

Evaluation methods elasmobranch populations: with emphasis on methods for fisheries with limited data

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Due to the lack of information for most species and their fisheries, or where information is fragmented, we are currently gaining momentum to evaluate fisheries with limited data, using indicators for estimating risk of overexploitation. In particular, the methods of productivity and susceptibility and a length-based method for estimating the vulnerability to overexploitation of species, will enable you to prioritize future research efforts and management.

This method of productivity and susceptibility requires all available information on species and their fisheries, and also requires consultation of experts to achieve more robust estimates.

The objective of this course is to provide these methodological tools that integrate all available information on fisheries and species, and discuss the implications of the results for fisheries management.

1. Life history parameters necessary for evaluating elasmobranch populations.
 - a. Reproductive parameters.
 - b. Age and growth parameters.
 - c. Demographic parameters.

2. Because it is important to characterize the fisheries?
 - a. Catch composition (size, gender, stages per species).
 - b. Number of individuals per species, total weight of the catch by species.
 - c. Fishing equipment.
 - d. Fishing effort (fishing trips, number of sets).

3. Methods of stock assessment for fisheries with limited data.
Methods for estimating risk indicators of exploitation:
 - a. Analysis of productivity and susceptibility.
 - b. Methods based on length.

4. Analysis of productivity and susceptibility
 - a. Features to estimate Biological Productivity of species
Using life history parameters
 - b. Attributes for estimating the susceptibility of species by capture fishing equipment
Using the characterization of fisheries
 - c. Estimating vulnerability exploitation
NOAA Software (www.noaatools.gov).

5. Methods based on length
 - a. Analysis of size frequencies
Estimated proportion F/M (fishing mortality/natural mortality) as an indicator of overexploitation risk.