



THE SPANISH SHELLFISH CULTIVATION INDUSTRY

Facts, constraints and scope for development

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ANFACO-CECOPESCA

ASSG Conference, 4-5 October 2018



ANFACO-CECOPESCA

ANFACO-CECOPESCA (National Association of Seafood Canning Manufacturers) is the oldest business organisation in Spain with **114 years of history**.

Located in Vigo (Galicia, NW Spain).

National-wide scope, although **Galicia** is the core of its activity.

It gathers the most relevant companies in the Spanish seafood sector.

It has **253 member companies** belonging to all activities in the **seafood industry & other food sectors**.

MAIN DUTIES:

- **Representation and defence of its members' interests**
- **Enhance the competitiveness** of the seafood sector
- Presence in the **EU Advisory Councils on fisheries, aquaculture and food matters**
- **Communication and promotion**
- **Legal and commercial advice**
- **R&D&i, analytical and technical services and support**



ANFACO-CECOPESCA

CECOPESCA is an international reference **technological centre for innovation in seafood & other food products and aquaculture.**

More than **65 years** of history as a supplier of **R&D&i and technological services.**

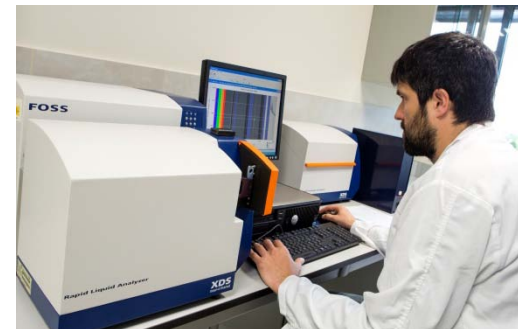


- ISO and Spanish standards accreditations
- Approved laboratory for the control of biotoxins in marine bivalves
- Approved laboratory for the quality and safety control of fishery products and other food products
- Approved laboratory for water quality control

