

# Renewable resources, culture practice, licensing



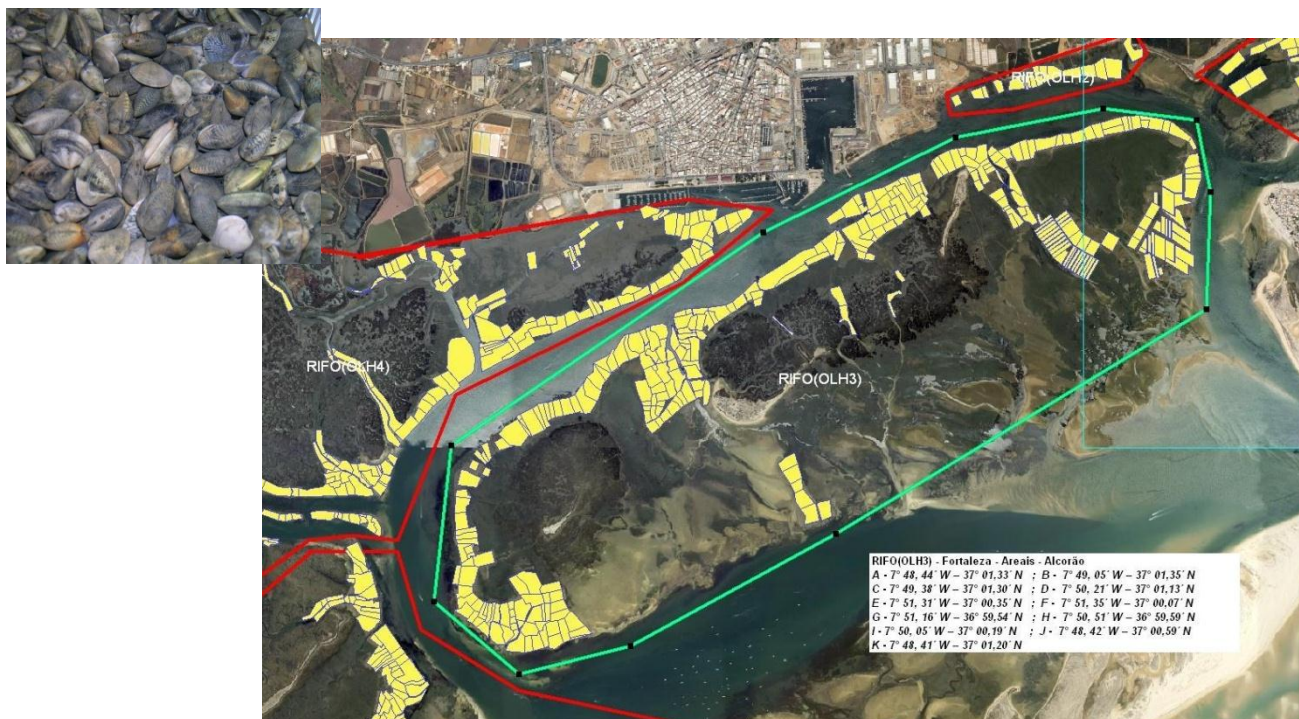
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# Renewable resources and culture practice



# Culture practice – European clam



The production of European clam (*Ruditapes decussatus*) in Ria Formosa Lagoon



Culture is clearly limited by the availability of seed once this production depends exclusively from natural recruitments



