PRESS RELEASE

Oxford Study Reveals Widespread Impact of Fish Farming on Argosaronic Seagrass Ecosystems

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A new independent study by the University of Oxford reveals serious and alarming findings, documenting widespread and potentially irreversible degradation of *Posidonia oceanica* seagrass meadows in the Argosaronic Gulf. The study points to significant pressure from existing intensive aquaculture units, concentrated around the island of Poros, while concerns mount over plans to massively expand Aquaculture Development Areas - from approximately 9 to over 240km^2.

Until now, available knowledge on the environmental and socio-economic footprint of aquaculture in the region has been incomplete. The study aims to fill this gap, strengthen the evidence base for informed decision-making, and support public authorities and local communities with data that enables their meaningful participation in shaping the development model for their region.

Scientifically grounded findings

The study was commissioned to the University of Oxford - internationally recognised for its expertise in marine socio-ecological systems - and funded by the Argosaronic Environment Foundation (AEF) and the Rauch Foundation, with the support of local organisation Katheti. It builds on earlier joint efforts, such as the mapping of Posidonia meadows in Poros and Methana, and aims to provide solid evidence to authorities and local actors to help inform public policy and inclusive governance.

The initial findings are striking: degradation of seagrass meadows extends up to 900 metres from aquaculture installations, several times beyond the distance suggested by previous scientific studies. Within a 450-metre radius,

Posidonia coverage appears reduced by 53%, while leaf length has shrunk by up to 46% over the past two decades. Even 14 years after the removal of fish farms, the ecosystem shows little to no recovery. Scientists highlight Posidonia's limited resilience and very slow natural regeneration, expanding only 1 to 6 centimetres per year. In some areas, the total surface of degraded habitat is estimated to double, from 8.5 to 15.6 square kilometres.

Beyond the ecological damage, the study reveals a deeper issue: the lack of meaningful planning. The current spatial plan, introduced in 2011, allows aquaculture units to operate as close as 50 metres from the coastline, without consideration of ecological thresholds, interaction with other activities, or cumulative pressures on the marine environment. Impacts on tourism and small-scale fisheries are overlooked, and local communities remain sidelined from critical decisions about the future of their area.

A clear framework for protection and participation: What must happen next

The study makes one thing clear: there is an urgent need for a new institutional and spatial planning framework; one that is rooted in scientific evidence, guided by the principles of sustainability, and responsive to local realities.

Protecting ecosystems and conserving natural resources must become a priority, including the establishment of safe buffer zones around sensitive habitats such as Posidonia meadows. These distances should be defined based on legal standards as well as international best practices, informed by the latest scientific data and a much-needed revision of the 2011 spatial planning framework. At the heart of this proposal is the creation of a comprehensive Marine Spatial Plan, that can balance productive activities with environmental protection and ensure social acceptance.

Equally important is the strengthening of institutional dialogue to co-develop a sustainable development model for Poros and the wider Argosaronic region, that respects the environment and works in favour of local communities and future generations.

The results of the study were presented in the Hellenic Parliament, accompanied by statements from legal experts, scientists, and representatives of local authorities. As **Eva Douzina**, President of the Rauch Foundation, noted:

"The strength of the scientific data we now hold is enough to halt any plan that endangers Posidonia. The future of the Mediterranean depends on the wisdom of the decisions we make today."

Daphne Mantziou, Executive Director of AEF, added: *"We are proud to have initiated this scientific study, which provides the kind of robust data needed to guide sustainable spatial planning. As a foundation, we remain firmly committed to safeguarding the natural wealth of the Argosaronic and supporting active local communities in shaping the future of their region."*

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*The **Argosaronic Environment Foundation (AEF)** supports the conservation of the region's natural resources by promoting and funding environmental protection efforts in collaboration with local communities. Drawing on scientific knowledge, partnerships, and by providing small-scale grants, AEF empowers local initiatives and supports sustainable solutions—for the benefit of the area and its people, now and in the future.* https://argosaronicenvironment.org/

***Rauch Foundation** is a U.S. based family foundation that invests in ideas and organisations that spark and sustain positive systemic change. Building on a long history of providing evidence-based research and data to inform policy, its current work is centred on exploring the systems involved in the financing, sourcing, production and delivery of food. The foundation is interested in how global, national, and regional actions impact the health of communities, economies, and the environment.* http://www.rauchfoundation.org/