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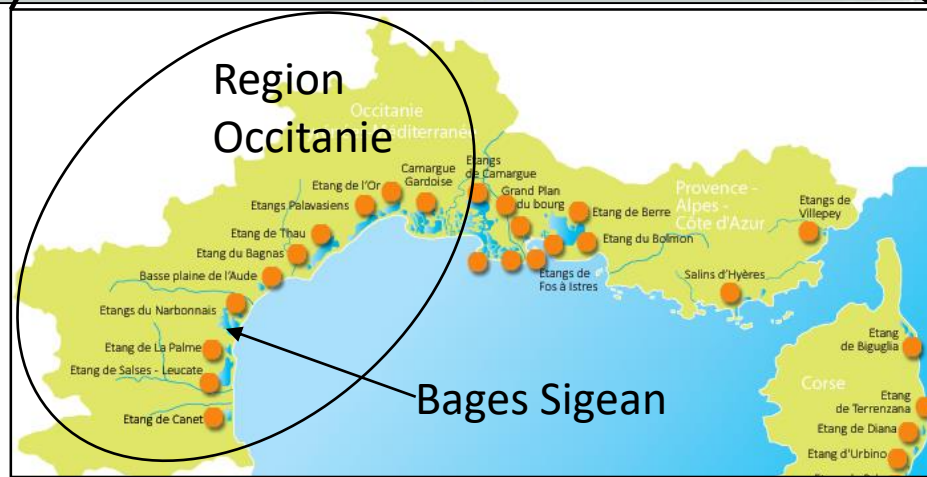
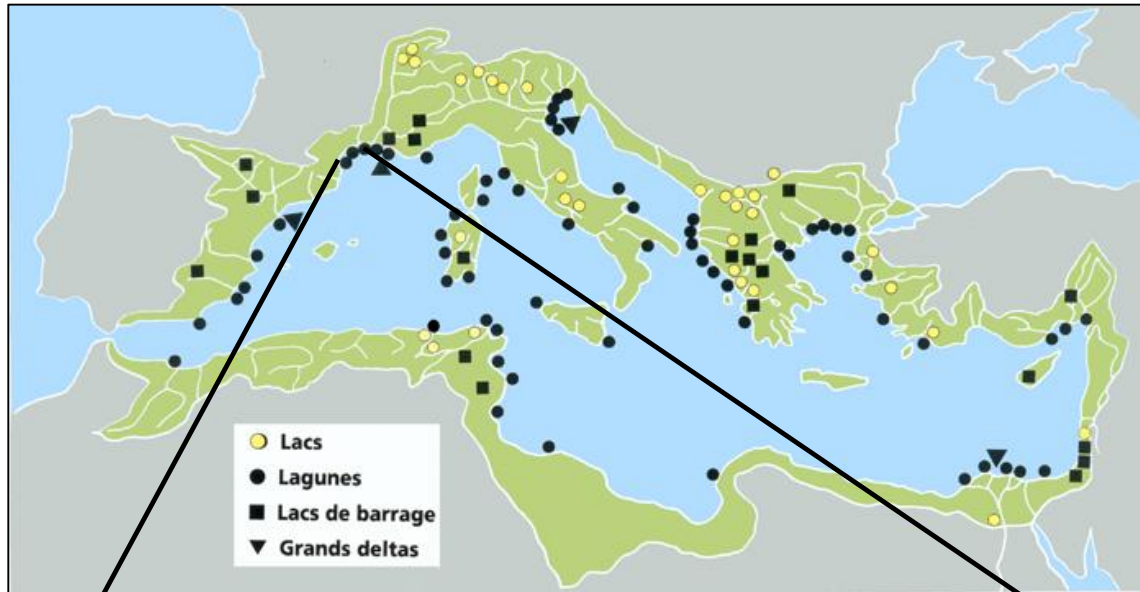
PILOT BASINS – Bages-Sigean lagoon



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The lagoons in the Mediterranean

