



**Joint Submission by the Tasmanian Conservation Trust and the Australian Marine Conservation Society to the Resource Planning and Development Commission on the Inquiry into the establishment of marine protected areas within the Bruny Bioregion Draft Recommendations Report**

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## Introduction

In this submission, the Tasmanian Conservation Trust (TCT) would like to add to the comments made in previous submissions provided to the RPDC during this Inquiry.

As requested, this submission aims to provide additional comment rather than duplicate information available in our previous submissions to this Inquiry.

In general, the TCT believes that the proposed system of marine protected areas (MPAs) as outlined in the *Bruny Bioregion Draft Recommendations Report* will provide a basic level of protection for most biodiversity values found in the Bruny Bioregion if the whole system was accepted.

However there are a number of significant omissions as well as some useful improvements that could be introduced with relatively minor changes to the draft recommendations. Suggested changes will increase biodiversity protection and help ensure Comprehensive, Adequate and Representative (CAR) protection of MPAs as outlined by the Tasmanian Marine Protected Areas Strategy

## General Comments

### Levels of Protection

The *Draft Recommendations Report* provides three levels of protection to MPAs. The "Very High" level of protection is good and can be expected to provide adequate protection for biodiversity and other natural values in MPAs.

The "High" and "Medium" level protection for an MPA would be likely to be less successful if fishing activities have any impact at all on the biodiversity values that are to be protected in the MPA.

Many aspects of the marine ecosystems of southern Australia, including Tasmania, remain unknown. To protect ecological processes that can not be micro-managed due to lack of knowledge (or resources) it follows that area protection has the best chance of working if MPAs are no-take.

Even apparently low impact fisheries such as abalone and rock lobster remove species that may be important to reef ecosystems. For example, it appears likely that rock lobsters are an important predator of the urchin *Centrostephanus rodgersii*. Knife edge fishing removed most large rock lobster from much of the east coast during the 1980's and 1990's, a period that correlates with the expansion of urchin barrens that completely alter the shallow reef as most macroalgae are removed.

High level protection permits rock lobster fishing, which in the absence of any current rigorous scientific information seems likely to at least be a contributing factor in the formation of urchin barrens.

The TCT suggests that "Very High" level of protection is most appropriate for most reserves and would be more likely to maintain biodiversity. Making this a normal level of protection for new MPAs would also reduce confusion in the wider community and make enforcement and education relating to MPA management less complex.

## Missing Elements

There appears to be three aspects that have not been as well addressed in by the *Draft Recommendations Report* as they could be.

**Core Scallop Habitat** There does not appear to be an adequate area of core scallop habitat with a very high level of protection in the D'Entrecasteaux Channel. An extension 500m to the north and west from the proposed Simpsons Point MPA would protect a useful amount of representative scallop habitat. Such an addition would not only protect biodiversity values, but would be useful as a reference area for the important recreational scallop fishery.

A developing trend in the management of the commercial scallop fishery is to protect areas with brood stock adjacent to the fished "paddocks" to increase the probability of successful spawning. A similar replicate area could be located further south in the vicinity of Arch Rock. These additions would have little impact on the overall recreational fishery, but would help fishery management and give better protection to biodiversity.

**Shore Access** MPAs can provide a social benefit as an area of recreation for people such as scuba divers, snorkellers and shore walkers. Shore access certainly facilitates this aspect of MPA design. Most of the proposed new MPAs do not provide additional useful easy shore access. Of course in some cases this would be impossible (eg Hippolyte Rocks) or add little to existing access (eg Tinderbox). One MPA that could and should include better shore-based access is the proposed Waterfall Bay-Fortescue Bay MPA. An extension to the north to the jetty at Pirates Bay would provide useful access to divers and snorkellers and some access to shore walkers. An extension of the southern boundary to the point east of the boat ramp would provide access to sheltered waters as well as one of the last remaining stands of *Macrocystis* forest on Tasman Peninsula and the East Coast.

