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Résumé anglais :

*Development of an operational ecosystem-coupled stock assessment model of the Atlantic Sardine*

Although the Atlantic Sardine is an important commercial species of the French Atlantic coasts, there is currently no management measure regarding its exploitation. Biomass estimates suggest about 10% of the available biomass is harvested each year. However, this resource is under an increasing fishing pressure leading to consider the implementation of a management plan in a near future. In order to sustainably manage this fishery, a proper stock assessment model is required. This PhD aims at developing this mathematical tool from fishery and environmental datasets. We will have 1) to develop or adapt a stock assessment model taking into the latest knowledge of the biology of this stock, 2) to integrate environmental variations through their influence on the main biological traits, 3) to validate this model using the available datasets such those from scientific surveys, 4) to identify benefits from the Dynamic Energy Budgets theory.

Keywords: stock assessment, ecosystemic approach to fisheries, modeling