

# Fish stocks in dire straits: B.C. scientists

BY MICHAEL SMITH

BOSTON — University of B.C. fisheries scientists are warning that if current trends continue preferred fish stocks will be all but nonexistent in 10 years.

Jellyfish sandwich, anyone?

That may be your seafood snack in the near future if fisheries policies aren't changed throughout the North Atlantic countries, say the authors of the first study to examine the whole ocean.

Over the past 50 years, the study shows, the catch of preferred fish, such as cod, tuna, haddock, flounder and hake has fallen by more than half, even though the effort put into fishing has tripled.

"Within 10 years, we'll be talking about those fish as if they were a myth," said UBC fisheries scientist Reg Watson, one of the people who conducted the study.

"We'll all be eating jellyfish sandwiches by then," he said. The study was released Saturday at the annual meeting of the American Association for the Advancement of Science.

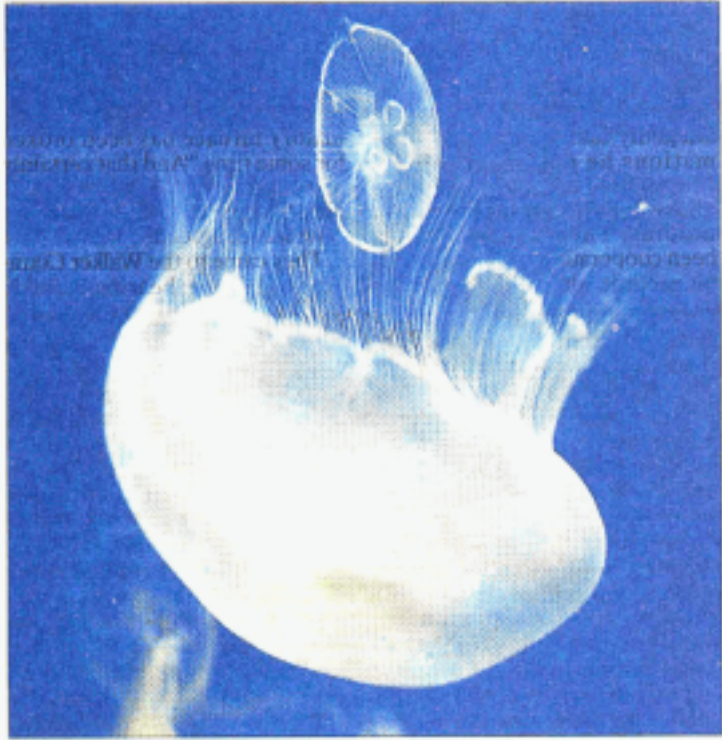
Study leader Daniel Pauly, of the University of British Columbia Fisheries Centre, compared the study to a weather map. "The map shows really bad weather over the North Atlantic."

Despite what seems to be progress in salvaging individual fisheries, Pauly said, this first "big-picture" study shows that "we are unequivocally losing the battle to manage fisheries in the North Atlantic."

The amount of the preferred fish in the sea today is about seven pounds per capita, down from about 21 pounds in 1950, Pauly said. If the trend continues, they'll be all but nonexistent in 10 years.

At the same time as fish stocks have been dropping, he said, governments of the countries surrounding the North Atlantic have increasingly been subsidizing the fishing industry — subsidies that reached \$2.5 billion US in 1997.

Pauly said the study is also one of the first to be independent of



BERNIE HANBY/VANCOUVER SUN FILES

**With dwindling catches of seafood such as tuna and cod, jellyfish may become an uncomfortably common sight on dinner plates, warns one of the authors of a study of North Atlantic fisheries.**

the fishing industry or national fishing ministries. It was financed by the Pew Charitable Trusts of Philadelphia.

The cost of landing fish is also increasing, according to Peter Tyedmers, of Dalhousie University, with one of the main culprits being rising fuel prices. "The fuel energy needed to capture a ton of fish has doubled in the past 20 years," he said.

Until now, countries have tried to solve the problem on a region-by-region basis, but that doesn't work, says University of New Hampshire fisheries scientist Andy Rosenberg.

A former deputy director of the U.S. National Marine Fishery Service, Rosenberg led a drive to partially close the Georges Bank fishery off the coast of New England.

Despite some signs of recovery, Rosenberg said, that fishery-by-

fishery approach "is just moving around the deck chairs on the Titanic — the boats go elsewhere."

One possible solution is the creation of marine reserves, which have had beneficial effects in some areas, said Callum Roberts of the University of York, in the United Kingdom.

Roberts advocated such reserves recently in the journal *Science* and is leading a session here today on how to lessen the impact of high-tech fishing — including such things as sonar, computer databases and the Global Positioning System — on fish stocks.

But reserves by themselves are only part of the answer, Rosenberg said. Without changes in fishing policies throughout the North Atlantic basin, the fish stocks will continue to decline to the point where jellyfish will be regarded as a delicacy.