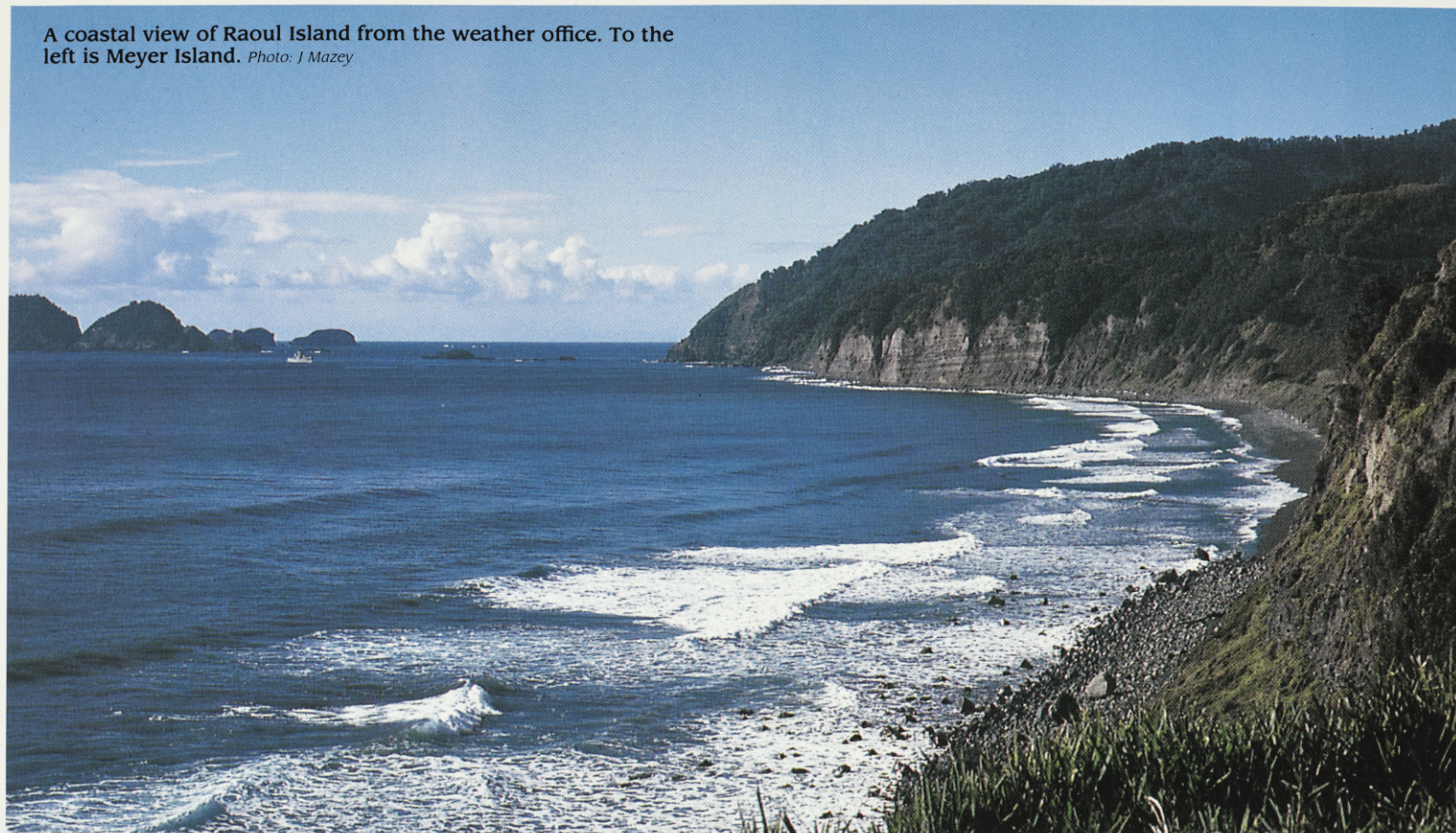


A coastal view of Raoul Island from the weather office. To the left is Meyer Island. Photo: J Mazey



territorial behaviour of the species and a reduction in the reproductive capacity of the population. For these reasons it is unlikely that the Kermadec Islands spotted grouper can support a sustainable fishery. Other populations of spotted grouper in New South Wales, Lord Howe Island and Norfolk Island have been decimated by fishing. The Kermadec Islands population is probably the only virgin spotted grouper stock in existence.

### High tourism value

Spotted grouper also have a high potential recreational and tourism value. They are inquisitive, actively investigate divers and even allow themselves to be handled. Elsewhere in New Zealand it is now a very rare event for divers to see a hapuku or bass, let alone touch one. These species have been severely overfished. The Kermadecs spotted grouper are now becoming widely known and 50–60 divers visit the Kermadecs annually — and diving with groupers is a prime objective for most divers. Diving tourists from around the world dive at the “cod hole” on the Great Barrier Reef in Australia where they can hand-feed protected potatoe cod, a close relative of spotted grouper. The Kermadecs have the potential to attract the same international attention. In recognition of their recreational importance the New Zealand Underwater Association banned the spearing of spotted grouper at the Kermadecs in 1982.

In May 1986, MAF released a discussion paper outlining proposals to introduce fishing restrictions at the Kermadecs to protect spotted grouper. These proposals are intended as interim measures until full marine reserve status can be obtained. The three proposals are:

1. To ban the taking of spotted black grouper from the Kermadecs.

2. To ban commercial fishing (except for tuna) within 12 nautical miles of all the Kermadec Islands, and to restrict recreational fishing to pelagic species.



The gold ribbon grouper, common at the Kermadecs, but very rare in northern New Zealand. Photo: Malcolm Francis

3. To prohibit fishing for hapuku and bass within the 200-mile zone around the Kermadecs except by special permit. This proposal would allow carefully-controlled development of hapuku and bass fisheries on the banks south of the Kermadecs. A condition of any permit issued would be that fishermen keep detailed log books of species caught, area and depth fished and amount of fishing effort. The state of health of the fishery could then be closely monitored. Permit holders would also be required to clearly display registration numbers or radio call signs to allow easy identification by Orion aircraft.

### Commercial extinction?

The marine life of the Kermadecs is clearly worthy of protection on scientific, representative, wilderness and recreational grounds. If the MAF proposals are implemented protection will be provided for the most sensitive component of the reef ecosystem until reserve status can be obtained. Without interim controls, the spotted grouper are likely to be fished to commercial extinction. One group of fishermen has recently developed plans to operate three longliners in association with one refrigerated mother ship at the Kermadecs, thus vastly increasing their catching capacity.

The slow growth rate and sex-changing reproductive biology of spotted grouper mean that an overfished population would recover only slowly. Removal of the top level carnivores from the ecosystem would also cause changes in the abundance of other species in the food chain, therefore altering the balance of the whole ecosystem. Thus future marine reserve values could be compromised by the activities of a few individuals fishing for short-term personal gains. 🐟

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*Submissions have now been received on the MAF discussion paper and are being considered. Meanwhile the Department of Lands and Survey has made a formal application to MAF to create a formal marine reserve within the 12-mile zone around each Kermadec island.*