**Macrocystis Decline** There has been debate about whether there has been a real decline in *Macrocystis* forests along Tasmania's eastern coastline or if there has been a decline, what are the causes.

Common arguments against the decline being real include the criticism that survey techniques do not identify sub-surface beds, or that kelp beds are ephemeral and normally die back and can regenerate quickly.

In 1997, one estimation suggested that *Macrocystis pyrifera* forests had declined to perhaps only 5% of the original area over 30 years (Edgar 1997). The decline has been documented using a variety of sources of historical data in the only comprehensive report into this phenomenon to date (Edyvane 2003). When that report was released in 2003, there were widespread suggestions (from elements of the fishing industry as well as others) that the decline was temporary and that we would soon see a recovery. That has not happened on the east coast north of Tasman Island. If anything, the problem appears to have become worse, with recent storm damage causing further declines in the kelp forest at Lagoon Bay.

The kelp forest off the boat ramp at Fortescue Bay represents the most significant stand of *Macrocystis* forest on Tasman Peninsula and the East Coast. This forest has been in existence for decades, at least, and there is no reason to suppose that it has

not been there for hundreds of years, although it has certainly declined in size and density since the early 1980s. Other *Macrocystis* kelp forests in Fortescue Bay and adjacent bays (Bivouac Bay and Canoe Bay) have all but disappeared, with perhaps a few plants remaining where once there were dense and extensive beds.

The list of ecological considerations on page 45 of the *Draft Recommendations Report* lists the protection "... of string kelp (*Macrocystis*) and associated communities in Fortescue Bay ..." as a justification for the Waterfall Bay-Fortescue Bay MPA. The proposed boundary leaves out the most important remaining bed. The boundary of this proposed MPA should be extended to include at least the kelp bed off the boat ramp and, preferably, the whole of Fortescue Bay. More detail is provided in the section dealing with Fortescue Bay below.

**Commercial Fishing Impacts** Commercial fishing industry sectors often argue that introducing MPAs will concentrate fishing pressure in other parts of the coast, threatening resource or economic sustainability. Financial compensation is one solution proposed by industry. Below is a suggested mechanism that should assist remove this concern from the issue of MPA creation for the abalone and rock lobster fisheries.

Within these fisheries there is a general expectation that as stocks recover from previous management regimes that resulted in a degree of overfishing there will be a corresponding increase in TAC and quota.

If this increase in TAC was used to determine the implementation of new MPAs, the concerns about loss of access should be eliminated for these fisheries at least. New MPAs could be declared, or activated gradually over time as fish stocks recovered. The MPA system should have first call on increases in TAC until a CAR system of MPAs is in place in Tasmania.

There is no reason for increasing availability of stocks to result in an automatic increase in TACs for the fishing industry. In fact the *Living Marine Resources Act, 1995* clearly indicates that marine life is a publicly owned resource and should be managed for the benefit of the community as a whole, not just sections of the fishing industry.

Section 9 (1) of the *Living Marine Resources Act 1995* clearly states that apart from fish specifically provided for under a marine farming licence, "*All living marine resources present in waters referred to in section 5(1)(a), (b) and (c) are owned by the State*".

Another method for addressing concerns about the financial impacts sudden closures would have on the fishing industry would be to introduce no-take areas incrementally. For a 1% increase in protected waters around Tasmania per year would probably be acceptable for many who support the introduction of MPAs, and should make it easier for the fishing industry to deal with this imposition.

For the much less lucrative non-quota fisheries, grandfather clauses, licence buy outs, compensation and exclusion from key areas should also be considered.

**Recreational Gillnets** Recreational gillnet fishing should be banned throughout the Buny bioregion. There is scope to develop a new form of recreational net that would target the most highly prized recreational fish targeted by these nets, escapee Atlantic Salmon. This would consist of a barrier net to lead fish into a catching section, and the net would be deployed at right angles to the shore.