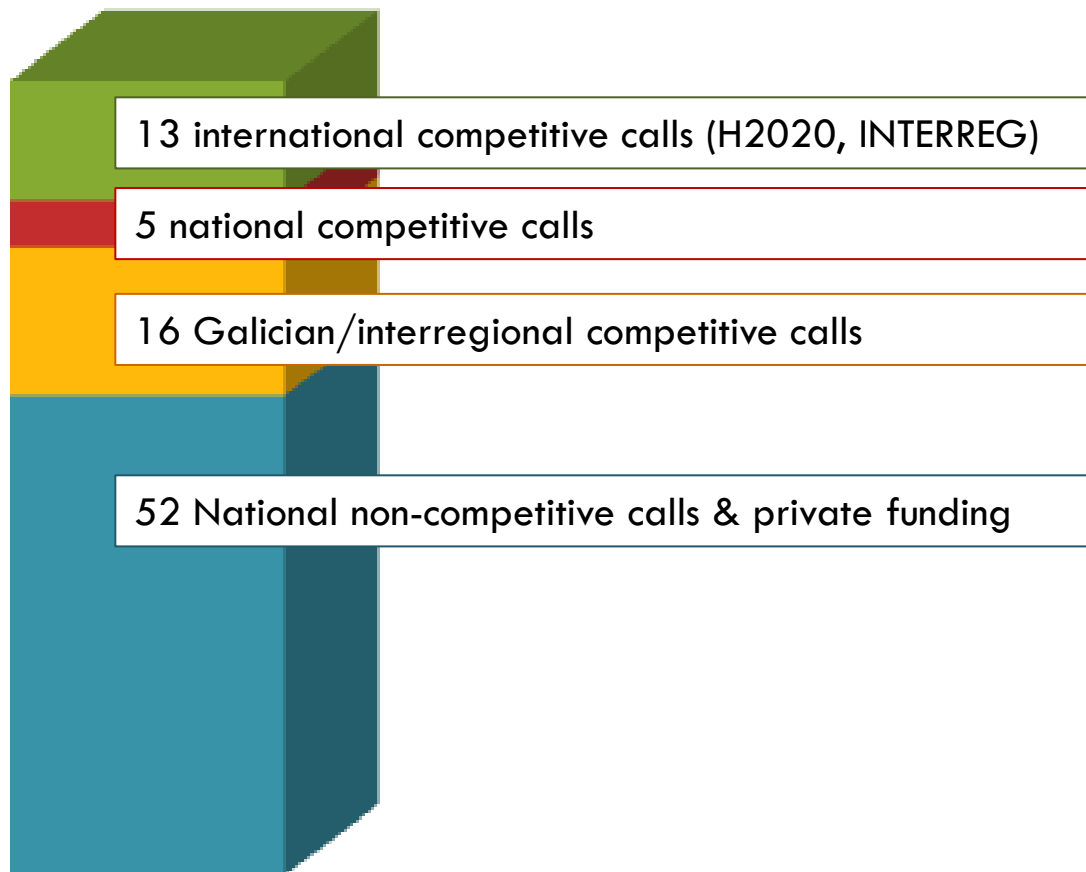
ANFACO-CECOPESCA - Capacities



- Fish and seafood manufacturing pilot plant
- Recirculation aquaculture pilot plant & microalgae culturing room
- Laboratory for valorisation of by-products
- Laboratory of food biotechnology
- Laboratory of molecular biology
- Laboratory for determination of biological contaminants in foodstuffs
- Laboratory for analysis of biotoxins
- Laboratory of physico-chemical analysis
- HPLC and GC-MS laboratory
- Laboratory of packaging technologies
- Sensory analysis laboratory



ANFACO-CECOPESCA – R&D&i projects



Some facts and figures of the Spanish shellfish cultivation industry

The shellfish cultivation industry in Galicia

- Main facts and figures
- Constraints and concerns
- Scope for boosting the sector

ASTURIAS	
37	Tn
285	x 1.000 €

Rock oyster

CANTABRIA	
16	Tn
122	x 1.000 €

Rock oyster
Manila clam

CATALUÑA	
3,340	Tn
4,674	x 1.000 €

Mediterranean mussel	Rock oyster
Grooved carpet shell clam	Native oyster
Razor shell	
Manila clam	
Cockle	

GALICIA	
271,816	Tn
145,026	x 1.000 €

Mediterranean mussel	Rock oyster
Grooved carpet shell clam	Native oyster
Pulled carpet shell clam	Queen scallop
Manila clam	Variegated scallop
Cockle	

BALEARES	
67	Tn
184	x 1.000 €

Mediterranean mussel
Venus clam

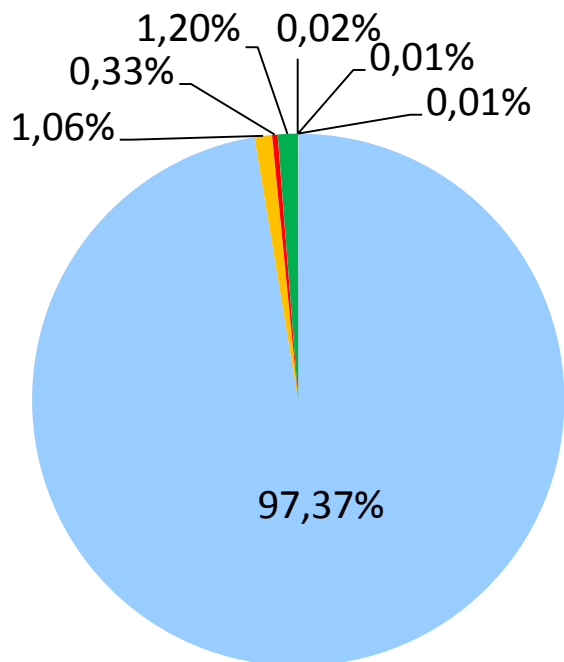
ANDALUCÍA	
2,978	Tn
2,786	x 1.000 €

Mediterranean mussel	Manila clam
Rock oyster	Queen scallop
Grooved carpet shell clam	Variegated scallop

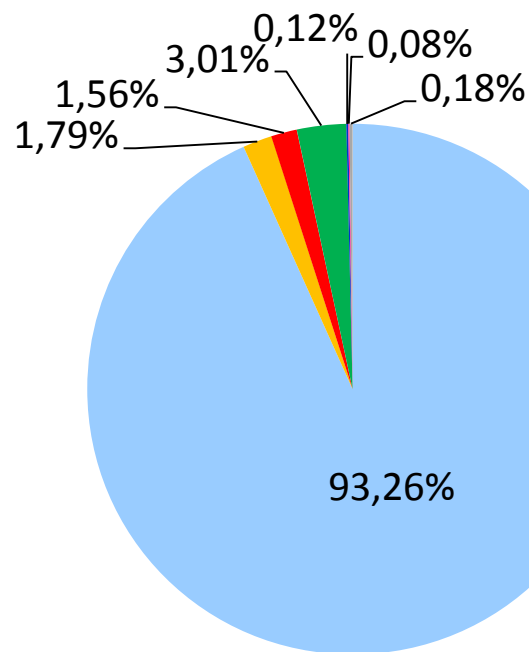
Mediterranean mussel
Rock oyster
Native oyster
Variagated scallop

