

A submission from
Tasman and Sounds Recreational Fishers'
Association (Inc)

TASFISH



October 2010

Measures to Support Reopening the
Marlborough Sounds Amateur Blue Cod
Fishery in April 2011

1. The Association can be contacted through President, Martyn Barlow, P O Box 3485 Richmond, Nelson, phone (03) 540 3545, email martyn@mapua.gen.nz
2. Tasfish is committed to the sustainable use of our marine resources within environmental limits in the Top of the South and promotes good management of our marine ecosystems.
3. Tasman Bay Amateur Marine Fishers' Association was formed in the 1980's in response to proposals to introduce large scale farming of scallops in the Croiselles Harbour a popular recreational fishing area on the coastline north of Nelson city. Since that time it has been renamed **Tasfish** and become involved in many fishery allocation and management issues affecting all the major species of interest to recreational fishers. This has included being part of many of the species specific working groups set up by MFish e.g. Snapper, Blue Cod, Shellfish. We have worked closely with both MFish and The Challenger Scallop Enhancement Company in the rebuild and ongoing management and annual allocations within the scallop fishery.
4. We were involved in the attempts to set up Fisheries Plans for both the Area 7 Blue Cod and Paua fisheries and view these combined stakeholder fishery management initiatives as important windows to the future. We are now involved in the recently formed Challenger Finfish Recreational Advisory Group set up in conjunction with the Challenger Finfisheries Management Company Limited and have four members on the Ministry of Fisheries Top of the South Recreational Forum and 3 members on the Challenger Inshore Fin Fish Plan Advisory Group.
5. Increasingly in recent years we have been regularly involved in space allocation issues for marine farming and in particular limiting their placement over habitat of recreationally important species. This has included many hundreds of submissions to Marlborough District Council on Marine Farm Resource Consent applications and also to MFish on Marine Farming Permits on how these farms affect fish or fishers. Our toughest case was taking MFish to judicial review over one permit. We recognize the importance of suitable habitat for all species and accept the need for careful management of marine ecosystems.
6. Membership of Tasfish is both individual and affiliate. While individual membership is relatively low at less than 50 many of the fishing and boating clubs in the Top of the South, from Golden Bay to Nelson and the Marlborough Sounds, affiliate to Tasfish along with several ratepayer groups particularly in the Marlborough Sounds. We represent a membership in excess of 1000 members and Tasfish is itself affiliated to the New Zealand Recreational Fishing Council and the organisation is recognised as a consultative body representing amateur fishers by MFish. Tasfish participates as fully as possible for a voluntary organisation in the annual management rounds and in addition we have made submissions on many of the recent Bills before Parliament relating to our marine systems.
7. TASFISH would like to take this opportunity to thank MFish for involving us in consultation with this document.

Summary

8. A portion of the Marlborough Sounds Management Area (MSMA) was closed to blue cod fishing to address localised depletion. The proposals contained in this IPP will have far wider implications if they are adopted in their entirety than just addressing localised depletion and TASFISH supports the MFish view that not all measures are critical to achieving the fishery objectives.
9. TASFISH had two members on the BCMG, John Duncan and Martyn Barlow and the Association agrees with the statement by MFish in the IPP that the proposed management measures did not have unanimous agreement by the BCMG. TASFISH members agreed that the measures proposed went forward in the BCMG plan, even those that the majority of the group opposed as the Association acknowledged these would be dealt with in the consultation process.
10. TASFISH places a very high value on the code of practice (CoP) developed by the BCMG and believes good fish handling practice will limit the occurrence of incidental mortality. TASFISH arranged with MFish to have 25000 copies of the CoP printed and distributed in the fishing paper. While printing costs were met by MFish distribution was paid for by funds raised by TASFISH (\$2000 plus GST) from sector groups and individuals throughout the region. The first insert of 12500 copies of the CoP was distributed in the August 2010 issue of the Fishing Paper and a second insert of 12500 copies will be distributed in the November 2010 Issue.
11. TASFISH submits that MFish must commit substantially more to the marketing of the CoP in future to ensure good fishing practices are adopted by amateur blue cod fishers. TASFISH is prepared to work with MFish in any marketing initiatives that they wish to conduct to ensure the CoP is adopted by the majority of fishers.
12. The Minister of Fisheries is proposing to reopen the closed areas of the MSMA Blue Cod Fishery 18 months before the 4 year closure was to end on 1 October 2012 and TASFISH is disappointed that consultation on reopening these closed areas is being conducted before the next relative abundance survey has been completed.
13. Furthermore an early opening of the closed areas in exchange for the MSMA expansion is both unacceptable to TASFISH and not supported by any research.
14. TASFISH acknowledges that the decline in blue cod abundance in the MSMA needed to be halted and the reopening of the closed areas will need to be managed cautiously but TASFISH totally opposes any changes to the MSMA.
15. TASFISH submit that the BCMG have gone beyond the terms of reference set out by the Minister in proposing an expansion of the MSMA. The proposal to extend the MSMA is beyond the scope of the BCMG.
16. All management measures supported by TASFISH in this submission relate only to the existing MSMA as defined in Fisheries (Challenger Area Amateur Fishing) Regulations 1986. Any measures supported by TASFISH for the Challenger East Area will be clearly stated in this submission.
17. TASFISH has consistently supported, promoted and made past submissions that a MLS for blue cod of 33cm should apply within the Challenger East Area. Furthermore TASFISH was alarmed when in 2003 the MLS for blue cod in the

Challenger East Area was reduced from 33cm to 30cm. At the same time the MSMA MLS for BCO was increased from 28cm to 30cm, TASFISH also submitted at that time that the MLS in the MSMA should be 33cm.

