

WWF Recommendations

WWF recommends the followings for the recovery of Pacific Bluefin Tuna

For WCPFC and IATTC

- To agree Limit Reference Point and Target Reference Point for the Pacific Bluefin Tuna
- To adopt a long-term Pacific Bluefin Tuna recovery plan targeting at above the agreed Limit Reference Point by 2030
- To expand the target size of juvenile Pacific Bluefin Tuna conservation measures from the current under 30kg to under 85kg (in the size of which, it has closely grown to become adult Pacific Bluefin Tuna) and to introduce a catch limit for adult Pacific Bluefin Tuna
- To establish the Catch Documentation Scheme (CDS) for the thorough monitoring of Pacific Bluefin Tuna

For Market

- To establish the traceability of the Pacific Bluefin Tuna to eliminate the IUU products
- To support to sustain Pacific Bluefin Tuna fishery by the introduction of the rigorous recovery plans based on scientific advice and precautionary approach

Considering the extremely severe stock status of Pacific Bluefin Tuna, WWF believes that it is necessary to suspend Pacific Bluefin Tuna fishery unless the above conservation measures are agreed in 2016. As a responsibility of the major market for Pacific Bluefin Tuna, Japanese stakeholders are recommended to refrain from sourcing Pacific Bluefin Tuna until the implementation of the robust recovery plan based on the best available science and precautionary approach.

References

1. National Research Institute of Far Seas Fisheries, Fisheries Research Agency. 2011. Status of the international fishery stocks in 2013.
2. IATTC SAC, 2015, RECOMMENDATIONS BY THE SCIENTIFIC ADVISORY COMMITTEE, DOCUMENT, IATTC-89-04c.
3. ISC Fisheries Statistics website: http://isc.fra.go.jp/fisheries_statistics/index.html
4. Japan Fisheries Agency. 2015. Stock management of the Pacific bluefin tuna.
5. ISC PACIFIC BLUEFIN TUNA WORKING GROUP, 2016, 2016 Pacific Bluefin Tuna Stock Assessment, ISC16 Plenary Annex 9.
6. Mark N. Maunder, 2016, UPDATED ASSESSMENT AND MANAGEMENT OF PACIFIC BLUEFIN TUNA., IATTC SAC 7th meeting Document SAC-07-05d.
7. ISC PLENARY SESSION, 2016, REPORT OF THE SIXTEENTH MEETING OF THE INTERNATIONAL SCIENTIFIC COMMITTEE FOR TUNA AND TUNA LIKE SPECIES IN THE NORTH PACIFIC OCEAN.



Frozen tuna for auction at the Tsukiji fish market, Tokyo, Japan.

© Michael Günther / WWF-Carion



Sustainability



Current Situation of Pacific Bluefin Tuna and Stock Rebuilding

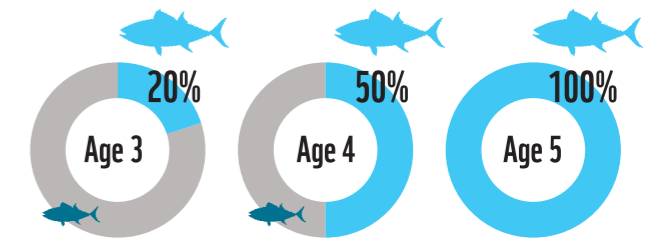


© Brian J. Sherr / National Geographic Stock / WWF

The stock status of Pacific Bluefin Tuna is now the most critically low. According to the latest report by the International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean (ISC), both the amount of resources and the level of recovery are becoming the lowest levels, through which fishery industries face difficulties to sustain themselves. Countries engaging in the fishing of Pacific Bluefin Tuna including Japan, the largest consumer, have a responsibility to implement the strict fishery management, aiming to ensure the recovery of Pacific Bluefin Tuna resources.

Ecology of Pacific Bluefin Tuna

The Pacific Bluefin Tuna (*Thunnus orientalis*) is mainly distributed in temperate zones in the North Pacific Ocean from 20 to 40 degrees north latitude (Fig. 1-2). Their spawning areas are located near the Nansei Islands (April to July) and the southwestern part of the Sea of Japan (July to August). They travel along the coast of Japan looking for food after hatching from eggs. When becoming about one year old, they travel across the Pacific. Then, they return to the sea area near Japan for spawning after spending a few years near the west coast of the Americas.¹ It takes three to five years for Pacific Bluefin Tuna to mature and reach spawning age.



Of these fish, 20% have reached adulthood by three years of age, 50% have by four years of age, and 100% have by five years of age.