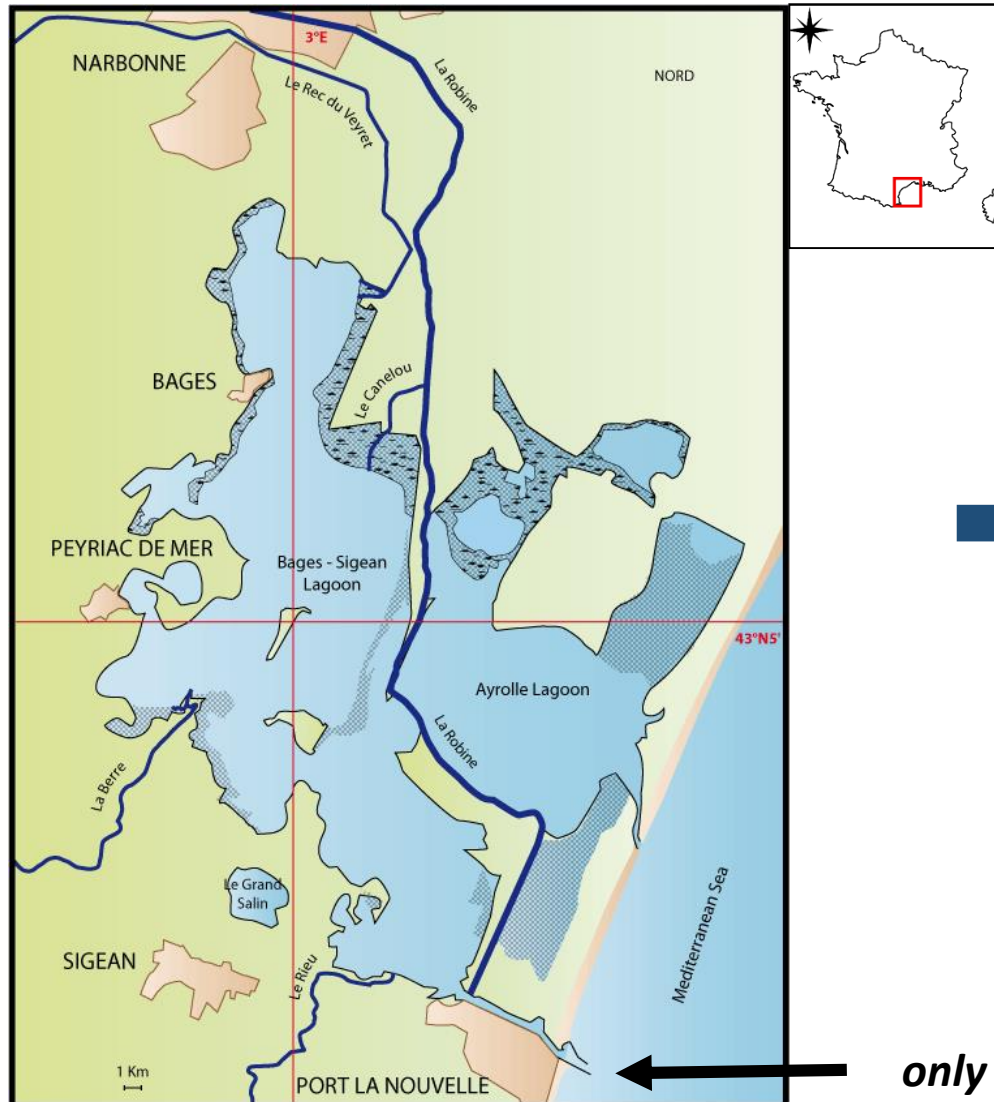


- 400 lagoons = 6 410 km² (FAO, 2015)
- very productive habitat (brackish water)
- produces high quantities of silver eels in a short time (3- 6 years)
- Important role in stock recovery

Occitanie : 9 lagoons complex

Bages Sigean = 3rd biggest lagoon

The lagoon



Lagoon area : 370 km²

River basin area : 443 km²

Mean depth : 1.5 m (max : 3.75 m)

Mean salinity : North 23.1 ; South 28.2

3 non-permanent rivers:

- Berre (52 km/catchement : 270 km²)
- Rieu (10 km)
- Rec du Veyret (5 km)

2 permanent artificial channels :

- Robine (30 km)
- Canelou (2 km)

only one exit to the sea

No obstacles to migration



Channel sea – lagoon :

2 km long

Depth 9 m – 6 m

Width : 85 m – 53 m

Exchange with the sea improved through the partial removal of the gates dam in the channel in 2004