18. To ensure any gains made in the rebuild of BCO abundance are NOT taken advantage of by industry and that important blue cod biogenic nurseries are protected from any further destruction TASFISH submits that any recreational management measures implemented in the reopening of the closed areas must be supported by the following commercial sector restrictions:
 - a. Create statistical area 17A as sub area with the current stat. area 17, Area 17A will be the MSMA.
 - b. Limit commercial BCO harvest levels in statistical area 17A at a level that is not greater than current harvest levels.
 - c. Removal of commercial bottom contact bulk harvesting methods within the MSMA, statistical area 17A
19. The MSMA is inside statistical reporting area 17 and TASFISH submits that statistical area 17A, which would be the MSMA, must be created so better information on commercial harvest in the MSMA can be gathered and appropriate restrictions can be placed on the commercial sector.
20. TASFISH holds the view that an overall TAC review should have been carried out at the same time as this consultation.

Marlborough Sounds Management Area

21. TASFISH does NOT support the proposed changes to the existing Marlborough Sounds Management Area (MSMA) as defined in Fisheries (Challenger Area Amateur Fishing) Regulations 1986.
22. The BCMG had clear terms of reference under Scope (paragraph 4) that stated:

“The Management Group scope is limited to the blue cod recreational fishery management plan contained within the Marlborough Sounds area,* and should not be distracted by the Resource Management Act, aquaculture, or other fisheries management issues. It is important the Management Group considers the available tools under the Fisheries Act, and if appropriate recommends legislative changes (however, it is important that the Management Group recommendations can stand without legislative changes).”

*As defined in Fisheries (Challenger Area Amateur Fishing) Regulations 1986.
23. This proposal did not even have majority support of the BCMG, in fact at best there was only minority support as it was outside the terms of reference. The BCMG was charged with working within a defined area as described in NZ fisheries regulations. Clearly the BCMG has gone beyond its scope in proposing the MSMA change and on this basis alone the MSMA extension proposal should be ignored in this process.
24. It is disappointing that the MSMA area issue is once again being consulted on as it detracts from the localised depletion issue within the existing MSMA.

25. The proposal to extend the MSMA was consulted on in 2008 in response to the input of Soundfish into the IPP that resulted in the current BCO closure in the MSMA. The Final Advice Paper from MFish at that time stated:

MFish believes there are some management gains for blue cod in the Marlborough Sounds under this proposal. In particular, the inclusion of Port Underwood and Croisilles Harbour would allow consistent management of blue cod within these adjacent areas. However, the proposed changes have implications for:

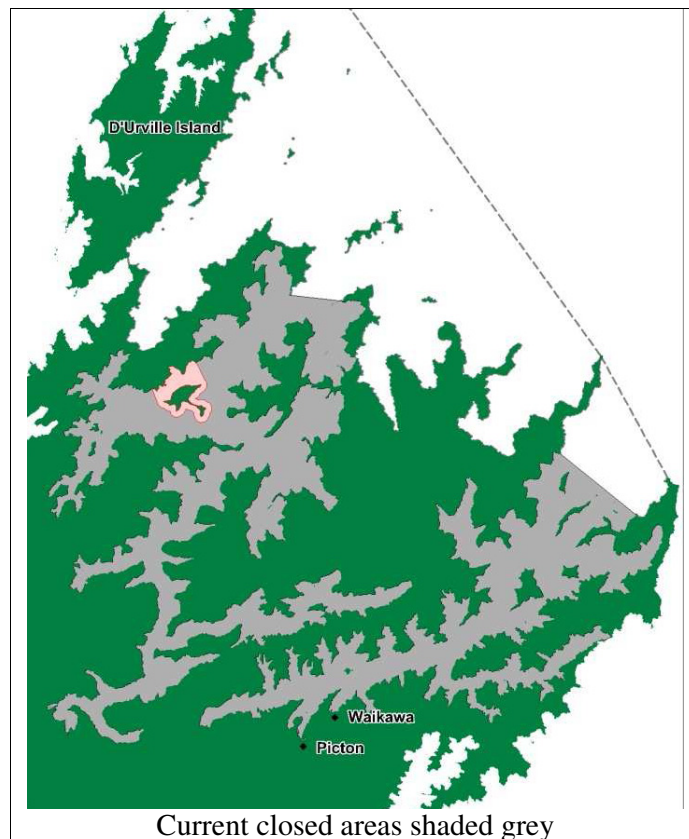
- a) *The higher bag limit for snapper on the western boundary of the Marlborough Sounds - this was not an intention of the IPP*
- b) *The proposal to include the boundary 2nm off the eastern side overlaps Fisheries Management Area (FMA8). This is beyond the scope of the consultation and would require further consultation.*
- c) *MFish recommends that discussions and future changes to the Marlborough Sounds Boundary are included as part of the wider work of the CIFF plan.*

