Submission on "Review of Sustainability Measures for Snapper (SNA 8) for 2021/22" – Fisheries NZ Discussion Paper No: 2021/09.

Who are we.

This submission on Review of Sustainability Measures for Snapper (SNA 8) for 2021/22 is made by the Mana Aquatic Divers Inc (MAD). The club is based from the Mana Cruising Club at Mana Marina, Porirua at the Southern North Island. MAD is an NZUA affiliated dive club with 42 members and most members have been diving and fishing the region well before the QMS was introduced, with many having grown up in the area with several members former commercial Paua divers so we retain a strong historical knowledge of our regions fisheries.

Why are we submitting

We are submitting because all our members enjoy diving and fishing. All members would like to be able to catch snapper for their own consumption and to share with their friends and family. Snappers are one of the more a difficult species to catch in our region via our 2 main fishing techniques, ie: spearfishing or boat rod fishing, however anecdotally we have caught more snapper in recent years with Tasman warmer temperatures, which takes fishing pressure off traditional regional species like Blue Cod, Terakihi and Butter Fish. We note our fishing opportunities are also more limited by weather than other areas due to our boating access being adjacent the Cook Straight and associated weather.

While becoming more abundant, snapper is still not a commonly caught species by our members and it requires more effort for less return. Many of our snapper fishing trips return empty handed and our annual prize for the largest snapper has sometimes not been claimed no snapper have been weighed in some years, and it is rare day our members catch snapper bag limits. We find the Discussion Paper misleading; it creates a false impression it is difficult to avoid catching snapper which is definitely not our members experience. It would be a significant Fisheries Management achievement if this fishery recovered to that extent, and it has certainly not happened yet.

Are we an important sector of the national economy?

<u>Relative values of commercial and recreational sectors</u>

A comprehensive Fisheries Report that looked into the role of commercial fishing to the New Zealand economy was produced by Business and Economic Research Limited (BERL) in 2017. The Report concluded that in the five years to 2015, commercial fishing provided a direct output value of $1,727 million (or $345.4 million annually) and a total output value of $4,179 million (or $835.8 million annually). The Report highlighted that in the five years to 2015 on average inshore fishing produced a total output value of $1,197 million ($239.4 million annually), total contribution to GDP of $460 million ($92 million annually).

By comparison the report produced by the South Australian Centre for Economic Studies in 1999 titled Value of New Zealand Recreational Fishing undertaken for the New Zealand Ministry of Fisheries estimated that the annual value of recreational fishing in New Zealand was $973.5 million annually.

The report includes "*However, it must be noted that these figures are based on recurrent expenditure only and do not take into account any capital expenditure (such as boats and rods) or multiplier effects*."

There is a more recent report dated March 2016 by the New Zealand Marine Research Foundation titled "Recreational Fishing in New Zealand – A Billion Dollar Industry". This report values recreational fishing at $946 million of direct expenditure annually which generates $1.7 billion of economic activity.

It should be noted that all recreational fishing takes place in the inshore fishery. From these reports it is apparent the comparative values of commercial and recreational fishing are:

	Commercial Inshore (Annual Millions 2017$s)	Recreational Annually	Recreational/Commercial
Direct	$92	$943 (1999$s)	10.25
Output	$239.4	$1,700 (2016$s)	7.10

From these reports it is apparent that the value recreational fishing sector is approximately 10 times the value of the inshore commercial fishing sector. We hope the Minister takes account of the value of the sectors when making his decision and gives appropriate emphasis to the recreational fishing sector.

Is the consultation genuine?

Fisheries New Zealand (FNZ) booked a room for consultation at Mana Cruising Club MCC). They did not advise the MCC nor our Dive Club why they required the room nor ask the MCC to inform members that the consultation was taking place. This is not genuine consultation and the author was advised of this about this "*consultation*" through third parties.

What is our view

<u>Success or otherwise of the Quota Management System</u>

FNZ's Discussion Paper tells us that the snapper stocks in SNA 8 plummeted to a low 6% of unfished biomass in 1987 and remained at very low levels until 2009. The Quota Management System was introduced in 1986. The first 23 years of operation of the Quota Management System had minimal impact on snapper biomass in SNA 8. The biomass has recovered since 2009 mainly due to exceptionally high recruitment in 2006 and again in 2016 to 2018. The Discussion Paper does not give reasons for the periods of high recruitment and leaves the impression that FNZ do not understand the mechanisms behind these periods of high recruitment. In plain English the recovery of the snapper biomass in SNA 8 since 2009 could be more to do with good luck than good management.

