

Fish waste neutralizes carbon dioxide in sea water

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The world's oceans are getting help controlling harmful acid levels from an unseemly source, according to a new study that found fish waste plays a key role in neutralizing carbon dioxide in the marine environment.

Canadian scientists discovered when fish drink seawater they excrete calcium as calcium carbonate -a chalky substance that can make seawater more alkaline and diminish the carbon dioxide in the water.

The finding helps researchers understand the marine carbon cycle and how nature reduces CO2 levels that can raise sea temperatures and harm sea life.

"It's going be critical that we understand how much carbon dioxide the oceans can absorb," said Pat Walsh, a University of Ottawa marine biologist who co-wrote the study that appears in the journal Science today. "What we've done is taken another step forward in understanding another piece of that oceanographic puzzle and how the oceans can absorb CO2."

The teams of researchers discovered the bulk of the world's fish species, excluding sharks and rays, produced the carbonate to counter the salt they ingested in seawater.

Walsh said they knew something in the water was producing carbonate, but believed it came from other sources such as microscopic marine plankton near the bottom of the food chain.

But they didn't understand why they were seeing so much of the carbonate at shallower depths. Walsh said the discovery helps explain that phenomenon and has given them a clearer idea as to how much carbonate fish are producing.

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