FindFish knowledge transfer platform – results from the hydrodynamic component of the ecofish numerical model

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Abstract

The FindFish Knowledge Transfer Platform project was launched to provide solutions for challenges facing commercial fisheries. Its purpose is to provide fishers with a knowledge transfer platform and a numerical forecasting system for the marine environment of the Gulf of Gdansk. By combining in-situ research, environmental data, fish catch data, and numerical calculations, this tool will improve the accuracy of targeted fishing while reducing by-catch. The system will provide more reliable data on fish stocks and facilitate more efficient resource management. The FindFish project addresses problems that were identified as contributing to the declining profitability of commercial fisheries and increased fishing times and emissions of pollutants into the environment. Numerical modeling will allow fishers to make the most economical use of available catch limits. An added value of the project will be to improve maritime safety and working conditions. Catching the same quantity of fish during shorter fishing trips will relieve vessel crews and improve safety. Fuel consumption will also decrease, leading to further savings and less environmental pollution.

In this presentation we discuss the initial implementation of the EcoFish model (hydrodynamic component) and present the results of the model simulations compared to observations from monitoring stations and satellite images. Verification indicate its suitability for forecasting hydrodynamic conditions within the concerned region. Satisfactory compatibility between in situ measurements and simulations enables reliable physical conditions to be established for future simulations with the active biogeochemical part and Fish module.

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Keywords

Baltic Sea, fisheries forecasting, hydrodynamic variables, numerical model