

Fishing down marine food webs... in Canada too *By Daniel Pauly*

Two members of the Fisheries Centre (the author and Johanne Dalsgaard), and their colleagues at ICLARM (V. Christensen, R. Froese and F. Torres Jr.) have just published an article in *Science* magazine (February 6, 1998) which shows that globally, fish catches, from 1950 to the present, are increasingly drawn from lower down in the food web.

The consequences of this seem rather grave, and likely to be discussed for quite a while in the specialised literature.

However, the *Globe and Mail*, ever championing the spirit of enterprise, already knows that fishing down the food web is a good thing. The *Globe and Mail* article showing this, which appeared on November 24, 1997, is reproduced below in slightly abbreviated form:

"Unappealing sea creatures aid troubled fishery

Dartmouth, N.S. – Fish species considered the scourge of the sea in Nova Scotia are finding their way onto dinner plates abroad.

Periwinkles, bill fish, razor clams and starfish have all made inroads as exports, as the province looks to the unconventional to replace traditional, depleted stocks such as cod. [...]

The need to diversify and the knowledge that what Nova Scotians toss aside could appeal to others has the industry looking at some species in a new light.

Sea urchins, for example, are prized in Asia for the flavour imparted by their ovaries and testes. Diners simply remove them for a dish that resembles caviar. It's a Japanese delicacy that turned a pest into a \$3.5-million industry in Nova Scotia last year. [...]

But to take advantage of these emerging industries, Nova Scotia had to look beyond the traditional New England market. And to make sure these new fisheries don't go the way of the cod, the federal government is working on research programs with Nova Scotia's Fisheries Department and with fishermen and processors. [...]"

Note that the "research program" in question will have to be funded from public funds. So the taxpayer who subsidised the fleet that wrecked the stock will now fund the growth of a fishery on the next lower trophic level...