The annual recruitment fluctuations imply a great variation on the price of seed



# Culture practice – European clam

European clam natural banks  
in Ria Formosa Lagoon



# Culture practice – European clam

## Treatment of ongrowing areas

Removal of macroalgae



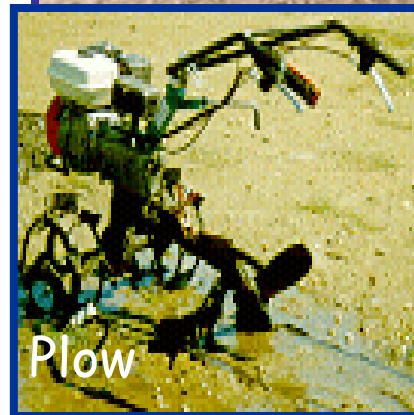
Rake



Turn over de sediment



Plow





# Culture practice – European clam

Sand



Pebble



# Culture practice – European clam

## Seeding



Seeding:  
Juveniles (10 - 20 mm)  
Density of  $\pm 1 \text{ Kg/m}^2$



# Culture practice – European clam

## Growing phase



Growing phase:  
18 to 24 month  
Cleaning the macroalgae and debris



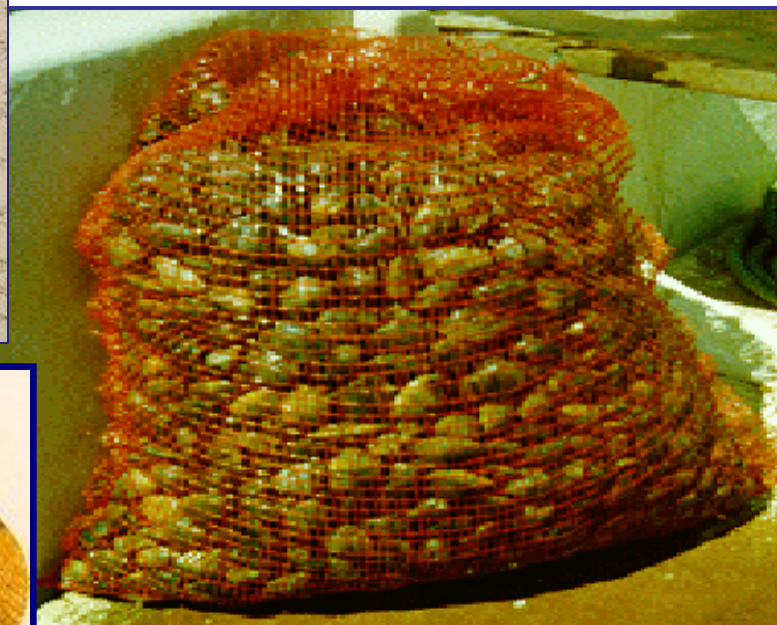
# Culture practice – European clam

## Catch phase



Catch phase:  
Adults (35 mm)  
Density  $\pm 1$  to  $2 \text{ Kg/m}^2$

## Transport





# Culture practice – Oyster





## Seeding

*Hatchery*



*Natural banks*



### Seeding:

Juveniles (5 - 20 mm)

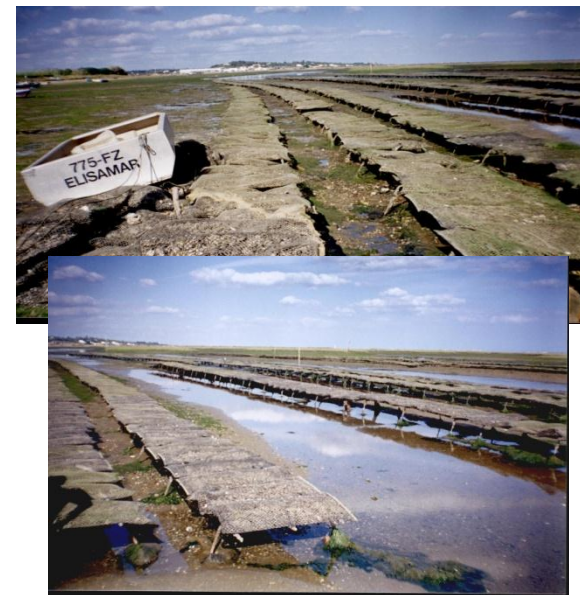
Density of  $\pm$  350 - 600 oysters by bag

