

1. Introduction

To ensure good catches are maintained over the long-term, all fisheries require some form of management. However for many fisheries, data are not available to do this. The purpose of this project is to test an approach to fisheries stock assessment in the deepwater snapper fishery (queen and silk snapper — *cartucho* and *chillo*), where data are currently very limited. It will incorporate the knowledge of local fishermen to inform an established participatory stock assessment model, known as ParFish. The project's main objectives are: conduct interviews with participating fishers, develop an assessment of stock status, and develop recommendations for future data collection to reduce the uncertainty in the assessment results. Results from fishermen's interviews will aid in developing a series of recommendations for management of the fishery.

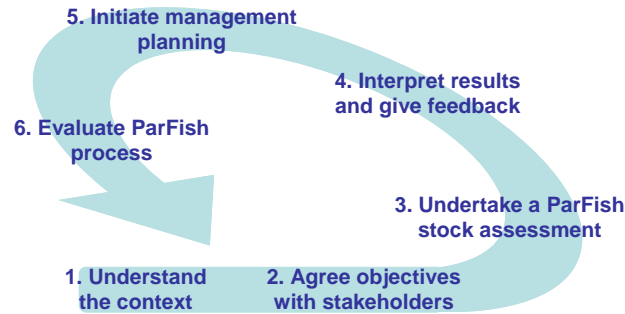
This is a Cooperative Research Program study funded by NOAA Fisheries. The project started in September 2007 and will last for approximately 12 months. It will be implemented by MRAG Americas Inc., DNER (Puerto Rico) and NOAA Fisheries (SEFSC, Miami).

2. About ParFish

- An approach to stock assessment.
- Involves fishermen and other stakeholders.
- Suitable for small-scale fisheries.
- Rapid assessment.
- Appropriate for data-poor situations.

3. The ParFish Process

A full ParFish assessment has 6 main steps (see figure). This pilot case study, however, is designed to test the first 4 steps of the methodology only.



The project is now about to start Step 3 and we invite you to participate by helping us collect important information about the fishery by means of a questionnaire. This information will remain confidential and anonymous. The information will be used by MRAG Americas to conduct a stock assessment using ParFish software. The results of the assessment will be discussed with fishermen in Step 4 for feedback.

4. Why should you participate?

Involving fishermen in the process has been shown to:

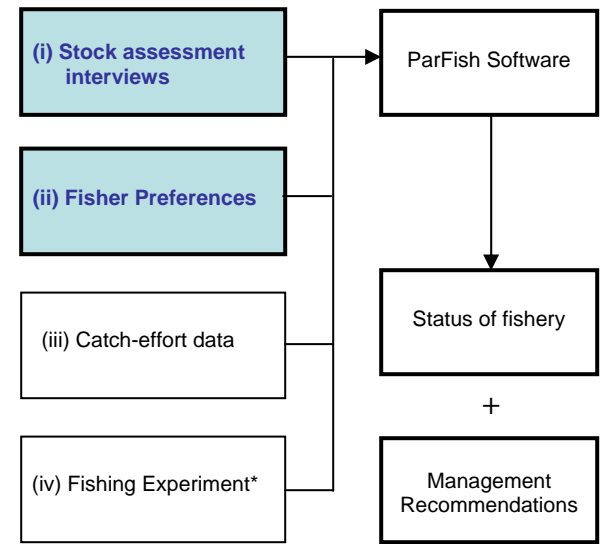
- Help generate a better understanding of the stock assessment process and results obtained.
- Enable fishermen to take part in future development of the fishery, build consensus, reduce any resource-user conflicts and support co-management.

5. Overview of the Assessment

A ParFish assessment can be conducted using a wide range of different information including data from fishermen interviews, fishery catch and effort data, and other information such as fishing experiments.

In addition to the catch and effort statistics, this study will use information from 2 key sources: stock assessment interviews and fishermen's preferences for alternative management options (highlighted boxes in figure below).

This information is used in the ParFish software to determine the status of the resource and provide management recommendations. These outputs will then be discussed with fishermen for feedback in Step 4 of the ParFish Process.



* Not planned for this pilot study

6. Fishermen Interviews

(i) Stock assessment

This first part of the interview forms the main focus of the study. It gathers fishermen's valuable knowledge about the resource and provides a starting point for the stock assessment.

A specific questionnaire has been developed unique to the Puerto Rico deepwater snapper fishery to ask a series of key questions about the fishery. This includes general information about the gear used, the level of fishing effort and the average number of small/ medium/ large fish landed throughout the year. The results from each interview will be kept anonymous and entered into the ParFish stock assessment software to identify trends in the data and determine the likely status of the resource.

(ii) Fishermen's preference

The second part of the interview will be conducted to indicate how much fishermen would like or dislike alternative management options based on different outcomes of relative levels of catch and effort.

7. How can you help?

To ensure the results are useful to inform future management decisions, it is important to interview as many fishermen as possible. If you are interested in participating in this research project, please arrange a convenient time to complete the questionnaires with an interviewer (see contact details below).

8. What Next?

During January and February 2008, a series of interviews will be conducted with representatives from the deepwater snapper fishery. After this data collection, the results will be entered into the ParFish software to generate the assessment results.

Following the stock assessment, undertaken by MRAG Americas in cooperation with DNER (Puerto Rico) and NOAA Fisheries (SEFSC, Miami), a series of further meetings will be organized with the fishermen (Step 4 of the ParFish Process) to interpret the results and give feedback to the fishermen.

This transparent approach aims to provide fishermen with a range of likely outcomes to alternative management options, such as limited licenses or bag limits within the recreational fisheries sector and can highlight key areas where additional information or data collection could prove particularly beneficial.

Contact Us

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Pilot Program to assess ParFish for the Deepwater Snapper Fishery Puerto Rico

