

Spearfishing in the GBRMP – Discussion paper

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The Australian Underwater Federation (AUF) is the national governing body for underwater sports such as underwater hockey, SCUBA, snorkel coaching and training, fin swimming and spear fishing. The Queensland branch of the AUF represents individuals and members of skindiving clubs along the entire Queensland coastline, including all members of the Townsville Skindiving Club. However, we are a small minority of the almost one million recreational fishers in Queensland.

We applaud GBRMPA on its' recent and difficult efforts with the RAP process. We as spear fishers are in support of conservation of the Great Barrier Reef Marine Park so as to allow reasonable and equitable use in a sustainable way that allows our children to enjoy sensible spearfishing like we do. However, we are concerned that as a minority group we may not be heard over the larger and louder lobbying power of conservation groups and line fishers. This alone is not a fair or moral excuse for discrimination in managing for multiple use.

In this regard we are particularly concerned with three aspects of the GBRMPA RAP proposals:

1. The possibility that spearfishers may be excluded from yellow zones and buffer zones,
2. The proposed new regulations that define 'limited spearfishing', and
3. Protected species.

Here we provide accurate information about spear fishing on the GBR based on scientific studies, and suggest more practical, unambiguous and equitable definitions for limited spear fishing.

1. Spearfishing in yellow zones and buffer zones

Nakaya (1998) states in the summary of his thesis on spearfishing in the GBRMP: "As data indicate that spearfishers are unlikely to have greater impacts on fish assemblages than other forms of fishing that occur in this region, exclusion of spearfishing from areas where line fishing is allowed may be unjustifiable."

Historically yellow zones have allowed commercial and recreational line fishers, commercial netters and commercial harvesters, while spearfishers have been excluded. This is an arrangement that discriminates against a small but legitimate user group, without a credible justification for it. The figures presented here support this argument. Spear fishing is a very challenging and difficult form of fishing despite the common perception that it is neither of these.

A recent article gave an overview of some of the facts and challenges of spear fishing on the GBR (see Welch, 2003). In this article Welch states:

"Another common misconception about spear fishing on the GBR is that we decimate reefs. All fishing on the GBR contributes to the loss of fish from individual reefs including commercial line fishers, trawlers, recreational line fishers, charter boats, indigenous fishers and spear fishers. Spear fishers have in the past been an easy target when others want to partition blame in this regard. However, the reason for this is counter-intuitive to the argument. A recent study estimated the number of spear fishers in the GBR Marine Park region to be in the order of 400-500, approximately 0.2% of recreational fishers, and that this number was decreasing (Nakaya, 1998). Nakaya (1998) also found catch rates of spear and line fishers on the GBR to be similar, as has been found in previous studies. Relatively speaking, spear fishing is very low impact on the GBR. Furthermore, it is a selective fishing method, in that the fisher can select the fish they wish to target, or perhaps more importantly, not target." More recently, the National Recreational and Indigenous fishing survey released in July 2003 estimated that spear fishing makes up 0.25% and 0.05% of total effort (fisher hours) nationally and for Queensland respectively (Henry and Lyle, 2003).

The article by Welch also outlined many of the factors that limit the impact that spear fishers have (see suggested reading list below). These include: fitness, breath-holding at depth, skill and experience, weather, water clarity, currents, underwater hazards, mobility, shallow water blackout, boat traffic, and water depth. These factors are particularly relevant to spear fishers because by being in the water they are directly affected by them. Spear fishers are also limited by the requirement generally for hard bottom shallow water habitats.

Spear fishers also catch different species compared to line fishers (see Nakaya, 1998), suggesting that there is little competition for resources between the two fishing groups. Spear fishers and line fishers catch similar proportions of serranids (coral trout and cods). The majority of the rest of the line caught catch are snappers, sweetlip emperors and mackerel species whereas these latter groups make up a very small proportion of spear caught catch. Most of the rest of the catch taken by spear fishers comprises sweetlips, crayfish, wrasses, and parrotfish (Nakaya, 1998).

“As competitions represent only a small part of the total spearfishing effort in (the) GBRMP and CPUE of non-competitive (spear) fishing is even lower, the findings of the present study may negate the belief that spearfishers can easily catch as much fish as they like and poses greater threat to fish community structure than linefishing.” (Nakaya, 1998).