# Culture practice – Oyster

## Growing phase

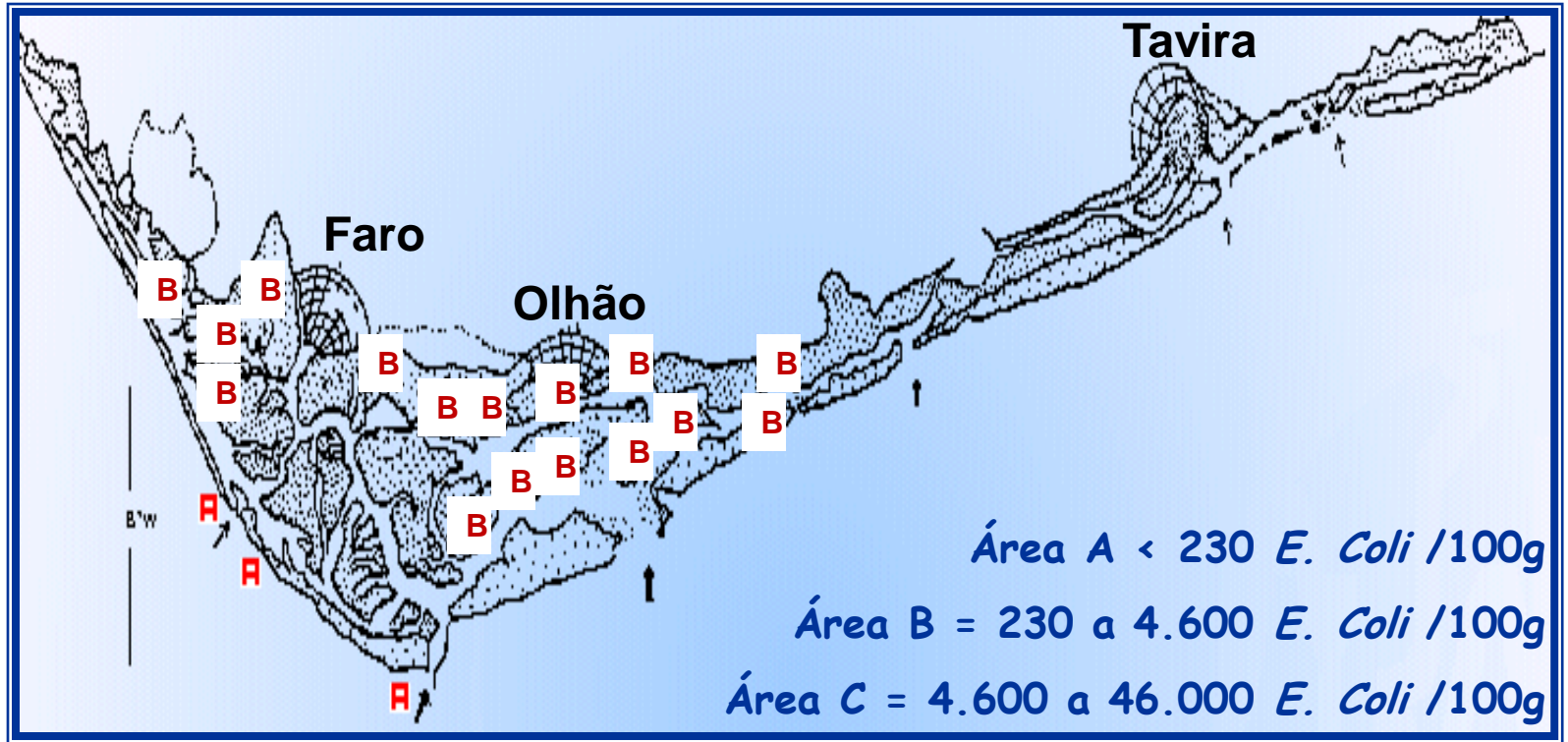


Culture on sediment



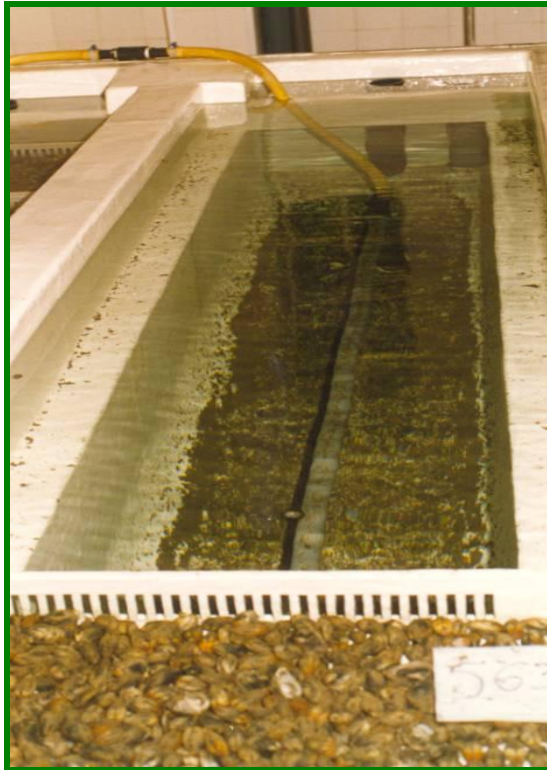
Culture on tables

# Culture practice





## Depuration



# Culture practice

Are this a good practices of culture?



- Boundaries with materials not originating from Ria Formosa?
- Change in level of ongoing park?

# Culture practice

Are this a good practices of culture?



- Use of pellets as sediment?
- Use of boundaries/fences near of navigation chanel?
- Transport bivalves poorly package, do not imply a major risk of higher bacteriological contamination?



# Licensing

**Bivalve mollusks ongrowing areas:** units located in intertidal areas on estuaries or lagoons.

Decreto Regulamentar n.º 14/2000

License to install the  
establishment of  
marine farming

License of resource hidric  
utilization

License the  
exploitation

- **Entities that can attribute de licenses**

✓ **Direcção-Geral das Pescas e Aquicultura (DGPA)**, (coordinator entity) – licensing the installation of the establishment of marine farming and respectively exploration.

✓ **Administração da Região Hidrográfica (ARH)** delegated on ICNB – licensing of the resource hidric utilization.



# Licensing