**Recreational Fishing** The MPAs suggested by the RPDC in the *Draft Recommendations Report* together with the modifications proposed by the TCT should have little effect on recreational fishing. There are alternative areas with similar levels of access to all the proposed new MPAs. Game fishing boats, for example, capable of accessing the areas around Tasman Island or the Hippolyte Rocks can simply move further along the depth contour and continue fishing. Relatively sheltered water north of Tasman Island will still be available for fishing. Port Arthur provides an alternative to Fortescue Bay.

There is anecdotal evidence to suggest that recreational fishing has actually improved near the boundaries of the existing Maria Island MPAs, and there is no reason why these benefits will not result from the system proposed by the *Draft Recommendations Report*. All fishing sectors will benefit from having representative areas given a very high level of protection so that baseline studies can be carried out.

## Area Specific Recommendations

The TCT generally supports the suggested location for MPAs and considers that these areas and the levels of protection offer a minimum acceptable level of protection for most aspects of this bioregion's biodiversity. Suggested changes are provided that will increase biodiversity protection to better fulfil the requirement of a Comprehensive, Adequate and Representative (CAR) protection as outlined by the Tasmanian Marine Protected Areas Strategy. It is of the view of the TCT that these suggested changes will place little real imposition on fishers.

### *Hippolyte Rocks*

Zone B at the Hippolyte Rocks MPA deserves a very high level of protection. This would provide proper biodiversity protection for an example of an offshore island adjacent to very deep water. Not only would this protect a range of habitat types from deep reef to exposed shallow reef on the island, it would also reduce the chance of conflict between recreational divers and game fishing boats, particularly those that use burly which may attract large sharks and stimulate atypical dangerous behaviour.

High level of protection will not provide adequate protection for deep reef communities. For example, rock lobster and stripey trumpeter fisheries are having an unknown level of impact on deep reef. The only practical way to reduce risk and protect biodiversity from fishing is to give these areas a very high level of protection and stop all forms of fishing that impact this habitat type.

### *Cape Pillar*

The proposed Cape Pillar MPA shares many similarities with the Hippolyte MPA and the same principles apply. Zone B deserves a very high level of protection. This will reduce conflict between recreational divers diving on the wreck of the SS Nord and other reefs in the area and game boats using burly that may attract large sharks and stimulate dangerous behaviour. Again, excluding fishing is the most practical way to ensure that the biodiversity protection of this area will protect deep reef

### *Waterfall Bay - Fortescue Bay*

Fortescue Bay to Waterfall Bay has the potential to be one of the world's great MPAs. The truly spectacular landscape of the national park on land, dominated by sea cliffs, continues underwater to form a variety of underwater seascapes. Many of the caves in Waterfall Bay contain splendid invertebrate communities, in contrast to most submarine caves that are usually relatively barren.

Areas of deep reef are home to marvellous sponge gardens and interesting fish. The sheltered waters of Fortescue Bay contain a variety of shallow reef and soft bottom communities, a highlight being the remnant stand of *Macrocystis* near the boat ramp.

The TCT would like to see this reserve extended to at least 300 metres south of the Lanterns to include the remnant *Macrocystis* as well as the deep reef around the Lanterns.

In particular, the area around the boat ramp should be given a very high level of protection to protect the most significant remnant stand of *Macrocystis* remaining between Tasman Island and the northeast tip of Tasmania. A justification for including Fortescue Bay in this MPA was to protect "... *string kelp (Macrocystis) and*

*associated communities in Fortescue Bay*". The proposed area does not currently appear to protect any significant stands of *Macrocystis* in Fortescue Bay as they have mostly disappeared from the protected area.

The stand of *Macrocystis* near the boat ramp has great significance in terms of biodiversity protection, recreation and also as a baseline for scientific research. At the very least, the reserve must be extended from Canoe Bay (at the western end of Fortescue Bay) to a line drawn south from Dolomieu Point to grid reference 811 230 (from TASMAR 1:100 000 Map: Storm Bay) and given a very high level of protection. This would provide the minimum level of protection for remnant *Macrocystis* forest as well as habitat that once supported dense beds of this plant.

