your fish

- because most of the fish are caught in your exclusive economic zones (EEZs).

your wealth

- because the tuna are worth US$ 1700 000 000 each year,
- because it's a natural renewable resource.

your future

- because it will be sustained if you manage it well,
- because it can generate permanent foreign income for your nation,
- because it can help develop your nation and benefit your people.

by the year 2000

A tuna fisheries management arrangement for the western and central Pacific will be in place. The Pacific countries and territories, distant water fishing nations, coastal states, the Forum Fisheries Agency and the Secretariat of the Pacific Community (formerly the South Pacific Commission) will participate in these multilateral negotiations.

The Oceanic Fisheries Programme is a technical research programme of the Secretariat of the Pacific Community (SPC), based in Noumea, New Caledonia.

The programme works to provide Pacific Community members with the information they need to sustainably manage the tuna resources in their waters.

The OFP consists of three sections:

- statistics and monitoring,
- ecology, biology and environment, and
- stock assessment and modelling.

The OFP works in close collaboration with FFA, ORSTOM (French Institute of Scientific Research for Cooperative Development), CSIRO (Australia's Commonwealth Scientific and Industrial Research Organisation), IATTC (Inter-American Tropical Tuna Commission) and others.

The total annual budget of the OFP is currently around US$ 2 million. This is 0.1% of the value of the US$ 1700 million tuna fishery. The major ongoing donors are Australia, France, the European Union and New Zealand. OFP also receives funds from other sources such as the Government of Taiwan/ROC.

WANT TO KNOW MORE?

For more information please contact the
Oceanic Fisheries Programme:
e-mail: OFP@spc.org.nc
Secretariat of the Pacific Community
B.P. D5
98848 Noumea Cedex
New Caledonia
telephone: +687 26 20 00
facsimile: +687 26 38 18
website (http://www.org.nc/OceanFish/Index.html)

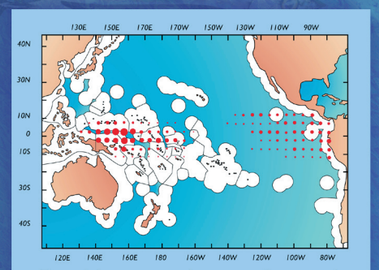
A message for the leaders and the people of the Pacific

TUNA in the Western PACIFIC

Caring for the resource beyond the year 2000

your fish
your wealth
your future

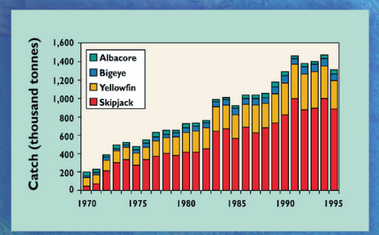
HOW MUCH IS CAUGHT?



The red dots represent the amount of tunas caught, the white areas show the EEZs.

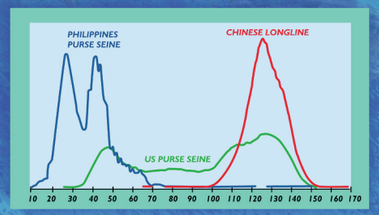
Eastern Pacific tuna catches by purse seiners 1990-1995 from IATTC.

Catches of the four main species total 1500 000 tonnes, making the western & central Pacific the most productive tuna fishing area in the world. Catches of skipjack alone, are almost one million tonnes. Most of the skipjack and yellowfin catch (caught by purse seine) is canned, but longline-caught yellowfin are sold on the valuable Japanese sashimi (raw fish) market. Bigeye attract high prices on the sashimi market also.



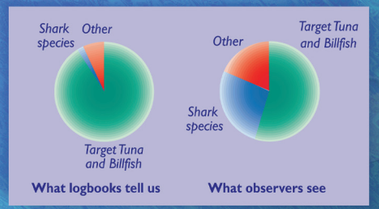
HOW BIG ARE THE TUNAS?

Tunas caught by purse seiners in the Philippines are small, mostly between 20 and 50 cm long. In contrast, tunas caught by Chinese longline fishing boats are adult fish, mostly between 110 and 150 cm.

