

Supplementary information to: Save reefs to rescue all ecosystems

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Supplementary information

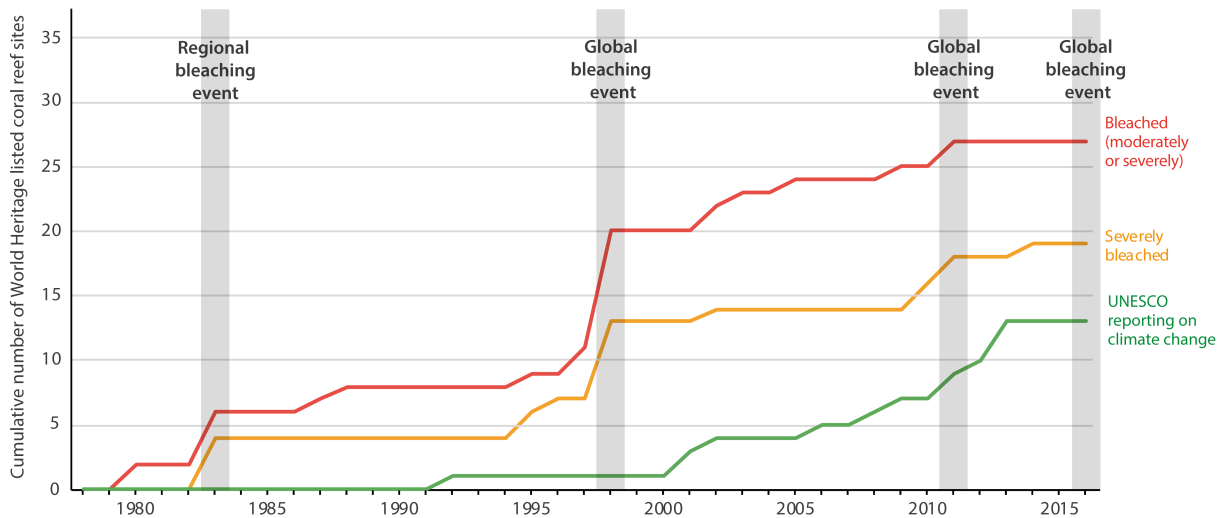


Figure 1. Cumulative number of World Heritage-listed coral reefs affected by bleaching, 1980-present. UNESCO's reporting on climate change has lagged the observed impacts by close to a decade.

Source of data for graphic

The cumulative number of UNESCO World Heritage-listed coral reefs affected by coral bleaching and subject to climate change reporting over time was assessed (Fig. 1). Bleaching frequency for the 29 reef-containing natural properties on the UNESCO World Heritage List since 1978 was determined from records drawn from published studies^{1,2} and the ReefBase Bleaching Report³. UNESCO reporting on climate change was determined from World Heritage data on the State of Conservation for the same 29 properties⁴. UNESCO has a standard list of threats affecting the Outstanding Universal Value of World Heritage properties. The list was interrogated to determine all coral reef properties affected by “climate change and severe weather events” (including changes to oceanic waters, storms, temperature changes, and other climate change impacts). All 148 State of Conservation reports (1985-2017) for the 29 coral reefs were also interrogated for additional reporting on “ocean acidification”, “bleaching” and “climate change”.

Supplementary references

1. Hughes, T.P. *et al.* Spatial and temporal patterns of mass bleaching of corals in the Anthropocene. *Science* **359**, 80-83 (2018).
2. Donner, S.D., Rickbeil, G.J.M. & Heron, S.F. A new, high-resolution global mass coral bleaching database. *PLoS ONE* **12**: e0175490 (2017).
3. ReefBase: A Global Information System for Coral Reefs. Reporting system for coral bleaching, disease, mortality, and other community composition changes and issues on a coral reef. <http://www.reefbase.org> (2018).
4. UNESCO World Heritage. State of Conservation Information System (SOC). <https://whc.unesco.org/en/soc/> (2018).