

Wetlands Solutions *for the Future*

Learning from ALFAwetlands and
REWET Projects

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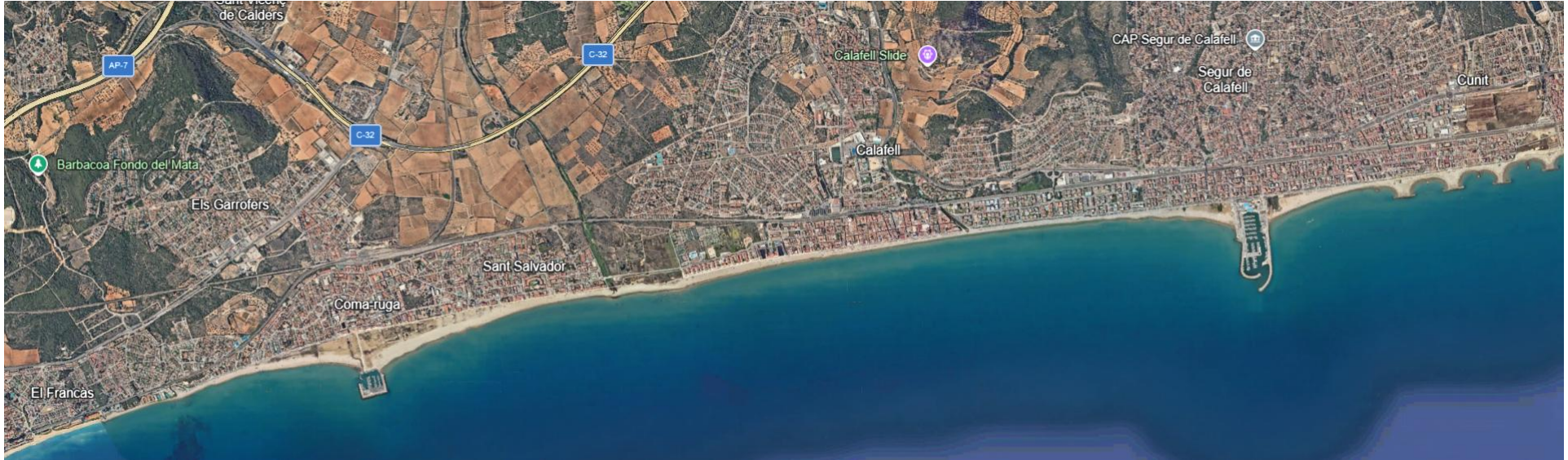
Les Madrigueres: an example of a coastal wetland co-creation (ALFAwetlands)