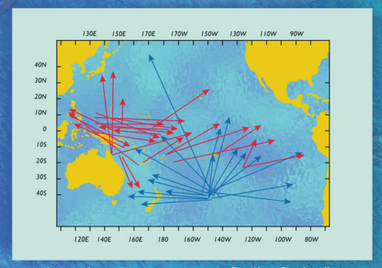


ARE OTHER FISH CAUGHT AS WELL?

According to logbooks of longline fishing vessels, the bycatch, that is, the amount of sharks and other fish caught incidentally when the fishermen target commercial tunas, is only 9%. In sharp contrast, OFP observers, working directly on board vessels, record a much larger 45%. Without the observers, this large bycatch would pass undetected.



WHERE ARE THE FISH?



Long-distance movements of yellowfin (red) and albacore (blue)

Tunas move over large distances. By tagging fish in huge numbers, releasing them and then recording when and where they are caught, OFP scientists can learn about the distances the fish have travelled, how much they have grown in that time, and what proportion of the stock is harvested.

HOW FAST DO THEY GROW?

By looking at daily growth rings (like tree rings) on yellowfin and bigeye tuna otoliths (earbones), OFP scientists work out how old a fish is at a certain length, and how fast it grows.

HOW ARE THEY CAUGHT?

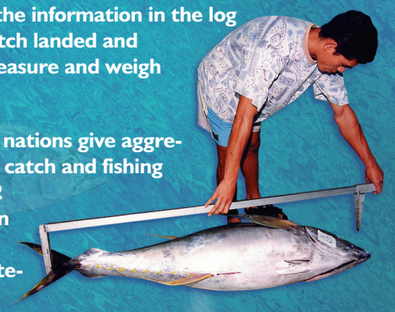
There are about 400 locally-based large tuna boats out of a total of 1500. These include 320 longliners, 30 purse seiners, and 40 pole and line vessels.

OÙ LE PROGRAMME PÊCHE HAUTURIÈRE OBTIENT-IL LES INFORMATIONS ?

OFP has workers where it counts—on board fishing vessels, and at the ports, in strategic places throughout the region.

All vessels with access agreements fill in fishing log books. Since 1980 OFP has processed two million fishing operations this way (more than 7 million tonnes of tuna).

Port samplers verify the information in the log books, and record catch landed and transhipped. They measure and weigh the fish by species.



Distant-water fishing nations give aggregated information on catch and fishing effort directly to OFP. Fisheries observers on board vessels record fishing methods, strategies and catch.

They provide the only estimates of catch that is thrown away. Observers also take biological samples.

