



Fisheries research gets a boost

THE ARRIVAL in July of the Ministry of Agriculture and Fisheries' new vessel *Tangaroa* could signal a new era for the conservation of New Zealand's fisheries. Its arrival marks the end of seven years of departmental wrangling, which saw Treasury veto funding for the vessel several times. Surveys by the 70 metre, 2282 tonne, Norwegian built vessel will greatly improve information on rock lobster, squid and fish stocks, such as orange roughy and hoki. This should allow better management of our precious fisheries.

New Zealand's 200 mile exclusive

economic zone is the fourth largest in the world. In the past, fisheries research has been hampered by the lack of vessels with modern scientific equipment able to work in deep water down to 2000m. Serious depletion of orange roughy stocks may have been avoided with better research on the species and a more cautious approach from the Government in setting quotas.

The Government is showing more concern for protecting New Zealand's fisheries by buying the *Tangaroa*. It has also been cracking down on widespread illegal commercial fishing activities, with

recent arrests in the rock lobster, paua, scallop, snapper and orange roughy fisheries. However, it needs to show far more commitment to marine conservation.

There is an urgent need to integrate the wider effects of fishing on the marine environment into fisheries management. Additional exploited species, such as southern blue whiting, should be added into the quota management system, and the Government needs to take more notice of scientists' warnings about over-fishing. Stopping the deaths of hundreds of fur seals and Hooker's sea lions, and thousands of seabirds should be central to fisheries management, as should research on the effects of fishing on complex marine food webs. The Minister of Fisheries' September decision to increase the hake quota off the West Coast and east of the Auckland Islands, could see more fur seals, sea lions and seabirds killed by trawlers.

One of the best ways of improving fisheries management would be to greatly increase funding for MAF's scientific staff – particularly the observer programme, which largely monitors catches of foreign deep-water vessels. In all fisheries, the most selective methods of fishing should be encouraged – indiscriminate fishing methods like set-netting should be outlawed. 🐟

Alan Tennyson



Information gathered by MAF's new research vessel *Tangaroa* could greatly improve conservation of New Zealand's precious fish stocks. Photo: A Blacklock

Sharks under threat

IN EVERY OCEAN in the world sharks are coming under increasing pressure from expanding commercial fisheries. About 400 species of shark are known, ranging from the giant 12m plankton-feeding whale shark to tiny 20cm deepwater species. Only about twenty species are fished commercially and little is known of their biology.

Earlier this year, a conference on shark conservation was held in Sydney and attended by thirty three international delegates and 130 shark enthusiasts. The conference highlighted the vulnerability of sharks to overfishing. Most sharks are long-lived (12-70 years), slow-growing, and produce relatively small numbers of young each year.

Specific recommendations to assist the conservation of sharks were agreed to by the conference. If adopted in New Zealand several changes to fisheries management would be required:

- Known shark nursery grounds would be closed to fishing – a conservation measure of particular importance for heavily exploited inshore species, such as school shark and rig.
- The practice of "finning" sharks would be outlawed and it would be a require-



Shark fins hanging out to dry on the Japanese tuna longliner *Kompira Maru No. 1* in Auckland last year. The fins are taken for shark fin soup with the shark bodies often discarded. The trade is seriously depleting shark populations worldwide. Photo: NZ Herald

ment for all sharks to be brought in and sold with fins intact. "Finning" is commonly carried out by Asian tuna longliners who catch more than one hundred thousand sharks in New Zealand waters each year.

- Quotas would be set and fisheries management plans established for all shark species. Currently the catch of only three species – school shark, rig and elephant fish – is controlled by quotas in New Zealand waters. International quotas would be needed for many wide-ranging pelagic species, such as blue

and mako sharks. More than two million blue sharks are killed each year in the North Pacific by drift nets set for squid.

- A minimum size for big game fish would be imposed so that immature sharks would be returned to the sea.

Sharks are a vital and fascinating part of the marine ecosystem. They are top-level predators, and the decline in their numbers may be adversely affecting the whole marine ecosystem. 🐟

Alan Tennyson