

## LETTERS

edited by Jennifer Sills

## Fishing for Data in the Ross Sea

WE ARE AMONG THE SCIENTISTS OBJECTING TO THE ECO-CERTIFICATION OF ROSS SEA ANTARCTIC toothfish (*Dissostichus mawsoni*), as described by E. Stokstad in his News Focus story "Behind the eco-label, a debate over Antarctic toothfish" (24 September, p. 1596). The public perceives a certification by the Marine Stewardship Council (MSC) to mean an environmentally friendly fishery, not one characterized by the "dearth of key data" as indicated in the article.

Significant data deficiencies lead us to conclude that an eco-friendly label for this fishery is scientifically indefensible. Credible life history data are missing: Spawning areas, eggs, and larvae have never been found, spawning intervals are unknown, and most density-dependent

aspects of ecological relationships are undetermined (1, 2). Stock assessment is problematic because severe Antarctic pack ice conditions for more than 9 months a year prevent scientists from effectively using standard models, which require random tagging over time, space, and age classes (3). The number of fish harvested by illegal, unregulated, and unreported fisheries is likely

substantial (4, 5). Finally, ecosystem effects of removing 50% of spawning biomass [the fishery's stated management goal (6, 7)] of this slow-to-mature species are unlikely to be neutral: The large, adult toothfish targeted by the fishery are a key structural link in the food web of the Ross Sea (8–11), currently the most pristine marine area on Earth (12).

As with MSC-certified fisheries elsewhere, toothfish certification requires that industry eventually provide missing biological data (13, 14). However, the harsh Antarctic environment makes data collection painstaking and often prohibitively expensive. Thus, such expectations are unrealistic for a commercially viable fishery. Instead of a certification that lacks proper data, a moratorium should be placed on further Ross Sea fishing until the quality of science at least equals that of certified fisheries elsewhere (13).

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15. The opinions of R.L.B. Jr. do not represent an official position or endorsement of third-party certification schemes for fisheries by NOAA and the U.S. Government.