

Retailers' guide to Sustainable and Equitable Pole and Line Skipjack

GREENPEACE



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Defending Our Oceans

Tuna in the can: wasteful and unfair

Global tuna fisheries, as presently conducted, are mostly unsustainable and inequitable. Tuna stocks throughout the global ocean are either overfished or being overfished; even those stocks that are still robust are being caught with methods that indiscriminately lay waste to a vast array of marine life.

The majority of the world's skipjack tuna used for canning is caught by purse seiners using fish aggregation devices (FADs). Levels of bycatch, which includes turtles, sharks and untargeted fish species as well as juvenile tuna, are especially high in purse seine fisheries and long-line fisheries. Although skipjack stocks are generally in a healthy state, and could be sustainably harvested at levels close to the current catch¹, the bycatch of yellowfin and bigeye juvenile tuna is a particular problem, as their removal intensifies overfishing of the adult population.

In addition, tuna resources are often harvested by fleets operated by companies from industrial fishing nations of the North, leaving very little of the economic and social benefits derived from the exploitation of tuna resources in the hands of coastal states². For example, the Pacific Island states receive on average a mere 6%³ of the USD 3 billion value of the tuna caught in their waters. Local fishermen find their once tuna-rich waters depleted; there are few jobs for local people, and as most of the catch is exported there are also food security issues.

Skipjack (*Katsuwonus pelamis*) accounts for over half the world's tuna catch. Most commonly sold in cans, it is the most popular tuna for consumption. It is highly migratory, prefers to swim in the upper mixed layers of the ocean, and can be found in tropical waters all over the world (mostly between 45° N and 40° S), where large schools sometimes mix with small yellowfin tuna and other marine life.

The most common method of catching skipjack is by purse seining, although other commercial techniques, such as pole and line, are also used. The scientific assessment is that skipjack are at least moderately exploited in all areas, and fully exploited in some areas, such as the Indian Ocean⁴.



A schoolgirl from Pohnpei displays tins of skipjack tuna.



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Catching tuna one by one

The pole and line method is a simple way of catching tuna with a hook and line attached to a long pole. The target species are surface-swimming tuna such as skipjack or albacore⁵. Fish are caught from free-swimming schools or around aggregation devices and seamounts. Schools of skipjack prefer to swim close to the ocean surface. Seeking prey continuously, they enter a 'feeding frenzy' when they find it.

When live bait is released into a school of skipjack, the hungry tuna display this same behaviour and will effectively bite anything that moves in the water - including the hook of a pole and line. Tuna can be caught one after another for as long as the feeding frenzy continues. The fish are usually landed within hours of catch, or stored in ice or frozen in brine on board the vessel if fishing far off shore.

Pole and line has the potential to be the cleanest and most environmentally-sound method of fishing skipjack. If conducted properly, its bycatch levels can be low, and because the fish are caught one by one the operation can be stopped at any stage if undersized fish are being hooked. In addition, the quality of fish caught in this way, if handled correctly, is much higher than that of fish caught by other methods, as every fish caught is brought on board alive. Finally, with pole and line fishing it is possible to catch only the amounts of tuna that can be adequately chilled, thus avoiding high-levels of histamine.

Pole and line is also usually a cheaper method of catching tuna than other commercial methods⁶.

As the tuna fishing operation itself is dependant on the availability of bait, the fishery actually consists of two separate fishing operations; one for the bait and one for the tuna. The bait fisheries usually take place in coastal waters near a beach or lagoon reef (or inside an atoll) in a water depth of around 4-20 metres. Small pelagic fish species, such as anchovies, sprats and casio, are common species. Because of the importance of small pelagic species to the food webs of coastal areas and the health of the coral reef ecosystem they are normally associated with, the sustainable management of the bait fisheries is an essential component of a sustainable and equitable pole and line tuna fishery.



Benefits for the coastal state and communities

The pole and line method, as opposed to purse seining for skipjack, is a traditional tuna fishing method well-suited for the use of coastal communities. It has the potential to create vast socio-economic benefits by providing fishing, processing and other related jobs such as boat-building and maintenance in coastal areas. As well as providing livelihoods it can also help meet local food security needs if fish is landed locally/regionally⁷ and a proportion of it is sold locally as instead of being shipped away by foreign vessels.

