

opinion & comment

CORRESPONDENCE:

No reason for complacency

To the Editor — Papua New Guinea has some of the most pristine and diverse coral reefs on Earth. By investigating volcanic vents, where concentrations of carbon dioxide are naturally high, Fabricius *et al.* (*Nature Clim. Change* **1**, 165–169; 2011) showed that these reefs are profoundly degraded by the levels of ocean acidification predicted for the end of this century. Worryingly, however, their study may underestimate the impacts of future ocean acidification.

Some may breathe a sigh of relief that, despite major losses in biodiversity, the researchers found that the amount

of hard-coral cover remained constant with increasing carbon dioxide concentrations. However, the study areas were surrounded by highly diverse reefs that supply larvae from waters at normal pH. In addition, carbon dioxide concentrations near volcanic vents are variable, offering windows of opportunity for larval settlement when pH levels are high.

Some organisms, such as seagrasses, can tolerate ocean acidification, but even these species will not be ‘winners’ in a high carbon dioxide world unless increased efforts are made to protect

coastal habitats from other damaging human activities. The study by Fabricius *et al.* provides a worrying glimpse of the future of tropical coastal ecosystems, highlighting an urgent need for both lowering carbon dioxide emissions and increasing marine conservation efforts worldwide. □

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