2. Regulations that define ‘limited spearfishing’

The proposed regulations that define ‘limited spearfishing’ require re-wording to remove ambiguity and discrimination.

i) Prohibiting the possession of a loaded speargun, other than in the water

We fully support this however we suggest a change to the wording to the effect that the possessor must be in the water and not on a boat or platform while using a loaded speargun that may be in the water.

ii) Prohibiting the possession of a loaded speargun within 50m of another person in the water who is not a member of the spearfishers’ own group

We fully support and encourage safe spearfishing practices however the regulations need not discriminate against spearfishers as this regulation reads. The first point is that 50m is a VERY long way in the water and 10m is a more realistic and safe distance. In practice spearfishers swim away from other swimmers/snorkellers as they disturb fish. Secondly, the proposed wording allows other groups to enter the water within 50m of a spearfisher, or if already in the water, to swim within 50m of the spearfisher, and the non-compliant person is the spearfisher. This is discrimination and needs to be addressed through better wording with more detail.

iii) Prohibiting the possession of a loaded speargun within 50m of a mooring or jetty

In regards to a mooring there are cases where small mooring buoys are used only infrequently, or where moored boats are left unattended for long periods. In these cases the regulation is unfair and discriminates against spearfishers. Similarly there are many cases where jetties are infrequently used by boats, swimmers or line fishers. If line fishing is allowed from such platforms then it is equitable that spearfishers be allowed. These issues could be addressed with clauses to the regulation.

iv) Prohibiting the possession of a loaded speargun within 500m of a resort, pontoon or aquaculture facility

In this regulation we feel it is ambiguous unless the definitions of resort, pontoon and aquaculture facility are made very explicit. For example, are holiday units on Magnetic Island considered a resort? 500m from a private pontoon would be discriminatory. Line fishing is currently allowed around oyster leases. Are natural oyster leases considered an aquaculture facility? Are intake pipes considered as the ‘aquaculture facility’?

Without more explicit definitions for this regulation the ambiguity would make enforcement and compliance difficult, and could also discriminate again against spearfishers. We therefore recommend changes to the regulation wording to address these concerns. We would support such regulations as MNPZ 100m around explicitly identified tourist pontoons.

v) Spearfishing not using a powerhead

Very few spearfishers carry powerheads and even less actually use them. We support the right of a spearfisher to use a properly licensed powerhead (under the Firearms Act) for protection against sharks only. The GBRMPA regulation could adopt similar language to that of the Fisheries Act: “does not apply...to a powerhead attached to a speargun...If the powerhead is used, or intended for use, only in defence against sharks and not used to take edible species.”

v) Spearfishing not using a light

We are concerned that this is proposed as a light is a basic safety item. Spearfishers often operate in strong currents and far from land and a light may save a spearfishers life. We do not support spearfishing at night while fish are sleeping and therefore vulnerable. We suggest as an alternative: “use of a light is permitted by spearfishers in daylight hours only or in cases of emergency”.

We would also like to see GBRMPA adopt regulations that cover the following:

- a. spearfishers are required to carry a visible dive float with them while they are in the water,
- b. boats are to observe divers floats not belonging to their group and keep a minimum distance of 100m,
- c. spearfishing at night is not allowed,

3. Protected species

A suite of management tools can be used to protect fish and marine resources. These include protected areas and species, closed seasons, total allowable catch, bag limits, size limits, gear restrictions and licenses. The important overarching concept is Ecologically Sustainable Development (ESD) which has been defined as “using, conserving and enhancing the communities resources so that the ecological processes on which life depends, are maintained, and the total quality of life, now and in the future, can be increased”. ESD is a complex, sometimes contradictory concept that is obviously difficult to understand and implement. Given these difficulties it is not uncommon for ESD to be ignored and for people to focus on small issues or solutions. But is this a good thing? Is one great decision a better result compared to several good and bad decisions? I guess it depends on your perspective.

Lets look more closely at totally protecting three species of fish in Queensland waters. The outcome would be that the protected fish species could not be captured and taken by commercial or recreational fishers. The AUF stated that potato cod were not a target species and we would support protection of this species, and we also suggested that Queensland grouper and black cod should also be fully protected. But two species, Maori wrasse *Chelinus undulatus* and barramundi cod *Cromileptes altivelis* are occasionally captured by fishers and are excellent eating (some say better eating than coral trout) and we argued these should be managed but not protected.

You may be wondering why these species of fish are on the agenda for protection. I cannot give a definitive answer, but it appears that they are “Iconic” and have been proposed by a conservation group (WWF). Iconic is an unusual reason to protect a fish and the dictionary definition of “an image or portrait (sacred)” does not assist. You may also be wondering whether there are criteria for listing a protected species. The answer is YES under the *Environmental Protection and Biodiversity Conservation Act*. However, these species have not been proposed for listing under this federal legislation.

