



MINISTRY OF FISHERIES  
Te Tautiaki i nga tini o Tangaroa

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Minister of Fisheries

## **SUPPLEMENTARY ADVICE: BROADBILL SWORDFISH**

### **Purpose**

1 The purpose of this paper is to clarify MFish advice on options for Quota Management Areas (QMAs) for broadbill swordfish in order to proceed with introduction of this species into the Quota Management System on 1 October 2004.

### **Background**

2 On 26 September 2003 you received the MFish Final Advice on introduction of new stocks into the Quota Management System on 1 October 2004. One of the stocks proposed for introduction was broadbill swordfish.

3 Broadbill swordfish is a highly migratory species. Swordfish found in the New Zealand waters are part of a much larger stock that spawns in the tropical central to Western Pacific. Stock structure is uncertain and while multiple Pacific Ocean stocks have been postulated, the most recent genetic studies do not clearly support this hypothesis. NIWA advice is that from a biological perspective one or more QMAs would be equally applicable. NIWA notes that little is known about the species in the New Zealand region. However, it is often assumed that swordfish, particularly large swordfish, may have long residence times which may make them vulnerable to over fishing. While catches have been increasing in New Zealand there is no evidence of declines in Catch Per Unit Effort or average fish size within the EEZ that suggests abundance is in decline or stock status is changing.

4 The majority of swordfish catch is taken as a bycatch of tuna species, in particular bigeye. There is high recreational interest in this species amongst game fishers. However, catch is small in comparison to the commercial sector (between seven and 36 fish per year compared to 1000 tonnes).

5 The MFish IPP outlined two options for QMA boundaries based on either four or five management areas. MFish did not propose a single QMA option in its initial set of proposals. Few submissions were received. Five commercial fishers (representing seven percent of the total broad bill catch) supported the multiple QMA option. However, the SeaFIC submission on the MFish IPP included a proposal for one QMA. Analysis of the options presented in the IPP and the option

presented by SeaFIC identified a number of factors in support of the one QMA option. This analysis also suggested that the four QMA option contained in the IPP would be the worst alternative of the options proposed. The analysis is outlined in the FAP (page 461 paragraphs 33 to 36). The MFish FAP outlined two options (five QMAs or one QMA). MFish did not express a preference for either option.

## Discussion

6 Subsequent to receiving submissions and developing final advice MFish has reanalysed available information. The MFish preferred option for management of swordfish is one QMA having regard to s 19(2) of the Fisheries Act 1996 and consideration of the relative costs and benefits of the options. Section 19(2) requires that as far as practicable the same QMAs should be maintained for different species. MFish assesses that “as far as practicable” means that decision makers are not precluded from setting different management areas for different species if the decision would better achieve the purpose and principles of the Act. In considering whether alternatives would better provide for utilisation while ensuring sustainability the following factors can be taken into account:

- i) Biology of the species;
- ii) Alignment with associated fisheries to enable integrated management of interrelated stocks;
- iii) Impacts on efficient utilisation including the costs of administration, compliance and reporting; and
- iv) Known fisheries management issues.

7 Swordfish is a single biological stock throughout New Zealand waters. There is therefore no biological justification for multiple QMAs to better ensure sustainability.

8 Swordfish is taken primarily as a bycatch of the big eye and southern bluefin tuna fisheries. These species are being introduced into the QMS as single QMA. Multiple QMAs would impose increased reporting and administration costs and impede integrated management with the current target fishery.

9 Further, it would be difficult to determine catch limits between QMAs given that the species is a single stock. It would also create difficulties for allocating New Zealand national catch should international agreements result in country allocations in the future. Any arbitrary allocation, for example, a proportional allocation based on historical landings, would likely cause inefficiencies in harvesting because fishers would be forced to acquire Annual Catch Entitlements for different management areas rather than having the ability to determine the areas where harvesting can occur at least cost.

10 MFish initially expressed the view that a single QMA may lead to localised depletion and therefore conflict with recreational fishers and would not promote development of the fishery into areas outside the traditional fisheries (QMAs 1, 2 and 9). After further consideration, it is not clear that multiple QMAs would provide an optimal solution to any potential problems of localised depletion because management boundaries are essentially blunt management tools.

11 Localised depletion may occur because swordfish may be resident for “some time” around preferred habitat. QMA boundaries would not effectively manage catch and effort from these preferred habitats unless the boundaries were aligned to each habitat or small grouping of habitats.

Further, the level of TAC set would determine the effectiveness of the management area in preventing depletion. There is no reliable information to suggest where these habitats of significance exist in New Zealand fisheries waters, nor information on abundance of swordfish in these areas.

12 MFish also notes that localised depletion by definition is not a sustainability problem with the stock overall. The TAC(s) set will ensure overall sustainability of the fishery, as such localised depletion may be a temporary problem.

13 MFish notes that the dispute resolution process in the Act is designed to deal with conflict between commercial and recreational fishers should it arise. These provisions can ultimately lead to regulatory imposition of recreational only fishing areas. However, introduction into the QMS will provide the opportunity for rights holders in the commercial fishery to be identified and allow discussions to take place on voluntary agreements that have greater potential for effort and catch spreading than use of multiple QMAs.

14 Promotion of development of the fishery is difficult for the Government to achieve without an understanding of areas of abundance and costs of fishing. MFish considers that introduction of the species into the QMS will promote development through the allocation of secure tradeable property rights. If the species is sufficiently valuable, fishers will look to opportunities for harvest in unfished areas, particularly if effort in traditional fisheries is high.

## Conclusion

15 In summary, on balance MFish does not think there is any practicable reason to set different QMAs (multiple) for swordfish when compared to other highly migratory species proposed for introduction on 1 October 2004. A single QMA would be consistent with your obligations under s 19(2) of the Fisheries Act 1996. Given the potential added costs of managing multiple QMAs and the availability of other mechanisms in the Act to address any conflict that may arise between commercial and recreational fishers, MFish preferred option is to introduce this species with a single QMA.

## **Recommendation**

**16 It is recommended that you**

- a) **agree** that introduction of swordfish into the Quota Management System on 1 October 2004 proceed on the basis of:
  - i) **one QMA, being SWO 1 (FMAs 1-10)**
  - ii) **A fishing year of 1 October to 30 September**
  - iii) **The unit of measure being greenweight.**

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**APPROVED / NOT APPROVED / APPROVED AS AMENDED**

**Hon Pete Hodgson  
Minister of Fisheries**

**/ / 2003**