

Another one that didn't get away!

IN MAY THIS YEAR CONSIDERABLE MEDIA ATTENTION WAS given to the interception, in a remote corner of the Southern Ocean, of an unknown foreign fishing vessel suspected of illegal fishing in Australian waters around Heard Island.

On 12 April 2001 the Togo-flagged *South Tomi* was boarded by defence personnel and fisheries officers, after pursuing the vessel 6,100 km across the Southern Indian Ocean. It was carrying a haul of toothfish worth \$1.5 million.

Australia has sovereignty over a 200 nm Exclusive Economic Zone around Heard Island. In late 1997 and early 1998 three vessels were apprehended by the frigates HMAS *ANZAC* and HMAS *Newcastle*. Following these encounters the Government funded further patrols using civil and defence resources and since 1998 these have formed a critical part of combating illegal fishing in the region.

On 29 March the civilian patrol vessel *Southern Supporter* challenged the *South Tomi* which was suspected of fishing illegally. The vessel initially obeyed an order

to sail to Fremantle, over 4,000 kilometres north-east, but once outside Australian waters turned north-west. *Southern Supporter* commenced a hot pursuit lasting 14 days.

As *South Tomi's* ultimate destination was not clear, France and South Africa – which have interests in the area – were contacted. Both offered assistance and as *South Tomi* headed for the Atlantic, South Africa's President approved Cape Town as a base for an interception. Australian personnel flew to Cape Town to join South African navy vessels. *South Tomi* was boarded on the high seas 320 nm south of Cape Town and then, accompanied by *Southern Supporter*, steamed 8,500 km to Fremantle arriving on 5 May.

Since returning to Australia *South Tomi's* master has been charged with offences related to fishing illegally and disobeying the direction of a fisheries officer. The master has pleaded guilty to the illegal fishing charges and the other charge has been dismissed. Sentencing is expected on 11 October.

Australian authorities will seek to recover the costs



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The Southern Supporter (right) escorts the South Tomi to Fremantle.

of the chase, including monies paid to South Africa, and establish who are the beneficial owners of the *South Tomi*.

The *South Tomi* incident is notable for the outstanding cooperation from other countries and the logistics involved. It is a graphic example of the strong commitment to combating illegal fishing by Australia and other parties to CCAMLR.

Despite the detention of the *South Tomi* and many arrests of foreign vessels by France, the risk of further

illegal fishing in the region remains high. Australia will continue to work in CCAMLR and in other forums to implement effective measures to combat illegal, unreported and unregulated fishing in the CCAMLR waters.

Ian Hay, Antarctic Treaty and Government, AAD

'Hot pursuit' – more than a cliché

'Hot pursuit' is not a catchy phrase invented by a journalist to invoke a sense of high drama, it has a legal meaning within the UN Convention on the Law of the Sea. The right to undertake 'hot pursuit' is detailed in Article 111 which provides that 'the hot pursuit of a foreign ship may be undertaken when the competent authorities of the coastal State have good reason to believe that the ship has violated laws and regulations of that State.' Article 111 requires that the offending vessel be ordered to stop, that the pursuit not be interrupted and only conducted by warships, military aircraft, or other ships or aircraft clearly marked and identifiable as being on government service and authorised to that effect.

A history of the Patagonian toothfish fishery

TODAY THE PATAGONIAN TOOTHFISH (*Dissostichus eleginoides*) is the most valuable fishery in Antarctic or subantarctic waters. Prices can exceed \$US10 per kilo for headed, gutted and tailed fish in the main markets in Japan and the United States. Unlike nearly all other Antarctic fish, the toothfish can grow to a large size (just over 2 m long and 100 kg in weight) and this, together with its high quality white flesh and few bones, make it highly sought after – particularly given the growing scarcity of other premium-quality species from around the world.

This has led in the last few years to a large-scale illegal fishery, which attempts to poach fish from the major areas of distribution of the toothfish around the subantarctic islands and other submarine ridges in the Atlantic and Indian Ocean sectors of the Southern Ocean. Large numbers of vessels fishing illegally were first noticed in 1996 in the western part of the Indian Ocean, but they soon spread eastwards towards Kerguelen and Heard Islands where they were seen by Australian and French licenced vessels in 1997. Although difficult to estimate reliably, it is thought that



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illegal catches were very high in these first couple of years – possibly two to three times the legal catch of this species from all sources – and probably caused a significant depletion of the fish stock in some localities. As a result of surveillance and arrests by some countries, including Australia, illegal fishing has declined. It still however

remains a serious problem, with illegal catches being similar to the level of legal catches in the 1999–2000 season.

