

TUCAW¹ (TUNA CATCH WORLDWIDE), A DATABASE AND USER-FRIENDLY SOFTWARE DEVELOPED TO ANALYSE THE YEARLY TUNA CATCHES WORLDWIDE BY SPECIES, GEAR, COUNTRY AND OCEANIC AREAS

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ABSTRACT

There is a general need for people interested in tuna fisheries to have easy access to catch statistics. To solve this general problem of world-wide fishery statistics, the FAO⁴ Fishery Division in Rome has developed and released routinely a world-wide statistical database and its corresponding data-processing software. The tuna species and fisheries are part of this system.

However, this very interesting FAO statistical database and software may not be optimal to efficiently tackle tuna statistics, for various reasons. The two major problems in the FAO data set on tunas are that :

- a) *FAO data on tuna fisheries are often biased, being often official data submitted by fishery agencies, not reviewed and collected when necessary by scientists. (Those problems have been partly solved in recent years through contacts between FAO and the Tuna Agencies, but significant "anomalies" remain in the FAO data on tunas).*
- b) *FAO data always lack information on fishing gear, a key parameter in tuna fisheries.*

Consequently the purpose of this present work, which was developed as an ORSTOM project, was the following:

- *To develop an optimal tuna database, choosing for each ocean and fishery the best statistical information available on tunas, basically from ICCAT⁵, IPTP⁶, SPC⁷, IATTC⁸ and FAO. The methods and hypothesis used to select the "best" data for each area and fishery are described in Chapter 2.*
- *This database was developed using a standardised code and format system, described in Chapter 3.*
- *A user-friendly software was then developed to analyse the yearly tuna catches worldwide or*

by ocean (or by sub-area), by species, gear and country. The present framework, use and output of this software will be reviewed in Chapter 4.

Both these tasks, building a world-wide tuna database and developing analytical software, are now at an intermediate level: both the data set and the program are already operational and available for interested users⁹, at least for experimental use. However, both the database and the TUCAW program have not yet been extensively tested by users, and they will probably show some bugs, which will need some ad hoc corrective actions by their authors.

1 TUCAW was developed in La Jolla in the IATTC laboratory under the ORSTOM framework and funding (Département TOA, Terre Océan Atmosphere). ORSTOM is the Institut Français de Recherche Scientifique pour le développement en Coopération, with headquarters at 213 rue Lafayette, 75480 Paris Cedex 10, FRANCE).

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4 FAO: Food and Agricultural Organization, Rome

5 ICCAT.- International Commission for the Conservation of Atlantic Tunas, Madrid

6 IPTP: Indo-Pacific Tuna Development and Management Programme, Colombo

7 SPC: South Pacific Commission, Noumea

8 IATTC: Inter American Tropical Tuna Commission, La Jolla

9 Interested users should contact the authors to obtain a copy of the TUCAW data base and program.



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FOREWORD

Since 1985, the Indo-Pacific Tuna Development and Management Programme (IPTP), a UNDP/FAO regional programme, has been convening and sponsoring the Expert Consultations on Indian Ocean Tunas, to provide a forum for the dissemination of research results and the exchange of information on the status of the tuna stocks and tuna fisheries in the Indian Ocean.

The latest meeting, the 6th Expert Consultation on Indian Ocean Tunas, was held in Colombo, Sri Lanka, on 25-29 September, 1995. It was attended by 51 scientists from the national institutions of 20 countries and representatives of two international bodies responsible for tuna management in other oceans, in addition to staff from FAO and IPTP, and 62 national reports and scientific papers were presented, a record for these Consultations. The increasing participation of scientists from nations bordering the Indian Ocean is particularly encouraging, as a measure of the interest that the tuna fisheries are generating in the nations of the region. The collection of working documents presented in this volume is a significant sample of the most recent research on Indian Ocean tunas and the status of the fisheries.

This volume includes the working documents made available to the participants in the Consultation. Frequently, comments made during the discussions that followed each presentation put the results presented in context; these discussions are summarised in the companion volume, *Report of the Sixth Expert Consultation on the Indian Ocean Tunas* (IPTP/95/GEN/23), published earlier this year by IPTP. Since the working documents formed the basis for the discussions and conclusions reached by the Consultation, they are reproduced here in substantially the same form in which they were presented at the meeting, with editorial changes.

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