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Sustainability Review 2021
Fisheries Management
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Proposal to increase the Total Allowable Commercial Catch for Elephant Fish in ELE 7 for 2021/22

Recommendations

The Minister –

1. Supports Fisheries New Zealand option 1 in retaining the status quo in Elephant 7 (ELE 7).
2. Directs Fisheries New Zealand to monitor commercial catch, collect biological parameters from shed sampling, and use observer coverage or cameras to quantify discard rates.
3. Applies a minimum legal size to the commercial catch of elephant fish.

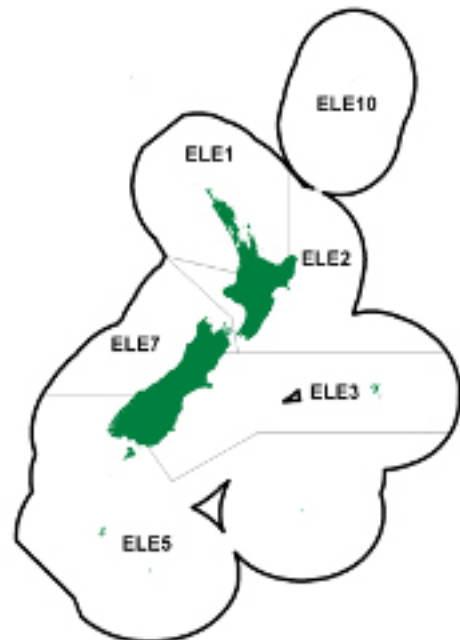
The submitters

4. The New Zealand Sport Fishing Council (NZSFC) appreciates the opportunity to submit on the proposals for the future management of Elephant fish 7 (ELE 7) for 2021/22. Fisheries New Zealand (FNZ) advice of consultation was received on 9 December 2020, with submissions due by 5 February 2021.
5. The NZ Sport Fishing Council is a recognised national sports organisation of 55 affiliated clubs with over 36,200 members nationwide. The Council has initiated LegaSea to generate widespread awareness and support for the need to restore abundance in our inshore marine environment. Also, to broaden NZSFC involvement in marine management advocacy, research, education and alignment on behalf of our members and LegaSea supporters. www.legasea.co.nz.
6. The New Zealand Angling and Casting Association (NZACA) is the representative body for its 35 member clubs throughout the country. The Association promotes recreational fishing and the camaraderie of enjoying the activity with fellow fishers. The NZACA is committed to protecting fish stocks and representing its members' right to fish.

7. The Marlborough Recreational Fishers Association (MRFA) is a body of recreational anglers whose principal function is to represent the interests of local recreational fishers. Their membership is largely drawn from residents in Blenheim and the Marlborough Sounds. The MRFA is an affiliate club of the New Zealand Sport Fishing Council.
8. Collectively we are *'the submitters'*. The joint submitters are committed to ensuring that sustainability measures and environmental 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].
9. Our representatives are available to discuss this submission in more detail if required. We look forward to positive outcomes from these reviews and would like to be kept informed of future developments. Our contact is Helen Pastor, secretary@nzsportfishing.org.nz.

Background

10. 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, this results in large variations in catches between years.
11. 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.
12. 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. Despite concerns about the numbers of juveniles captured and returned to the water, release mortality is unknown.



FNZ Proposals

Details for elephant fish in ELE 7

13. Fisheries New Zealand (FNZ) propose 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 ELE 7.

Option	TAC	TACC	Allowances		
			Customary Māori	Recreational	All other mortality caused by fishing
Option 1 (<i>Status quo</i>)	127	102	5	10	10
Option 2	138 ↑ (11 t)	112 ↑ (10 t)	5	10	11 ↑ (1 t)

FNZ rationale for increasing the TACC

14. Fisheries New Zealand (FNZ) rationale for reviewing Elephant fish 7 includes:

- Recent catch per unit effort and commercial catch is increasing.
- Current information is that elephant fish are at or above the proxy target CPUE.
- Trawl survey data is unreliable but may show an increase in recent years.
- Commercial landings occasionally exceed the TACC.
- Elephant fish is a bycatch in the inshore trawl and setnet fisheries.

Submission

15. Elephant fish are important catch for shore based and small craft fishers around the South Island. They are not a sport fish, people target them for food to feed their families. Elephant fish stocks must be maintained at an abundant level to ensure the availability of fish to those people fishing inshore.
16. The level of discarding of elephant fish is unknown however, we know from previous compliance reports that discarding is a common practice. This is a highly offensive waste of edible food and detrimental to the overall health of the marine ecosystem. More effort and resources such as electronic monitoring, cameras and observers must be applied to monitoring the discard of these taonga, treasured species.
17. 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 trawl catch rates (CPUE) track trends in stock abundance however, there is a need for Fisheries New Zealand and the Minister to be cautious when making that assumption, especially with bycatch species such as ELE and that there are such high levels of discarding.
18. The submitters have developed the Rescue Fish policy package as an alternative to the Quota Management System. Rescue Fish seeks to rebuild depleted fish stocks and restore biodiversity. To achieve those outcomes mobile, bottom contact bulk harvesting methods such as trawling and dredging will be prohibited from the inshore zone. In the interim, this submission supports the status quo as the more conservative option of the two proposed by Fisheries New Zealand for managing the TAC.

