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Submission: We support the exemption to allow Pacific bluefin tuna that are caught by surface longline and troll and are in good condition to be released or returned to the sea.

Recommendations

1. That Pacific bluefin tuna over 200 kg are assessed in the water and the line cut if the fish is to be released, to maximise the chance of the fish's survival.
2. That Pacific bluefin tuna bleeding from the gills are retained, because fish that are gut or gill hooked have a lower chance of survival on release.

The submitters

3. The New Zealand Sport Fishing Council (**NZSFC**) appreciates the opportunity to submit on the proposed landing exception for Pacific bluefin tuna. Fisheries New Zealand (**FNZ**) advice of consultation was received on 8 January, with submissions due by 9 February 2024.
4. The New Zealand Sport Fishing Council is a recognised national sports organisation of 50 affiliated clubs with over 36,700 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. Together we are *'the submitters'*.
5. The 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]

- 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

- Pacific bluefin tuna are highly migratory species, meaning they swim long distances and move between different countries' jurisdictions and the high seas. Pacific bluefin tuna are managed as a singular stock throughout the Pacific Ocean, with the management of the species overseen jointly between the Western and Central Pacific Fisheries Commission (**WCPFC**) and the Inter-American Tropical Tuna Commission (**IATTC**).
- The Pacific bluefin tuna New Zealand catches were highest in the 2022/2023 October fishing year. The increased catches are likely the result of an increased abundance of the stock.
- To support the ongoing rebuild of the stock and enable fishers to manage their catches of Pacific bluefin tuna, FNZ received a request, including from NZSFC, to assess whether the live return of Pacific bluefin tuna meets the new relevant provision under section 72A of the Fisheries Act.
- In the last three complete October fishing years (2020/21 to 2022/23), 99% of Pacific bluefin tuna was taken as bycatch by surface longline vessels targeting other species of tuna and swordfish, with minor bycatches (1%) reported from midwater trawl and set net.
- In the last decade, commercial catches of Pacific bluefin tuna have significantly increased, from a low of 12 tonnes in 2013/14 to a high of 103 tonnes in 2022/23 (Figure 1).

