

The western and central Pacific tuna fishery: 2010 overview and status of stocks

The western and central Pacific tuna fishery, encompassed by the Convention Area of the Western and Central Pacific Fisheries Commission, is the world's biggest tuna fishery.

Fishing ranges from small-scale, artisanal operations in the coastal waters of Pacific states, to large-scale industrial purse-seine, pole-and-line and longline operations in the exclusive economic zones of Pacific states as well as in international waters (high seas).

Using detailed fisheries and biological data, some going back to the 1950s, SPC's Oceanic Fisheries Programme scientists have assessed the trends and current stocks of the four tuna species mainly targeted by fishers:

- skipjack tuna (*Katsuwonus pelamis*)
- yellowfin tuna (*Thunnus albacares*)
- bigeye tuna (*T. obesus*)
- south Pacific albacore tuna (*T. alalunga*)

Data identified as 'provisional' will be revised once we have received and processed all data for 2010.

Key messages and recommendations

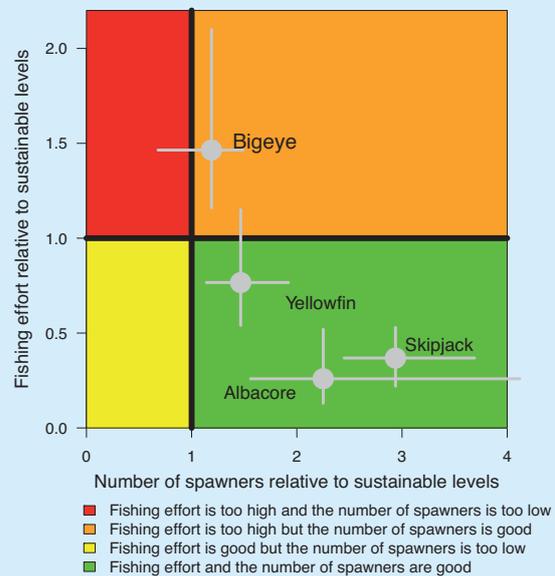
The western and central Pacific tuna fishery is in the best shape of all the tuna fisheries in the world. On a scale of 1–10, it is estimated as 6–7, a green traffic light that is in the process of turning yellow.

Overfishing of bigeye tuna continues, i.e. fishing effort is too high. The bigeye spawning population is also the most heavily impacted of the four tuna species. Though the species is not at risk of extinction, and is never likely to be, fishing effort needs to be reduced.

Yellowfin, skipjack and south Pacific albacore stocks are being fished at moderate levels, and stocks are reasonably healthy. This does not mean that there is potential for higher catches. Responsible management is needed to maintain profitable fisheries and food security. Now is the time to think about limiting catches (or fishing effort) at around the current levels.

Recommendations

- ✓ Reduce **bigeye** fishing effort by at least 32% from the average levels for 2006–2009 to ensure long-term sustainability.
- ✓ Limit **yellowfin** fishing effort in the western equatorial Pacific to around current levels.
- ✓ Consider developing limits on **skipjack** fishing to keep this critically important stock at healthy levels, to get the best economic returns from the fishery, and to provide food security to Pacific Island communities.

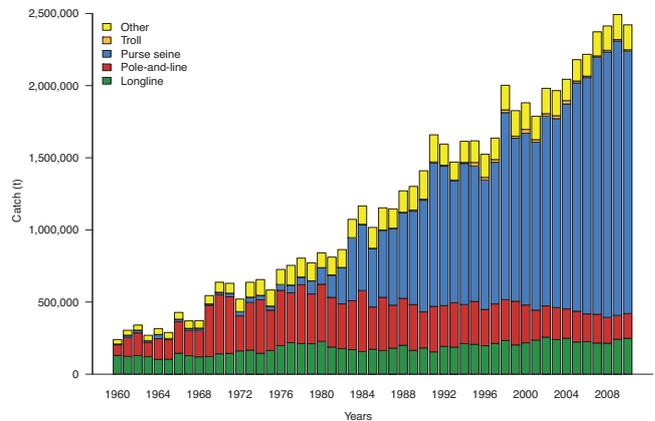


Tuna catch – 2010 second highest on record

The provisional total tuna catch for 2010 is:

- 2,421,113 tonnes (t)
- the second highest annual catch recorded
- 71,673 t lower than the 2009 record (2,492,786 t)
- 83% of the total Pacific Ocean catch (2,911,918 t)
- 60% of the global tuna catch (4,017,600 t, provisional)

Over the history of the fishery, there has been an upward trend in total tuna catch, mainly due to increases in purse-seine fishery catches since the 1980s.