Fig. 1-1 Ratio of age-specific adults²

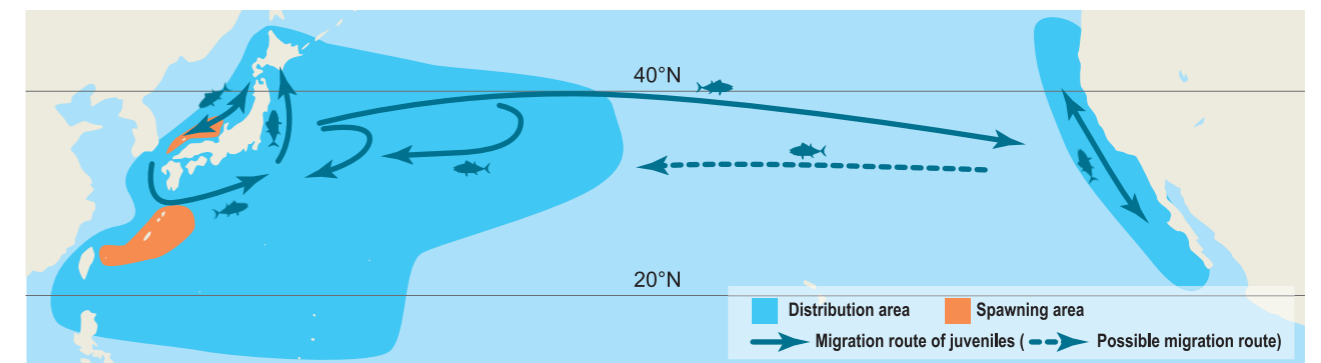


Fig. 1-2 Distribution, routes of migration, and spawning areas

Why we are here
To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony and nature.

For more information
Oceans and Seafood Group
Conservation Division
fish@wwf.or.jp
Tel: +81-3-3769-1718

WWF Japan
Nihonseimei Akabanebashi Bldg. 6Fl.
3-1-14 Shiba Minato-ku,
Tokyo 105-0014 Japan



Fishery of Pacific Bluefin Tuna

The catch of Pacific Bluefin Tuna was more than 35,000 tons during the peak period. However, it has decreased to around 15,000 tons in recent years (Fig. 2-1).³ Juveniles (younger than three years old) accounted for the most part of the catch, and this ratio has increased to about 97% (based on the number of fish) (Fig. 2-2).⁴ Most of Pacific Bluefin Tuna are caught by purse seine fishing carried out by Japanese, Mexican, and South Korean fishermen. Troll fishery, set-net fishery, and longline fishery on the coast of Japan are the other types of major fisheries targeting the Pacific Bluefin Tuna (Fig. 2-3).³

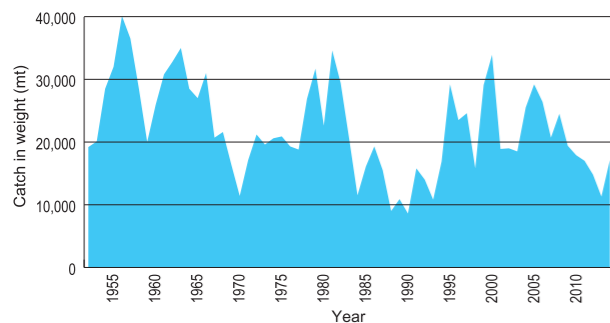


Fig. 2-1 Trend of catches (1952 to 2014)

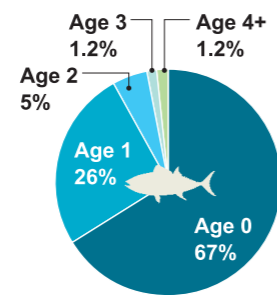


Fig. 2-2 Ratio of catch numbers by age (average from 2001 to 2010)

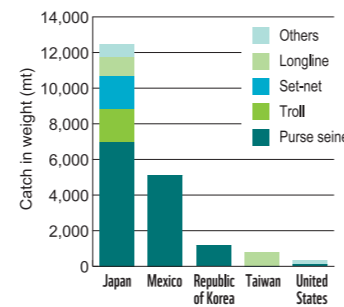


Fig. 2-3 Catches by country and fishing method (average from 2005 to 2014)

Regional Fisheries Management Organization (RFMO) related to the tuna species

The Western and Central Pacific Fisheries Commission (WCPFC) and the Inter-American Tropical Tuna Commission (IATTC) manage Pacific Bluefin Tuna in the western Pacific and the eastern Pacific, respectively (Fig. 3). The ISC and IATTC Scientific Advisory Committee (IATTC SAC) research and integrate scientific data and provide them to the WCPFC and IATTC.