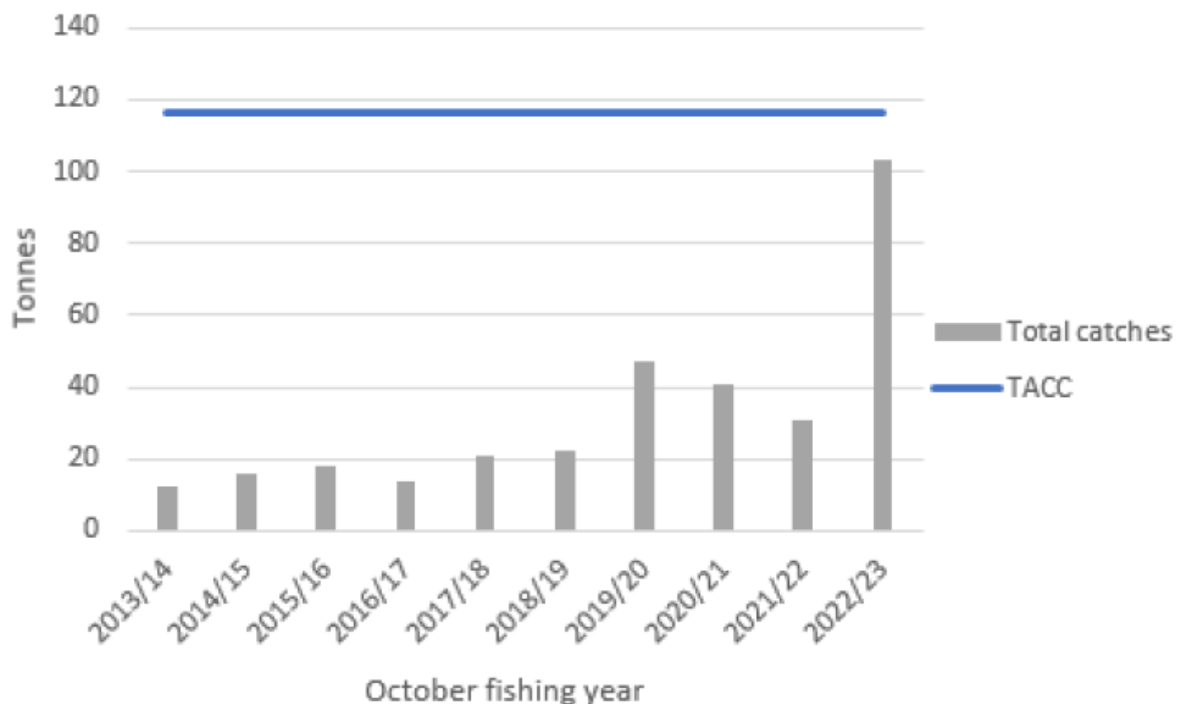


Figure 1: The TACC and total commercial catches of Pacific bluefin tuna in the last 10 years.

12. Reviews of the international Pacific bluefin tuna population show biomass increases are a result of a decline in fishing mortality, particularly for juvenile fish (aged 0 to 3). However, the global stock is estimated to be about 10% of the estimated unfished biomass for the species and is considered overfished by the WCPFC. Given the status of the stock, WCPFC recommends members take a precautionary approach to stock management for Pacific bluefin tuna.
13. Currently, the TACC for Pacific bluefin tuna (116 t) is set above New Zealand’s national limit set by the WCPFC (63.23 t). However, FNZ is planning to review the domestic catch settings as part of the October 2024 sustainability round to address alignment with the WCPFC catch limit.

Table 1: Recreational and customary non-commercial allowances, TACC, and TAC (all in t) for Pacific bluefin tuna.

Fishstock	Recreational allowance	Customary non-commercial allowance	Other mortality	TACC	TAC
TOR 1	25	0.50	3.5	116	145

Proposals for Pacific bluefin tuna

14. FNZ proposes that an exception is provided under section 72A(2)(a) of the Fisheries Act, to allow commercial fishers to return live Pacific bluefin tuna caught by surface longline and troll to the sea.

Discussion

Survivability

15. NZSFC has been involved in meetings reviewing the survivability of large pelagic fish if released alive by commercial fishers. The submitters support the conclusion that Pacific bluefin tuna are considered a relatively hardy species and have a ‘high’ likelihood of post release survival, if they don’t have any major injuries, when caught by surface longline or troll.
16. Large Atlantic bluefin tuna caught by line fishing after long fight times have a high survival rate as shown by extensive electronic tagging studies. The Tag-A-Giant programme has been running for 25 years and tagged over 3000 tuna including Atlantic and Pacific bluefin <https://www.tagagiant.org/>.
17. A joint tagging programme with Tag-A-Giant, Stanford University, University of Auckland and Blue Water Marine Research deployed pop-off satellite archival tags on large Pacific bluefin off Greymouth and Hokitika. A total of 45 tuna were tagged over three seasons (2006=9, 2007=15, 2008=23). Estimated fish weights ranged from 190-425 kg (265.3 ± 51.5). Elapsed time from hookup to release ranged from 15 – 195 minutes (73.6 ± 45.3). Tags remained attached for 13-180 days (103.6 ± 51.2) before releasing and transmitting. Three tags were subsequently recovered after washing up on beaches. No mortality events post release were recorded by the tags, but transmissions were not received from six tags. (Figure 2)

