



The Strategic Action Programme for the International Waters of the Pacific Small Island Developing States

Quarterly Progress Report Second Quarter Narrative 2004

Oceanic Component

Activity 3.3 – Fishery Monitoring Supervisor

The main workload taken on during the second quarter by the Fishery Monitoring Supervisor was updating the observer database with the results of the evaluations which had been carried out on the historical data during the previous six months. Time was spent with the Fisheries Database Supervisor creating a data quality flagging system for the observer database. Subsequently attention turned towards transposing the results of the evaluations, held as hard copies, onto the database. Time was also taken to check through computer generated summary reports and fishing area maps as a final check of each observer report. The review of the 1998-2001 observer data for purse-seine and longline can now be seen as complete and the data available for analysis.

During the middle of April (17th to 24th) the FMS traveled to Fiji to review the observer and port sampling data. Full debriefings were carried out with each of the Fijian observers, reviewing their most recent trip. The process was time consuming and working individually with each observer took most, if not all, of the allocated time. The work was seen as necessary since the data collected by the Fijian observers, while acceptable, still has plenty of room for improvement. A review of the port sampling work was constrained by time and the fact that no vessels were unloading when the FMS was available.

Project-supported Port Sampling and Observer Coordinators continued their work in Fiji, Kiribati and Marshall Islands during the 2nd quarter. Observer and port sampling coverage in these countries continues to improve.

Activity 3.5 – Stock Assessment Specialist

This position remains vacant and therefore no work funded by the project was conducted under this activity during the quarter. However, work continues (funded by other components of the OFP funding base) on the enhancement of our principal stock assessment software (MULTIFAN-CL). Work during the 2nd quarter focused on preparations for annual tuna stock assessments for the August meeting of the Standing Committee on Tuna and Billfish.

Activity 3.5 – Fisheries Research Scientist (Ecosystems)

Biological sampling: Sampling kits were provided to the different countries participating at the collection of stomach/muscle/liver samples: 3 sampling kits and one esky in Papua New Guinea and 3 sampling kits and one esky in Federated States of Micronesia. Samples were received from different observer program during the quarter: 157 samples from Solomon Islands observer program and 4 samples from New Caledonia observer program. 10 samples were also collected during experimental longline trips in New Caledonia.

Biological analysis: The analysis of the stomach samples already collected continued during the second quarter 2004. A technician started working on the examination of stomachs on the 15th of June to increase the number of samples analyzed (3 month contract). The stomachs of 1200 fish of 51 different species have now been examined. The most sampled species are yellowfin tuna (178 specimens), bigeye tuna (117), skipjack tuna (258), albacore (84), blue marlin (23), sailfish (10), striped marlin (17), shortbill spearfish (10), swordfish (24), blue shark (28), silky shark (13), short-finned mako shark (10), pelagic sting-ray (13), wahoo (66), lancetfish (65), dolphinfish (71), moonfish (36), escolar (19), rainbow runner (40), great barracuda (14), frigate tuna (10).

The number of results of isotope analysis received so far is 310 samples of muscle and liver of different pelagic top predators and prey analyzed for carbon and nitrogen isotopes. Focusing initially on yellowfin tuna, isotope values indicate that yellowfin probably have different diet according to the area in which they were caught: samples from Micronesia in the warm pool are different from samples from New Caledonia and French Polynesia, respectively south and east of the warm pool. Further analysis of stomach content will allow clarification of this hypothesis.

Meetings: The FRS attended to the 4th international conference on “Applications of stable isotope techniques to ecological studies” to present a poster entitled “Stable isotopes as tracers of trophic structure and tuna movement in the equatorial Pacific pelagic ecosystem” by Allain, Graham, Popp, Olson, Galvan-Magaña, Fry, presenting comparative isotope values from yellowfin tunas from different areas of the Pacific. The FRS also attended the 55th tuna conference at Lake Arrowhead to present the annual report of the PFRP project “Trophic structure and tuna movement in the warm pool – cold tongue pelagic ecosystem of the equatorial Pacific” by Allain, Graham, Popp, Olson, Galvan-Magaña, Fry, and to present a poster “Stable isotope as tracers of trophic structure in open-sea ecosystems by Menard, Allain et al. comparing isotope values of tunas in Indian, Atlantic and Pacific Oceans. The FRS attended the workshop “Stable isotopes in pelagic ecosystems” to discuss isotope results from the PFRP project and to make comparisons with tuna projects from other Oceans.