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GENERAL PROBLEM

Very high urbanization pressure along the coastline

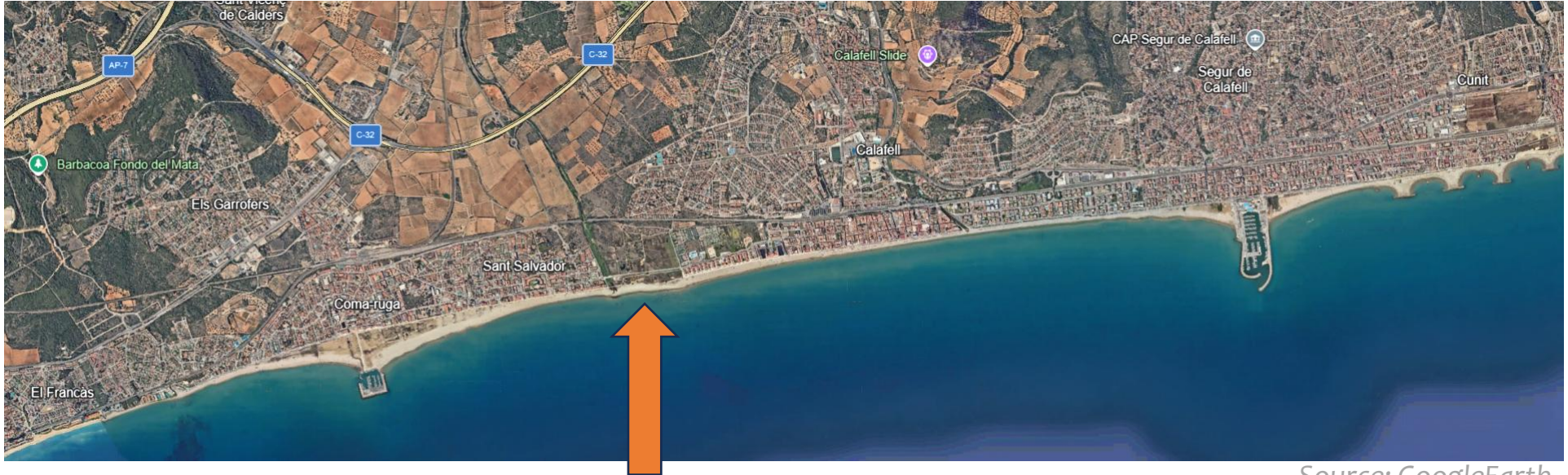


Source: GoogleEarth

- More than 60% of the coastal areas at the Mediterranean Basin are occupied by human activities: housings and economical activities, but also tourism infrastructures and second residences.
- **Implications:** Destruction of these unique ecosystems, loss of biodiversity and increase of climatic vulnerability.

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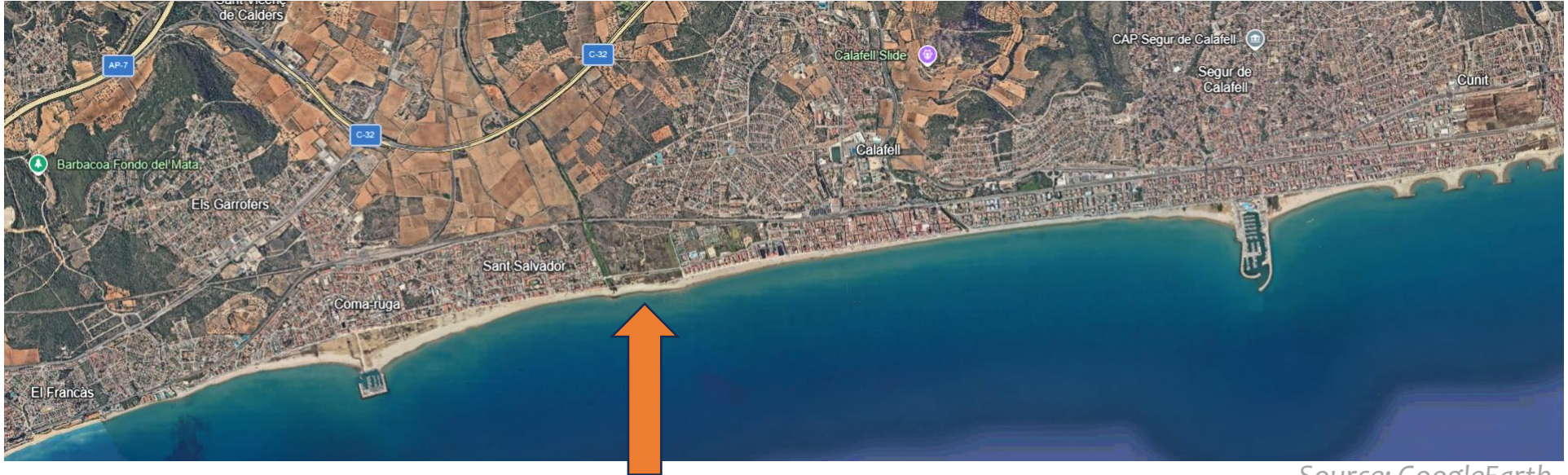