Lets critically evaluate this issue of proposed protected species. A SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis may help. The Strengths include greater protection which will lead

to more of these species, the Weaknesses are that there is no scientific evidence these species require protection; the process is not consistent with ESD; and consultation indicates lack of widespread community support. The Opportunities are more fish for tourism, and the Threats are no fish for fishers, and perhaps also that management resources could be better spent on more vulnerable species (for example dugongs, turtles, whales, sharks and seahorse species have low fecundity are long-lived and declining). The SWOT analysis broadly indicates more Weaknesses than Strengths but more detail may be useful. Scientist's do not know much about these species but distribution and abundance are relatively high (perhaps millions of wrasse) and catches are relatively low and stable (measured by Catch Per Unit Effort).

Scientific work by James Cook University has estimated abundance of adult Maori wrasse of 3-4 per hectare of reef (pers. comm.. Prof. Howard Choat). Based on this preliminary work the AUF estimates that the population of wrasse on the GBR could be very conservatively estimated at 3,000,000 adults (3 fish x 2000km (length of GBR) x 5km (a very conservative estimate of average reef width of GBR – in places it is up to 200km) x100 (to convert to hectares).

The AUF argues that it does not seem reasonable to protect a fish with potentially such high abundances that can be fished sustainably. A scientific paper by Smith and Nakaya (2002) showed CPUE and catch of Maori wrasse and barramundi cod and indicated low catches, no decrease in CPUE over time and no decrease in average weight of catch over time – reinforcing that these species are not overfished (in contrast to our data on coral trout where catch and CPUE have declined by 25%). In justifying our future catch of Maori wrasse and barramundi cod we asked the minister to compare the estimated number and fishery for Maori wrasse and barramundi cod with species that have been justifiably protected such as the estimated 300 grey nurse sharks.

So a rational person would conclude that the SWOT analysis and science indicates the current management of these species is sufficient and they should not be fully protected. However, we now factor in the uncertainty of politics. My colleagues and I have raised the above rational views in letters and meetings with the relevant Ministers and have been told that these fish will be protected from December 2003 – to say we are upset, disappointed and furious is an understatement – this decision ignores science, fishers, stakeholders and the public consultation process and logic and instead listens to extreme conservation views and makes a political decision.

Responsible and conservative spearfishing on the GBR

Spearfishing today has changed dramatically from the early pioneering days where it was considered heroic. Today the AUF and individual clubs are initiating activities and programs that encourage spear fishers to practise their sport in a responsible and ecologically friendly manner. Below is a far from exhaustive list of examples of these proactive actions:

- Codes of conduct
- Education, eg. Popular articles, talks.
- Pelagic only or meritorious fish competitions
- Limited species lists for other competitions
- Assisting science with samples and data
- TSC initiative of a voluntary bag limit of 20 fish prior to recent QFS changes
- Public presentations at local Fishing and Boating Expositions
- Club stands at above Expositions
- TSC junior and new member training scheme
- TSC initiative of member questionnaires regarding species identification and knowledge of GBRMPA & QFS regulations

Conclusions and recommendations

Spearfishers should be considered as a legitimate user group in the GBRMP and as such should be actively consulted by managers. Spear fishing should not be treated as a special case in terms of management as in the past this has resulted in inequity and discrimination. GBRMPA must consider the views of all user groups in consultation processes however there must be caution in the consideration of emotive arguments that are void of facts. The factual information presented here is the type of information that should be considered in the planning process for the GBRMP. This discussion paper makes the following conclusions:

- Spear fishing is currently an ecologically sustainable method of fishing on the GBR
- Federal and state management processes are fragmented and should be co-ordinated to avoid overlap resulting in over-regulation
- Re-zoning as part of the RAP process should allow spearfishing in BOTH yellow zones and buffer zones to ensure equity and non-discrimination
- Recreational fishing regulations are common to line and spear fishing. As such line fishing and spearfishing should be managed collectively under “recreational fishing”.
- Special management areas – extra zoning limitations placed on spear fishing (as a special case) would be unfair, inequitable, discriminatory, and against the GBRMP Act 1975.
- Protected species - should be based on science & the principles of ESD.
- Spearfishers should be consulted as a legitimate stakeholder group whenever management has the potential to impact upon them.

References cited and suggested reading:

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