Chapter 4 – Predict the future: trend analysis*

QUESTIONS ASKED

- How to assess the state of a fishery with a minimum of information?
- Where to obtain national and regional fishery data?
- How to interpret simple indicators of abundance?
- Do fisheries have typical cycles that can be recognized?
- How to compare and adjust the fishing power of different fleets?

BACKGROUND INFORMATION

- Wikipedia: Trend estimation
- PivotTableGuy: Excel Video 101-Forecasting Part 1
- A fishery: AZTI - Jigging for bonito in the Basque country

COVERAGE

- National and international databases
- Interpretation of cycles of catch, effort, cpue and relative rate of catch increase
- Typical cycles of a fishery
- Fitting more complex trend lines
- Simple linear standardization of cpue data between fleets

INFORMATION AND SOFTWARE

The Chapter 4 of FIΣH IT deals with the retrieval of data from databases of landings, the description of trends in time-series of data and their extrapolation to the future. The utilization of the Relative Rate of Catch Increase (Grainger & Garcia 1996) to make an early assessment of the state of a fishery is introduced. In the absence of other types of data, knowledge of the fishery and the cycles of the simplest fishery statistics can give good indications of the abundance of the stock and lead to conservative management measures. Simple linear standardization of catch rates to make data from different fleets comparable is introduced.

- [Ch4a Trend analysis JdS.xlsx](#)

- [Ch4b Standardization of catch rates JdS.xlsx](#)

SNAPSHOTS

Nick Thorne 2006.   Barramundi