C. VALENCIANA	
922	Tn
2,423	x 1.000 €

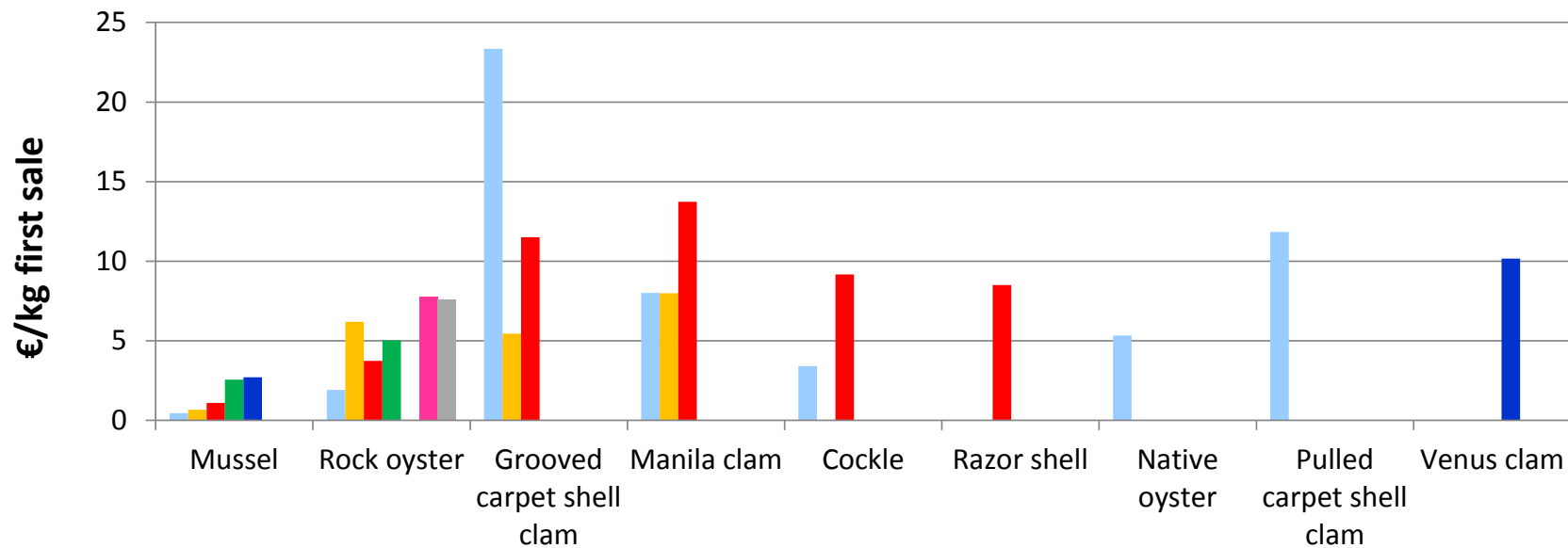
Sources:
Galician Regional Government, 2018
Spanish Ministry of Agriculture, Fisheries and Food, 2018