Catch by gear



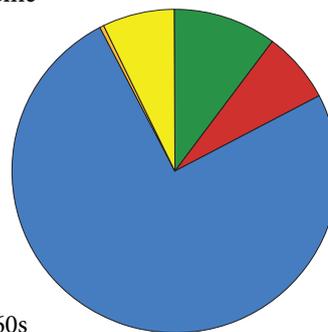
Third highest catch for purse-seine behind 2009 and 2008



Second highest catch in the past 10 years; 8% lower than the 2002 record (256,582 t)



Slightly higher than 2009; second lowest annual catch for pole-and-line since the mid-1960s



2010 catch by gear

Longline	248,589 t (10%)
Pole-and-line	171,597 t (7%)
Purse-seine	1,818,255 t (75%)
Troll	182,672 t (8%)
Other	

TOTAL: second highest on record

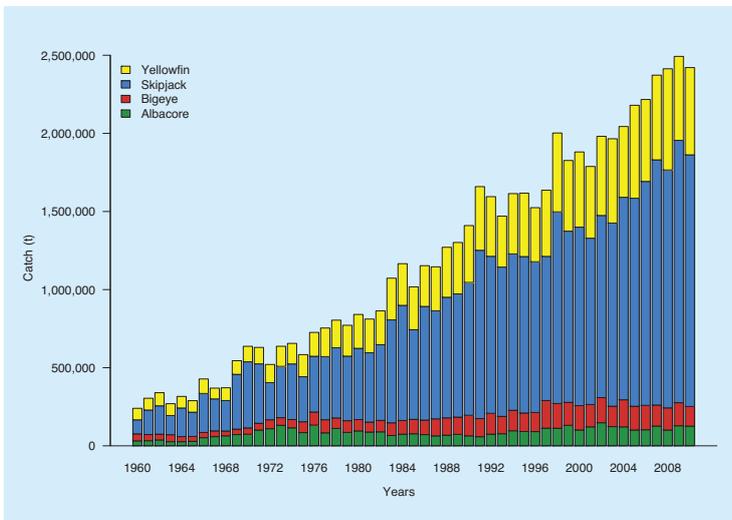
2010 longline catch by species

Tuna species	Catch (t)	% of total longline catch	Observation
Skipjack			insignificant catch
Yellowfin	82,485 t	33%	highest since 1988, but includes catches by Vietnam (9,513 t) for the first time
Albacore	100,846 t	40%	highest on record; 9% higher than the previous high in 2009; 25% higher than the 2000–2009 average; driven by dramatic increases in southern Pacific catches
Bigeye	64,117 t (provisional)	26%	lowest since 1996, despite including catches by Vietnam (2,441 t) for the first time
TOTAL	248,589 t		second highest catch for longline in the past ten years; 8% lower than the 2002 record (256,582 t)

2010 purse-seine catch by species

Tuna species	Catch	% of total purse-seine catch	Observation
 Skipjack	1,381,070 t	76%	second highest on record after 2009
 Yellowfin	382,521 t	21%	third highest on record after the record 2008 catch (499,133 t)
 Albacore			insignificant catch
 Bigeye	54,356 t (provisional)	3%	lower than the recent five-year average; 27% smaller than the 2009 catch
TOTAL	1,818,255 t		third highest catch for purse-seine after 2009 and 2008

Catch by tuna species



Yellowfin: third highest on record



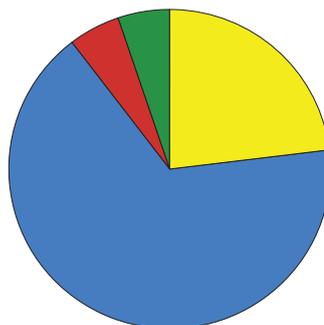
Skipjack: second highest on record after 2009



Bigeye: lowest since 1996



Albacore: fifth highest on record; highest ever catches on the southern Pacific stock (81,217 t)



2010 catch by species

	Yellowfin	558,761 t (23%)
	Skipjack	1,610,578 t (67%)
	Bigeye	125,757 t (5%)
	Albacore	126,017 t (5%)



skipjack

Skipjack

Skipjack fishing effort is within sustainable levels. The stock (by weight) is now down to about 60% of what it would be if there had been no fishing. The number of spawners is also within sustainable levels, but for this short-lived species, this situation can change quickly.

Because the stock is declining, if current catch levels continue we can expect individual daily catches and profitability to eventually decline.

Recommendation

Consider developing limits on fishing to keep this critically important stock at healthy levels, to get the best economic returns from the fishery, and to provide food security to Pacific Island communities.

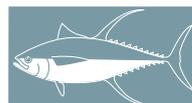


albacore

Albacore

Overall, fishing effort is within sustainable levels. The stock (by weight) has declined gradually over the duration of the fishery, but the abundance of spawners in the southern Pacific Ocean is still within sustainable levels.

Nevertheless, catches have increased in recent years and the longline fisheries in many Pacific Island countries are particularly vulnerable to further depletion of the stock and could see declines in individual vessel daily catches and profitability.



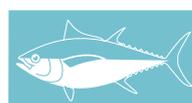
yellowfin

Yellowfin

Overall, yellowfin fishing effort is within sustainable levels. The stock (by weight) has declined gradually over the duration of the fishery, but the number of spawners is still within sustainable levels. While this is good news overall, the western equatorial Pacific, from which around 81% of the overall yellowfin catch is taken, is at least fully exploited, with no potential for increased catches.

Recommendation

Limit the number of yellowfin being caught in the western equatorial Pacific to around current levels.



bigeye

Bigeye

Fishing effort on bigeye tuna has been too high for several years and the number of spawners may already be below sustainable levels. The number of spawners is now only 23% of the level that would be expected if no fishing had occurred.

Recommendation

Reduce bigeye fishing effort by at least 32% from the average levels for 2006–2009 to ensure long-term sustainability.

For more information

Read the full report

Statistics presented in this article are complete to the end of 2010. They are presented and analysed in more detail in the full report, "The western and central Pacific tuna fishery: 2010 overview and status of stocks", which is available online in both English and French.

Visit: www.spc.int/oceanfish/

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