Thessaloniki, 4nd of July 2025

New Drone study reveals anchoring pressure in ecologically sensitive Ionian Sea areas

A cutting-edge study conducted by iSea, with support from the Ionian Environment Foundation (IEF), has utilised drone (UAV) technology to assess anchoring pressure in two ecologically significant areas of the **Ionian Sea**: the Erimitis peninsula in northern Corfu and the Inner Ionian Archipelago. This research builds upon iSea's previous report, "Prioritising Posidonia oceanica Meadows in the Ionian Sea" which identified these locations as among the most severely impacted by anchoring activities.

In total 12 drone surveys were conducted in Erimitis (Corfu island), 12 in Formicula islet (Inner Ionian Sea, 11 in Atokos (Inner Ionian Sea) and 10 in Arkoudi (Inner Ionian Sea) between July and September. Using aerial footage, the team categorised and counted vessels, sorting them into five groups: small rental boats, sailboats, catamarans, yachts, and cruise ships/larger yachts. These findings were supplemented by iSea's field surveys, which measured the health index of Posidonia meadows in both regions.

Key Findings at a Glance

ERIMITIS

- 490 boats observed across 12 surveys (**65% anchored on Posidonia**)
- 64% of the boats anchored on Posidonia were **small rental boats**
- **Arias** followed by Vrachli, Akoli were the beaches with the highest anchoring pressure that need attention

INNER IONIAN SEA

- 409 boats recorded in 32 surveys (**60% anchored on Posidonia**)
- 70% were **sailboats or catamarans**
- **Atokos** accounted for 70% of vessel traffic, followed by Formicula (16.2%) and Arkoudi (13.9%)
- **43% of boats at Atokos anchored on Posidonia**
- Atokos Bay and Formicula Bay emerged as critical concern areas

These results align with previous assessments of Posidonia meadow health, confirming the immediate detrimental effects of anchoring. However, researchers caution that these findings may underestimate the actual impacts due to the study's limited sampling days and exclusion of species-specific habitat importance.

A prime example is Formicula islet, an 8.7-hectare speck in the Inner Ionian that hosts extraordinary biodiversity, including threatened groupers (Dusky grouper) and the Mediterranean monk seal, one of the most endangered mammals globally. Through collaborative advocacy with the Tethys Research Institute

and Blue Marine Foundation, iSea successfully secured a Ministerial Decision establishing a 200-meter strict protection zone around this vital ecosystem.

Urgent Conservation Measures Needed:

1. **New legislation** prohibiting anchoring on Posidonia meadows, both within and outside Natura 2000 areas, while also regulating other threats (e.g. aquaculture)
2. Immediate implementation of **eco-mooring systems** (legislation is in place and a recent legislation also issued FEK B 3117/2025)
3. Comprehensive **awareness campaigns** targeting boat operators and tourism companies

This study highlights the urgent need for immediate action to safeguard these underwater forests, which serve as biodiversity hotspots, carbon sinks, and coastal protectors for the Mediterranean ecosystem.

Find more about Erimitis biodiversity and blue carbon: https://isea.com.gr/wp-content/uploads/2025/02/2024-ENG-Erimitis-Inventory-of-Knowledge_updated.pdf

Find more about Formicula's Blue Carbon: https://zenodo.org/records/8262885

More information of Posidonia oceanica and the Ionian Sea.

Posidonia oceanica is the Mediterranean's underwater forest that forms thriving underwater ecosystems, sustaining Mediterranean marine life and its cultural legacy. One of our biggest allies in the fight against the climate crisis by storing vast amounts of CO_2, sheltering endangered species, and protecting coasts from erosion. At the same time, Posidonia meadows filter water, produce oxygen, and sustain fisheries.

The Ionian Sea, with its stunning scenery, is one of the most essential sailing destinations in the Mediterranean due to its favourable conditions of calm waters, gentle winds, and stable wind regime.

Approximately 440 km² of Posidonia meadows exist in the Ionian Sea, and according to one of iSea's previous studies, anchoring from boats is the primary threat to this critical habitat in this region.

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