The eel fishery



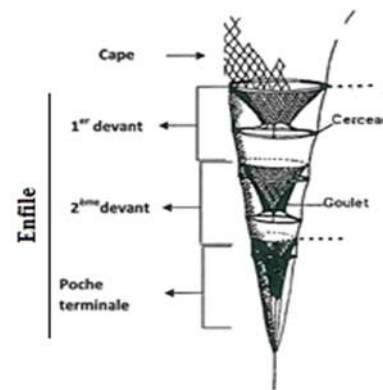
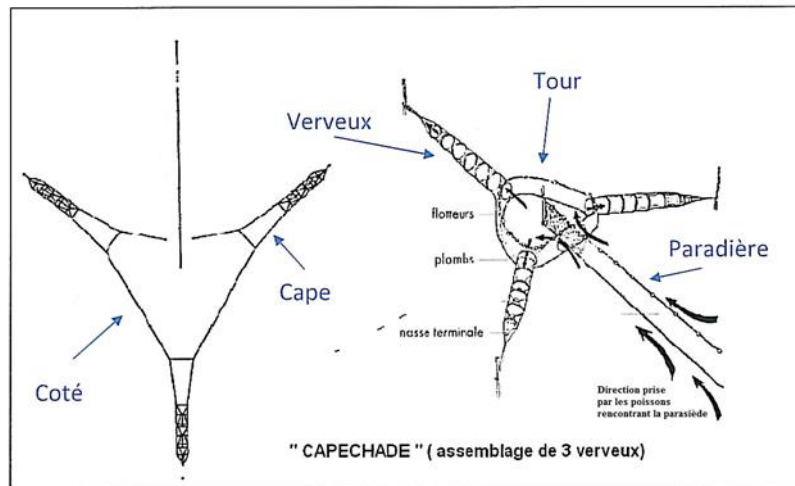
	lagoon	rivers
Glass eels	Prohibited (<12 cm)	Prohibited (<12 cm)
Yellow eels	YES: 9 months 1st March – 15 July 15 Aug. – 31 Déc.	YES: 5 months 15 March – 1st July 1st Sept. – 15 Oct.
Silver eels	YES: 6 months 15 Sept. – 15 Fév.	NO



The eel fishery



	Gears
Glass eels	-
Yellow eels	Fyke nets
Silver eels	Fyke nets



17 fishermen → all are fishing yellow and silver eels

Other pressures on the eel

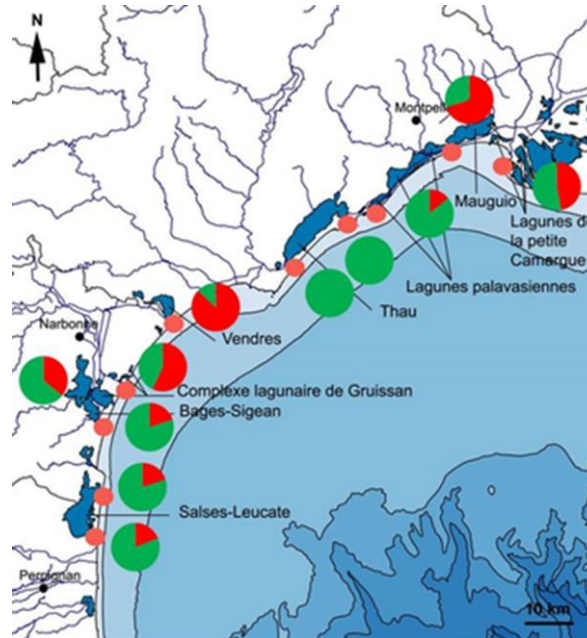


Biological contamination : parasites

Anguillicola crassus



Bages-Sigean :
(20 - 36% in 2011,
19 – 41% in 2016)



Chemical contamination :

Origin : urban, industrial and agricultural



Heavy metal + POPs
Surveys in 2011 and 2016

Eel Management Plan



- Annual regional authorization of eel fishing in Mediterranean (quota for Occitanie : 200 “ship owner-boat” couples ; boat < 9 m)
- Prud’homies (= local reglementaiton to provide equitable access to the fishing sites and sustainable management of the resources)

Measures :

- Capture reporting obligations
- Fishing period reduced
- Fleet exit plan
- Limitation of the number of fishing gears per fisherman
- Silver eels release program (16 – 25 t / year)

Monitoring

- What has been monitored on Bages-Sigean lagoon ?
 - **no long term monitoring on eels for recruitment and escapement**
 - Silver eel population size and escapement estimation via mark-recapture experiment in 2007
 - Silver eel health (heavy metals, POPs, parasites) in 2008, 2011, 2016
 - Silver eels annual survey on biological parameters (length, weight, condition factor, lipids) via release program since 2011
 - Monthly survey of physical –chemical parameters (S, T, pH, Oxygen) by the lagoon manager Parc Naturel Régional de la Narbonnaise
 - Ecological and chemical status of the lagoon via WFD (2009/2012/2015)



Monitoring



- Main difficulties encountered

Lack of money!



We are looking for co-financing a project (2018-2020) on escapement (acoustic camera) and recruitment (glass eels traps) surveys on Bages-Sigean lagoon

→ complementary with SUDOANG



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