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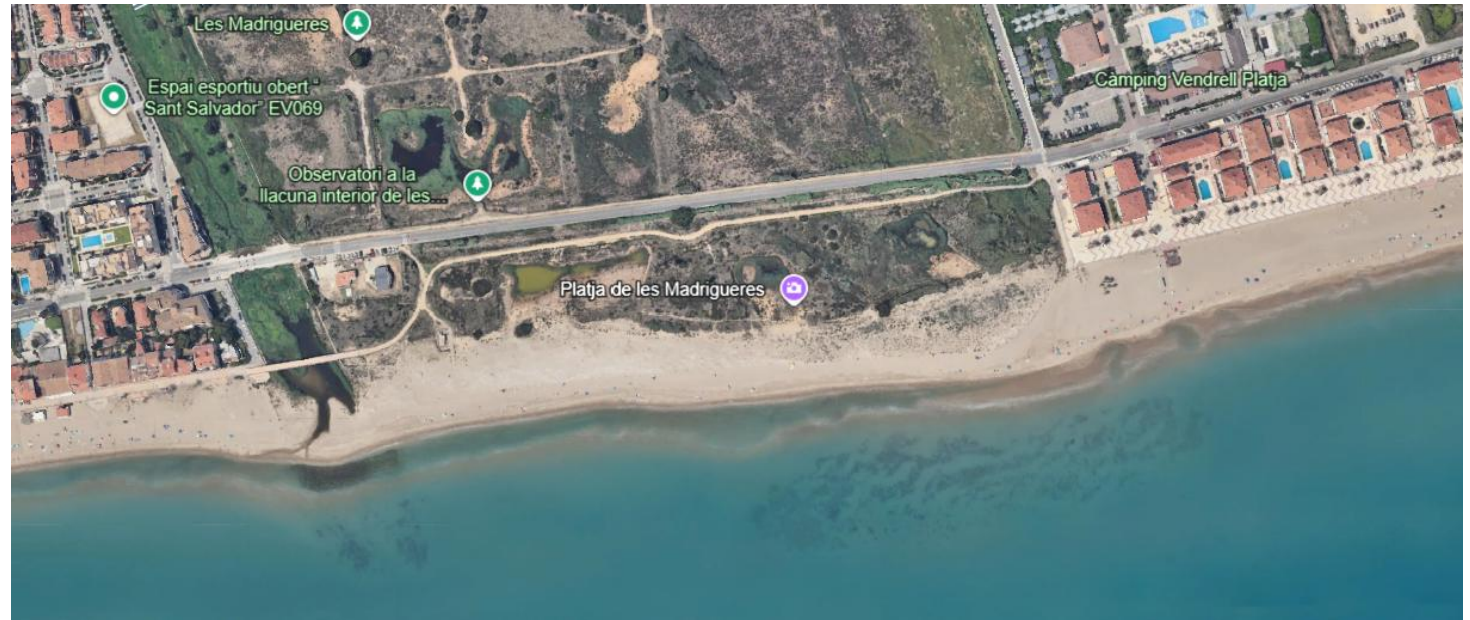
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Coastal wetlands and salt marshes

- They are highly productive ecosystems that can act as carbon sinks over the long term, tackling climate change.
- Its degradation and biodiversity loss have economic and social impacts due to the loss of **ecosystem services**, e.g. improving water quality, protecting against erosion and storm surge, and providing nursery habitats for important species.

LES MADRIGUERES

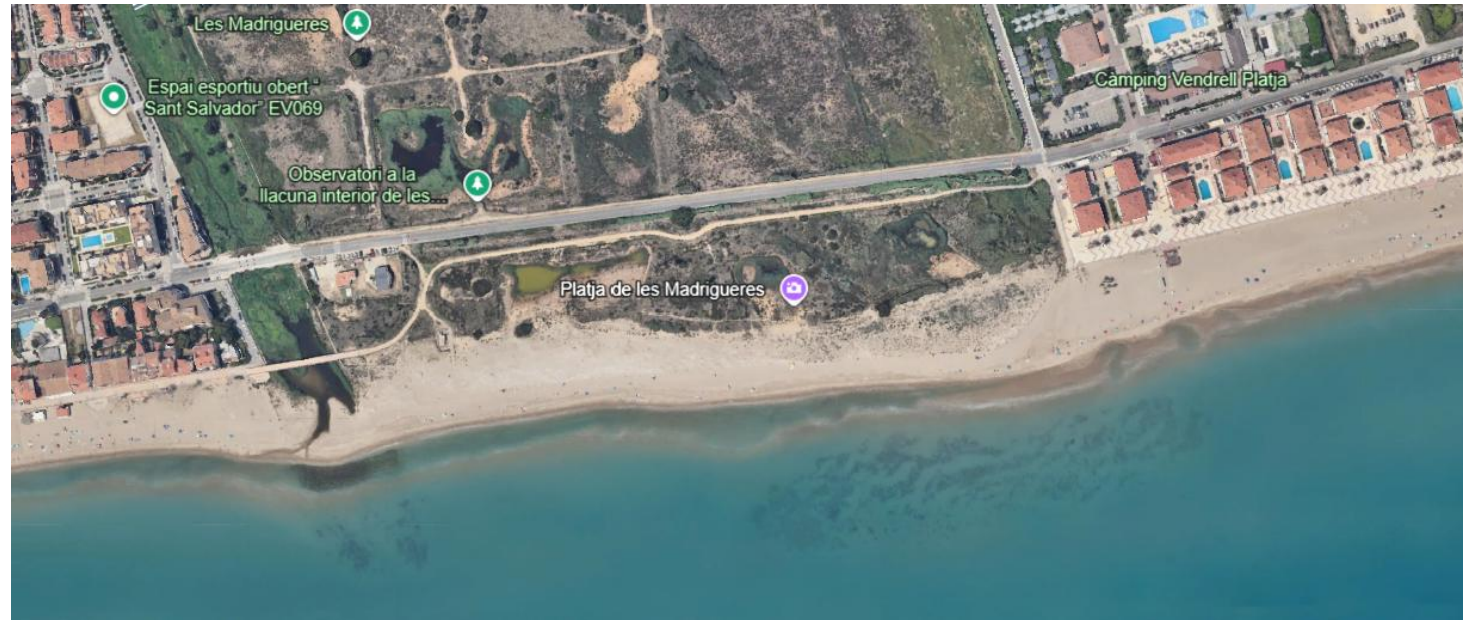
- Located on the Catalan coast (Tarragona, NE of Spain).
- Surface of 30 ha.
- Previous agricultural field periodically flooded by water from the nearby ephemeral stream, forming small coastal lagoons.
- Agreements between the GEVEN Environmental NGO and the local and regional Governments.