26. TASFISH submits the same implications exist for both snapper bag limits in Challenger East and the cross over into FMA 8, and further reinforces the view that the BCMG have gone beyond their scope in making this proposal.
27. There is little or no scientific evidence available to support extending the existing MSMA. In fact, the most recent stock assessment by NIWA in 2007 that resulted in the current closure shows of the West D'Urville area and the extreme outer Pelorus and Queen Charlotte Sounds shows an increase in the relative abundance of recruited BCO blue cod equal or greater than 30cm.
28. The localised depletion issue in the Marlborough Sounds is a single species issue and must be managed as such, to include a reduction in bag limits for other species is once again beyond the scope of the BCMG and will do nothing to improve the status of the BCO stock.
29. The Minister has stated he is seeking a management plan that “would be easy for fishers to understand and practical for them to use”. As this is a primary requirement, an increase in the total area under consideration would only be a further complication to a management area boundary that fishers understand and are familiar with.
30. Geographically the western D'Urville area is part of Tasman Bay and has far different characteristics that the MSMA. The majority of fishers accessing the western D'Urville area do so from Tasman and Golden Bays (Okiwi Bay, Nelson, Mapua, Motueka, Abel Tasman National Park and Tarakohe). In this context the western D'Urville area should not be considered as part of an expanded Marlborough Sounds area.
31. The inclusion of the western D'Urville area in an expanded MSMA would seriously impact the existing Challenger East snapper daily bag limit of 10. The current MSMA snapper DBL is 3 and this would need to be applied in an extended MSMA. There is absolutely no reasoning or scientific evidence to impose additional restrictions on the amateur snapper DBL least of all for sustainability reasons when the commercial sector continue to plug for a TACC increase in SNA 7.
32. Commercial fishing interests remain the mastodon in the room in achieving a successful outcome to any Marlborough Sounds blue cod management programme.

Already there is a lack of co-operation in dealing with the existing MSMA and extending this area will only create further difficulties in reaching any binding agreements with industry.

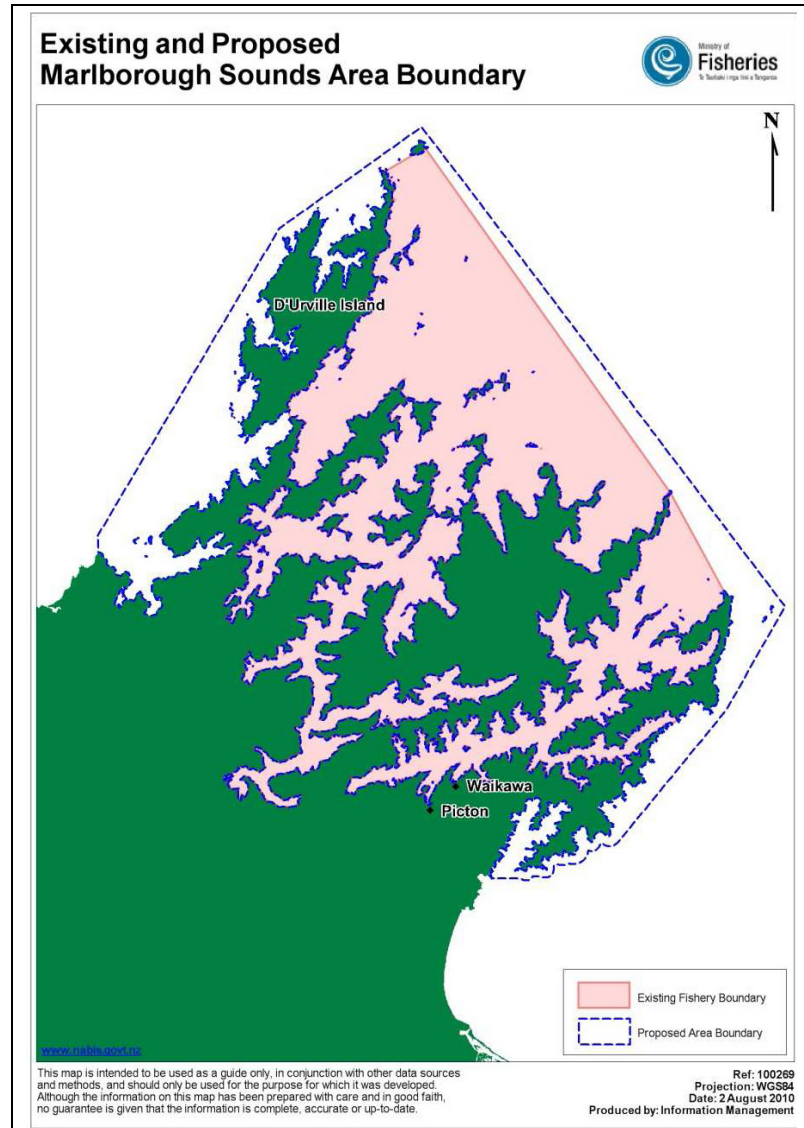
33. The inclusion of the western D'Urville area in the MSMA would further complicate ongoing negotiations between amateur fishing groups and commercial fishing interests regarding issues within Tasman and Golden Bays.
34. In the event of further amateur fishing restrictions being imposed on the western D'Urville area (or Challenger East), any increase in blue cod abundance not harvested by the amateur sector could be exploited by commercial interests. Any increase in the commercial catch could result in raising of their CPUE leading to application for and granting of a TACC increase.
35. Because blue cod populations tend to be territorial and non-migratory it is highly unlikely that restricting the catch outside the existing MSMA will assist in rebuilding the MSMA BCO population in the short to medium term.
36. The inclusion of the western D'Urville area in the MSMA with its associated restrictions is certainly not likely to engender public buy-in (thereby co-operation) by the amateur fishers of Tasman, Golden and Okiwi Bays.
37. This IPP is a consultation on reopening the current closed area (figure 1) of the blue cod fishery within the MSMA.

