Mark Connor
President
NZ Sport Fishing Council
PO Box 93
Whangarei
secretary@nzsportfishing.org.nz

Kara McKelvey
Ministry of Primary Industries
PO Box 2526
Wellington
6140
kara.mckelvey@mpi.govt.nz

30 July 2012

NZ Sport Fishing Council submission on the review of inshore fishstock sustainability measures – 1 October 2012

NZ Sport Fishing Council

1. The New Zealand Sport Fishing Council appreciates the opportunity to submit to the Ministry of Primary Industries (MPI) on the 2012 Review of sustainability measures and management controls for inshore fish stocks. MPI released their proposals on 5 July with submissions due by 30 July 2012.

2. NZSFC representatives are available to discuss this submission in more detail if required. We look forward to positive outcomes from this review and would like to be kept informed of future developments. Our contact is Roz Nelson, secretary@nzsportfishing.org.nz.

3. The NZ Sport Fishing Council is a national sports organisation with over 32,000 affiliated members from 57 clubs nationwide.

4. The New Zealand Sport Fishing Council has initiated LegaSea, a public fundraising mechanism, to generate support for the ongoing effort to protect and enhance the public's access to abundant fisheries in a healthy marine environment. www.legasea.co.nz

5. The intention is to broaden NZSFC involvement in marine management advocacy, research, education and working together on behalf of our members and LegaSea supporters.

6. Our members and supporters acknowledge that by 2030 there could be 25% more people living in New Zealand. We want our children and grandchildren to have similar or better fishing compared to what we have today. Therefore we are committed to ensuring that sustainability measures and management controls are designed and implemented to achieve the Purpose and Principles of the Fisheries Act 1996, including "maintaining the potential of fisheries resources to meet the reasonably foreseeable needs of future generations…" [s8(2)(a) Fisheries Act 1996]

Summary of NZSFC Submission

7. The New Zealand Sport Fishing Council believes that a precautionary approach must be taken when managing low information stocks. As Professor Hilborn, one of the leading stock assessment scientists in the world said, catch data alone does not reveal what is happening to stock abundance. NZSFC accepts that there is some evidence of rebuilds occurring in a few of the fisheries being reviewed, however none of the MPI preferred options are precautionary where information is uncertain, unreliable or inadequate as required by the Fisheries Act 1996.

8. Many of the stocks under review are likely to have fluctuations in abundance. Responding to these with significant increases in TACC when an increase is detected in low information stocks does not meet the objectives of the Ministry's Harvest Strategy Standard.

Elephant fish in ELE5

9. NZSFC supports option 1, status quo, in Elephant fish in ELE5 as there has been no increase in CPUE for the last 6 years.

10. NZSFC supports the FMA3 and FMA5 Recreational Fishing Forum proposal to increase the daily bag limit to 10 elephant fish within the mixed finfish bag limit of 30.

Dark Ghost Shark in GSH2 and GSH8

11. NZSFC supports option 1, status quo, in Dark Ghost Shark in GSH2 and GSH8 as there is limited information, other than commercial catch data, to support an increase in TACC.

12. If the TAC is revised an allowance must be made for non-commercial catch and fishing-related mortality where it is known to occur.

Red Gurnard in GUR3

13. NZSFC supports option 1, status quo, in Red Gurnard in GUR3 until a stock assessment has been done and the status of the stock is determined.

Red Gurnard in GUR7

14. NZSFC supports option 1, status quo, in Red Gurnard in GUR7 as there is insufficient information in support of the 2011 research trawl survey result that a significant increase in abundance has occurred.

John Dory in JDO7

15. NZSFC supports option 1, status quo, in John Dory in JDO7 as there is insufficient information from the research trawl survey estimates to show that an increase in biomass since 2003 is statistically significant.

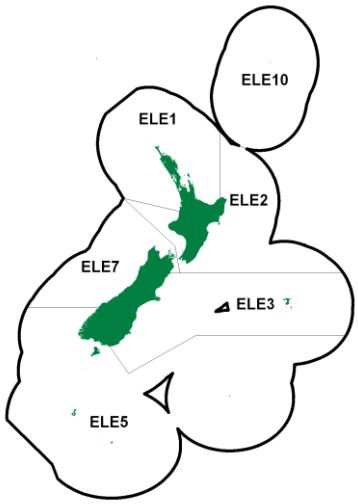
A. Proposal to increase Total Allowable Commercial Catch for Elephant Fish in ELE5

Background

16. Elephant fish mature between three and five years of age. Maximum age is not able to be reliably estimated but appears to be between nine and fifteen years. Mature elephant fish migrate to shallow inshore waters in spring to spawn. Resulting recruitment is highly variable, which results in large variation in ELE 5 catches between years.