Since the start of fishing activity in subantarctic waters in the early 1970s, toothfish had been a minor bycatch species in the trawl fisheries for marbled rock cod and grey rock cod, particularly around South Georgia and the Kerguelen Islands. It was only in 1985 that commercial quantities of toothfish were discovered at Kerguelen. There had, however, been a substantial fishery off the Chilean coast since the mid-1970s, so markets were already established for this species. Since then, the fishery for this species developed rapidly and expanded to other areas, including South Georgia, Marion and Prince Edward Islands, and Crozet Islands. In 1994 an Australian trawl fishery began at Macquarie Island, followed by Heard Island in 1997. Although started as a trawl fishery, most toothfish is now caught by longline, except for the Australian fishery and part of the French fishery at Kerguelen. In the 1999–2000 season, approximately 14,500 tonnes were caught in the subantarctic waters managed by CCAMLR and a further 11,500 tonnes were taken outside CCAMLR waters off Chile, Argentina and the Falkland Islands.

Patagonian toothfish is now known to occur throughout the southern hemisphere in cool temperate and subantarctic waters, from the east and west coasts of South America eastwards through all of the subAntarctic islands, submarine plateaus and seamounts to the Campbell Plateau south of New Zealand in waters from 300 m to over 2000 m depth. It probably also occurs in the Pacific sector, but little exploration has been done there. It is replaced in the high latitudes close to the coast of Antarctica by its close relation, the Antarctic toothfish (*Dissostichus mawsoni*), for which a fishery is currently being developed.

About Patagonian toothfish



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PATAGONIAN TOOTHFISH ARE CAUGHT CLOSE TO THE sea bed and most fishing occurs between 400 m and 1500 m depth. They are large, active, predatory fish that feed mostly in the water column on squid and fish, but they have a very varied diet that can include bottom-living organisms such as crabs and prawns. Studies on their age and growth are not yet conclusive, but it appears that they can live at least 45 years, with males maturing at about 10 years and females at about 12 years. Spawning is thought to take place in winter (June–July) in depths of at least 1500 m. Young stages spend some months at least in surface waters before moving to the sea bed where they appear to move deeper as they grow. Tagging experiments suggest, surprisingly for such an apparently active large species, that fish generally do not move more than a few tens of miles over a period of several years. Recently, however, there have been two instances of tagged fish recaptured at different islands several hundred miles from their tagging position, so the extent to which fish interchange between different fishing grounds is not yet resolved.

CCAMLR meetings address critical issues

THE ANNUAL MEETING OF THE CCAMLR SCIENTIFIC Committee's Working Group on Ecosystem Monitoring and Management (WG-EMM) took place in Fiskebäckskil, Sweden from 2 to 13 July 2001. Drs Andrew Constable and Steve Nicol from the AAD's Antarctic Marine Living Resources Program attended the meeting. Progress was made on a number of fronts but the most significant development was the identification of a long-term program of work for the Group. The following were identified as priorities:

- The identification of small-scale management units – breaking down the krill catch limits into smaller, more ecologically relevant, areas.
- A review of the utility of CCAMLR's ecosystem monitoring program (CEMP) – how do you translate changes in the populations of krill predators into

management advice?

- The development of predator-krill-environment models and fishery-krill-environment models.

A workshop on the small-scale management units was scheduled for the 2002 Working Group meeting and one on the utility of CEMP was scheduled for the 2003 Working Group meeting.

The annual meeting of the CCAMLR Scientific Committee's Working Group on Fish Stock Assessment (WG-FSA) will take place in Hobart from 8 to 17 October 2001. WG-FSA will provide advice on critical issues such as management of new and exploratory fisheries, annual catch limits in established fisheries and seabird bycatch.

The annual meeting of the Commission for the Conservation of Antarctic Marine Living Resources will be in Hobart from 22 October to 2 November 2001.