Closing the area around the boat ramp would also allow easy access to shore-based recreational divers and snorkellers and greatly increase amenity for a wider range of recreational users.

While there will no doubt be some fishers (particularly recreational fishers) who believe that this is an important resource, it should be noted that this writer has dived this area regularly since 1979. Over that period there has been a huge decline in abalone, rock lobster and scalefish. It appears that the suggested extension has been practically fished out and is now of almost no use to recreational fishers.

In contrast, the presence of a remnant stand of *Macrocystis* and the likelihood of recovery of populations of target species once it this area is protected means that the southern side of Fortescue Bay has the potential to greatly add to biodiversity protection. It would then also become an even greater amenity for non-extractive recreational users. A no-take MPA in the whole of Fortescue Bay would compliment the terrestrial national park and greatly simplify enforcement.

The suggested complete closure of Fortescue Bay to fishing would protect additional handfish habitat and also create a useful reference site for banded morwong, boarfish and trumpeter (stripey, bastard and real bastard). There is currently a lack of control sites and fishing data that allows a proper assessment of stock impacts on even banded morwong.

#### *The Friars*

High level of protection will not provide adequate protection for deep reef communities. Rock lobster and stripey trumpeter fisheries are having an unknown level of impact on deep reef. The only practical way to reduce risk and protect biodiversity from fishing is to give this area a very high of protection and stop all forms of fishing.

#### *Lime Bay and Sloping Island*

The area around Sloping Island to Green Head should be given a very high level of protection to protect the biodiversity values found in this area. A high level of protection will not provide adequate protection. The only practical way to reduce risk and protect biodiversity from fishing is to give these areas a very high of protection and stop all forms of fishing that impact these areas.

Occasionally, some recreational users use the proposed very high level of protection area as an anchorage. While it is reasonable to suggest that boats anchor to the south of this area, there is also scope to provide permanent moorings to protect seagrass and *Caulerpa* beds.

#### *Betsey Island*

A section of this area should be given a very high level of protection to protect the biodiversity values found in this area. A high level of protection will not provide adequate protection for biodiversity and the only practical way to reduce risk and protect biodiversity from fishing is to give a very high level of protection to an adequate and representative part of this MPA and stop all forms of fishing.

#### *Opossum Bay*

A section of this area should be given a very high level of protection to protect the biodiversity values found in this area. A high level of protection will not provide adequate protection for biodiversity and the only practical way to reduce risk and protect biodiversity from fishing is to give a very high level of protection to an adequate and representative part of this MPA and stop all forms of fishing. In particular, the proposed Opossum Bay MPA contains the most important known site for the critically endangered spotted handfish. This alone is justification for creating an area of very high protection in this MPA.

#### *Taroona Waters*

The TCT supports the proposed Tinderbox extension.

#### *Tinderbox*

The TCT supports the proposed Tinderbox extension.

#### *D'Entrecasteaux Channel*

The MPA proposals for the D'Entrecasteaux Channel are generally good and will solve the management problems associated with the Ninepin Point MPA that have become apparent since it was declared, and also protect the important area around Simpsons Point.

There is one important oversight that should be remedied by a relatively small addition of a highly protected area to the current proposal. As mentioned above, there does not appear to be an adequate amount of core scallop habitat given a very high level of protection in the D'Entrecasteaux Channel. An extension of 500m to the north and west from the proposed Simpsons Point MPA would protect a representative area of scallop bottom and protect biodiversity values. It would also be useful as a reference area for the important recreational scallop fishery.

A developing trend in the management of the commercial scallop fishery is to protect areas with brood stock adjacent to the fished "paddocks" to increase the probability of successful spawning.

A similar replicate area could be located further south in the vicinity of Arch Rock. These additions would have little impact on the overall recreational fishery, but would help fishery management and give more adequate protection to biodiversity.

### *Roberts Point*

A small area of little significance to recreational fishers, this area should be given a very high level of protection to protect the small localised population of ringed toadfish, *Omegophora armilla* and simplify enforcement.