17. Females are known to spawn multiple times per season laying two eggs on each occasion. This relatively low fecundity, that is common to all elasmobranches, makes elephant fish prone to over-fishing.

18. At the end of each spawning season, the adults are thought to disperse and become difficult to catch, although juveniles remain in shallow waters for up to three years. During this time, juveniles are vulnerable to incidental trawl capture, but are of little commercial value and are generally not retained.



Proposals for ELE5

Details for elephant fish in ELE5

19. MPI proposes the following options for the total allowable catch (TAC), total allowable commercial catch (TACC) and associated allowances (Table 1).

Table 1: Management options proposed for Elephant fish in ELE5

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status Quo)	157	140	5	5	7
Option 2 (MPI preferred option)	188.5	170	5	5	8.5
Option 3	230.5	210	5	5	10.5

MPI rationale for increasing the TACC

20. MPI rationale for reviewing elephant fish 5 includes:

- Catch per unit effort and commercial catch is increasing.
- Commercial landings have exceeded the TACC but it appears that abundance may have increased at current harvest levels (averaging 180 t a year over the last 5 years).
- Elephant fish is a bycatch in the inshore trawl and setnet fisheries.
- Indications that elephant fish range has expanded and they are being caught in areas that they were once seldom seen.

Submission for ELE5

21. It is worth noting that there is no estimate of current stock biomass or the stock biomass that would support maximum sustainable yield. It is possible that commercial catch rates (CPUE) track trends in stock abundance, but there is a need to be cautious when making that assumption, especially with bycatch species. MPI point to this uncertainty stating "*Some caution should be applied as the CPUE index is based on a relatively small dataset and, consequently, contains some uncertainty (as can be seen by the large confidence intervals in Figure 1.2). It is also likely that dumping and management changes in this fishery have biased the CPUE trends for this fishery. In particular, it is likely that actual catch is higher than reported. If discarding practices have changed with changes in stock abundance or market trends, the real CPUE trend could change. However, MPI is not able to quantify the extent of this bias*".

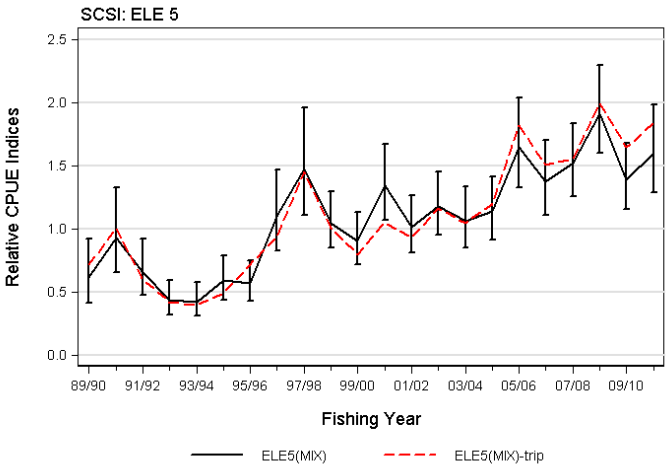


Figure 1: Standardised catch per unit effort for ELE5 from the mixed target species trawl fishery.

22. There are two periods when CPUE increases (Figure 1). These are 1996 to 1998, when annual commercial landings were about 75 t, and 2005 to 2006, when landings were 147 t. Since 2006 CPUE has effectively been flat, though landings have increased. MPI must acknowledge that CPUE has not increased for the last 6 years with annual catch around 180 t per year. Therefore it is wrong for MPI to state that there is a "*continuously increasing trend in CPUE*" (Para 24).

23. Professor Ray Hilborn stated at public meetings last year that catch data alone does not reveal what is happening to stock abundance. To get a real measure of relative abundance MPI will need to monitor changes in abundance using CPUE or fishery independent surveys.

