

Article 3: The North Sea: Canada's Grand Banks, Revisited?

In 1992, scientists and fishermen watched in disbelief as the impossible unravelled off the Grand Banks in Nova Scotia. After years of overexploitation and poor fisheries management, the once-plentiful cod stock simply vanished and never returned. The local population was devastated, as 29,000 people – in addition to 19,000 fishermen – lost their jobs and were forced to scramble for new livelihoods. As stock levels fall to precipitously low levels in the North Sea, could we be seeing the beginnings of yet another fish collapse?

Scottish fishermen emphatically insist that the Grand Banks disaster simply couldn't occur in the North Sea. They point to rising levels of cod in the sea that they observe from their ships, and insist that there's more available than over-cautious scientists have estimated. "Scientists have a very purist view of things," said Ann Bell, Executive Director of the North Sea Regional Advisory Council. According to her, the International Council for the Exploration of the Sea (ICES) "uses very inflammatory language. Every year, we ask them to tone it down." What ICES is calling for is an immediate closure of all commercial fishing in the North Sea, because fish populations are so far beneath the sustainable population necessary for fishing.

The Grand Banks disaster has achieved a somewhat mystical treatment by fishermen, who are still stubbornly dependent on superstitions and omens, even in the age of satellite navigation and sonar probing. Each skipper I spoke with greeted the mention of the Canadian collapse with a wry smile and a knowing nod, and then proceeded to explain exactly why Scottish waters would never see a similar event. "Something environmental went on there," said skipper John Buchan, on his trawling boat, *Atlantic Current*. "For the cod to never return – there was more going on than just overfishing," he reasons. "It had to be something to do with climate change."

Another reason why the lessons of Grand Banks have no real bearing on fish management in the North Sea is the nature of the fishery, say industry insiders. The North Sea is a multi-species fishery, meaning there are enough members of a variety of species – cod, herring, mackerel, to name a few – to sustain different strands of the fishing industry, whereas in Nova Scotia, there was only cod, a view seconded by Bell.

However, the most distinct factor that differentiates the Grand Banks from this corner of the sea off Scotland is the perceived mismanagement of the Canadian Department of Fisheries and Oceans (DFO) and its inability to foresee the dangerously diminishing level of stocks in the face of foreign trawling and exploitation. "Too little, too late" characterises the Canadian response to impending ecological disaster, say everyone from the North Sea RAC to the Scottish Fisheries Protection Agency.

But these reassurances are rooted in misunderstanding and ignorance. While it is true that scientists are still baffled as to what led to such a swift demise in the cod population in Nova Scotia, there have been enough scientific investigations into the events leading up to the 1992 moratorium on fishing which discredits these three explanations – and raises the spectre of a similar event occurring in northern European waters.

First, the factor of the environment. While it's true that Nova Scotian waters experienced a perceptible decrease in water temperatures that adversely affected cod

spawning habits, there was no sweeping environmental factor that completely wiped away all forms of sea life in the Grand Banks. In fact, the crustacean population skyrocketed, leading to a lucrative trade in crabs which continues today. Nephrops (prawns) are also found in the area, meaning that complete destruction of the waters around Nova Scotia simply did not occur in the way envisioned by those working on North Sea regions.

The idea that Scottish fishermen are exempt from a similar event also goes against what scientists now know about the behaviour of fish today. In the North Sea, there have been shifts in fish migratory patterns for nearly all stocks, from the mackerel – which can now only be fished far off of coastal waters – to the influx of new stocks, like red mullet and sea bass, which respond favourably to the increased temperatures in the southern North Sea. Over the last decade, water temperatures have risen by 0.8 degrees Celsius, an alarming trend which has been observed in varying intensity throughout the world. And while cod were negatively affected by the unexplained drop in temperatures off Canadian shores, there's nothing to say that warmer waters will have serious implications for the remainder of the biosystem.

“Cod are very sensitive,” said Dr. John Pinnegar, of the Center for Environment, Fisheries and Aquaculture Science (CEFAS), a government agency connected to DEFRA. “They've got both a cold and warm limit. Right now, the North Sea is very close to its warm limit.”

But the third reason given for the North Sea's supposed immunity from a similar stock collapse is perhaps the most damning. Skippers and the other members of the fishing community insist that the mismanagement of Canadian politicians and bureaucrats is simply not replicated in the UK and the EU. Orrin Pilkey, however, would beg to differ. An ocean sciences expert at Duke University in the US, he has spent his life studying the preservation of marine life and coastal communities. “There's an element of real irresponsibility in fisheries management all over the world,” he said. “By every measure, fisheries are going downhill. Mathematical models that are used by scientists are just not taking accurate readings of how many fish are actually left.” He said the use of mathematical models to determine quotas, as is currently used for the calculation of EU limits, is particularly dangerous, and more data needs to be taken from field research. He doesn't believe this will happen anytime soon, however. “I've seen it happen around the globe, when governments are willing to sacrifice the long-term health of the industry for purely political reasons.” And as long as groups like the Scottish Fishermen's Federation insist that cod levels have rebounded enough to sustain more intensive fishing, the UK government will be under pressure to cave into these demands.

As long as North Sea watchdog groups are under the influence of the fishermen's lobby, no real change can come about – and this may very well result in the intractable destruction of the marine ecosystem. Stubborn insistence that the stocks will rebound will not make it so. Swift action to reduce fishing levels dramatically is the only thing that can prevent the North Sea marine ecosystem from completely being destroyed.

Word Count: 1088