

Joint dynamics Resource Exploitation: An application of the data of capture and effort
Fishes artisanal on the Large Coast in Senegal of 1974 to 1992. Data - Model -
Adjustment

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Abstract: This poster consists of a presentation of a model articulating the dynamics of a multispecies resource and an exploitation carried out by several fleets of fishing of which the units have at their disposal several methods of fishing, each one characterized by a particular impact on the various components of the resource.

It is possible to reconstruct using the model of the time series of activity (numbers of exits per fifteen days according to the methods of fishing) and of outputs (by method and component of the resource, also by fortnight). These series can be aggregated according to layers of sampling defined for the system of investigations in force.

The parameters of the model are then the subject of an estimate according to the usual criterion of least squares. This criterion relates the similarity of the data adjusted and observed at the same time in terms of activity and terms of outputs.

Graphic exits allow a critical evaluation of the whole of the procedure.

The whole of the procedure is illustrated by an application to fishing in Senegal, starting from data of activity and results of fishing from 1974 to 1992.