Production volume



Production value

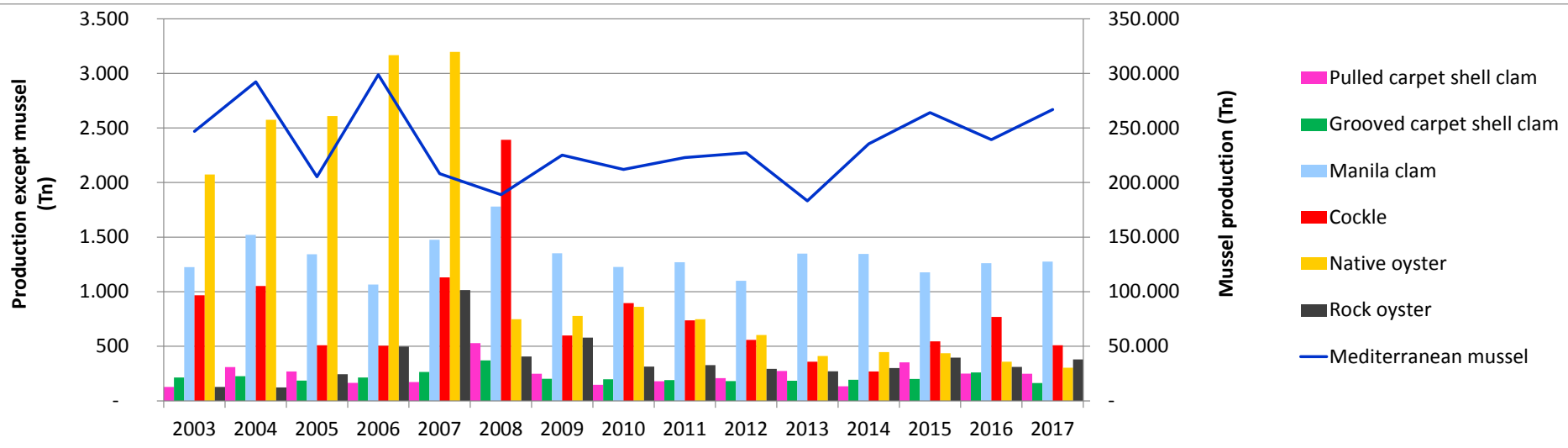




Not merely an industry

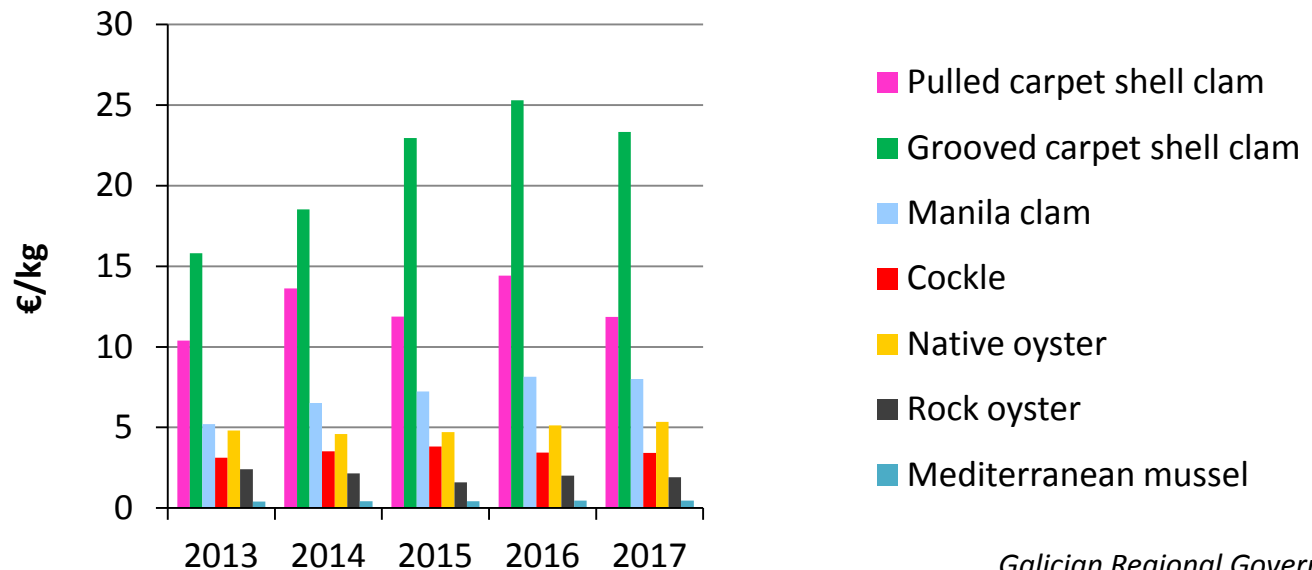
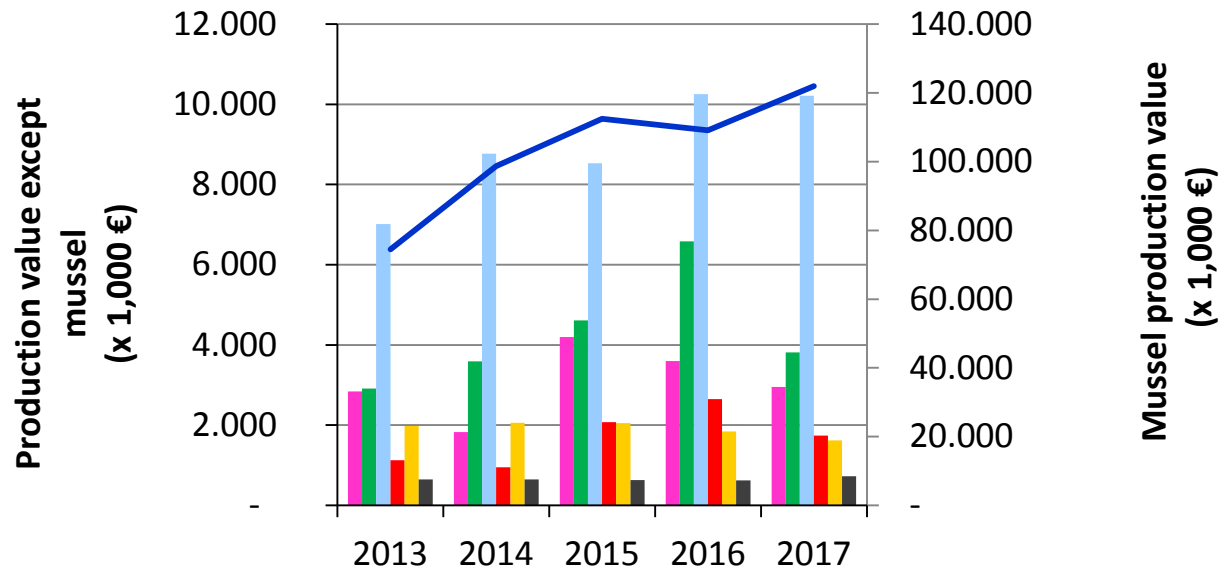