Figure 1
Current Closed Areas for Blue Cod
Existing Marlborough Sounds Management Area



38. The adoption of any of the management measures contained in this IPP will impact on an area far greater (out to the dotted line in figure 1) than the current closed area and therefore the management gains will be far more significant than the current closure.
39. TASFISH submit that if the MSMA is extended the impact on amateur harvest will be significantly more than is either required or science supports and that measures will be put in place in areas where they need not be. Refer figure 2.

Figure 2



40. TASFISH submit that if all management measures implemented in the existing MSMA as a result of this consultation were to apply to transiting vessels and not just those fishing in the MSMA this will negate the need to extend the MSMA from both a sustainability perspective (in the area beyond the MSMA) and from a compliance perspective (within the MSMA). That is all fishers within the MSMA irrespective of where they caught fish will be bound by the MSMA regulations.
41. Mfish considers that the proposed boundary more completely encompasses the amateur BCO fishery and that compliance inspections indicate an increase in fishing

activity since the closure, TASFISH submit this activity will reduce when the closed areas are reopened.

42. MFish is mischievous in its claim in the IPP that says information from the BCMG members indicates the impact on utilisation of the snapper fishery in the expanded would be small. There was no such information from the Nelson based BCMG members and TASFISH submit the impact would be substantial as this is a highly productive fishery for all amateur fishers utilising this fishery.
43. MFish also claim in the IPP an expansion to the Marlborough District Council (MDC) boundary may assist more integrated management of the Sounds area in the future. TASFISH submit that when an integrated management plan is adopted “in the future” that includes all sectors an expansion of the area could be looked at then as suggested in the final advice paper in 2007 where “*MFish recommends that discussions and future changes to the Marlborough Sounds Boundary are included as part of the wider work of the CIFF plan*”.
44. TASFISH does not support the proposed changes to extend the MSMA to the Marlborough District Council Boundary. Councils are not the fishery managers.

Management Proposals

45. All management measures supported by TASFISH in this submission relate only to the existing MSMA as defined in Fisheries (Challenger Area Amateur Fishing) Regulations 1986. Any measures supported by TASFISH beyond the MSMA will be clearly stated in this submission.
46. TASFISH supports a maximum limit of two hooks per line when fishing for any species in the MSMA and agree that this should apply to set lines and dropper lines also.
47. This measure will reduce handling time for fish being returned to the sea, reduce the impact of flasher rigs and is consistent with the CoP yet still allows fishers to target other species using methods that require a second keeper hook.
48. TASFISH supports a maximum daily bag limit of 2 BCO per person for the MSMA.
49. This is a conservative measure that would support the reopening of the closed areas and reduces the bag limit from 3 to 2 in the rest of the MSMA and TASFISH agrees this will reduce harvest and effort in the MSMA.
50. TASFISH does not support a maximum daily boat limit of ten blue cod per vessel for the MSMA.
51. This measure was discussed by the BCMG as a way of addressing charter boats doing more than one trip per day. Limiting all recreational fishers to a boat limit of 10 does not address the charter boat issue.
52. Charter boat reporting for BCO is being introduced in FMA 7 on 1 November 2010. From this information MFish will be able to identify if BCO harvest by charter boats is a sustainability issue and adopt the appropriate measures.

