CONTRAINTEs
au développement
de la coquille Saint-Jacques

extrait de :
1983-2002 : the 20-year development
of the King scallop (P. maximus)
sea-ranching industry
in the bay of Brest (France) :
historical record, results, prospect.

P.G. Fleury, J.P. Carval, M.L. Muzellec,
A. Gérard, J. Barret, J.C. Cochard & J.C. Dao

Restocking ? → Collecting in the wild ?

--- NO RESULT
Restocking ?

↓

Importation ?

Scotland (1980)
Ireland (1982)

--> Transport cost
--> Poor results of seedings

Limits - Fragility of the industry
(1) hatchery - intermediate culture

± Algae production (quantity, quality),
± Maturation of breeders,
± Rearing prophylaxis,
± Stress due to transfer to the sea,
± Vermins (Gymnodinium, Polydora),
± Over-densities in hatchery and at sea (limit of the equipment capacity).
Research
(1) hatchery - int. culture

- Hatchery techniques and larval prophylaxis:
  - continuous algae cultures,
  - continuous larval rearings,
  - probiotics,

- Remote-settlement and transfer to the sea:
  - métamorphosis on transportable structures allowing an early transfer without detachment,

- Intermediate culture:
  - transportation of spat in vivier-lorry,
  - new équipements, less costly,
  - qualification of new sites for int. culture.

Limits - Fragility of the industry
(2) seedings - recapture

- Stress of juveniles when seeded,
- Reduction of the propice seeding area (crepidula, ...),
- Predators: starfish, whelks, crabs, ...
- Too powerful engines of dredging boats,
- Long rearing cycle and complex management (animals, equipments, seeding and fishing areas).
Research
(2) seedings - recapture

- **Seedings**:
  - criteria for juvenile vitality,
  - behaviour at seeding (recessing, escape to predation),
  - seeding size of animals according to seasons,
  - Crepidula avoidance,
  - qualification of new seeding sites.

- **Recapture**:
  - efficiency of dredges,
  - assessment of recaptures.

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Juvenile production

- **Tinduff hatchery**
  
  = 20 millions Post-larva /year
  + extending (2003)
  aim : 10 M. P-l. ⇒ 500 mt./year
  But not possible for more ...  

- **2nd hatchery in project**
  - fundings ?
  - organization ?

- **Importations of spat**
  - what size ?
  - how ? vivier-lorries ?
The present cycle is long and fragile

- Heavy Investment,
- 3-4 years,
- Dispersal and heterogeneity of the production sites (on shore, at sea),
- Complex schedule,
- Reorientations long to be carried out.

Need of a segmentation of the industry
Towards a segmentation?

- Hatcheries
  - Post-larvae supply
- Importations
  - Juvenile supply
  - Spat ongrowers
- Fishermen
  (and oysterfarmers)
  - Market

Rearing cycle:
- Spawning
- Hatchery (3 months)
- Transfer to the sea (2 mm)
- Intermediate culture in cages (6-10 months)
- Seeding (30 mm)
- Ongrowing on sea-bed
  - 1 - 5 scallop / m²
  - (3 years)
- Dredging (10 cm +)

Trumps of a 20-year old know-how

- Technical and biological knowledge
- Choice of sites, of animals, of equipments
- Management of seeding and fishing areas
- Management of an increasing production
- Information of actors
- Etc.
**Conclusions**

1) An *established production* (+ 200 t) in the bay of Brest but set up with an *heavy investment*.

2) A *main interest* for the coastal management, with an *increasing demand* from other scallop-fishing areas.

3) The *need of a segmentation of the industry* for the emergence of new projects (to reduce investment costs and delays of first financial incomings).

4) A *20-year old know-how of the Brest team*, a *must* for the development of the whole French scallop industry.

*Should be continued ...*