

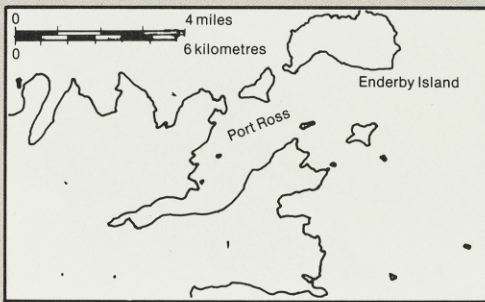
Taiwanese. There is little domestic input in the area at present although the 'Otago Buccaneer' and 'Otago Galliard' have recently began trawling for squid around the Aucklands.

Unfortunately squid is an important part of the sea lions diet, particularly during the breeding season, and they appear to follow trawlers to feed. According to the Fisheries Research Division of MAF these vessels can net up to one hundred sea lions each year, and although insufficient data is available as yet to give accurate figures for the bycatch, this is conservative and could easily be three to five times that many.

An important aspect of the bycatch is the proportion of breeding females. According to a press release given by Mr MacIntyre in October this year, 'reports by Fisheries Officers on observation duties confirm that most of the sea lions caught are mature females.' Since between December and August (a period which overlaps with peak trawling around the Aucklands) the females are both pregnant and suckling their young the death of a female during this time of year in effect means that not one but three sea lions die.

Although the Auckland Islands are a nature reserve, and no trawling is supposed to occur within the 20km territorial limit, this does not offer adequate protection for the sea lions as the reserve stops at the foreshore. In 1981/2 squid trawlers fished within the 12 mile zone on at least seven occasions. Also since sea lions will travel at least 100 kms to feed this takes them well outside the 'protected' area and into the centre of trawling activity.

The recently declared 'National Reserve' status given to the Snares Islands and mooted for the other sub-Antarctic islands (the Aucklands, Campbell Island, Antipodes Island and Bounty Island) will also make little difference to the New

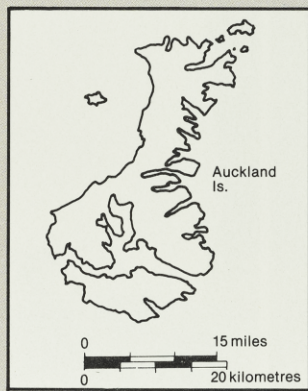


**Auckland Islands and detail of the Port Ross area (from R. H. Taylor (1971), *N.Z. J. Bot.* vol 9).**

Zealand Sea Lion. The main advantage of National Reserves over Nature reserves, which was the Snares status up till now, is that the protection cannot be withdrawn except by an Act of Parliament, but they too stop at the foreshore of islands so do not protect the vital feeding grounds.

In a meeting in October with Mr MacIntyre and representatives of FRD and Fisheries Management, Greenpeace proposed that an area 100 kms around the Auckland Islands be declared a Marine Mammal Sanctuary. Under the Marine Mammal Protection Act 1978 the Minister may 'specify the activities which may or may not be engaged in within the sanctuary and may impose restrictions in respect of the sanctuary'. The sanctuary would therefore not necessarily ban squid fishing within it entirely, but it would allow for restrictions when and where the danger is greatest to the sea lions. Its advantage would be that emphasis must be placed on the protection of the marine mammal — even if in so doing it is to the detriment of maximum trawling efficiency.

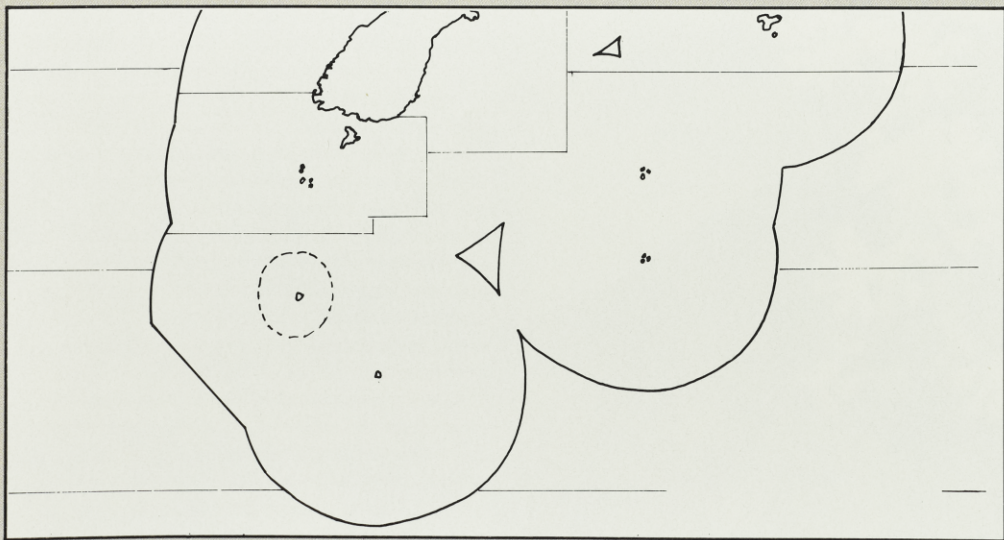
To ensure the effectiveness of this first step observers should be placed on board the squid trawlers around the Auckland Islands. Although under the Marine



Mammal Protection Act anyone killing or injuring a marine mammal is required to report it, the number of accidents including New Zealand Sea Lions which are in fact reported is largely at variance with FRD's estimate of the numbers taken. Observers would ensure that accurate information could be collected, without which any restrictions placed on the sanctuary would in all probability be meaningless. However due to the limited numbers of accredited MAF personnel available it may be necessary to use contract observers. They may prove an obstacle as it will require negotiations with the foreign fishing nations concerned.

Another major problem to be overcome will, as usual, be economic. MAF estimates that it will cost \$11 800 to put two observers on board a vessel for five weeks. Although not all the boats would have to be sampled all the time to get an adequate statistical sample, the cost would nevertheless be high. Consequently Greenpeace proposed that at least part of the cost be borne by the fishing companies, both foreign and Joint Venture, involved in trawling in the area. In effect this would be carrying out the principle that those who exploit a resource should contribute towards the research required to determine the effects of that exploitation.

This coming summer foreign and Joint Venture trawlers have been allocated a catch of 30 000 tonnes of squid from Area E of the Exclusive Economic Zone. If the trend of past seasons is followed most of this will again come from around the Auckland Islands, and unless steps are taken the New Zealand Sea Lions will continue to be subjected to intensive trawling in their feeding grounds.



**Area E of New Zealand Exclusive Economic Zone showing the proposed marine mammal sanctuary around the Auckland Islands.**