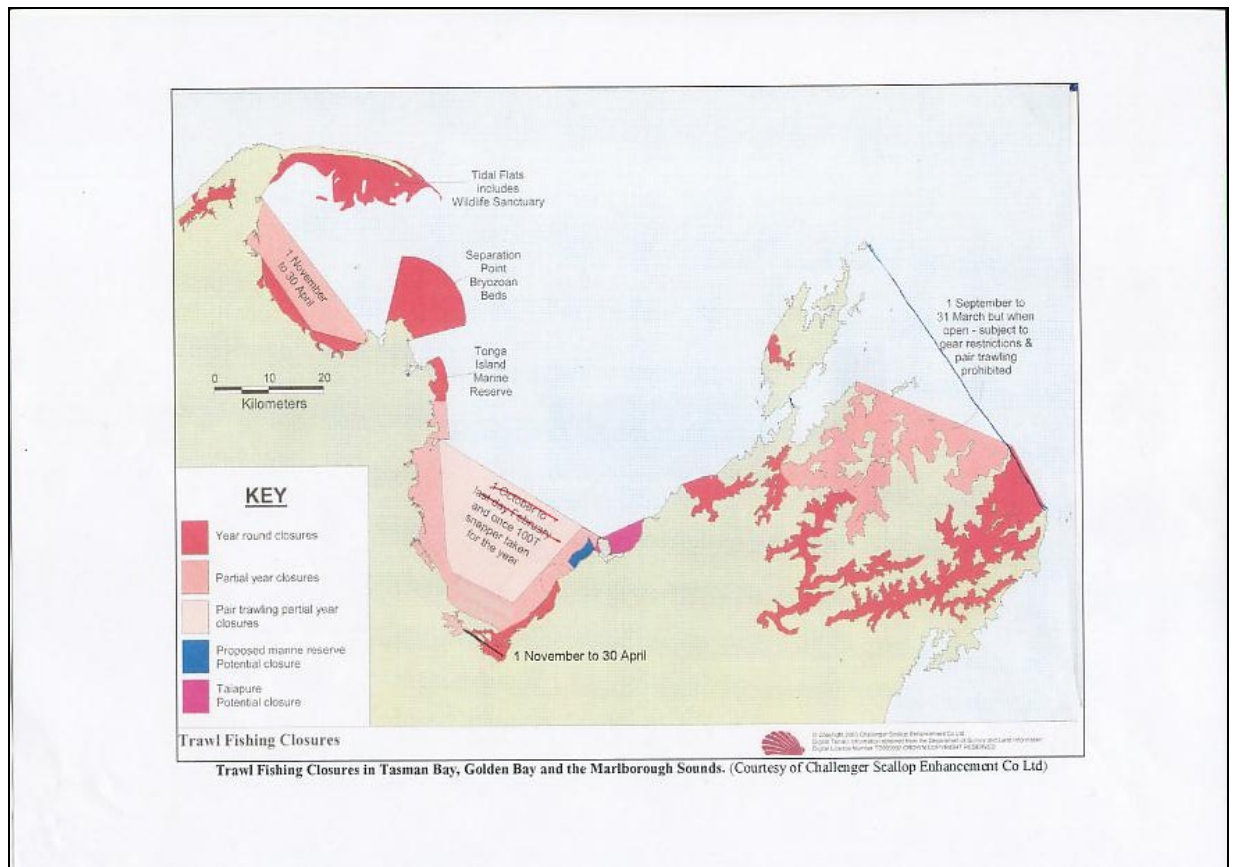
53. TASFISH totally rejects the notion that an amateur fisher will be denied their daily bag limit simply because they are fishing from a boat big enough to carry more fishers whose combined bag limits exceed 10 fish.
54. If the DBL for BCO in the MSMA is reduced to 2 fish then TASFISH submit that there is absolutely no difference between 10 recreational fishers on one boat and two boats with 5 fishers each on board with each group of fishers being entitled to 20 BCO. To restrict the 10 fishers on board the larger boat to only half the number of fish as the 10 fishers on two smaller boats simply because they are on a larger vessel is a nonsense.
55. Furthermore this regulation will be overcome if the larger boat carried a smaller boat e.g. a dinghy, and the extra bag limits were in this smaller boat. How would compliance deal with this?
56. TASFISH supports a maximum personal accumulation limit of two daily bag limits of blue cod in the Marlborough Sounds Area and the Challenger East Area.
57. This measure on its own will significantly reduce the overall harvest of BCO in the MSMA as it addresses the issue of people on multi day trips and those that go fishing to fill their freezers. Furthermore the inclusion of this regulation in the Challenger East Area along with the MLS of 33cm will remove any ambiguity for compliance.
58. TASFISH supports a minimum legal size (MLS) of 33 cm in the MSMA and the Challenger East Area. The Association has always promoted an MLS of 33cm and has submitted on this in the past. In 2003 when the MLS was reduced in Challenger East Area from 33 to 30cm TASFISH was disappointed. History has shown that smaller MLS's have led to a reduction in both abundance and size and age distribution.
59. Surveys carried out by Rob Davidson in the Queen Charlotte Sound highlight the negative impact the reduction of the MLS to 28cm from 33cm in 1994 had on the fishery. Subsequent surveys have shown an improvement in abundance since the MLS was increased from 28cm to 30cm in 2003, at the same time the increased MLS was also supported by a bag limit reduction from 6 to 3 fish.
60. Increasing the MLS to 33cm is endorsed as a biologically appropriate limit by the Southern Inshore Working Group and would allow BCO greater reproductive output before capture.
61. There are some that argue that a larger MLS increases the chance for incidental mortality for those fish being returned. The fact is that if the MLS is 33cm and not 30cm you are only talking about the fish between 30 and 33cm being returned and these larger fish are far more robust and not subject to incidental mortality when larger than 6/0 hooks (as recommended in the CoP) are used.
62. Guardians of Fiordland in the management of their BCO fishery claim that the single most significant measure they implemented to contribute to the health and abundance of BCO was an MLS of 33cm.
63. TASFISH do not support a maximum legal size (MaxLS) of 45 cm (total fish length) for blue cod.

