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JOURNAL CLUB

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A marine biologist dives into the history of the Gulf of California.

A decade ago, I coined the term 'shifting baselines' to describe how society perceives environmental change. The concept has caught on: there's even a website, at www.shiftingbaselines.com, featuring short, explanatory films.

The films push the idea that

the standards by which society assesses change are themselves changing. We tend to use the state of affairs that prevailed when we first became aware of an issue as our reference point for evaluating future change — a baseline that shifts with each generation.

A set of three brilliant papers illustrates how this can shape our understanding of ecosystems.

The most recent paper (A. Sáenz-Arroyo *et al. Fish Fish.* 7, 128-146; 2006) reconstructs from historical sources, such as pirates' logs, details of the Gulf of

California's ecosystem stretching back to the sixteenth century. The researchers argue that the past abundance of creatures such as marine mammals, turtles and oysters recounted in these sources should be considered when setting conservation targets today.

Their previous work examined records of Gulf groupers, fish that once dominated the area's reefs (A. Sáenz-Arroyo *et al. Fish Fish.* 6, 121-133; 2005), concluding that fishery statistics didn't go back far enough to accurately map

the species' decline.

Further, they quizzed three generations of artisanal fishers (A. Sáenz-Arroyo *et al. Proc. R. Soc. Lond. B* 272, 1957-1962; 2005), and found that fishers' knowledge of the location or habits of species disappeared within one generation, if the species became rare.

We are all affected by this kind of collective amnesia. It allows us to handle change. But it is also the reason why we accept losses that would be intolerable, were we aware of them.