Researchers [report](#) in *Current Biology* that they can affect birds' patterns of movement on large scales.

Frederic Bartumeus of the Center for Advanced Studies of Blanes, in Blanes, Spain, and colleagues analyzed satellite tracking data for two species of shearwaters on foraging trips off Spain's Mediterranean coast.

Fishing trawlers operate in the region Mondays through Fridays but are prohibited from working on weekends and holidays.

Dr. Bartumeus, who conducted the research while at [Princeton University](#) and the Catalan Institute of Climate Sciences, said that the birds' travel patterns differed on fishing and nonfishing days.

When boats were present, the birds appeared to know roughly where they would be and went to those locations. While they spread out initially to find boats, their spreading slowed over time.

By contrast, Dr. Bartumeus said, on nonfishing days the birds kept moving from area to area seeking fish. The rate of spreading increased, and the birds "end up spreading all over space," he said.

Dr. Bartumeus said the study showed that "local human activities can transform the transport properties of other organisms at much larger scales than we can imagine."

The study has implications for research into subjects like disease transport by animals, since patterns of movement may affect to what extent pathogens are passed along.

This article has been revised to reflect the following correction:

Correction: February 3, 2010

A report in the Observatory column on Tuesday about the effect on seabird movements when commercial fishermen discard unwanted fish misstated the type of fishery in the study location, off Spain's Mediterranean coast. Trawlers in the area obtain hake and other fish that are at or near the bottom, not sardines and squid.

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