

Case study - Black Sea sprat

Sprat (*Sprattus* sprattus) is one of the most abundant and commercially important pelagic fish species in the Black Sea. The reduction of the sprat stock in the early 1990s was partly due to food competition with the *Mnemiopsis* population outburst. As with the other commercial stocks, heavy overfishing took place before and during the M. leidyi outbreak as well, which aggravated the stock depletion.

Analyses focus mostly on interactions of climate-zooplankton with recruitment and adult growth and condition.

Case study leader: Dr. Gheorghe Radu Email: gradu@alpha.rmri.ro



http://www.goforit-cofasp.net/



Partners:

- · National Institute of Aquatic Resources, Denmark
- · The Marine Research Institute, Iceland
- The National Institute for Marine Research and Development, Romania
- Central Fisheries Research Institute, Turkey

Subcontractor

• The Institute of Marine Sciences, Turkey









Contact

Coordinator

Professor Brian MacKenzie National Institute of Aquatic Resources Technical University of Denmark Email: brm@aqua.dtu.dk Ph. +45 3588 3445

Project funded by:





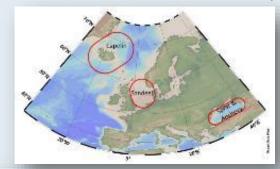




GOFORIT IntelliGent Oceanographically-based short-term fishery FORecastIng applicaTions



GOFORIT is a project supported by the ERANET COFASP and national funding agencies of Denmark, Iceland, Romania and Turkey.







The project Intelligent Oceanographically-Based Short-Term Fishery Forecasting Applications(GOFORIT)

investigates four economically important species from the North and South of Europe:

- North Sea sandeel (Ammodytes marinus)
- Icelandic capelin (Mallotus villosus)
- Black Sea anchovy (Engraulis encrasicolus)
- Black Sea sprat (Sprattus sprattus)
- ✓ These species all can be classified as short lived fish species. Fisheries for short lived species are highly variable because they primarily target a low number of age groups within stocks as well as irregularly recruiting year-classes. As a result, environmental fluctuations (e.g., temperature, food abundance), which cause major changes in fish productivity can lead to rapid fluctuations in fishing opportunities and stock declines if fishing effort is not reduced accordingly.
- ✓ Such fluctuations are not foreseen or accommodated by management advisory frameworks for short-lived species, which generally assume environmental stability and constant productivity.
- ✓ This project will uses climatic and oceanographic process knowledge with the goal to improve short-term fishery forecasts.

http://www.goforit-cofasp.net/



WORK PACKAGES

GOFORIT is divided into 5 work packages (WP):

WP 1. Case study - North Sea sandeel Lead: National Institute of Aquatic Resources, Denmark

WP 2. Case study - Icelandic capelin Lead: Marine Research Institute, Iceland



WP 3. Case study - Black Sea anchovy Lead: Central Fisheries Research Institute, Turkey

WP 4. Case study - Black Sea sprat Lead: National Institute for Marine Research and Development, Romania

WP 5. Coordination, mobility and dissemination

Lead: National Institute of Aquatic Resources, Denmark

Data Short-term Data Dissemination analysis: -peer-reviewed publ. compilation forecasts -identify relationships -conf. & assessment -compile datasets; -incorporate relations working groups between Rec., SSB -format for analyses In stock forecast -insitute websites and ecosystem -retrospective skill -teaching material conditions (e.g., T, ZP) Assessment & validation -sensitiviy analyses (with/ Without ecosystem info.) WP1 – North Sea sandeel WP2 - Icelandic capelin WP3 - Black Sea anchovy WP4 -Black Sea sprat WP5 - Coord. + Dissem. Mobility

2