64. This measure is intended to maintain larger males in the fishery, very few fish over 35cm were observed in the 2007 NIWA survey therefore the measure is more likely to create compliance issues rather than benefit the fishery.
65. Any large fish, whatever the MaxLS, saved by recreational fishers will be harvested by the commercial sector. Unless there are regulations for all sectors on this measure TASFISH can not contemplate supporting a MaxLS.
66. TASFISH suggest that a MaxLS be introduced into the CoP for the inner Sounds.
67. TASFISH support the requirement that all blue cod must be possessed and/or landed whole or gutted in the MSMA.
68. This regulation already exists in the MSMA and fishers already understand and accept this.
69. TASFISH does not support a prescribed fishing season for blue cod in the MSMA. To open the partially closed areas of the Marlborough Sounds Area from 1 April to 31 August in 2011 then close the whole of the MSMA is totally rejected by TASFISH.
70. This measure closes the fishery for 6 months of the year and there is a huge risk this would create a boom and bust fishery and the impacts of this measure would have significantly more impact on amateur fishers than the current closure yet other sectors could continue fishing while the recreational sector was excluded. This fact alone should see the proposal rejected totally by MFish.
71. A closure of this nature for the entire MSMA will reduce harvest significantly and does not allow for utilisation by ONLY the recreational sector over the summer months. TASFISH submits that if a reduction of harvest this size, on top of the other proposed measures when the fishery is opened, is required, then the current closed areas should not be reopened at all.
72. TASFISH support a no-take zone (NTZ) for all finfish around Maud Island. Support is however conditional on the basis that commercial fishing is also excluded.
73. It is an absolute nonsense to restrict only the recreational sector from taking fin fish in a “NTZ” when the commercial sector will be allowed to continue to harvest fin fish in or adjacent to the NTZ. TASFISH submit that nothing will be achieved in the NTZ does not include all sectors.
74. A requirement to hold an amateur fishing permit to take blue cod in the MSMA is not supported by TASFISH in this consultation process. The Association does however acknowledge there are positive outcomes to be gained if a permit scheme was implemented in the MSMA or in amateur fisheries nationwide. Before this discussion can be progressed a number of shared fisheries issues need to be addressed and TASFISH submit that for any permit to be accepted by the recreational sector it must be administered by a non government body that has been given statutory powers given to it by the NZ Parliament.
75. TASFISH supports the claims made by the BCMG in the IPP for the benefits that could be achieved for the management of BCO in the MSMA by the introduction of a fishing permit for BCO even though buy in initially may be low form amateur fishers there is widespread support for this type of measure

Commercial Fishing

76. Impacts on blue cod by the commercial sector in the MSMA can be divided into two distinct harvest methods, trawling and potting and into two distinct regions.
77. **Area 1:** Pelorus Sound Inside a line from Clay Pt. to Cape Jackson Figure 3 (See light pink area of Pelorus).
78. Trawling Restrictions that apply to the Pelorus Sound. Trawling is permitted from 1st April to 31st August with Gear restrictions. Which include No Paired Trawling, 9m Head, 45m Bridle, and only Vessels under 46m. Within this same area, full depth set nets up to 3000m and unrestricted Long Lines are permitted all year round.
79. There is a total trawl prohibition in Queen Charlotte Sound.
80. **Area 2:** East D'Urville Island, inside the blue line running from Stephens Island to Cape Jackson including Admiralty Bay Figure 3.

Figure 3



81. A voluntary agreement was made by the commercial sector that no bottom trawling would occur while the NO Take BCO closure restrictions were in place for the amateur sector. As with all voluntary agreements we will never know if this was adhered to, as there was no monitoring regime implemented, and it is unknown whether trawling would resume once the closed areas reopen.

82. TASFISH submits there should be NO trawling in Pelorus Sound and that Pelorus Sound (pink area in fig. 3) should be afforded the same protection from destructive bulk harvesting bottom trawling as Queen Charlotte Sound enjoys.
83. There are no restrictions in **Area 2** on commercial methods or gear. This is part of statistical Area 17, consequently the harvest by the commercial sector in Area 2 is unknown by fisheries managers.
84. Trawlers are required to record their Latitude / Longitude co-ordinates at the start of each trawl but not at the end and vessel monitoring systems (VMS) are not compulsory.
85. Commercial Cod Potting harvest estimate is 15t and the commercial MLS is 33cm.
86. Annual commercial BCO harvest for Area 17 is around 25t. Just how much of this is caught within the MSMA is unknown. Anecdotal evidence and observational data concludes that trawlers with BCO ACE target BCO in the MSMA.
87. To date the recreational sector has incurred an 85% reduction in the DBL since 1993 (20 down to 3). Over the same period the TACC has not been reduced in FMA 7 neither has there been any restriction put in place on industry. TASFISH submit that as a shared fishery this seems more than a little one sided.
88. The only data on recreational harvest in the East D'Urville strata came from a 'Characterisation Study of the Recreational Fishery' by NIWA June 2008 for MFish. This was a detailed survey involving flyovers, on water counts, boat ramps, and diarists.
89. The estimate of the recreational harvest for the East D'Urville and Extreme Outer Pelorus and Queen Charlotte strata, was just under 40t. Over the same period, the commercial harvest was somewhere between 15t (potting) and 25t, representing somewhere between 27% and 38% of the total BCO harvest in this area.
90. TASFISH submit this level of BCO harvest in the MSMA is a significant share.
91. The 2007 NIWA Survey showed a quite unexpected result. The East D'Urville strata had the biggest decline in Juveniles and Pre Recruits, in spite of the fact it received the least Recreational pressure.

NIWA Survey 2007	2007 v 2004 % Change JUVENILES	2007 v 2004 % Change PRE RECRUITS
West D'Urville	- 53%	- 28%
<i>East D'Urville</i>	- 71%	- 64%
Ext. Outer Pelorus	- 60%	- 35%
Outer Pelorus	- 60%	- 47%
Mid Pelorus	- 29%	- 31%
Inner Pelorus	- 46%	- 25%

92. The Cawthron Characterisation Study pre closure showed that the majority of recreational fishers, approx. 80%, fish within the Sounds and not the Extreme Outer Sounds.

