The value of marine reserves in an era of climate change

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Gaps: fisheries, fish, and geography
MPAs → Bigger Fish → More Baby Fish

- 40 cm: 230,000 young, 0.79 kg
- 60 cm: 1.3 million young, 2.6 kg
- 80 cm: 3.3 million young, 6.1 kg

Average number of young produced by three different sizes of European seabass.
Reaping the benefits of spillover
Satellite enforcement of MPAs

July – December 2014

January – June 2015

Fishing days

McCauley et al 2016
Enhance carbon storage & buffer acidification

Promote genetic diversity that supports adaptation

Prevent release of carbon stored in seafloor sediments

Protect apex predators that confer system stability

Increase population size & consequently resiliency

Provide stepping stones for climate migrants

Roberts et al.
High seas to coastal connectivity