Main facts and figures



Mussel (oyster, scallop) rafts	1,929 companies (3,330 rafts)	4,416 jobs
Licensed cultivation areas ("parks")	682 areas	886 jobs
Other harvesting areas	n.a.	3,800 jobs??
Hatcheries & nurseries	8 production sites	40 jobs

Main facts and figures



Source:
Galician Regional Government, 2018



CONSTRAINTS AND CONCERNS

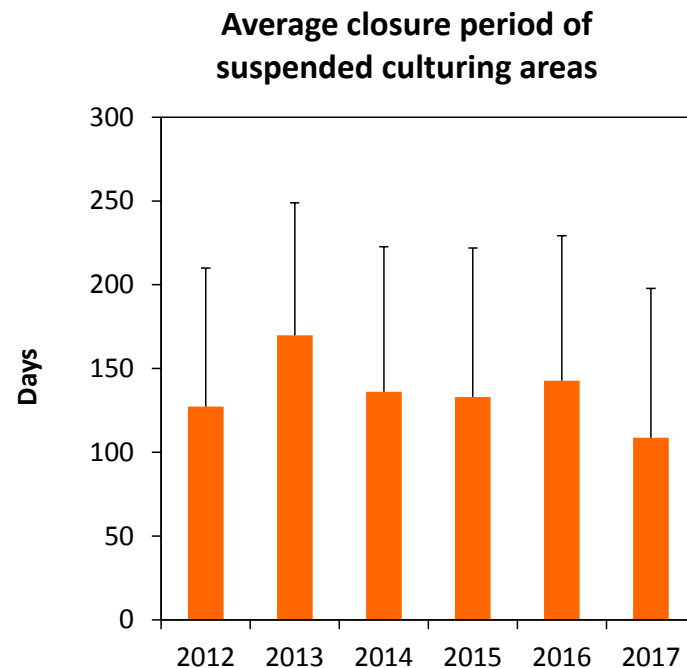


Food safety

BIOTOXINS

The main threat to suspended cultures

Extreme restrictions to king scallop harvesting (ASP)!

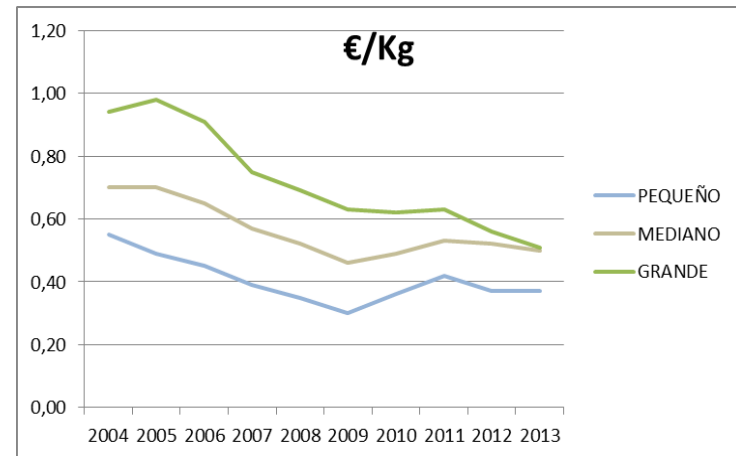
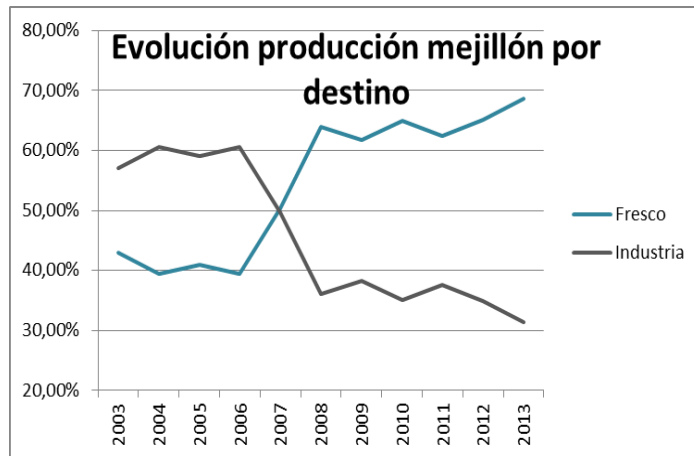


