

## UPDATE ON TUNA FISHING IN NEW CALEDONIA

Since the late 1980s, New Caledonia has seen the development of tuna fishing by small longliners which store their catches fresh and take advantage of direct airline connections with Japan to airfreight sashimi quality tuna and marlin (bigeye tuna, yellowfin tuna and striped marlin).

The requirements to land fresh fish restricts trips by these vessels to a duration of one or at most two weeks and they remain relatively close to the port where they plan to land their catch. They primarily harvest resources within the New Caledonian EEZ in contrast to the freezer longliners which can stay at sea for almost two months.

In the same way as many Pacific Island countries, New Caledonia has high hopes for the development of a fleet of small longliners without freezer capacity. Where available resources are concerned, the following question obviously therefore arises:

**Are there local or wide-ranging sub-stocks within tuna species? If so, are these sub-stocks related or discrete?**

Further, a new factor has emerged in recent years with the use of monofilament line and the "shooter" system which optimise species composition of longline sets. New Caledonia is no exception to the spreading popularity of this technique in the Pacific, since three small longliners are already using it and two or possibly even four other similar boats should start operations in the next few years.

Using the shooter, the boat skipper is able to adjust fishing depths extremely accurately and target the two main sashimi species, i.e. bigeye and yellowfin tuna, with more precision.

In New Caledonia, fishing pressure on these species has built up and, after one year of operations, the first three vessels to be fitted with monofilament longline recorded approximately 40% (by weight) of yellowfin and bigeye tuna in their catches.

Also to be noted is the presence of many bigeye tuna weighing under 15 kg amongst these catches whereas such small specimens are virtually absent from traditional longline landings.

The following conclusion must be drawn:

- Use of monofilament longlines in New Caledonia has increased fishing pressure on accessible bigeye and yellowfin tuna stocks and has proportionately increased the proportion of bigeye tuna weighing under 15 kg in landings.
- The first estimates of total catches by the eight longliners operating in New Caledonia would indicate that approximately 1,600 t of tuna and associated species were landed in 1994 as against 1,350 t in 1993.
- Lastly, it should be noted that Japanese longliners returned to the economic zone in 1994 under fishery access agreements. Although most of these boats had undergone a major overhaul in the previous two years, they still use the traditional longline technique.

A significant increase in the monitoring of the activities of these Japanese vessels is now possible through the use of Argos satellite-positioning beacons. At the latitude of Noumea, a ship equipped with a beacon can be sensed by the satellite ten times daily.

The main merit of vessel tracking using the Argos system resides in the near-real time availability of positional information (50% of data are available in under two hours).

One option of the fishing module, i.e. the transmission of fishing data in "real time", permits quota management in addition to fishery access management. Once installed, this module will make it possible to compare results as entered on fishing logs with those transmitted in real time.