Maldives is one of the only developing coastal states to have allowed only a limited access to its EEZ for foreign fleets. The islanders have been catching tuna by the pole and line method for countless generations. At present, Maldives has a fleet of over 1000 pole and line vessels, employing over 20,000 fishermen and many more in boat-building, processing and other support roles. Locally-caught tuna provides the majority of the country's export earnings and provides much needed employment opportunities on the remote atolls of the Island Nation⁸.

Many coastal states, such as the Pacific Island Countries and states along the Atlantic and Indian tropical coasts, are in a prime position to develop a sustainable pole and line industry, benefiting local communities, instead of selling their resources cheaply to distant water fishing fleets. As has been the case in the Maldives, the accompanying employment benefits could help to fight poverty in the region, and provide livelihoods and income to local communities. To do this, they will however need assistance from market players in for example, building capacity and establishing conditions that meet the hygiene requirements of the global market place.

Ensuring long-term sustainable supply

Although the skipjack stocks themselves are not showing signs of overfishing, the stock status of some of the more restricted stocks is not clear, such as those found in the waters of Maldives⁹. It is therefore necessary for coastal states involved in this fishing method to establish clear tuna management plans and to determine a sustainable and economic limit to the number of vessels and effort levels in the fishery. They need to cooperate with the regional fisheries management organisation in sharing data and the management of the species. It is just as possible for small-scale fleets to overfish as it is for larger vessels.

Securing bait fish resources

Notwithstanding the selectivity of the method itself, the overall sustainability of a pole and line fishery also depends on the associated bait fishery. This is often where the coastal states fall short in having adequate monitoring and management plans in place to ensure the level of bait collected is sustainable. As the long-term success of the pole and line operations depend on the bait, it is of utmost importance that the conditions are set right for the operations and adequate management plans are in place.

Skipjack tuna are unloaded at a cannery where they are going to be processed.



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Avoiding all bycatch of depleted or endangered species

Although the dolphin, turtle and shark bycatch of the pole and line fisheries is assumed to be zero, a number of other fish species can still be hooked. The most significant one is small (juvenile) yellowfin tuna, which often associates with the same-sized skipjack. Given the decline of yellowfin in all oceans and the overfished status of these stocks, the catch of yellowfin would jeopardise the sustainability of these fisheries unless mitigated. If incentives are provided, and management restrictions introduced (especially legal landing limits and requirement to return juveniles live into the sea), the catch of yellowfin can largely be avoided. Fishermen who hook a yellowfin can let it go without causing harm to the fish. Fishing masters can furthermore avoid yellowfin-rich schools of tuna, in the same way that they are able to steer clear of schools that contain large amounts of young skipjack.

Use of fish aggregation devices (FADs)

Many pole and line skipjack fisheries, such as those in the Maldives, now use anchored FADs to find and retain schools of fish. Where FADs are used to increase the efficiency of operations, close monitoring is needed to ensure they do not increase the catch of non-target fish species, especially juvenile tuna. Studies have also indicated that FADs may lead into recruitment overfishing¹⁰. Extended stays at the floating objects, instead of free-swimming and search for prey, may also have other ecological impacts on feeding and other behaviours of the tuna.

The use of FADs in association with pole and line fisheries is much more selective than when associated with the use of purse seiners, which have high levels of bycatch of threatened species and juvenile tuna. Greenpeace is calling for a ban on FADs used by purse seiners.

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Support the Best Sustainable and Equitable Alternatives

Greenpeace is calling on retailers to switch to sources of pole and line skipjack tuna caught and processed (where possible) by coastal state operators as the most sustainable and equitable option for canned tuna.

