

Ecosystem-based approach to the fisheries management of the Black Sea turbot (*Psetta maxima maeotica* Tortonese, 1971)

Gheorghe RADU, Tania ZAHARIA, Mariana GOLUMBEANU, Magda NENCIU, Aurelia TOTOIU, Gheorghe SARBU

NIRDEP - National Institute for Marine Research and Development "Grigore Antipa", 300, Bd. Mamaia, Constanta 900581, Romania, (e-mail: golumbeanum@gmail.com)

Abstract

The paper refers to the context in which the case study on the ecosystem approach in the assessment and management of the Black Sea turbot was proposed within the FP7 project MareFrame: Co-creating Ecosystem-based Fisheries Management Solutions, Grant Agreement no. 13571.

This case study is a Romanian initiative which very much relies on the ecosystem-based approach to the fisheries management (EAFM), taking into account that Black Sea ecosystem is seriously affected by dynamic changes directly related to fishing, climate change and pollution. Fishery is the most affected sector by the changes of the Black Sea ecosystem. In the same time, fishing activities contribute themselves to the worsening of the ecological situation and for the depletion of the fish stocks.

The paper presents some aspects such as: biological and ethological characterization of turbot in current environmental conditions, actual state of the Black Sea environment in general and especially in the western part of the sea, evolution of the turbot fishery at regional and national level, state of the turbot stock, motivation of the choice of two ecosystem models: GADGET (Globally applicable Area Dis-aggregated General Ecosystem Toolbox) and EwE (Ecopath with Ecosim).

Both GADGET and EwE will increase the knowledge about the Black Sea ecosystem functioning and thereby serve to provide advice on the rebuilding of the turbot stock. Further this will provide input to the development of a management plan.

Key words: turbot, Black Sea, depleted stocks, ecosystem-based approach to the fisheries management (EAFM)

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