



REBYC

Reduction of Environmental Impact from Tropical Shrimp Trawling, through the introduction of By-catch
Reduction Technologies and Change of Management
(EP/GLO/201/GEF)

CUBA

Progress Report to the Project Coordinator EP/GLO/201/GEF

July-December 2003



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Country: CUBA

Reporting period (July to December/ 2003).

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Meetings of the National Steering Committee

The working objectives of the Regular Programme of the Marine Shrimp Fishery were elaborated in July. Three research projects of the fishery to be accomplish in the current year were presented. These projects were approved by the Experts' Group of the Marine Shrimp Division:

- Management of the shrimp resource, improvement of fishery efficiency and export products.
- Technical and economical evaluation of fish escape devices in shrimp nets.
- Status of nursery areas and population parameters of pink shrimp in the Southeastern region of Cuba.

In each one of them, the aspects considered into section 4.5 General Work plan and Timetable of Project EP/GLO/201/GEF were included, which, as has been appointed in early reports, will depend for their execution of the approval of the LOA presented to FAO. Which, in general, are related with the trials of escape devices of by-catch and modification of traditional fishing gears in order to increase their selectivity to incidental catch.

The working objectives included in the projects were approved by the Scientific Council and authorized by the Direction council of the Institution in November last year, and submitted to the Ministry of Fishery Industry for their final approval and the situation of the funds in national money required for its development.

Progress of each activity

▪ Trials of Modified Gears.

After the successful results obtained with the modified net in relation to the traditional twin net in the shrimp catch (without escaping devices), this nets were given to shrimp boat FC-16 of Santa Cruz del Sur Enterprise, with the objective of familiarise the crew with the new gear. For that reason, during this period, a new net (twin) with the same characteristics was constructed, which will be used to begin the experiences of escape devices with devices of the type "fish-eye". We must have in mind although this net have not be quantified yet, presents the following advantages:

- ◆ Save of 20-25 % of net material.
- ◆ Less resistance to the advance of the vessel.
- ◆ More swept area.
- ◆ Less percent of deformation of the meshes of the wing and the mouth of the net.
- ◆ Save of fuel and waste reduction of the principal motor.

▪ **Scientific Reports.**

Preliminary assessment of the effect of the shrimp trawling fishery on the commercial fishery of lane snapper (*Lutjanus synagris*) in the Ana María Gulf.

The landing samples of lane snapper from the shrimp by-catch (FAC) of Cienfuegos Industrial Fishery Enterprise of 1992-1996 and 1999-2001 from Ana María Gulf and also the monthly catch statistics of lane snapper from FAC for the period 1984-2001 were used. This information allowed an assessment of the fluctuations of this resource as incidental catch.

The results of this analysis were:

- Mean size from lane snapper from TAC during 1999-2001 were less (15.4 cm) than from 1992-21996 (16.3 cm). This variation show a negative progressive impact of the shrimp fishery on the lane snapper fishery, with a trend to catch smaller individuals.
- The proportion of lane snapper juveniles in shrimp trawling increase more than two fold in the last 3 years (from 25.0 to 54.2 %) similar to the proportion of sublegal fishes, which increased from 71.1 to 84.6 %.
- There are affectations to the lane snapper fishery from the shrimp fishery, especially by the catch of juveniles fishes. as well as the catch levels of this fleet.

Recommendations.

- To follow with the studies and researches about the interactions between both fisheries, extending the analysis to all the southeastern area of Cuba.
- Incorporate methodologies and working models allowing the quantification of the losses of catches of lane snapper in the finfish commercial fleet.

Result of the shrimp fishery in 2002.

Total Human Consumption (t)	603.0
Total Animal Consumption (t)	3646.0
TOTAL FAC (t)	4249.0
Effort (fishing days)	7121
c.p.u.e. (kg/fishing day)	182
Shrimp Catch (t)	1296
FAC/Shrimp relation	3.3

Improvement of the Fishing Regulations.

During the period, the Ministry Resolution No. 180/2003 was emitted, establishing in its item No. 4: "The Fishing Consultive Commission recommended a total closure for shrimp (*Penaeus* spp) in order to contribute to the conservation of this resource and also this closure protect juveniles of commercial fishes constituting the by-catch of shrimp fisheries.

Determining: "To establish in all the marine zone in the southeastern platform of Cuba, a period of total closure to the species commonly known as shrimp (*Penaeus* spp) from 24:00 hours of July 14, 2003, till 24:00 hours of October 14 of the same year".

Financial inputs by government:

CONCEPT	
Professional staff	19513.98
Materials	8503.00
Travel expenses	1110.50
Other expenses	4913.71
Electric Energy	215.00
TOTAL EXPENSES	34256.19