

EXPLORATORY SURFACE ALBACORE TROLLING IN THE CENTRAL
AND WESTERN SOUTH PACIFIC OCEAN

(ABSTRACT)

LE GALL, Y. and J.P. HALLIER

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An exploratory trolling fishing cruise for albacore (*Thunnus alalunga*) took place from 12 February to 4 March 1982 on board the R.V. "Coriolis" from Papeete to Noumea via 40°S. The area surveyed extended from 157°W to 180° between 38° and 42°S.

Hydrographic data were collected at 16 different stations. Recorded measures include temperature (°C), salinity (°/oo) and oxygen (ml/l) at 12 different levels between the surface and 500 metres deep, and chlorophyll "a" (mg/m³) at 8 levels between 0 and 200 metres.

Exploratory surface trolling showed that two to five year old albacore are present in the Central South Pacific but they are scattered with no sighting at the surface.

At this time of the year, hydrographic structures favourable to the occurrence of albacore at the sea surface are localized where surface isotherms (16 to 19°C) are organised in a front.

This particular front is called the South subtropical convergence. Its geographical extension is relatively restricted and well defined through satellite SST charts (GOSSTCOMP type). This front and the summer thermocline are factors which contribute to the albacore availability to surface fishery.

In this way, conditions for surface albacore occurrence in the South Pacific are not different from those in the North Pacific where an important fishery exists. However the results of this single cruise do not allow to push further the similarity between the two regions.
