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Glass sponges focus of protection

Plans to preserve ancient sea life will affect trawl fisheries

In October, the Pacific Coast Shrimper's Cooperative Association asked me to sit in on a meeting designed to address conservation strategies for the protection of glass sponge reefs and cold water corals on the B.C. coast. It was basically a workshop sponsored jointly by DFO and the B.C. chapter of the Canadian Parks and Wilderness Society (CPAWS).

Where fishermen come in are the concerns over the impact of mobile gear technologies (trawls) and, to a lesser degree, longlines in both hook and trap fisheries, on the ocean floor.

Prior to the 1970s, and the introduction of the 200-mile economic zone for fishing, there was a large foreign trawl fleet operating off our coast. Most of the vessels were Japanese and most were bottom trawling. We'll never know how many cold water corals and sponge reef were destroyed by those vessels.

In 2002, DFO brought in partial sponge reef closures in Hecate Strait and Queen Charlotte Sound that closed certain areas to the bottom trawl fishery. It was estimated that up to 50 per cent of the sponge reefs in Hecate Strait alone had already been destroyed by trawl fisheries by time the closures were implemented and research has shown that lost reefs may never be regenerated.

In April of this year, the trawl closures were expanded to cover the full extent of the existing reefs. And now DFO is looking to expand them further, with the introduction of five and eight km buffer zones around each reef. Observers in the otter trawl boats that are working in the vicinity of

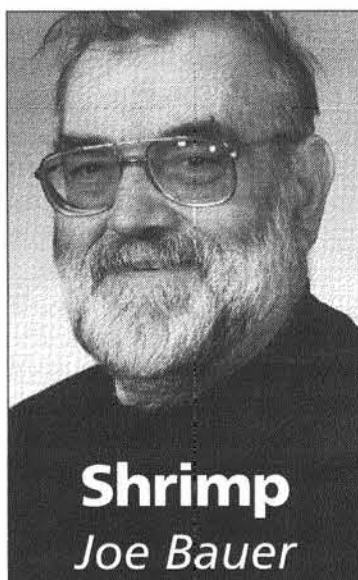
the reefs are currently monitoring compliance with the closures, as are observers in the groundfish trawl fleet, which has had 100 per cent observer coverage since 1996.

The U.S. has already closed close to 60 per cent of deep-sea coral habitat areas and new measures to ensure those closures are maintained became law this year. In both Atlantic Canada and the U.S., the work in developing conservation strategies has been done with the help of fishermen and their work should be used as a guide for our own future recommendations. It's important that the fishing industry be consulted and fishermen need to be on board before any new steps are taken, such as regulations and closures.

Why all the interest in glass sponges and cold water corals?

The glass sponge reefs on our coast are thought to be as many as 9,000 years old. The glass sponges themselves are the oldest multicellular animals on the planet. They're older than 570 million years and peaked in the late Jurassic Period, 150 million years ago, before the continents, as we know them today, separated from the mega-continent called Gondwana.

Fishermen in B.C. waters had been catching glass sponges from time to time and treated them as little more than a curiosity. But everyone took notice in 1988 when the Canadian Geological Survey, in the course of mapping the B.C. sea floor, discovered and recorded living glass sponge reefs that were thought to have become extinct during the Tertiary Period, around the time that dinosaurs disappeared.



Shrimp
Joe Bauer

Glass sponges are very slow growing and have a long life span—more than a 100 years if left undisturbed. The reef habitats that they form are important to juveniles of numerous species, including commercially important species, such as ling cod, rockfish, flatfish and many others. They form a diverse biological community that many life forms depend on for survival.

Cold water coral reefs are critically important in maintaining fish populations. As one East Coast fishermen commented: "When there were lots of corals, there were lots of fish. Now there are less corals and less fish." Corals create habitat for fish,

shrimp, and other animals high on the food chain. When they disappear, then it can all go.

Because of their longevity, corals are extremely good indicators of past climate and could help science understand the impact of climate change, and a record of its changes. The chemical compounds found in the corals' defence mechanisms may also be beneficial to human health and are currently being studied to see if they can be created synthetically for use in pharmaceutical products.

The message at the workshop was that the socio-economic impact of any proposed closures have to be looked at closely. Human impacts on the sea and the

effects of fishing on the sea floor are a given, but more science is needed to show the relationship between the reefs and the communities of fish, especially those species important to fisheries. Participants agreed that, given the importance of the reefs, there should be a precautionary approach, and goals should be clear and fair. No single group of users should be targeted and the same rules should apply across the board.

Those at the workshop also discussed the need to broaden the representation. DFO, the B.C. government, sports fishermen and other stakeholders need to be included if the process is going to work.