

MPA NEWS

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MPA Science Corner: Most of remaining marine wilderness is not in MPAs yet - MPA success and failure - Reefs that could survive climate change - Inefficient MPAs - Making permit decisions for MPA research

These recent articles on MPA-related science and policy are all free to access.

Article: Jones K. R. et al. "[The Location and Protection Status of Earth's Diminishing Marine Wilderness.](https://doi.org/10.1016/j.cub.2018.08.001)" *Current Biology* (2018) [Editor's note: this paper is temporarily free to access. However, the original manuscript will continue to be available for free at <https://arxiv.org/abs/1808.05353>.]

Finding: This study finds that just 13% of the global ocean could be considered wilderness - i.e., free of intense human impacts that threaten biodiversity. And less than 5% is both wilderness *and* currently in MPAs.

Article: Giakoumi, S. et al. "[Revisiting 'Success' and 'Failure' of Marine Protected Areas: A Conservation Scientist Perspective.](https://doi.org/10.3389/fmars.2018.00011)" *Frontiers in Marine Science* 5, (2018)

Finding: This study identified factors for MPA success and failure using peer-reviewed publications and expert knowledge. Stakeholder engagement was considered the most important success factor, and its absence was the main cause of failure.

Article: Beyer H. L. et al. "[Risk-sensitive planning for conserving coral reefs under rapid climate change.](https://doi.org/10.1002/cnl.1401)" *Conservation Letters* (2018)

Finding: This study applies Modern Portfolio Theory – an approach used in financial analysis to reduce risk – to create a global selection of reefs with a higher chance of surviving climate change impacts and being able to regenerate other reefs.

Article: Jantke, K. et al. "[Poor ecological representation by an expensive reserve system: Evaluating 35 years of marine protected area expansion.](https://doi.org/10.1002/cnl.1401)" *Conservation Letters* (2018)

Finding: This global study of MPA efficiency suggests MPAs are often unnecessarily expensive in terms of their impact on fisheries, and also miss protecting many unique ecosystems.

Article: Saarman, E. T. et al. "[An ecological framework for informing permitting decisions on scientific activities in protected areas.](https://doi.org/10.1371/journal.pone.0199126)" *PLOS ONE* 13, e0199126 (2018)

Finding: This study gives MPA managers a framework to help them weigh the costs and benefits of proposed research projects, and to make informed permitting decisions based on potential ecological impacts of the research.

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