<u>Projections into the future</u>

Of more concern is that because we do not understand the factors that result in high or low recruitment future periods of very low recruitment cannot be ruled out. Any modelling of future stock numbers should not only consider average recruitment, but some sensitivity testing based on very low recruitment.

Lessons from History

The following catch landing figures have been obtained from figures 2 of the Discussion Paper. The annual percentage spawning biomass figures (S_B/S_{B0}) have been obtained from Figure 13 of the Discussion Paper.

Prior to 1953 the landed commercial catch was about 300 tonnes per annum or less. During this period the spawning biomass declined from something close to 100% of the unfished biomass (S_B/S_{B0}) to about 92%.

The landed commercial catch from 1953 to 1973 was relatively steady at about 1,300 tonnes per annum. During this period the fishery declined from 92% to about 40% (S_B/S_{B0}).

From 1974 until 1984 the landed commercial catch was typically at or above 3,000 tonnes per annum and the rate of S_B/S_{B0}decline was (surprisingly) only slightly faster than it had been in the 1953 to 1973 period. S_B/S_{B0} reached a minimum of about 6% in 1987. S_B/S_{B0} remained very low (<20%) until the mid 2000s when it recovered as a result of exceptionally recruitment.

Summarising the above, the SNA 8 fishery has shown in the recent past that:

1. With commercial landing at 1,300 tonnes per annum it can go into very rapid stock decline; and
2. Commercial landings at about 3,000 tonne per annum exacerbate the rapid decline of S_B/S_{B0}, leading to a predictable collapse of the fishery.

It is difficult to accept FNZ's modelling showing that at 54% S_B/S_{B0} the fishery can sustain TACC of 2,600 tonnes per annum with minimal predicted decline in S_B/S_{B0}. The modelling does not correlate at all with the recorded behaviour of the fishery since 1953.

The Discussion paper makes no mention of calibration and validation of the modelling. Frankly if the model has not been calibrated and validated against historical data it should not be given any creditability and if it has been calibrated and validated against the historical data that process should be reported upon in the Discussion Paper.

What of the future

The fishery has shown us (during the 1974 to 1984 period) that when the landed commercial catch is allowed to rise above 1,300 tonnes per annum it will collapse. Figure 13 of the Discussion Paper shows that there is an opportunity to grow the biomass substantially in just a few short years. If the TACC is left at its current level of 1,300 tonnes per annum the fishery may be expected to grow to about 80% of the unfished biomass. However there is a significant risk that the fishery will collapse at this level of TACC – S_B/S_{B0} reduced from 80% to 40% between 1953 and 1973 when the Landed catch was at about 1,300 tonnes per annum.

The fishery was last at 80% of the unfished biomass in the mid 1960s and it should be allowed to recover to at least that level before any increase in the TACC is even discussed. Do not miss this opportunity to have an abundant fishery.

Key points of this submission

A. Our objective is ensuring the Minister takes a precautionary path that maintains Snapper 8 stock at current levels. The last time the Total Allowable Catch (TAC) was as high as now proposed, over 3000 tonnes, the stock was in steep decline, and it took many years to recover;
B. The predictions of the model do not correlate with the observed response of the fishery in the past. The model should be both calibrated against historical data and validated against historical data and the results of that process reported;
C. Our membership want **no increase in the TACC** at this stage;
D. Fisheries NZ should set a formal target of achieving 80% B_0 in SNA 8 and schedule a stock assessment in 2030 followed by a review of the TAC in 2031.
E. Having effective monitored cameras on all commercial fishing boats should be a prerequisite for any increase in the TACC;
F. There should be no change to the current Annual Catch Entitlement/Deemed Value regime until a stock level of 80% B_0 is achieved;
G. **An increase in the Maori customary allowance to 100 tonnes** would represent a very low risk to the fishery and **is supported**;
H. The allowance for recreational catch within the TAC should be increased in line with the National Panel Surveys;
I. There should be **no change to the recreational bag limits**;
J. The **Minimum Legal Size (MLS) should be the same for recreational and commercial fishers**. An increase in the MLS above 27cm should be considered, **a MLS of 30cm would be supported**;
K. The club is very concerned about the damage caused by bottom trawling. **Bottom trawling should be prohibited within the 12 mile limit in all New Zealand's territorial waters**; and
L. **Set netting is an indiscriminate fishing method that should not be permitted for amateur or commercial fishers in all regions**, not just those that are frequented by endangered marine mammals.