

**Tasmanian Conservation Trust  
Submission on the**

**Application for Declaration as an Approved Wildlife  
Trade Operation under the *Environment Protection  
and Biodiversity Conservation Act 1999*  
Export of Marine Aquarium Fish from Tasmanian  
Waters**

**Tasmanian Conservation Trust  
102 Bathurst Street, Hobart, Tasmania, 7000  
Phone: (03) 62343552 Fax: (03) 62312491  
E-mail: [tct@southcom.com.au](mailto:tct@southcom.com.au)**

Tasmania has a unique marine environment containing a variety of fish and invertebrates that are either endemic to Tasmanian waters or endemic to the waters of southern Australia.

As can be seen from the application's attachment, many of these species are potential targets for the aquarium trade. These species are integral parts of Tasmania's marine environment and are a major attraction to many of the divers and snorkellers who support the growing Tasmanian recreational diving industry.

There is no doubt that the Tasmanian marine aquarium fishery offers some opportunities for economic gain. However the opportunities for economic gain must be balanced against the costs.

These costs not only include the expenses associated with managing this resource properly, but also the potential for the loss of creatures which form an important part of the character of Tasmania's unique and spectacular underwater environment. Although largely intangible, this second consideration is very significant to many Tasmanians and must be taken into account.

There is practically nothing known about the biology or ecology of species likely to be taken by this fishery. Given the low value of this fishery and the low abundance scarcity of some species, there can be no realistic expectation that research will be carried out in the foreseeable future that would guarantee sustainable management of these species

To ensure long term sustainability and preserve the other values represented by aquarium species, it is essential that the marine aquarium fishery be managed so that it does not significantly impact on wild stocks of target species.

The application contains many good points and serves as a good basis for this fishery. It is a great improvement on the draft management plan released in 1995. However there is room for improvement if populations of aquarium species, environmental values, and amenity are to be protected.

One major shortcoming is that it does not present any quantitative information on fishery impacts. It is hard to make any assessment of the fishery without this information.

It is widely recognised that the biology and ecology of Tasmania's aquarium species are poorly known. As the application states on page 14, "the current size of the fishery can not justify research on impacts on marine ecosystems ...", although there is no justification for the assumption "... that any adverse impact of the fishery on the marine ecosystem are minimal".

The application also states that "there is no evidence of any such depletions occurring in the current fishery and monitoring systems are in place to prevent this".

It should be recognised that many of the target species listed in the application's attachment are very common, and populations are not likely to be impacted by a fishery that follows the block and annual limits and other recommendations as proposed in this application.

However this is not true for all species. For example, eastern stargazers, *Kathetostome laeve*, rainbow cale, *Odax acroptilus* and southern conger, *Conger verreaux*, are not often seen by recreational divers and snorkellers.

Numbers of *Patiriella gunnii* (spelled incorrectly in the application) have declined markedly at one popular recreational dive site in Bicheno. The most likely reason appears to be collection of these colourful seastars. There does not appear to be any current monitoring program that would identify this particular problem.

The small size of this fishery would seem to limit its impacts. According to this application there is only one operator with a permit to undertake this business activity. However, even with the specified block and annual limits, there is a real possibility that local populations of some species could very easily be completely removed. Susceptible species include thornfish, *Bovichtus angustifrons*, pygmy leatherjacket, *Brachaluteres jacksonianus*, Shaws cowfish, *Aracana aurita*, blue-ringed octopus, *Hapalochlaena maculosa* and dumpling squid, *Eurymna tasmanica*.

There is not enough information to assess the impact of this sort of decline on local ecosystems or the overall populations of species. However, there is an obvious impact on amenity for recreational divers and snorkellers.

Another potential impact of this fishery occurs due to divers turning over rocks to collect cling fishes and other cryptic species, or invertebrates such as crinoids that would otherwise be damaged.

Concerns about habitat destruction due to collection of cryptic species have not been raised in this application, although this is such a major concern that it has prevented any commercial utilisation of the southern elephant snail, *Scutus antipodes*.

Marine Protected Areas (MPAs) are a cost effective and practical way of preventing unexpected problems developing with populations of these species and would also protect amenity and provide a basis for comparison to identify fishery impacts. However Tasmania does not yet have a comprehensive, adequate and representative system of MPAs, and it seems that it will be some years before the Tasmanian marine protected area strategy corrects this situation.

Until there is a comprehensive, adequate and representative system of MPAs in Tasmania, collecting should not be allowed within 10 kilometres of any recognised boat ramp. This simple mechanism would protect amenity for

divers and snorkellers and at the same time would provide a *de facto* system of MPAs that would protect populations.

There should also be some mechanism that would monitor and reduce habitat destruction due to turning over rocks to collect cryptic species.

It should be noted that the D'Entrecasteaux Channel is a declared recreational fishing area, so commercial fishing for aquarium fish should not be allowed in this area even though it is identified as one where this commercial activity occurs.

If protecting amenity were the main concern, an alternative to basing no-take areas around boat ramps would be to protect areas that are significant to recreational divers. For example, collection of aquarium species should not occur in the Tamar Estuary, the D'Entrecasteaux Channel or in the vicinity of Bicheno. Community consultation should be undertaken to confirm this and to identify further areas.

In addition, those species most vulnerable to local depletion or likely to cause significant habitat destruction during collection should be removed from the target list. This would include:

- All species of cling fishes
- Eastern stargazers, *Kathetostoma laeve*
- Rainbow cale, *Odax acroptilus*
- Southern conger, *Conger verreaux*
- All seastars, including *Patiriella gunnii*, *Tosia magnifica* and *Tosia australis*
- Thornfish, *Bovichtus angustifrons*
- Pygmy leatherjacket, *Brachaluteres jacksonianus*
- Shaws cowfish, *Aracana aurita*
- Blue-ringed octopus, *Hapalochlaena maculosa*
- Dumpling squid, *Eurymna tasmanica*
- All large crinoids

The failure to identify loss of amenity as a significant problem, identify habitat damage as a problem, or to recognise impacts that have already occurred through this fishery is an indication that the advisory group for this fishery needs to be expanded to include representatives from the recreational diving community and conservation groups.

The application indicates that at present there is only one active operator with a permit to undertake this business activity. To avoid the traditional fishery management problems associated with overcapitalisation and too many operators, it is important that management procedures are in place before this fishery is allowed to expand. There are important issues that still need to be addressed in this fishery before expansion of this fishery or export of Tasmanian aquarium species should be permitted.