24. There is no minimum legal size for elephant fish and the Ministry acknowledges that there is illegal discarding of small fish. Changes is fisher behaviour may have influenced the rate of discarding and therefore the reliability of CPUE as a measure of relative abundance

25. It is the New Zealand Sport Fishing Council's view that there is limited information, other than catch data, to support an increase in TACC. There may be a legitimate bycatch issue to address, but the sustainability of other stocks in the mixed target fishery also needs to be considered as per s9, Environmental Principles of the Fisheries Act 1996.

26. The Minister's decision must include a commitment to monitor CPUE, collect biological parameters from shed sampling, and use observer coverage to quantify current discard rates. The introduction of a minimum legal size needs to be discussed in the Final Advice Paper to the Minister.

27. NZSFC supports the FMA3 and FMA5 Recreational Fishing Forum proposal to increase the daily bag limit to 10 elephant fish within the mixed finfish bag limit of 30.

B. Proposal to increase Total Allowable Commercial Catch for Dark Ghost Shark in GSH2 & GSH8

Proposals

Table 2: Management options proposed for Dark Ghost Shark in GSH2.

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status quo)	66	66	0	0	N/A
Option 2 (MPI preferred option)	100	90	0	0	10

Table 3: Management options proposed for Dark Ghost Shark in GSH8.

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status quo)	22	22	0	0	N/A
Option 2 (MPI preferred option)	39	35	0	0	4

Submission for GSH 2 & 8

28. NZSFC does not have any information on the recreational catch of dark ghost shark. However, tarakihi are a popular target species in FMA2 and FMA8 so some bycatch can be expected. Recreational harvest estimates are in the region of 200 t for TAR2 and 30 t for TAR8. If the GSH TAC is revised then a nominal allowance must be made to 'allow for' non-commercial catch within that TAC, as per s21 of the Fisheries Act 1996.

29. If the TAC is revised an allowance must be made for fishing-related mortality where it is known to occur. We assume small dark ghost shark have no market value and are discarded.

30. As stated above, where there is limited information, other than catch data, to support an increase in TACC the Minister needs to be precautionary. There may be a legitimate bycatch issue to address, but the sustainability of other stocks in the mixed target fishery also needs to be considered as per s9, Environmental Principles of the Fisheries Act 1996. .

31. To be sustainable, the Minister's decision must include a commitment to split catch by species, collect biological parameters from shed sampling, and use observer coverage to quantify current discard rates. The introduction of a minimum legal size needs to be discussed in the Final Advice Paper to the Minister.

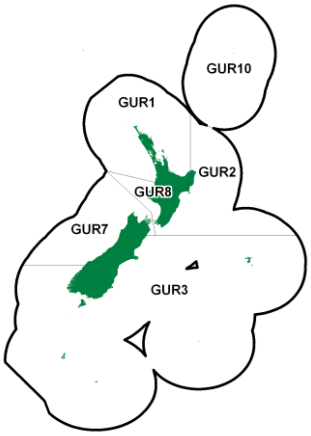
C. Proposal to increase Total Allowable Commercial Catch for Red Gurnard in GUR3

Background

32. Red gurnard is a fast growing, moderately short lived species, with a maximum age of sixteen years old, they reach sexual maturity at two to three years old, at a length of about 23cm. Due to the fast growth rate and short lifespan of red gurnard, fluctuations in recruitment can result in some fluctuation in stock biomass.

33. GUR 3 is largely a bycatch of bottom trawling targeting flatfish, red cod and barracouta. Some are also taken in the target tarakihi and giant stargazer bottom trawl fisheries. The level of targeting GUR 3 is low, averaging less than 10% of the total landed catch since 1989/90.

34. Reported catches of GUR 3 have exceeded the TACC of 900 tonnes for the last two years. Prior to that, catches had exceeded the TACC of 800 tonnes for five of the previous six years; averaging 948 tonnes for the last six years and 932 tonnes for the last four years



Proposals for GUR3

Details for red gurnard in GUR3

35. MPI proposes the following options for the total allowable catch (TAC), total allowable commercial catch (TACC) and associated allowances (Table 4).

Table 4: Management options proposed for red gurnard in GUR3.