OCEANIC FISHERIES PROGRAMME

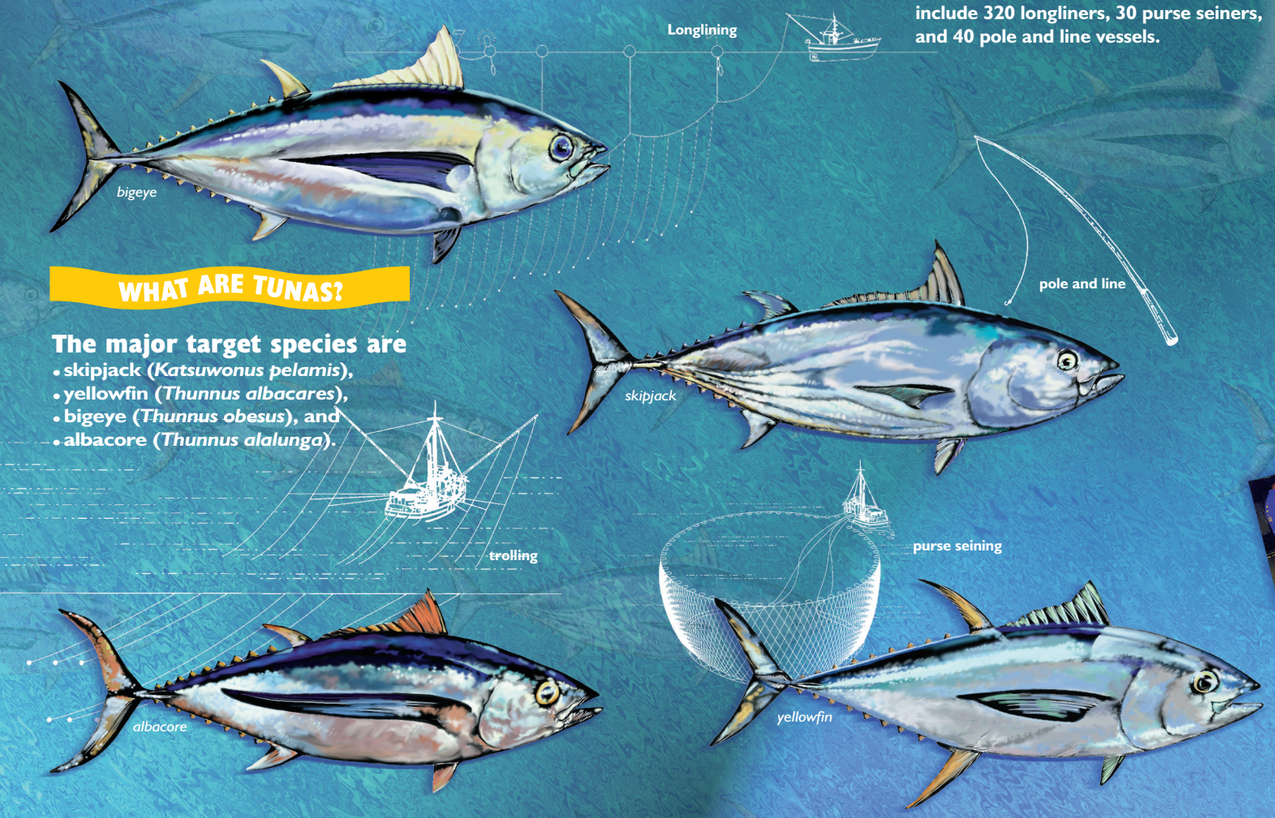
GOAL

The goal of the Oceanic Fisheries Programme is 'to provide member countries with the scientific information and advice necessary to rationally manage fisheries exploiting the region's resources of tuna, billfish and related species.'

WHAT ARE TUNAS?

The major target species are

- skipjack (*Katsuwonus pelamis*),
- yellowfin (*Thunnus albacares*),
- bigeye (*Thunnus obesus*), and
- albacore (*Thunnus alalunga*).



HOW MUCH DOES ENVIRONMENT AFFECT TUNAS?

OFP scientists have studied the influence of environmental changes in the ocean on the behaviour of tunas. They have found that skipjack move over several thousand kilometres of the main fishing grounds in the western Pacific in search of food. These movements are linked with El Niño southern oscillation (ENSO) events. Prediction of these movements is improving as the processes which affect food availability are better understood.

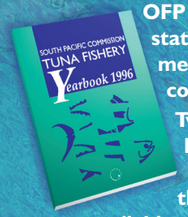
WHAT IS STOCK ASSESSMENT?

OFP scientists process all the information collected to assess the health of the tuna stocks and how they respond to fishing activity. In order to make accurate assessments, they need to understand where, when and how much fish is caught, their growth and death rates, their movement patterns, and how their distribution and vulnerability to capture may be affected by environmental conditions.

CAN ONE FISHERY AFFECT ANOTHER?

OFP scientists carry out research on tuna and billfish aimed at assessing the impact of fishing on the fish populations. They also study how much some components of the fishery might negatively affect the performance of others—so-called 'fishery interaction'.

WHAT BENEFITS REACH THE COMMUNITY?



OFP compiles and sends out fisheries statistics directly to Pacific Community members and to the FFA, usually as computer files.

Two publications, the Regional Tuna Bulletin, and the Tuna Fishery Yearbook, make statistics available to the general public. Both publications are available on the Pacific Community website (http://www.spc.org.nc/OceanFish/Index.html).

The OFP uses the assessments of the tuna stocks to provide Pacific Community members with advice for tuna management. Members can consult the OFP for responses to more specific management questions needing further analyses.

Oceanic Fisheries Programme: e-mail: OFP@spc.org.nc
Secretariat of the Pacific Community: B.P. D5, 98848 Noumea Cedex, New Caledonia, telephone: +687 26 20 00 facsimile: +687 26 38 18
website (http://www.spc.org.nc/OceanFish/Index.html)