Retailers should source sustainable and equitable tuna¹¹ through a transition towards local pole and line skipjack fisheries, ensuring the following:

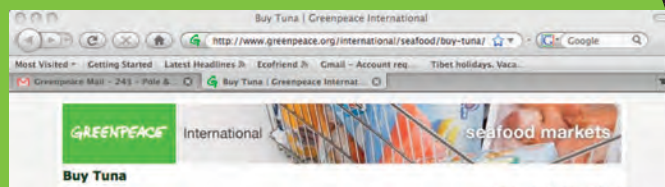
- Tuna does not come from stocks that are overfished or where overfishing is occurring and that the coastal state has an adequate management plan in place to limit the number of vessels and effort involved in the fishery to sustainable levels;
- Significant bycatch of yellowfin tuna or any other species¹² in association with the pole and line fishery is mitigated;
- If FADs are used, they are closely monitored and managed;
- The coastal state has an effective bait fish monitoring and management plan in place that avoids overfishing, bycatch and other negative ecosystem impacts; and
- The coastal state also works towards implementing an ecosystem approach to fisheries, including a network of marine reserves to ensure the long-term wellbeing of its marine environment and resources.

Currently, sources of pole and line skipjack and albacore are limited. Only a handful of coastal states are engaged in this fishing method. Retailers should actively seek coastal state partners willing to develop pole and line operations and assist in ensuring market access and capacity building.

Having a purchaser guarantee will be a key factor in encouraging and empowering tuna-rich coastal states to restrict the access of foreign operators to their EEZs and develop their own sustainable and equitable pole and line tuna fishing industries.

Encourage coastal states to develop sustainable and equitable pole and line caught tuna fisheries...

Greenpeace has launched a “pre-order” petition on its website at <http://seafood.greenpeace.org/preordertuna/>



Companies can add their details to the site to show the potential markets for sustainable and equitable pole and line-caught tuna. The intention of these companies will be passed on to tuna-rich coastal states, including the Pacific Island Countries who are able to develop sustainable pole and line tuna fisheries.

<http://seafood.greenpeace.org/preordertuna/>



- 1 As reported in many studies (incl. Sunken Billions (2008)), the huge overcapacity in the world's fishing fleets - such as the purse seine fleets targeting skipjack - means fisheries often do not operate at a level of maximum profits. Therefore, vast capacity reductions are needed in order to manage fisheries at more sustainable and economic long-term levels.
- 2 Greenpeace International (2007). Taking Tuna out of the Can: Rescue plan for World's Favourite Fish. <http://www.greenpeace.org/international/press/reports/taking-tuna-out-of-the-can>
- 3 Asian Development Bank (2003). Technical assistance for alternative negotiating arrangements to increase fisheries revenues in the Pacific. (http://www.adb.org/Documents/TARs/OTH/tar_oth_36669.pdf)
- 4 Various sources including: <http://www.atuna.com/>
- 5 Yellowfin tuna is also targeted by some pole and line fleets. Given the poor stock status of yellowfin tuna in all oceans, Greenpeace is recommending retailers to source pole and line tuna from fisheries that are not overfished or where overfishing is not occurring due to the activities of other industrial fleets across the entire ocean the tuna inhabits.
- 6 Solah Mohammed (2007). A Bioeconomic Analysis of the Maldivian Skipjack Fishery. Masters Thesis for Tromsø University; Marbel Bortley Bortier-Verstraaten (2002). A Bioeconomic Analysis of the Ghanian tuna fishery (1980-2000). Masters Thesis for Tromsø University.
- 7 The World Bank (2006). The Maldives, Sustaining Growth and Improving the Investment Climate., prepared by Finance and Private Sector Development Unit South East Asia Region.
- 8 For full case study see: Reaping the Benefits of Tuna Developing a Pole and Line Skipjack Fisheries in the Pacific (April 2009). Greenpeace International. <http://www.greenpeace.org/international/press/reports/pacific-pole-and-line-skipjack-fisheries>
- 9 Solah Mohammed (2007). A Bioeconomic Analysis of the Maldivian Skipjack Fishery. Masters Thesis for Tromsø University.
- 10 Recruitment overfishing is the rate of fishing above which the number of young fish joining the exploitable stock (recruitment) becomes significantly reduced.
- 11 Although Maldives has been used as an example of a coastal state that has developed it's pole and line fishery it does not mean that it's skipjack pole and line fishery currently meets all of the requirements of a sustainable pole and line fishery here.
- 12 On yellowfin tuna and other species which are either overfished or overfishing is occurring by-catch needs to be mitigated until fishing effort of these fisheries is reduced to sustainable levels.

GREENPEACE

Greenpeace is an independent global campaigning organisation that acts to change attitudes and behaviour, to protect and conserve the environment and to promote peace.

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