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status quo)	953	900	3	5	45
Option 2	1058	1000	3	5	50
Option 3 (MPI preferred option)	1163	1100	3	5	55

MPI rationale for increasing the TACC

- CPUE is rising indicating relative abundance of GUR 3 is increasing.
- Catch at age data suggest that there are some relatively strong year classes.
- Landed catch has exceeded the TACC of 900 tonnes for the last two years.

Submission for GUR3

36. NZSFC accepts that CPUE data indicate that abundance has increased under current catch in GUR3, which has averaged 945 t in the last 5 years. The east coast South Island winter research trawl index for gurnard in part of GUR3 was also higher in the late 2000s.

37. As with elephant fish and ghost shark, there is no size limit for red gurnard and MPI and stakeholders acknowledge there is illegal dumping of quota species that are below "market" size (about 30 cm). In the interests of sustainability, the Ministry and fishing industry must do more to quantify the proportion of small fish in the catch and take measures to reduce the amount of fish that is wasted by illegal dumping. Trials with square mesh (T90) in trawl nets have been successful in reducing the unwanted catch and waste of small gurnard in Hawke Bay.

38. NZSFC supports the FMA3 and FMA5 Recreational Fishing Forum's view, that increasing the TACC will hasten the inevitable decline in gurnard abundance. What goes up must come down. MPI must also consider the sustainability of other stocks in the mixed target fishery. The high mortality of tarakihi in TAR3 is of concern. Increasing the gurnard TACC to 1100 t will increase trawl effort off the east coast of the South Island, leading to higher mortality rates for other species. This increased mortality needs to be taken into account when setting the TAC and TACC in GUR3.

D. Proposal to increase Total Allowable Commercial Catch for Red Gurnard in GUR7

Details for red gurnard in GUR7

39. MPI proposes the following options for the total allowable catch (TAC), total allowable commercial catch (TACC) and associated allowances (Table 5).

Table 5: Management options proposed for red gurnard in GUR7

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status quo)	759	715	10	20	14
Option 2	818	750	10	20	38
Option 3 (MPI preferred option)	855	785	10	20	40

MPI rationale for increasing the TACC

- The research trawl survey index in 2011 was above the long term mean.

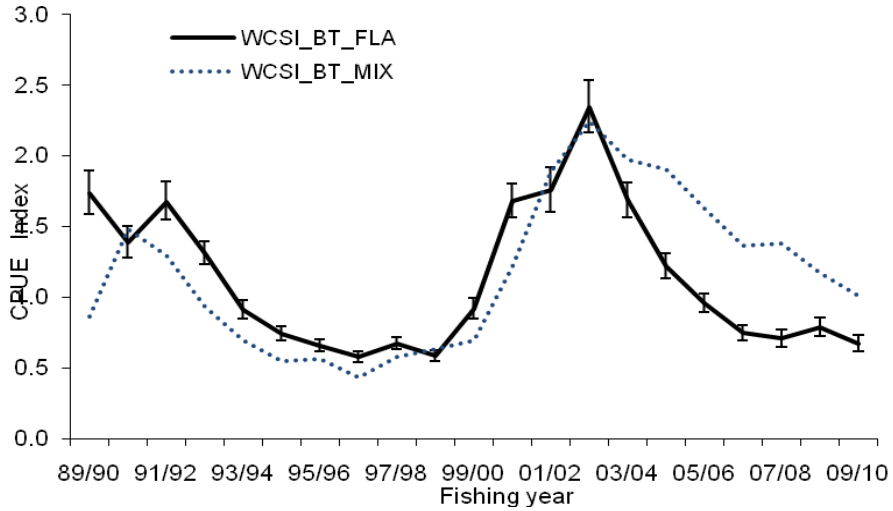


Figure 2: Standardised catch per unit effort for GUR7 from the mixed target species trawl fishery and the flatfish target trawl fishery.

Submission for GUR7

40. NZSFC does not accept that the 2011 trawl survey estimate of biomass is sufficient evidence to warrant an increase in the TACC at this time. The total gurnard biomass in GUR7 estimated in the trawl survey in 2011 was 1070 t. The MPI preferred option would see 80% of that caught each year.

41. The trawl index shows a sharp increase from 2009 to 2011, which is not supported by any other information. In fact the commercial catch in GUR7 in 2010-11 (545 t) was the lowest it has been in 10 years and 25% below the current TACC.