93. TASFISH submits that the massive 71% decline of Juveniles and 64% decline of pre recruits in the East D'Urville strata was not due solely to recreational effort and that the commercial sector must also take ownership for a significant share of that decline.
94. There is without doubt, significant net trauma, exposure, and associated mortalities occurring in the by-catch from bottom trawling, that is impacting on these Juveniles and Pre Recruits.
95. Furthermore as the commercial sector has an MLS of 33cm they can legally kill and discard BCO under 33cm! TASFISH submit this on it's own is significant enough to have bottom trawling banned from the MSMA area.
96. TASFISH submit that statistical reporting area 17(A) should be created and this area should be the MSMA. This would provide fisheries managers with accurate industry harvest levels in the MSMA.
97. TASFISH submit that industry harvest levels must be capped at or below current harvest levels in this new reporting area 17(A).
98. Studies carried out by Rob Davidson on the benthos within the East D'Urville strata shows some interesting and important habitat. There are large and significant Biogenic remnants around the Trios. In addition there are also important Bryozoan beds around the Rangitoto Islands.
99. TASFISH submits that these areas should be afforded the same protection as the Separation Point Bryozoan beds.
100. Rob Davidson's comments on these habitats as follows:

"The remnant biogenic habitats associated with the Trio banks have been reduced by bottom towed devices. Remnant habitats are recorded on the shallow bank especially on the northern side, but no longer found in densities that classify as biogenic habitat. However the area outlined still has a reasonable density of damaged biogenic habitat. The large Bryozoan beds are the best example of these beds still reasonably intact. Finally, note, much of the area shown on the map has not been surveyed, so it is very likely there are other areas we don't know about."

101. In the Cawthron Settlement Model researchers have observed what are assumed to be spawning aggregations around the Rangitoto Islands, D'Urville Peninsula and the bank south-west of the Trio Islands (Warren1995). Raphson (1956) also identified the Rangitoto Islands (located just to the east of D'Urville Island) as the most important spawning area in the Cook Strait. Given that this is within the east D'Urville stratum, sampling of an intermittent spawning aggregation event may explain the relatively high abundance seen in this year. Interestingly, Raphson (1956) also concluded that the best spawning grounds appear to be found where considerable tidal current exists.
102. This study has shown that spatial and temporal heterogeneity appear to exist within the spawning stock and those strata populations identified by the potting surveys appear to have mostly limited larval connectivity between nearby regions for inner

sound strata and the eastern D'Urville stratum appears to be an important source region for some of the outer strata

- 103.** The study was very clear in showing the Rangitotos to be a significant source of spawning biomass, supplying much of the ovum to the Outer Sounds for recruitment. The very survival of these developing larvae, is totally dependant on healthy biogenic nurseries being available. The Biogenic remnants, and Bryozoan beds, along with the biogenic nurseries present on soft sediment areas eg Horse Mussle Beds, loose cobble areas, sponge settlements to mention a few, are vital not only for larval survival, but also Juvenile recruitment.
- 104.** Therefore, it could be argued that the significant decline in Juvenile and Pre recruits within the East D'Urville strata, is related to both the physical trauma associated with trawling, and also the loss of habitat through degradation.
- 105.** The important point is – if these areas were protected from commercial bottom contact fishing methods they would recover and provide significant habitat for BCO juveniles and pre recruits.
- 106.** Issues associated with this commercial activity.
 - Fine Silt drift over coastal habitat, with associated environmental damage.
 - Destruction of Biogenic Nurseries present on soft sediment benthos.
 - Mortalities of Juveniles and Pre Recruits from net trauma and exposure.
- 107.** We submit that the while the MLS across the entire fishery for amateur fishers and commercial cod potters should be 33cm, there should be no MLS for commercial fishers landing BCO other than by potting. This will result in all BCO being killed in trawl nets having to be landed (and coming of annual catch entitlement) resulting in us all being able to see the real effect of bottom trawling with non-selective gear.
- 108.** TASFISH further submit that the negative impacts of trawling on BCO stocks and growth rates should not be underestimated and that Mfish must regulate to remove this activity from the MSMA.

Management Events

- 109.** It is important that those making decisions about the future management of the BCO fishery in the MSMA have a good understanding of the history of the fishery.
- 110.** There have been numerous management and regulatory changes over the last 25 years ranging from exclusion of commercial fishers from some portions of the MSMA to a range of minimum legal size (MLS) and drastic bag limit reductions for amateur fishers.
- 111.** A number of the measures introduced have shown up the inadequacies of the Quota Management System (QMS) in managing finer scale depletion of specific stocks compared with the “sustainability” of that stock over the entire FMA 7.
- 112.** Although there have been significant reductions in the Total Allowable Commercial Catch (TACC) in Area 7, this has not always been reflected in reduced commercial catches in the MSMA. Poor definition of statistical areas has resulted in continuing

difficulties in determining just how much Blue Cod is taken from the area of the MS covered in the BCO management area.