Source:
Galician Institute of Technology
for the Control of Marine Environment (INTECMAR)

Market issues & commercial capacities

IMPORTS OF CHILEAN MUSSELS

Shift from canning industry to the fresh market & other processing industries



Market issues & commercial capacities

DIFFICULT EXPANSION TO NEW MARKETS

Different consumption preferences

Limited distribution channels

- Most shellfish locally auctioned
- Alternative channels (e.g. online sale) still developing



Conflicts

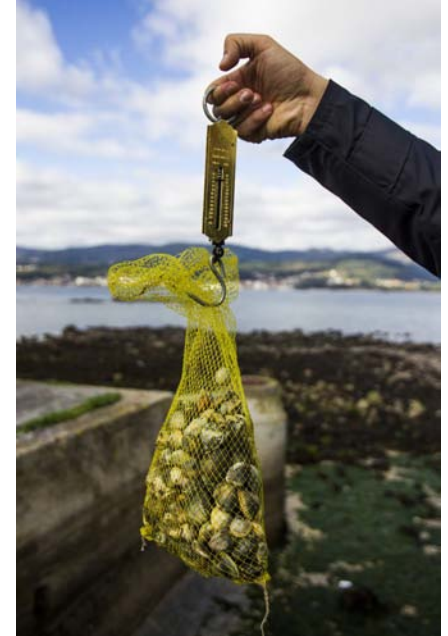
ILLEGAL HARVESTING

«Professional poachers»

Tourists!

DISCREPANCIES AMONG PRODUCERS

Difficulties to set common strategies for promotion, labelling, etc.



Diseases and mortalities

- Native oysters: bonamiasis
- Rock oyster: summer mortalities by OsHV-1
- Cockle: marteiliasis (NEW!)
- Clams: salinity drops caused by winter floods



Climate Change Influences on Marine Infectious Diseases: Implications for Management and Society

Colleen A. Burge,¹ C. Mark Eakin, Carolyn S. Friedman, Brett Froelich, Paul K. Hershberger, Eileen E. Hoffmann, Laura E. Petes, Katherine C. Prager, Ernesto Weil, Bette L. Willis, Susan E. Ford, and C. Drew Harvell¹

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REVIEW

Emerging Marine Diseases--Climate Links and Anthropogenic Factors

C. D. Harvell^{1,*}, K. Kim^{1,2}, J. M. Burkholder³, R. R. Colwell^{4,5}, P. R. Epstein⁶, D. J. Grimes⁷, E. E. Hofm...

+ See all authors and affiliations

Science 03 Sep 1999:
Vol. 285, Issue 5433, pp. 1505-1510
DOI: 10.1126/science.285.5433.1505



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Inter-Research Diseases of Aquatic Organisms

You are at: [Inter-Research](#) > [DAO](#) > [v109](#) > [n1](#) > [p55-80](#)

DAO 109:55-80 (2014) - DOI: <https://doi.org/10.3354/dao02723>

Cockle *Cerastoderma edule* fishery collapse in the Ria de Arousa (Galicia, NW Spain) associated with the protistan parasite *Marteilia cochillia*

Antonio Villalba^{1,*}, David Iglesias¹, Andrea Ramilo¹, Susana Darriba², José M. Parada¹, Edgar No¹, Elvira Abollo³, José Molarés¹, Maria J. Carballal¹

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³Centro Tecnolóxico del Mar - Fundación CETMAR, 36208 Vigo, Spain

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Spat availability

Only 8 hatcheries & nurseries in Galicia!

