

## Chapter 10 – Catching the same fish: fleet interactions\*

### QUESTIONS ASKED

- How to apply different effort controls in a fishery?
- What does risk mean in fluctuating fisheries?
- Do we need information from all fleets involved in a fishery?

### BACKGROUND INFORMATION

- ShrimpAlliance: [How Does A Shrimp Boat Work?](#)
- Global Fishing Watch: [Technology Illuminating the global fleet](#)
- Integrated project: IDPPE, Mozambique – [Sofala Bank artisanal fisheries project](#)



### COVERAGE

- Simultaneous application of technical measures and closed seasons
- Dealing with competing fleets with different socio-economic profiles
- Further practice in the statement of development strategies and risk

### INFORMATION AND SOFTWARE

The Chapter 10 of FISH IT deals with a very frequent situation in marine fisheries, which has received little formal treatment: a small-scale coastal fleet catches the same species that is targeted by an industrial fleet offshore. This raises dilemmas about the purpose of managing fisheries, and the players are forced to make clear statements about goals and positive and negative risks associated with the chosen strategies. The game invites to make experiments, but requires that the players devise simple and consistent strategies to be able to test their hypotheses. To increase realism, the simulations are stochastic, which forces the players to measure achievements in terms of probabilities and risk. This is an early version of this game, Sofala Shrimp Fishery v1.0. More advanced and realistic versions have been developed over the years, but this one has been often tested by students in the computer lab. Much of the background for this fishery is explained by de Sousa et al. (2006) and in special lectures. In the 2nd workbook the presence of the artisanal fleet is recognized and accounted for in the management of the fishery.

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\* Santos, J. 2015. FISH IT 1.0 – Student Manual: A Training System for Aquatic Resource Managers. *Septentrio Educational* 2015(3). DOI: <http://dx.doi.org/10.7557/se.2015.3> . This work is licensed under a [Creative Commons Attribution 4.0 International License](#).

# FISH IT 1.0 – student manual

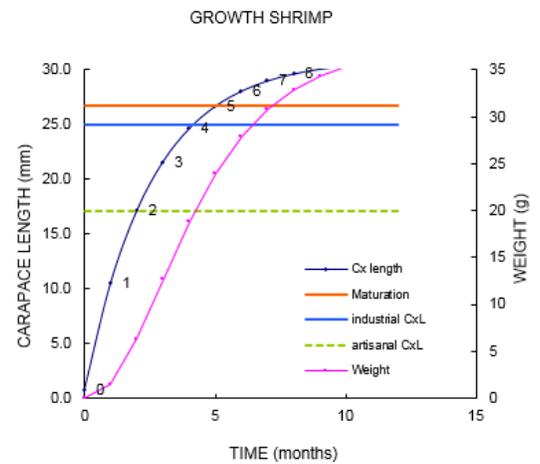
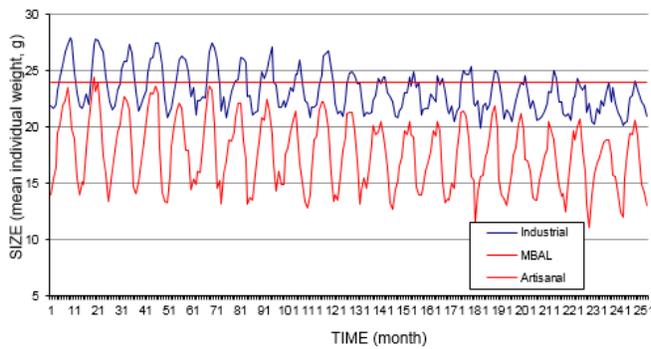
- [Ch10a Shrimp industrial fishery JdS.xlsx](#)
- [Ch10b Shrimp multi-fleet fishery JdS.xlsx](#)



## SNAPSHOTS



Size of shrimp in industrial catch (weight=0 in closed season)



Shrimp annual yield by two fleets

