



# BIM

Ireland's  
Seafood  
Development  
Agency

# Aquaculture Schemes

- Knowledge Gateway
  - Innovation
  - Animal Health and Welfare
  - Advisory Services

## Sustainable Aquaculture

- Organic Aquaculture
- Biotoxin Harvest Suspension
- Capacity Building

# 2016 Review

- Knowledge Gateway
  - 8 projects approved
  - 6 completed
    - 3 innovation projects
    - 2 training and networking
    - 1 advisory services (BIM service project)
  - Total grant aid €945,943
    - 50% EMFF
    - 50% national funds

# Study on kinetic forces on seed mussel farm during storm event

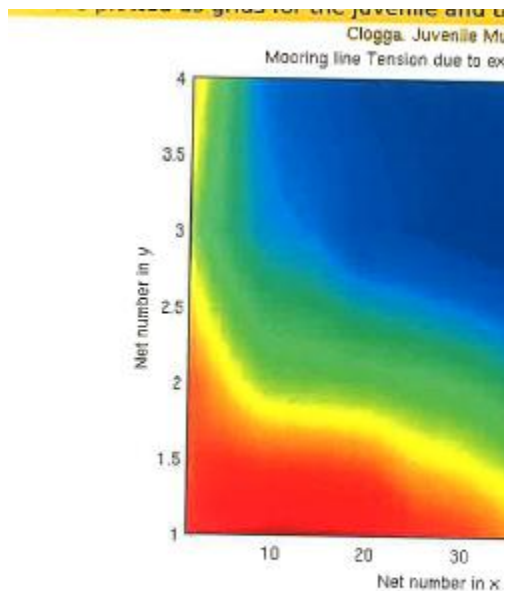


Figure 27. Mooring line tension due to extreme wind simulation.

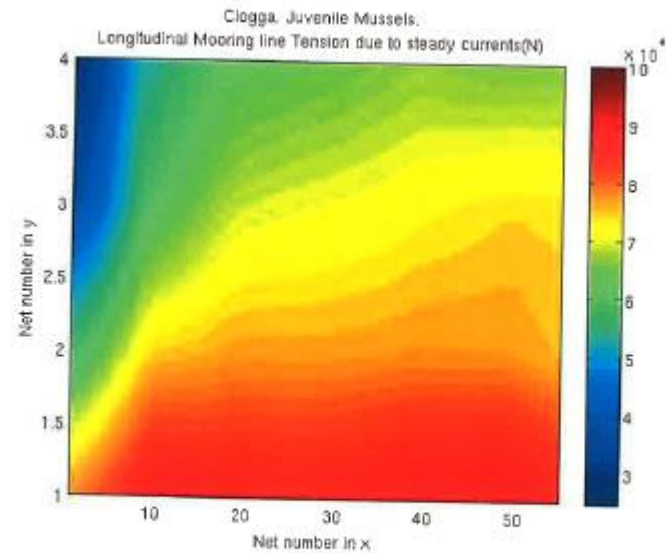


Figure 28. Mooring line tension due to currents for the juvenile case. RP50 north wind

# BIM service project- seaweed cultivation

FEBRUARY 2017 | MARINE TIMES NEWSPAPER

## New Report on Red Seaweed Cultivation from BIM Shows Promise

In Asia, *Porphyra*, colloquially referred to as red seaweed is an important part of the normal diet. China, Japan and Korea all have very extensive and lucrative *Porphyra* production industries. The red seaweed is commonly used to make sushi in Japan, as well as the popular food gimbap in Korea. In Japan, the current annual production of *Porphyra* species is valued at 100 billion yen (US\$1 billion). Demand for this seaweed is growing and coupled with rising prices, many algologists around the world are trying to develop methods for the cultivation of this complex species.

BIM have published the first in a series of reports on their current work in this exciting area. Following a tender process in late 2015, Cartron Point Shellfish Ltd. (CPS) was awarded the contract to carry out a programme of work on both brown and red seaweeds. This work was carried out by Freddie O'Mahony of CPS at the Daithi O Murchu Marine Research Station (DOMMRS) located in Gearahies, Bantry, Co. Cork. Specifically BIM wanted the work on the red weed *Porphyra umbilicalis* to include an investigation of the Irish coastline for the presence of sexual *Porphyra umbilicalis* plants and the cultivation of it under laboratory conditions.

We were looking for asexual plants as the lifecycle of the asexual plant is much simpler than that of the sexual plant and from a handling and cultivation perspective, it is much easier to manipulate asexual plants in a hatchery situation.

Up to this point, the lucrative red weed had not been successfully cultivated in

The search began in January 2016 spanning counties Clare, Kerry, Wicklow, Cork and Dublin. The most detailed survey was conducted in West Cork and numerous populations of *P.umbilicalis* were found in an area stretching from Sheep's Head peninsula in West Cork east to Clonakilty.

The most promising results were obtained from one very small isolated population in West Cork. While many other sites with *Porphyra* populations were identified, the plants were found to be sexual. By the end of the process we had identified 11 Irish asexual *P.umbilicalis* plants.

New sites for *Porphyra umbilicalis* populations were identified in counties Donegal, Sligo and Galway over summer 2016. These sites will have to be revisited in early 2017 to determine if there are any asexual plants at these locations. It has to be borne in mind that areas with asexual plants in 2016 may not provide asexual plants in subsequent years. This further highlights the importance of keeping



Freddie O'Mahoney trimming *P. umbilicalis*

result!

While there have been a lot of positive insights gained over the past year from this project, we have quite a way to go before we reach a commercial level and a lot more testing is required. Our main aims over the next 12 months will be to source more asexual plants in the wild; further test sporulations on

to glass beads, strings and nets; conducting sea trials with seeded nets and looking to upscale the growth trials.

This work is funded by the European Maritime and Fisheries Fund 2014-2020 and a copy of the full report from BIM is available on [www.bim.ie](http://www.bim.ie)

# 2016 Review

- Sustainable Aquaculture Scheme
  - 19 projects approved
  - 16 projects completed
    - 1 organic aquaculture
    - 15 capacity building: 11 oysters, 2 rope mussels, 2 salmon
  - Total grant aid: €819,982
    - 50% EMFF
    - 50% national funds

# New oyster farm



# 2017

## Knowledge Gateway Scheme

- changes to implementation plan to make the scheme more available to research institutions.
- Budget: €2m
- BIM service project
- 2 innovation projects applications received





# 2017

- Sustainable Aquaculture Scheme
  - Budget:€2.1m
  - 2 Tranches of applications approved
  - 20 projects underway over both tranches
  - Allocated funds of €1.95m
  - Open project call
  - 2 projects already completed from tranche 1

# Modernisation of mussel farm