- Low productivity
- Mortality episodes
- High exploitation costs

Need to import spat from France, Italy, Tunisia

DEMAND AND INTEREST FOR AUTOCHTONOUS SPAT





SCOPE FOR DEVELOPMENT



Products

PRODUCT DIVERSIFICATION

Cooked, ready-to-eat, protective atmosphere



ORGANIC PRODUCTION



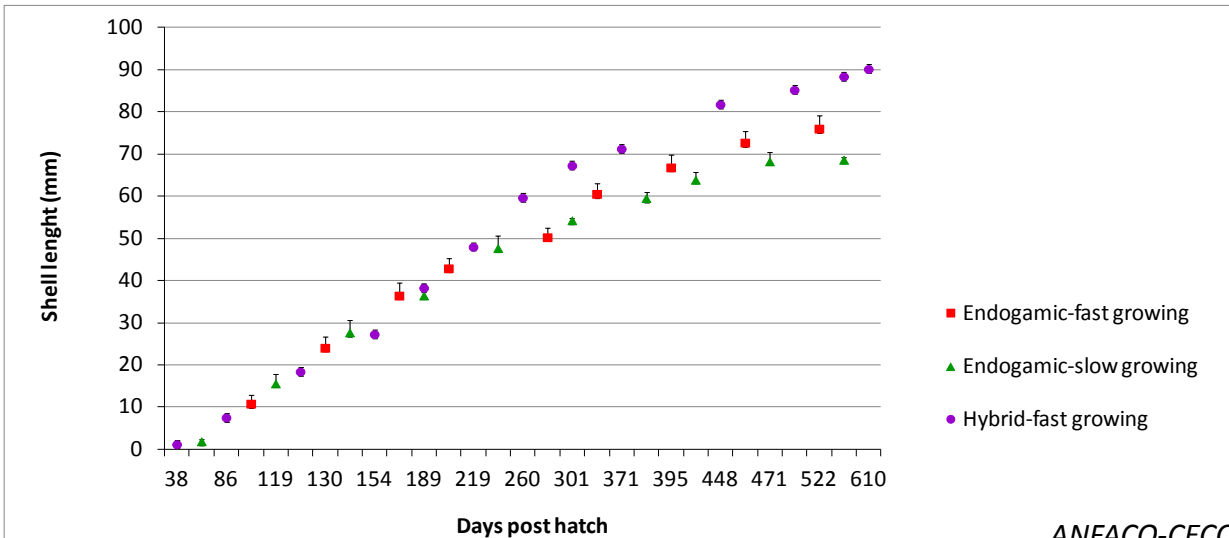
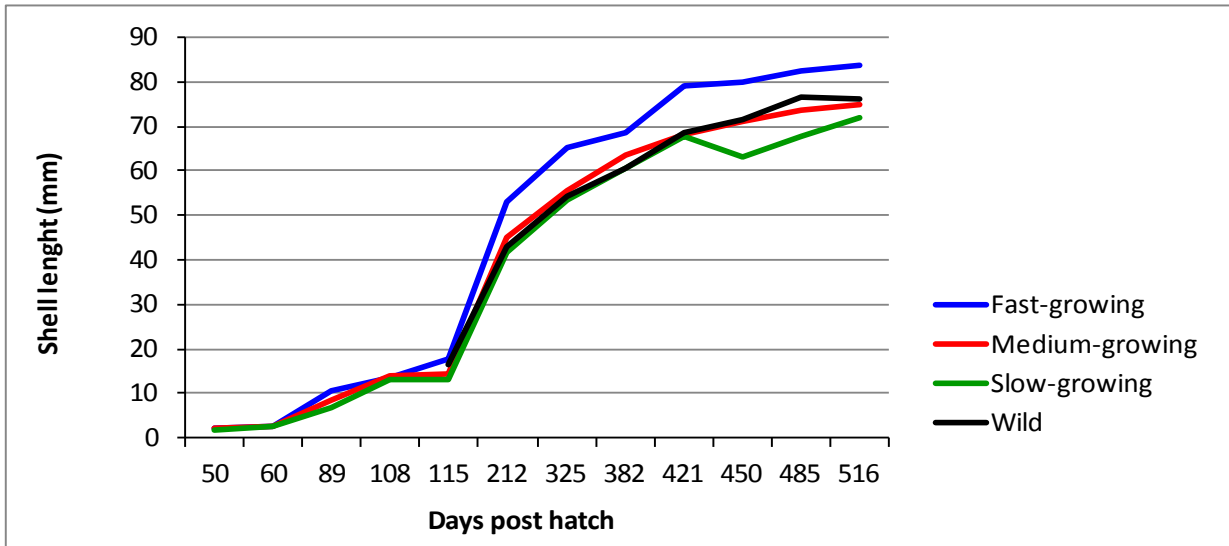
Cultivation – new tools