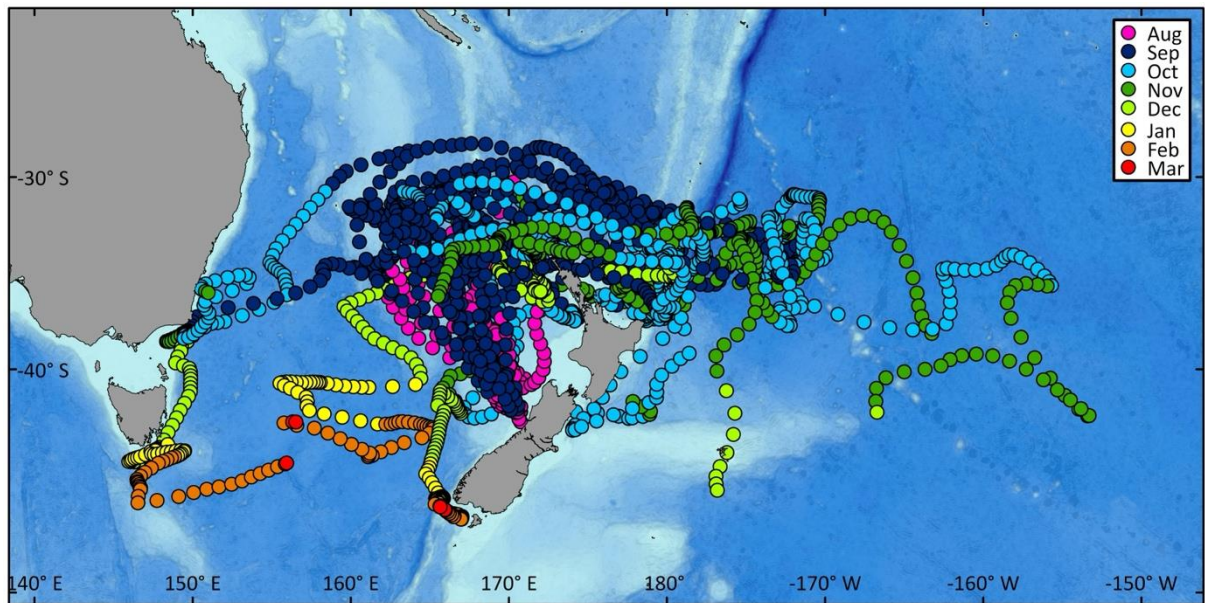


Figure 2: Estimated locations of all Pacific bluefin tuna from pop-up satellite archival tag data by month. Fish tagged in 2007, 2008 and 2009.

18. The tuna that were tagged were mostly caught amongst the hoki trawl vessels in August and September. These were post spawning fish and attempts to catch and export these fish by commercial fishers had earlier failed due to the poor condition (low fat content) at that time of year. The small schools of tuna were obvious on the depth sounder around the hoki boats, and when the net surfaced the tuna were seen feeding on the surface along with the seals and seabirds. There was a good recreational fishery at the time, mostly from large charter boats that attracted local and international anglers. It has been more than ten years since these large tuna have been seen or caught in any substantial number around the hoki fleet.

Conditions

Table 2: Fisheries NZ proposed conditions for the permitted return of live Pacific bluefin tuna caught by surface longline and troll.

Conditions		Rationale
1	Fishers must determine that the Pacific bluefin tuna is 'alive' and without obvious major external injuries immediately prior to return to the water from which it was taken.	Pacific bluefin tuna initially assessed as alive, but not returned to the water immediately, may subsequently decline in vitality. Pacific bluefin tuna displaying major external injuries (large open wounds, major bleeding, internal organs visible) must not be returned.
2	Pacific bluefin tuna may be returned to the waters from which it was taken if the return occurs as soon as practicable after it was taken.	Excessive exposure to air, sunlight and temperature (time out of water) produces physiological stress that reduces post-release survival.

19. It is encouraging that juvenile Pacific bluefin tuna are in now in New Zealand waters in reasonable numbers. These fish could be bought onboard to assess their condition, confirm the species, and remove the hook. To maximise the chance of the fish's survival, **the submitters**

recommend that tuna over 200 kg are assessed in the water and the line cut if the fish is to be released.

20. **The submitters also recommend that Pacific bluefin tuna bleeding from the gills are retained.**
A fish may have been hooked in the gills but the hook pulled out when the weight came on and then hooked in the jaw. Fish across all species that are gut or gill hooked have a lower chance of survival on release and ought to be retained.
21. **The submitters agree** that Pacific bluefin tuna that are caught by surface longline and troll and are in good condition can be released or returned to the sea.