

Summary of main points for:

McGreer M & Frid A. (2017). Declining size and age of rockfishes (*Sebastes* spp.) inherent to Indigenous cultures of Pacific Canada. *Ocean and Coastal Management*: 145, 14–20.

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1. Recent declines in the size and age of rockfishes in the Central Coast are rapid, strong, and appear to be ongoing.
2. Since at least 2003, the average age of Yelloweye Rockfish has been declining by nearly 10 months each year. During a similar period, the average lengths of Quillback and Yelloweye Rockfish have been shrinking by nearly half a centimeter each year.
3. These declines likely reflect impacts from commercial and recreational fisheries, which selectively remove the largest and oldest individuals. This is a crucial conservation problem because older, bigger fish are more fecund and often play more important ecological roles than smaller, younger fish.
4. The abundances of Yelloweye and Quillback Rockfish remain at historical low levels in BC. To promote recovery, the loss of large and old individuals should be routinely incorporated into stock assessments. This approach is currently not practiced by DFO, but is becoming the preferred approach in the United States, where estimates of overfishing now account for the lower reproductive potential of younger and smaller fish. If adopted, our recommendation would justify more conservative fishery management.
5. Central Coast First Nations had observed size declines of culturally-significant rockfishes long before we conducted our analyses. Their on-the-water awareness of ecological change derives from historical baselines that span many generations, which highlights the importance of integrating Indigenous and scientific knowledge into the joint management of marine resources (i.e., collaboratively between Indigenous and federal governments).