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ACTIONS FOR ITS CREATION BETWEEN 2015 AND 2017

- Digging and creating four coastal lagoons.
- Reprofilling the littoral slopes of the lagoons.
- Planting dune vegetation.
- Fencing off areas and make itineraries to reduce foot traffic.
- Avoiding beach cleaning with heavy machinery.

LES MADRIGUERES: TEN YEARS AFTER ITS CREATION

Landscape and habitat recovery



LES MADRIGUERES: TEN YEARS AFTER ITS CREATION

Biodiversity recovery



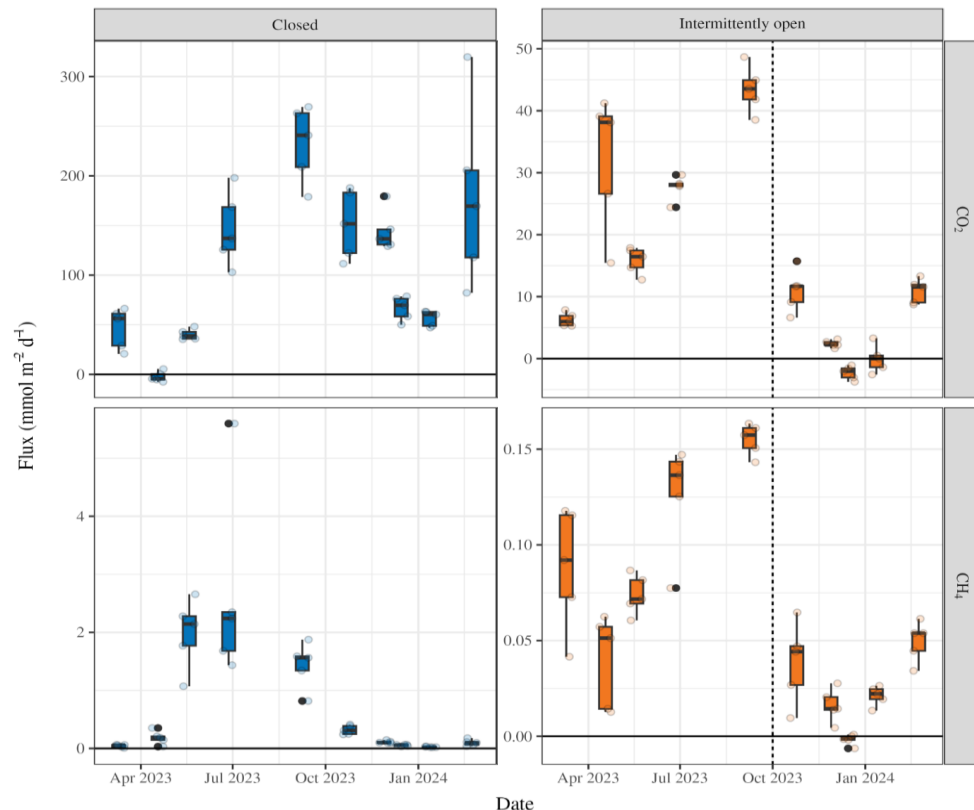
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Salinity gradient

+

LES MADRIGUERES: TEN YEARS AFTER ITS CREATION

Higher marine connectivity reduces greenhouse gas emissions from coastal lagoons



Poblador, Montes-Pérez, et al., under revision



LES MADRIGUERES: TEN YEARS AFTER ITS CREATION

Long term monitoring and communication living lab values to the society



THANK YOU

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