

Rekindling rationality back into fisheries

Dr. Daniel Pauly believes that catching capacity should be readjusted to the state of the resource.



'The phase of growth of the fishing industry is globally over', says Dr. Daniel Pauly, a fisheries professor at the University of British Columbia (UBC) in Vancouver, Canada, and a specialist in marine eco-systems modeling. While recently participating in a mini-conference on fisheries in Brussels sponsored by the Worldwide Fund for Nature (WWF), *Fishing in Europe* caught up with Dr. Pauly and asked him about his views on the state of the world's fisheries and marine resources.

Dr. Pauly is a man with poise. This assurance was particularly marked when, during the mini-conference on fisheries, he described the dire state of the world's marine resources. Indeed, in his presentation he lengthily explained how the biomass of our planet's marine resources is disappearing as a result of increased fish mortality. Using streaming slides to show various levels of biomass concentrations on a map and total catches on another, Dr. Pauly illustrated the impact increased catches of fish have had on West Africa's marine resources from 1950 to 1999. As the slides and the years streamed by, biomass continued to decrease on the first map. On the second map catches continued to increase until the 1970s and remained stable thereafter. The biomass concentration on the 1999 slide was particularly low and worrying. Unfortunately, this situation is not specific to West Africa; Dr. Pauly warned that almost all fishing regions and fish resources around the world are facing a similar scenario of marine resource depletion and collapse.

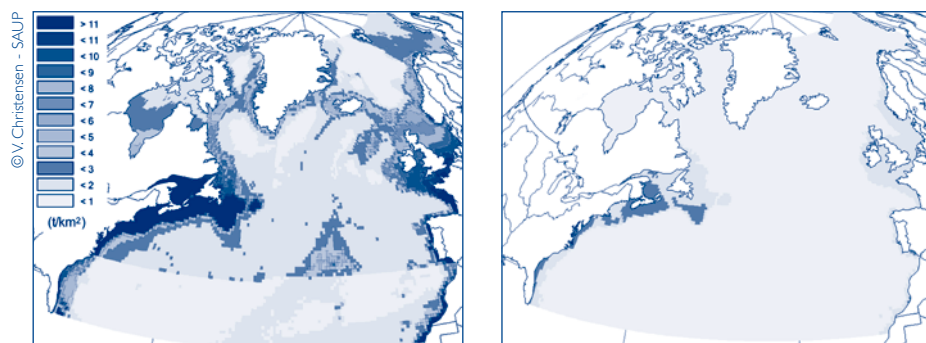
Technology on the line

In a recent article, Dr. Pauly reported that catches have increased from 5 million tonnes a year at the end of the 19th century to as high as 86 million tonnes at the end of the 1980s¹. This represents a seventeen-fold increase under just a hundred years. Despite an increase of over three times in the world's population over the same time period, Dr. Pauly stressed that *'the raw increase in population to a large extent does not translate into demand because of poverty as the largest share of last century's population increase was in the poorer countries.'* Rather, the rapid decrease in marine biomass is in large part due to the technology used by the fishing industry. *'The Global Positioning System (GPS), eco-sounders, sea-bottom mapping, essentially all cold-war technology'*, he says, have allowed fishermen to increase their ability to find and catch fish. The effect of such technology is that well-equipped boats are better able to locate fish than before, hence maintaining catch levels from decreasing stocks.

Bringing back rationality

'The fabric of rationality has been torn, we need to bring back the real issue at hand; catching capacity should be readjusted to the state of the resource.' Yet, Dr. Pauly believes that bringing rationality back to the fishing industry goes beyond adapting the capacity of the fishing fleet. *'The reason we had sustainable fisheries in the past was because some areas were not available for fishing; unless we re-establish that we're always going to risk losing our fisheries, even with a limited fishing effort,'* claims Daniel Pauly. Any effort to meaningfully recover the world's marine resources short of closing large areas spanning national and international jurisdictions would be self-defeating. Asked about whether he felt that governments could get together and agree on such no-fishing areas, Dr. Pauly declared that he was not optimistic, *'but as a social agent - a professor of fisheries - I tend to believe, I have to pretend it is possible and play my part so that it becomes possible.'*

BIOMASS OF COMMERCIAL STOCKS IN 1900 AND 1999



Decline of fish stocks, as illustrated by Daniel Pauly.

¹ 'Quand le poisson vient à manquer...'; *La Recherche* 355, July-August 2002.