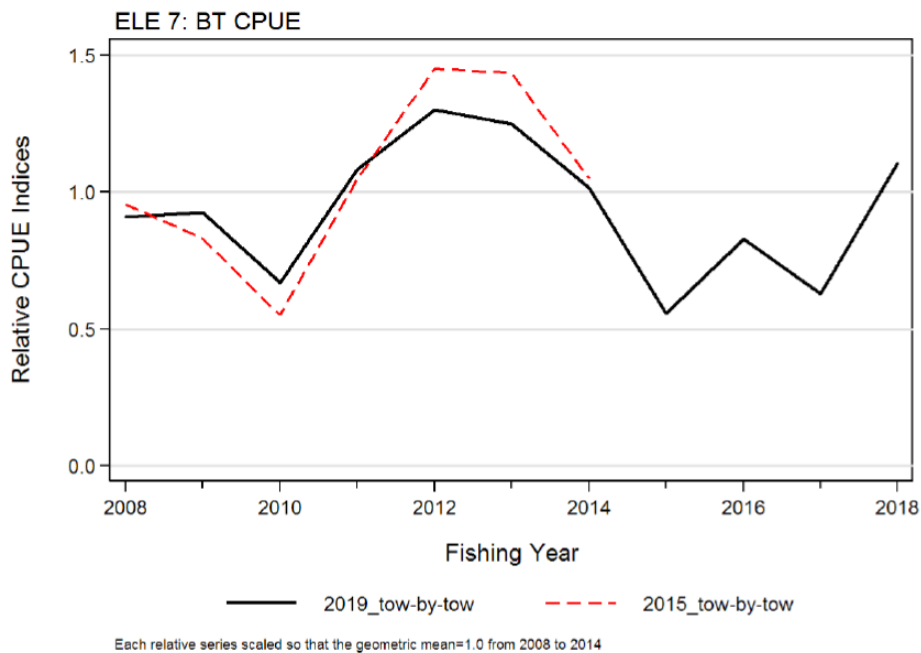


Figure 7. Standardised delta-lognormal CPUE indices for the ELE 7 inshore WCSI trawl fishery based on tow-by-tow TCER data. Two index series are presented: the updated 2019 series and the previously accepted 2015 series. Both sets of indices are normalised to the comparable time period (2007–08 to 2013–14).

19. The CPUE update that FNZ use to support the proposed Total Allowable Commercial Catch (TACC) increase only reflects recent trends in commercial trawl catch rates. Our concern is that there is only one year in the last 4 years in this series that is at or above the average (1.0 on the right hand side of Figure 7 in the ELE plenary report). While fishers may have avoided ELE or illegally discarded fish in some years, in 2015 and 2016 landings in ELE 7 were well below the TACC. It is clear that these data do not show increasing CPUE or stock biomass since 2007-08, nor are they convincing that CPUE was (or is currently) above the proxy target.
20. The trawl surveys do not provide reliable estimates of elephant fish biomass, in part because these fish are often in shallower water that has not – until recently – been included in the West Coast South Island Trawl Surveys. Table 6 in the Elephant fish plenary report shows that ELE 7 biomass estimates from 2015 and 2017 in the core area are some of the lowest since 1992 and well below the long-term average. These data do not provide convincing evidence of increasing abundance.
21. Professor Ray Hilborn has often stated that catch data alone does not reveal what is happening to stock abundance. We share his concerns and they are particularly relevant for elephant fish because:
 - a. There is no minimum legal size for elephant fish;
 - b. The Ministry acknowledges that there is illegal discarding of small fish; and
 - c. Changes in fisher behaviour may have influenced the rate of discarding and therefore the reliability of CPUE as a measure of relative abundance and increased landings.
22. The discarding of elephant fish, particularly the wholesale discarding of juveniles, is a major concern given that they are what will sustain the fishery in the future.
23. There is there is limited information to support an increase in the TACC for Elephant fish 7 therefore we recommend the Minister:
 - a. Retains the status quo, FNZ option 1; and

- b. Directs Fisheries New Zealand to –
 - i. monitor commercial catch;
 - ii. collect biological parameters from shed sampling;
 - iii. use observer coverage or cameras to quantify discard rates; and
 - iv. provide advice on the introduction of a minimum legal size to apply to the commercial catch of elephant fish.