42. A recent analysis of CPUE showed a different trend between the West Coast South Island and the Tasman/Golden Bay area. Nether index showed the marked increase after 2009 that the trawl survey estimated. In fact, the West Coast South Island index was near a historic low in 2009–10 (Figure 2).

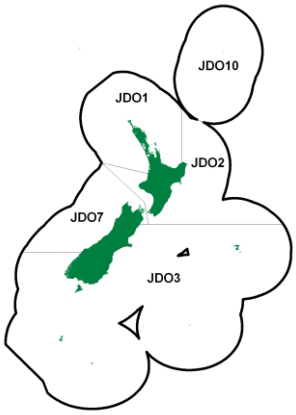
43. MPI must also consider the sustainability of other stocks in the mixed target fishery including snapper in SNA7, which is struggling to rebuild.

44. The New Zealand Sport Fishing Council strongly objects to any TAC or TACC increase in GUR7 at this time.

E. Proposal to increase Total Allowable Commercial Catch for John Dory in JDO7

Background

45. John dory is a fast growing, relatively short lived species, with an estimated maximum age of about twelve years. They reach 12 to 18cm after the first year, and become sexually mature at an age of three to four years and a length of 25-35cm.



46. These characteristics mean John dory populations can fluctuate widely as a result of fluctuations in recruitment.

47. Large fluctuations in stock biomass can provide opportunities for increased utilisation when consecutive strong year classes appear in the population.

Large fluctuations in stock biomass also means management measures are required to rapidly reduce catches at times of persistent low recruitment.

Proposals for JDO7

48. MPI proposes the following options for the total allowable catch (TAC), total allowable commercial catch (TACC) and associated allowances (Table 6).

Table 6: Management options proposed for John dory in JDO7.

Option	Allowances				
	TAC (t)	TACC (t)	Customary Māori (t)	Recreational (t)	Other sources of fishing related mortality (t)
Option 1 (Status quo)	131	125	1	2	3
Option 2	147	137	1	2	7
Option 3 (MPI preferred option)	161	150	1	2	8

MPI rationale for increasing the TACC

- The research trawl survey index has increased since 2007 and was above the long term mean in 2011.
- The commercial fishers asked for an increase.

Submission for JDO7

49. NZSFC accepts that the 2011 trawl survey estimate of biomass has increased, but the long term mean has been dragged down by some very low estimates in the 1990s increase in the TACC at this time. The useful trend in abundance from this survey is from 2003. The wide error bars indicate that the survey biomass estimates are not very precise. The point estimate for the total biomass in JDO7 estimated in the trawl survey in 2011 was 378 t. The MPI preferred option would see 43% of that caught each year.

50. NZSFC supports option 1, the status quo in JDO7 as there is insufficient information from the research trawl survey estimates to show that an increase in biomass since 2003 is statistically significant.

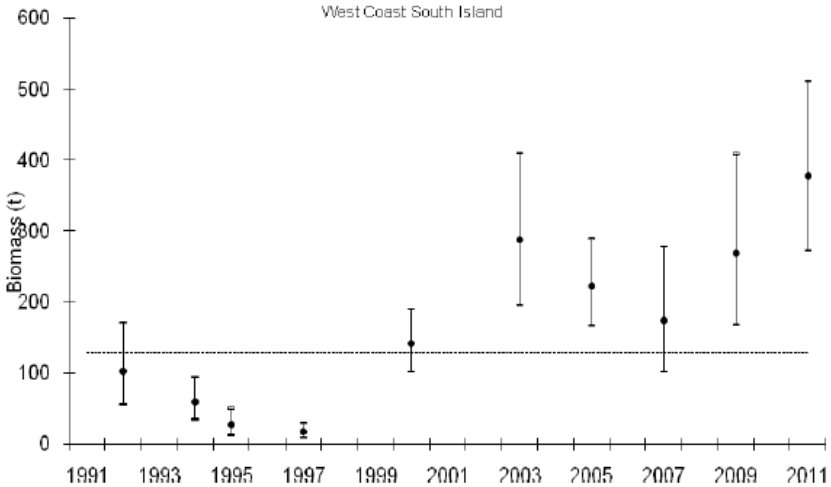


Figure 3: Total biomass estimates for John dory in JDO7 from biannual research trawl surveys.