### *Huon Estuary*

The TCT supports the MPA proposal for this area.

### *River Derwent*

The TCT supports the MPA proposal for this area.

### *Droughty Peninsular*

The remediation of reef systems and maintenance/remediation of spotted handfish habitat/populations using just a high level of protection assumes that threats are understood and will be dealt with by this level of protection. However, the threatening processes are not understood, therefore to maximise the likelihood that the desired outcomes will be achieved requires that this area is given a very high level of protection.

### *South Arm*

The TCT supports the MPA proposal for this area.

### *Port Cygnet*

The TCT supports the MPA proposal for this area.

### *Blackman Bay*

This area contains very rich seagrass beds and the threatened seaweed *Cystoseira trimodos*. Large rays are common in this embayment. To ensure adequate protection of ecological processes, those remaining sections of this embayment that lie outside the marine farming leases should be given a very high level of protection.

### *Pitt Water*

The TCT supports the MPA proposal for this area, although to ensure the highest protection of ecological processes and the viability of the estuarine system, a large part of this area should be given a very high level of protection.

### *Pipe Clay lagoon*

The TCT supports the MPA proposal for this area although to ensure the highest protection of ecological processes and the viability of the estuarine system, a large part of this area should be given a very high level of protection.

### *Cloudy Bay*

The TCT supports the MPA proposal for this area.

## No-Take Marine Protected Areas

The RPDC has previously (RPDC 2007) indicated that human threats can be cumulative and operate synergistically. Climate change, the identification of impacts from existing commercial and recreational fishing activities, increasing numbers of recreational licences, the aim to increase the area devoted to aquaculture are all reasons to develop a system of no-take CAR MPAs in the Bruny Bioregion.

The Tasmanian Marine Protected Areas Strategy (2001) is the basis for the current Inquiry. According to this, an acceptable system of MPAs must be comprehensive, adequate and representative. This so called CAR approach aims primarily at protecting biodiversity values.

The *Draft Recommendations Report* presents a good framework for developing a CAR system of MPAs in the Bruny Bioregion. It contains a comprehensive and representative range of habitats and ecological communities.

Whether the proposed system is adequate for the protection of biodiversity is less clear.

Given the lack of scientific information about ecological processes in the waters of southern Australia, it seems to be impossible to micro manage fisheries and other human impacts to ensure that biodiversity values will be preserved. For example, the consequences of reducing the abundance of banded morwong to the ecological process operating on Tasmania's shallow rocky reef ecology remain unknown. This means that no-take MPAs are currently the only effective way to protect ecological processes (biodiversity) that are not fully understood.

There are many advantages associated with "No-take" MPAs, including:

- *Preservation of representative samples of biological diversity;*
  - *Protection of critical sites for reproduction and growth of species;*
  - *Protection of sites with minimal direct human stress to maximise their resilience or self-repair from other stresses such as increased ocean temperature;*
  - *Settlement and growth areas providing spill-over recruitment to fished stocks in adjacent areas;*
  - *Focal points for education about the nature of marine ecosystems and human interactions with them;*
  - *Sites for nature-based recreation and tourism; and*
  - *Undisturbed control or reference sites serving as a baseline for scientific research and for design and evaluation of management of other areas.*
- (Kenchington *et al.* 2003).

There have been suggestions that no-take areas within a system of MPAs should amount to at least 20-30% of each habitat (for example: IUCN, 2004). Approximately 33% of the Great Barrier Reef Marine Park is protected in no-take areas (GRMPA. 2004).

While the RPDC proposal in the *Draft Recommendations Report* falls short of these suggestions, the TCT recognises the difficulties associated with setting up a system of MPAs in an area as complex as the Bruny Bioregion.

In this submission, the TCT has suggested changes to the proposed MPAs that will make them more likely to meet the CAR principles as described in the Tasmanian Marine Protected Areas Strategy. These changes will also significantly increase the value of the MPAs as an amenity to recreational users and as a reference area/tool for the managers of Tasmania's wild fisheries.

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