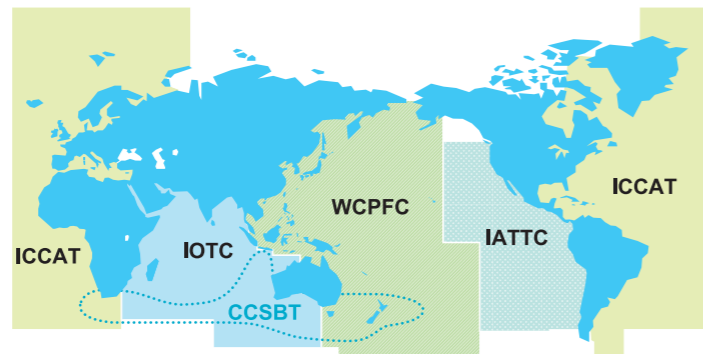


Fig. 3 Regional Fisheries Management Organizations (RFMO) for tuna and associated species



Pacific Bluefin Tuna schooling, Mexico



Fishermen's nets set out to corral Northern Bluefin Tuna during the migration.

Status of Pacific Bluefin Tuna Stocks

The latest stock assessment released by the ISC in July 2016 revealed that the amount of reproductive broodstock (spawning stock biomass) was around 17,000 tons, which had decreased to the 2.6% of spawning stock biomass at a hypothetical unfished level (SSBo). Furthermore, the amount of juveniles which will become targets for future fishing, varying from year to year, had decreased to approximately less than or equal to 20% of the peak time (Fig. 4).⁵ Meanwhile, the IATTC SAC held in May 2016 advised that the urgent consideration of the restriction of adult fish catches because the amount of the spawning stock biomass is critically low.⁶

Fishery regulations and future projection outlook

ISC reported that Pacific Bluefin Tuna stocks are being depleted and the stocks are continuously overcaught. Then, ISC warns that the unprecedented depletion of the Bluefin Tuna stocks is an extremely grave. ISC also advises that it should be essential to start working to introduce further strict measures to ensure the stock recovery even though the stock status seems to be slightly recovered.^{6,7}

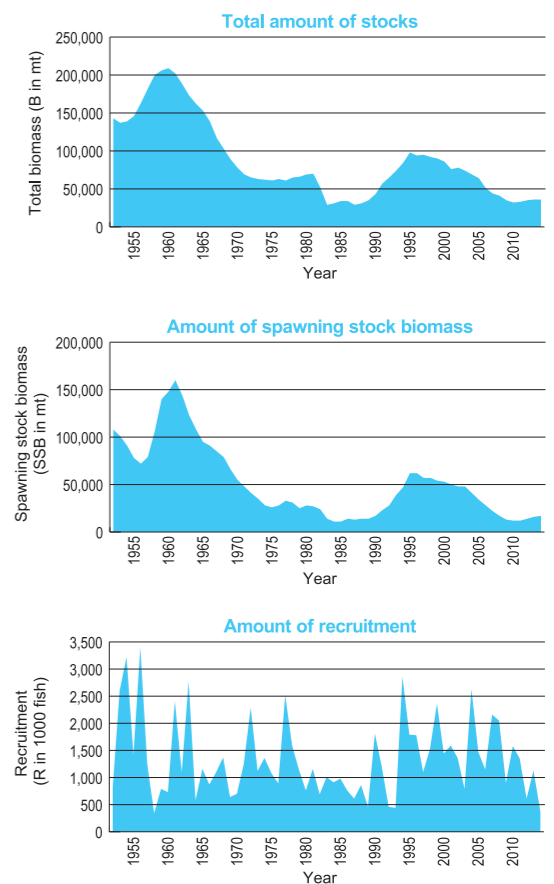


Fig. 4 Result of stock assessment by ISC (July 2016)

Stock Management

The conservation measures that the WCPFC adopted in 2014 was "to reduce the catch of juveniles and not to increase that of adults to rebuild the spawning stock biomass". On the other hand, the one that the IATTC adopted in the same year was "to reduce the annual catch limit" (Table 1).

Problems

Under the current low recruitment levels, the risk of spawning stock biomass falling below the historically lowest level is increasing. However, the conservation and management measures adopted in the WCPFC and IATTC are based on the preliminary recovery plan. Thus, a robust long-term recovery plan which targets at SSB_{0.20} or its equivalent, including conservation and management measures for both adults and juveniles, needs to be adopted in the WCPFC and IATTC. In addition, it is expected that fisheries management by means of reference points and harvest control rules to take action promptly and effectively based on pre-agreed management measures, and Catch Documentation Scheme (CDS) shall be immediately adopted.

Table 1 Conservation and management measures adopted in the WCPFC and IATTC

Year issued	Conservation and management measures
WCPFC 2015 (Adopted in 2014)	The catch of juveniles (age 0-3) shall be reduced by 50% and that of adults shall not be increased from the 2002-2004 average levels to rebuild the spawning stock biomass to the historical median (approx. 43,000 tons) within 10 years from 2015.
IATTC 2015 (Adopted in 2014)	During 2015 and 2016, total catches shall not exceed 6,600 tons, for an effective annual catch of 3,300 tons in each year.