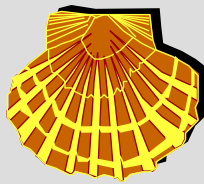


CONTRAINTES au développement de la coquille Saint-Jacques



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 ?



Restocking ?



Importation ?

Scotland (1980)

Ireland (1982)



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

3

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).

4

Research

(1) hatchery - int. culture



- **Hatchery techniques and larval prohylaxis**
 - 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 equipements, less costly,
 - qualification of new sites for int. culture.

5

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).

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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.

7

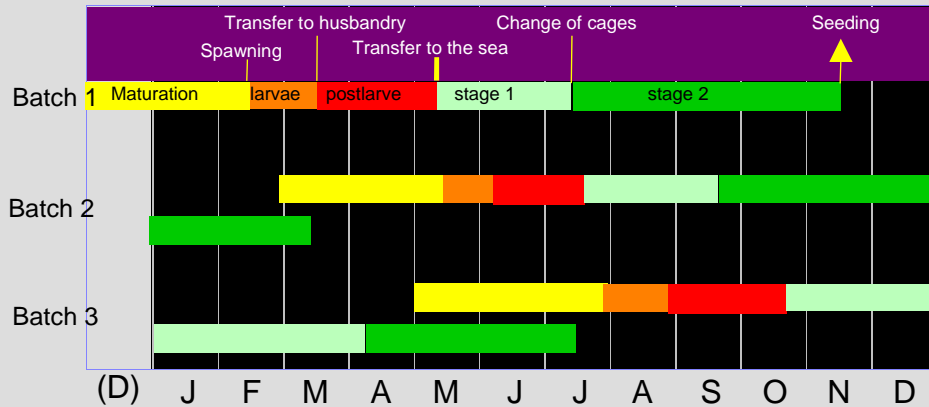
Juvenile production

- ☆ 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 ?



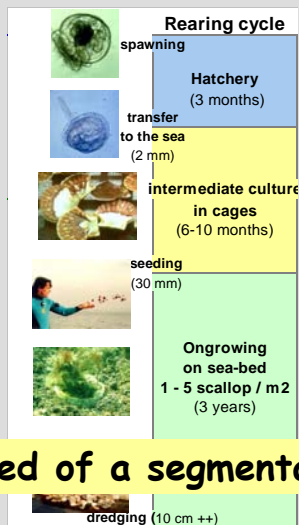
8

Annual schedule of production (Tinduff Hatchery)



9

The present cycle is long and fragile

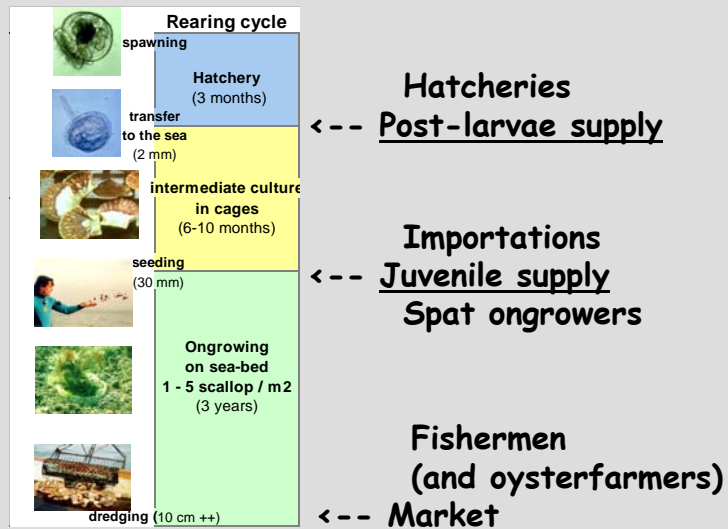


- Heavy Investment,
- 3-4 years,
- Dispersal and heterogeneity of the production sites (on shore, at sea),
- Complex schedule,
- Reorientations long to be carried out.

Need of a segmentation of the industry

10

Towards a segmentation ?



11

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.

12

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 ... 13