SYSTEM DIVERSIFICATION



Cultivation – new tools

SELECTIVE BREEDING



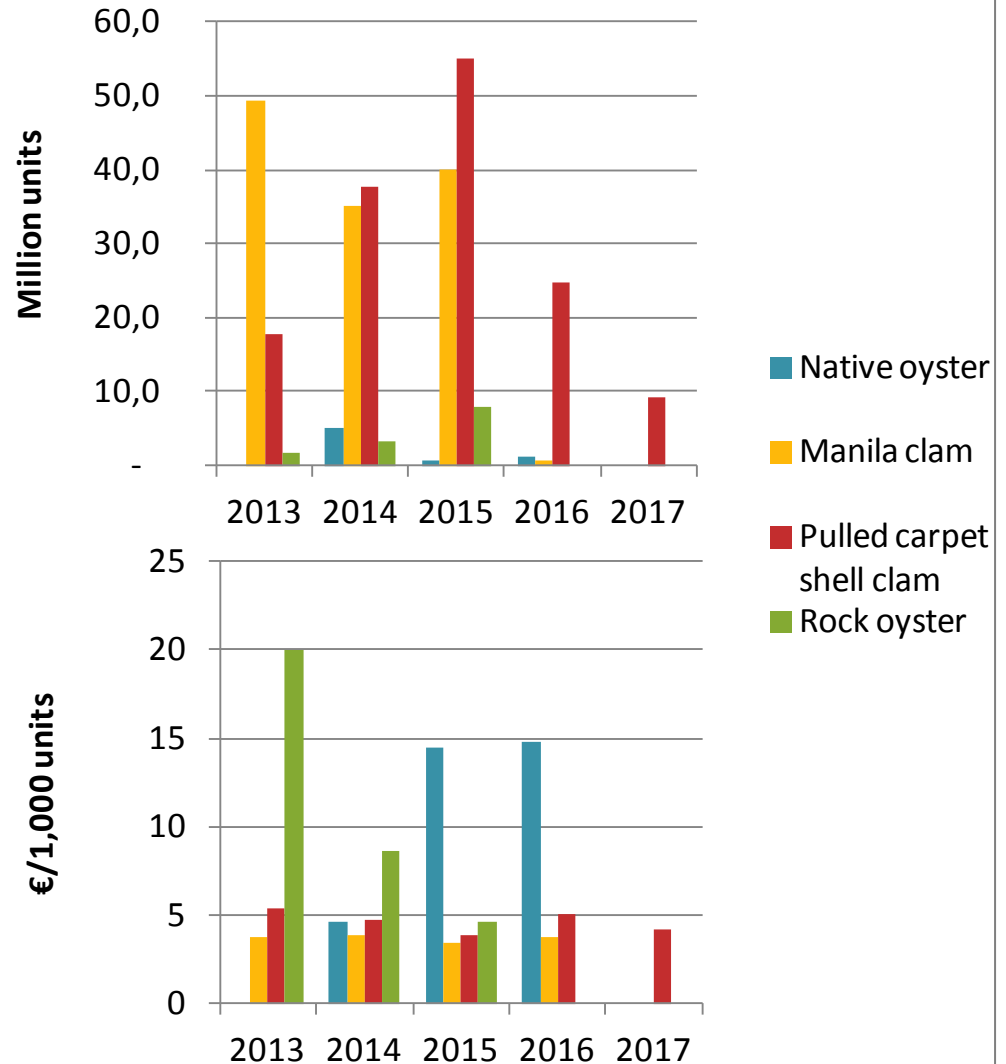
Source:
ANFACO-CECOPECA & JEALSA, 2018

Cultivation – spat production



Critical points:

- Disease control & biosecurity
- Improvement of microalgal production
- Decrease of operational costs
- Selective breeding

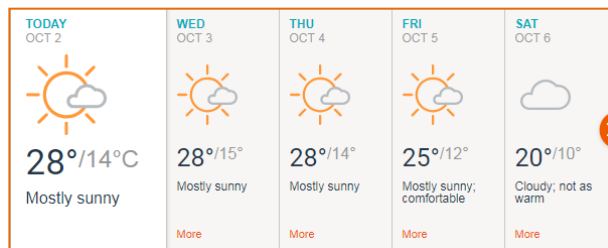




Galician shellfish aquaculture is a well consolidated sector, but some challenges lay ahead

- Mussel growers must care about product quality and find new markets in order to get better prices
- The rest of producers must increase their production whereas trying to maintain or increase its value

Everything in an unpredictable environmental scenario



(Winter is coming??)





Thank you for your attention!

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