

## What do coral reefs have to do with your commute?



**Rob Dunbar** is the W.M. Keck Professor of Earth Sciences, Stanford University; the Victoria P. and Roger W. Sant Director of the Earth Systems Program; Senior Fellow, Freeman Spogli Institute for International Studies; Senior Fellow, Woods Institute for the Environment.

More than you may realize.

At least one third of the carbon dioxide released into the atmosphere is absorbed by the oceans. As carbon dioxide increases – in part, from burning fossil fuels – the ocean’s waters become more acidic, impeding production of calcium carbonate skeletons in marine life and constraining their growth and viability.

The result? Rubble, algae, or seagrass are displacing once healthy, vibrant coral reefs and the biologically diverse habitat they provide.

“It’s happening,” says Rob Dunbar, the W. M. Keck Professor in the School of Earth Sciences. “Changing ocean pH, acidification, is the culprit.”

The clues to climate change are found in the chemistry of coral bands, similar to tree rings. Dunbar’s research includes analyzing coral core samples. “We are seeing that corals are ailing, with overall declines in growth at sites worldwide.” The loss of corals negatively impacts the entire reef community.

“That’s one reason I’m a Commute Club member. It’s a sure thing given the work I do,” Dunbar says. “I live not far from campus for a short commute, and I carpool. Each of us acting individually – we’re the only ones who can initiate change that fast, and the more rapid the response, the better.”

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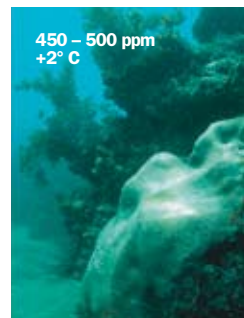
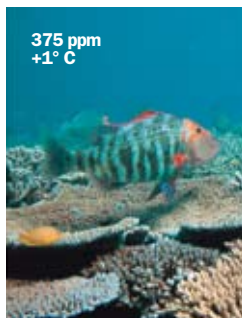


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