

A coast in decline



SEA CHANGE: BRITAIN'S COASTAL CATASTROPHE BY RICHARD GIRLING

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For a country that is surrounded by the sea, they've certainly mucked it up. This is the message of British journalist Richard Girling in *Sea Change*. The book is a wide-ranging and comprehensive discussion of the concerns that constitute Girling's view of Britain's coasts. The issues include the decline of British coastal resort towns, the difficulty of managing a retreating shoreline in a time of rising sea level, the demise of ocean fisheries, the collateral damage from fish farming, spills and pollution at sea, and the future of ports.

This is a very British volume, with many of the geographic names not recognizable to non-Brits and nary a map to help. It is nonetheless an interesting and witty read, punctuated with memorable one-liners.

The book is intense and sometimes angry; Girling's malice is directed mostly toward the captains of marine industries, and the bureaucrats that are charged with controlling them and preventing them from doing environmental damage. Although largely based on sound science, there are a few technical inaccuracies that come about when Girling chooses to accept the word of the 'wrong' side of a particular issue. For example, in his interesting discussion of offshore sand mining, Girling accepts the unlikely notion of a consultant that there is little sand transport on the storm-tossed southern North Sea continental shelf.

The UK does seem to be well ahead of the US in facing the tough coastal management questions that have come with rising sea levels. In the UK, it is widely accepted that not everything can be protected; some buildings and even communities will have to be surrendered to the sea. And not all who will be forced to abandon their threatened beachfront property can expect government compensation.

In planning for the coming sea level rise, "in recognition of nature's disdain for politics", the English and Welsh coasts have

sensibly been divided into geologic entities or 'sediment cells', which are independent of political units. The most traditional approach to shoreline management is to hold the shoreline in place with walls, groins, beach nourishment and/or anything else that will do the trick. Another choice is 'managed realignment', where the shoreline is allowed to move back in a controlled fashion to the natural shoreline, allowing some buildings to fall in. A third alternative that has recently been proposed for some areas is 'no active intervention', which essentially means do nothing and let nature roll on. The near disappearance of the grand old British beach resorts, which have lost out to the increasingly popular Italian and Spanish beach hotspots, has encouraged this change in priorities in the war against sea level rise. Further hastening the downward slide, welfare agencies have filled up vacant rooms at seaside resorts with indigents.

On the ecological front, the annual escape of hundreds of thousands of fish from salmon farms in Scotland and Scandinavia, mostly because of storms, is threatening to completely replace the native Atlantic salmon. The 'tame' salmon from the farms breed very slowly, have no up-river migration instincts and hang out in fjords and estuaries, which has led to the fear that the entire ecosystem related to the salmon's life cycle will disappear. In addition to the escape problem, millions of farm salmon (7 million in 2002 alone) die in their pens each year, creating a serious pollution and disposal problem. The solution, some argue, is to prohibit fish farming altogether in waters that have any connection to natural streams, and return to fishing in the sea under carefully regulated conditions that will halt the downward spiral of the industry. Neither seems likely.

Moreover, the wild fish catch that feeds the penned up salmon is itself in danger from over harvesting. For example, the blue whiting, a fish from the cod family found in the northeast Atlantic Ocean, has

been declared in danger of collapse. This is discussed in the most disturbing part of Girling's book, the chapter on harvesting fish from the sea. Even before the 19th century, overfishing was a recognized problem, but the real crisis began in the last half of the 20th century. The Grand Banks cod fishery off Labrador and Newfoundland, once considered the greatest fishery in the world, collapsed in 1992. Fifteen years later, the cod still have not come back.

This should have been a wake-up call, but because catch enforcement problems are huge, over-exploitation goes on. For example a trawler might be after several bottom dwelling fish species. Once they have caught their limit of one species they keep on trawling until all their quotas are full. They either bring the surplus catch ashore illegally, or just throw the newly caught carcasses overboard to avoid prosecution. In part because of illegal practices, the British fishing industry continues on a downward spiral, whether measured in terms of numbers of boats, fishermen or catch sizes. The solution seems to be to adjust catch limits to assure long-term viability of fish stocks — which is not an easy task. Even so, Girling's description of the stupefying inability of the bureaucracy and politicians to halt the industry's slow slide into oblivion makes one wish for benevolent dictatorships!

Recounting the multifaceted elements of coastal environmental problems in back to back chapters gives credence to Girling's characterization of the situation as Britain's catastrophe. It is a coastal calamity aided and abetted by sea level rise, widespread pollution from a growing coastal population and increasing demand for the resources of the sea. And it is not restricted to Britain.

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