- 113.** This is despite repeated requests from amateur fishers representatives over many years for action to be taken on this by defining smaller stat areas around the MS. As things stand there is nothing stopping commercial fishers from taking their entire allocation of Blue Cod in Area 7 from those areas still open to them in the MSMA.
- 114.** This has significant implications for any new management measures that may be introduced in an attempt to reduce amateur harvest in attempting to increase abundance. So long as any of the MSMA remains open to commercial fishing any gains made by reducing amateur harvest will undoubtedly lead to increases in commercial take. The time is overdue for removal of commercial fishing, in particular benthos destroying bottom trawling from all areas of the MSMA.
- 115.** In introducing any of the measures proposed in the IPP the decision makers will need to carefully consider the level of acceptance they expect from amateur fishers. We submit that if amateurs feel they are simply saving fish to fill commercial fishers quotas, compliance levels will be tested. It must be noted by decision makers that a number of the controls on commercial fishing in the MSMA weren't introduced because of blue cod. Bans on trawling and commercial long lining were introduced to reduce catches of and protect spawning Snapper. A number of those closed areas have not contained significant numbers of blue cod for a very long time and it is unrealistic to expect they ever will.
- 116.** The proliferation of holiday homes and the resulting pressure in the sheltered inner sounds area, combined with an explosion of Marine Farms, many of which have negatively impacted on Blue Cod habitat must be considered. It is totally unrealistic to expect abundance and size of blue cod to be the same in these areas as that found in the much more exposed outer coasts, especially that found on the margins of Cook Strait and the Western reaches of D'urville Island.
- 117.** There has been a proliferation of regulations controlling amateur activity in the MSMA. It is crucial decision makers are familiar with these as some clear patterns emerge. There is no doubt that the succession of bag limit reductions has played a positive role. The last BCO survey showed a halt in the decline of stocks in much of the MSMA. This demonstrates that at the time of the introduction of the ban on BCO fishing previous measures were acting positively.
- 118.** The same cannot be said of the East D'Urville area, where significant commercial activity using trawl still continues. We submit that decision makers need to carefully consider the effects that different MLS regimes have had in the fishery. Research by Davidson shows how the available biomass has tracked the MLS, demonstrating we have the amateur equivalent of a MSY fishery. We know that size has a significant impact on the sex ratio of BC and submit that the decision on MLS is very important to the future of this fishery.
- 119.** Four major changes to BCO amateur fishing regulations in the MSMA have been implemented since the introduction of BCO into the QMS in 1986. Below are the findings of Rob Davidson who has conducted research in Queen Charlotte Sound since 1993 when the Long Island Marine Reserve.

120. In October 1993, the minimum legal size for blue cod was increased from 30cm to 33cm. From September 1993 to August 1994, there was a corresponding increase in the mean size of blue cod at control sites.
121. In October 1994, the minimum legal size was reduced to 280 mm and the bag limit was dropped from ten to six fish per person per day. By September 1995, the mean size of blue cod at the control sites had declined dramatically.
122. In October 2003, the size limit for blue cod was increased from 280 mm to 300 mm and the bag limit further reduced to three cod per person per day. For the following five consecutive years the mean size of blue cod from pooled control sites steadily increased from a mean of 233.4 mm in March 2004 to 259 mm by May 2009. However, mean blue cod size at control areas in 2009 was still well below the August 1994 level (i.e. mean = 275 mm) when the blue cod legal size was 330 mm length.
123. On 1st October 2008, the recreational blue cod fishery in Queen Charlotte and Pelorus Sounds, including all of the control sites, was closed. One blue cod sample event has occurred since this closure (i.e. the 2009 sample). The proportion of large blue cod (330-650 mm) at control sites increased to 5.7% in 2009, a proportion not recorded since 1994 and 1995. To place this result in perspective, in most years since April 2000, the proportion of control blue cod in this size range was < 1%. The mean size of blue cod at control sites in 2009 also increased; however, there was not a corresponding increase in blue cod abundance.
124. It is unknown how quickly blue cod abundance will change in the recently closed fishing areas outside the reserve, although the rate of blue cod recovery in the reserve following its closure to fishing may provide some insight. Following reservation in 1993, blue cod abundance was relatively slow to change with no statistically significant increase above control densities until April 1997, a period of four years. Large blue cod (> 300 mm length), however, became more abundant in the reserve compared to control sites in a shorter period of only two years after reservation. Because the size scale of the closed areas is dramatically different (i.e. Long Island-Kokomohua Marine Reserve versus Queen Charlotte and Pelorus Sounds) it is impossible to accurately predict how long it will take for blue cod to increase in abundance, however, based on the marine reserve experience, it is probable that such an increase will take a number of years.

Major blue cod management events including recreational size limit and bags limits for the Marlborough Sounds.

Date	Event
1986	Blue cod introduced into the QMS *1
1986	Minimum size limit 30 cm (recreational daily bag limit 12) *1
October 1993	Size increased from 30 cm to 33 cm (daily bag limit reduced to 10)
1st October 1994	Size decreased from 33 cm to 28 cm (daily bag limit reduced to 6)
1st October 2003	Size increased from 28 cm to 30 cm (daily bag limit reduced to 3)
1st October 2008	Queen Charlotte and Pelorus Sound blue cod fishing closure

Summary of TASFISH Position on Proposals

Proposal	TASFISH Position
Expand Marlborough Sounds Area	Do not support
Two Hook Limit	Support for MSMA
Max Daily Bag Limit 2	Support for MSMA
Max Daily Boat 10 BCO	Do Not Support
Accumulation of 2 Daily Bag Limit	Support For Challenger East
Minimum Legal Size 33cm	Support for Challenger East
Maximum Legal Size 45cm	Do not Support
Possess BCO Whole or Gutted	Support for MSMA
Seasonal Opening/Closure	Do Not Support
NTZ Around Maud Island	Conditional Support
Amateur BCO Fishing Permit	Do Not Support



Martyn Barlow
President
TASFISH