Sea Clearly

Sea Clearly focuses on providing an environmental impact assessment tool to determine locations for lowest probability of plastic pollution from two perspectives: 1) Plastic pollution reaching aquaculture cages and 2) Plastic pollution from cages reaching Marine Protected Areas (MPAs)

Partners:

Institute for Marine and Atmospheric research Utrecht

COAPS

Data sources through Blue-Cloud:
Copernicus Marine Service and EMODnet

Main target users:
Policy-makers, aquaculture industry, general public.

Services introduction:
Sea Clearly is a Jupyter Notebook for analysis of plastic pollution in aquaculture. The main service is openly available on Github and also accessible on the Blue-Cloud VLab. A second service is an interactive web-application www.seaclearly.io where visualisations are accessible without any installation required.

UN SDGs addressed

2 ZERO HUNGER

13 CLIMATE ACTION

14 LIFE BELOW WATER

SERVICES

Jupyter notebook
The Jupyter notebook consists of forward and backward in time simulations of marine plastic visualising the impact of plastic from aquaculture cages on MPAs, and the most likely sources of plastic pollution affecting aquaculture cages in the Mediterranean Sea. CMEMS data is used to advect the simulated plastic particles and the aquaculture cages and MPAs locations are obtained from EMODnet

Online simulation
The website seaclearly.io is a service with the aim of showing interested members of the public the impact of plastic to and from aquaculture cages. It shows stakeholders the potential of the Sea Clearly tool without having to install it first. This service uses ParticleViz software. It uses pre-loaded simulations to and from a number of selected farms. It works on mobile devices making it accessible for any user with a connection to the internet.

"Sea Clearly joint forces between early career researchers of different expertise, career levels, backgrounds and nationalities. This diverse team allowed us to apply our knowledge to a growing environmental problem, and provide an open source tool to contribute to its future management and understanding"

CLEO JONGEDIJK & LAURA GÓMEZ NAVARRO, Team members of Sea Clearly

Test the VLab now!

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