



An ice-breaker ship cuts a route through ice floes in McMurdo Sound, Antarctica.

ENVIRONMENT

Piscine plunder

Michael White assesses a film documenting the exploitation of Antarctica's pristine Ross Sea.

In the 1999 science-fiction blockbuster film *The Matrix*, Agent Smith labels *Homo sapiens* a "cancer of this planet", declaring "you multiply and multiply until every natural resource is consumed and the only way you can survive is to spread to another area." Although Peter Young does not go that far in his glorious but flawed documentary *The Last Ocean*, the film is a powerful statement about humanity's urge to chase resources over every inch of Earth.

Young's focus is the case to end fishing of the Antarctic toothfish (*Dissostichus mawsoni*) in the pristine Ross Sea, a deep Antarctic bay. Marketed as Chilean sea bass, the toothfish is delicious and versatile — virtues that are also its vulnerabilities. A relative, the Patagonian toothfish (*Dissostichus eleginoides*), has been over-exploited in much of the Southern Ocean (peaking at a reported catch of 40,000 tonnes in 1995) and this has increasingly pushed fishing into the Antarctic waters where *D. mawsoni* lives.

Young builds his conservation argument around a few main themes, one of which is unquestionably valid and others less so. The primary focus is that the Ross Sea brims

The Last Ocean
DIRECTED BY PETER
YOUNG

with an astonishing diversity of life. The message is brought home with contemplative and elegantly sparse cinematography and audio recording: a lone penguin races across the ice; a Weddell seal emits an otherworldly call. Young's argument that there is nowhere else like the Ross Sea left on the planet is sound and is backed by the many participating scientists, including Antarctic ecologist David Ainley.

But there is a whiff of conspiracy theory about *The Last Ocean*. Young suggests that industry funding seriously undermines the credibility of the Marine Stewardship Council — a global certifier of sustainable fisheries, including those that support the toothfish. However, similar certification practices are common in many industries. Young also says that the New Zealand fishing industry, with government support, mounted a coordinated and unjustifiably defensive response to a journalistic critique of the toothfish industry published in July 2010 — yet the industry's response in the film comes across as bumbling.

Other arguments are even murkier. New

Zealand government officials are portrayed as callous and exploitative, but the film fails to adequately acknowledge the importance of the Ross Sea toothfish fishery in cementing New Zealand's claim to the Ross Dependency, a huge slice of ocean and bits of land ceded by Britain in 1923.

The fishing industry is expected to reduce existing toothfish stocks by 50% over the next 35 years, a limit set by the regulatory Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR), which grew out of the 1961 Antarctic Treaty. A central scientific argument against extraction down to such levels is that sustainability cannot be guaranteed because we lack sufficient scientific knowledge about this species. Although this is probably true, an industry representative in the film points out that there would be little fishing of any kind if such guidelines were widely imposed.

But the facts stand. The toothfish is not fished for subsistence, and this pleasure-seeking has brought clear effects in less than 20 years. The effort per unit of fish caught is increasing, the Ross Sea killer whales that count on the toothfish as a main food source are disappearing and the decades-long toothfish research programme in McMurdo Sound has gone — along with the sound's population of *D. mawsoni*.

Achieving a fishing ban seems unlikely, as does the greater goal of protecting the Ross Sea. Decisions about fisheries around Antarctica are regulated by the CCAMLR. Regulations are changed by consensus, a system that is subject to endless political bickering. Near the end of the film, the United States and New Zealand introduce competing plans for marine protected areas designed to preserve huge chunks of the Ross Sea. Then the storyline simply stops. Skipping the denouement does not work cinematically — nor, given what happened next, does it do the film-makers' cause much good.

In essence, nothing happened. The 2012 CCAMLR meeting ended without a consensus, raising larger questions that the film might have addressed more directly: why do the limited economic and political benefits gained from exploitation of this fish continue to outweigh the seemingly innumerable ecological concerns? Is this marine ecosystem so remote that the preservation-minded are unlikely to see it and support its conservation? Some considered grappling with such issues would have been welcome.

A special CCAMLR meeting next month will revisit proposals for marine protected areas. Perhaps the added exposure from *The Last Ocean*, currently on the film-festival circuit, will turn negotiations around — and withhold the last laugh from Agent Smith. ■

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