FAME – A new open science Framework for spatio-temporal Analysis of Marine Ecosystems

OSCARS
Open Science Clusters' Action for Research & Society

Global change demands understanding species distribution shifts across space and time for biodiversity conservation and sustainable resource management. The FAME project will develop GLOSSA v2 – an open, modular, and FAIR-aligned toolbox for marine species distribution models (SDMs) – which will support the full SDM workflow enhancing FAIR marine ecological research.

ENVRI
Environmental Sciences

Challenge

SDMs are key tools for predicting species' responses to environment and future geographic ranges. However, their use requires expertise across multiple fields and faces significant technical barriers, as well as challenges related to Big Data integration and complexity.

Solution

FAME will develop GLOSSA v2, a modular and FAIR-aligned framework for marine SDMs. FAME will deliver a minimum viable product (MVP) composed of three interoperable and user-friendly R Shiny modules supporting the entire SDM workflow and combining a variety of modelling approaches.

Scientific Impact

FAME will address challenges in marine SDM and reduce technical barriers to marine SDMs, allowing more researchers and stakeholders to run FAIR-aligned analyses. This will increase the reuse of open marine biodiversity and environmental data.

Partners

Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC) - Instituto de Ciencias del Mar (ICM-CSIC), Universitat Politècnica de València (UPV), Ecopath International Initiative (EII)

https://oscars-project.eu/projects/fame-new-open-science-framework-spatio-temporal-analysis-marine-ecosystems