Isla Fitridge - DTU Orbit (10/02/2018)

Isla Fitridge

Organisations

Researcher, National Institute of Aquatic Resources
25/03/2014 → 04/02/2016 Former
isfi@aqua.dtu.dk
VIP

Danish Shellfish Centre
26/03/2014 → 04/02/2016 Former
VIP

Publications:

**Fiskeri efter søstjerner i Limfjorden. Fagligt grundlag for en forvaltningsplan**

**General information**
State: Published
Organisations: National Institute of Aquatic Resources, Danish Shellfish Centre, Section for Ecosystem based Marine Management, Section for Monitoring and Data
Authors: Petersen, J. K. (Intern), Gislason, H. (Intern), Fitridge, I. (Intern), Saurel, C. (Intern), Degel, H. (Intern), Nielsen, C. F. (Intern)
Number of pages: 35
Publication date: 2016

**Publication information**
Publisher: Institut for Akvatiske Ressourcer, Danmarks Tekniske Universitet
ISBN (Print): 978-87-7481-219-7
Original language: Danish

Series: DTU Aqua-rapport
Number: 308-2016
Main Research Area: Technical/natural sciences
Electronic versions: Publishers version
Publication: Research › Report – Annual report year: 2016

**Anvendelse af blåmuslinger til husdyrfoder**

**General information**
State: Published
Organisations: National Institute of Aquatic Resources, Danish Shellfish Centre, Aarhus University
Authors: Petersen, J. K. (Intern), Nielsen, C. F. (Intern), Nørgaard, J. V. (Forskerdatabase), Steenfeldt, S. (Forskerdatabase), Fitridge, I. (Intern)
Number of pages: 28
Publication date: 2015

**Publication information**
Place of publication: Nykøbing Mors
Publisher: Dansk Skaldyrcenter, Institut for Akvatiske Ressourcer
ISBN (Electronic): 978-87-7481-206-7
Original language: Danish

Series: DTU Aqua-rapport
Number: 296-2015
Main Research Area: Technical/natural sciences
Electronic versions: Publishers version
Links:
http://www.aqua.dtu.dk/Publikationer/Forskningsrapporter/Forskningsrapporter_siden_2008
A targeted starfish fishery as predation management on relayed mussel beds

General information
State: Published
Organisations: National Institute of Aquatic Resources, Danish Shellfish Centre
Authors: Saurel, C. (Intern), Fitridge, I. (Intern), Nielsen, C. F. (Intern), Petersen, J. K. (Intern)
Publication date: 2015
Event: Abstract from Aquaculture Europe 2015, Rotterdam, Netherlands.
Main Research Area: Technical/natural sciences
Publication: Research › Conference abstract for conference – Annual report year: 2015

Turning pests into protein – starfish by-product management in the Danish mussel industry

General information
State: Published
Organisations: National Institute of Aquatic Resources, Danish Shellfish Centre, Section for Ecosystem based Marine Management
Authors: Fitridge, I. (Intern), Nielsen, C. F. (Intern), Gislason, H. (Intern), Saurel, C. (Intern), Petersen, J. K. (Intern)
Publication date: 2015
Event: Abstract from 18. Danske Havforskermøde, Copenhagen, Denmark.
Main Research Area: Technical/natural sciences
Publication: Research › Conference abstract for conference – Annual report year: 2015

De Lokale Dyder: Udvikling af muslingeerhvervet i Limfjorden

General information
State: Published
Organisations: National Institute of Aquatic Resources, Danish Shellfish Centre
Number of pages: 32
Publication date: 2014

Publication information
Publisher: Institut for Akvatiske Ressourcer, Danmarks Tekniske Universitet
Original language: Danish
Main Research Area: Technical/natural sciences
Electronic versions:
Publishers version
Links:
http://www.aqua.dtu.dk/Publikationer/Forskningsrapporter/Forskningsrapporter_siden_2008
Publication: Research › Report – Annual report year: 2015

Starfish by-products management for mussel industry in Denmark

General information
State: Published
Organisations: National Institute of Aquatic Resources, Danish Shellfish Centre
Authors: Nielsen, C. F. (Intern), Saurel, C. (Intern), Fitridge, I. (Intern), Canal-Vergés, P. (Intern), Petersen, J. K. (Intern)
Publication date: 2014
Event: Abstract from Aquaculture Europe 14, Donostia-San Sebastian, Spain.
Main Research Area: Technical/natural sciences
Links:
https://www.was.org/easonline/mobile/Paper.aspx?i=3550
Publication: Research › Conference abstract for conference – Annual report year: 2014

Projects:
Development of sustainable mussel production (Idékataloget) (39250)

It is the overall objective of the project to develop sustainable methods of mussel production involving mussel fisheries, on-bottom culture and off-bottom long-line culture.

With regard to mussel fisheries, a GIS-based model of eelgrass habitats and their potential recovery was developed and has been reported. Further, macro algae were mapped in selected estuaries. In relation to on-bottom culture, focus has been on testing whether moving mussels from deeper to shallower areas during oxygen depletion was tested. Results showed that this can be a good strategy to move mussels that grew rapidly after relay in contrast to mussels not moved that died due to oxygen depletion. It is however important that careful monitoring of the relayed mussels are carried out by the fishermen as mussels otherwise risk to be eaten by starfish. Experiments with relay of mussel spat from water column spat collectors are currently being carried out.

In relation to long-line farming, DTU Aqua provided basic information and numbers to an economic analysis of the industry carried out by Copenhagen University, Department of Food and Resource Economy.

This project is coordinated by DTU Aqua.

The project was funded by the Ministry of Food, Agriculture and Fisheries through a special governmental funding for sustainable fisheries (“Bæredygtighedspluljen”).

National Institute of Aquatic Resources
Danish Shellfish Centre
Period: 01/01/2014 → 31/12/2016
Number of participants: 7
Research areas: Shellfish and Seaweed & Coastal Ecology
Project participant:
Canal-Vergés, Paula (Intern)
Nielsen, Pernille (Intern)
Saurel, Camille (Intern)
Nielsen, Carsten Fomsgaard (Intern)
Tørring, Ditte Bruunshøj (Intern)
Fitridge, Isla (Intern)
Project Coordinator:
Petersen, Jens Kjerulf (Intern)

Starfish - power and management (Søstjerner) (39087)

The overall objective of the project was to provide the scientific basis for management that can lead to the establishment of a commercial fishery of starfish (*Asterias rubens*) in primarily the Limfjorden, including Natura 2000 areas. The project background was the increasing prevalence of starfish that is both a threat to the mussel fishing and a potential source of income for fishing. In the project, the population of starfish and production was determined and analyzed and based on population stock estimates and stock modeling a total allowable quota of 10,000 tonnes annually was estimated as a conservative annual catch, which is considered sufficient to maintain a potential starfish meal industry. Effect of fishing was determined both for the population of starfish, the stock of mussels and benthic components like infauna and macroalgae. It was shown that using the starfish purse seine will have no or negligible effects on infauna and blue mussels. In terms of biodiversity and biomass of macro algae, no significant effects of the purse seine, including a load of 300 tonnes of starfish in the net, could be detected. Torn of macro algae leafs were however detected in the purse seine after fishery over macro algae habitats and this was included in management advise on effects of starfish fisheries. A guide for management including recommendations on environmental impact and starfish populations were developed.

This project was coordinated by DTU Aqua.
The project was funded by the Danish Ministry of Food, Agriculture and Fisheries and the European Fisheries Fund (EFF).

National Institute of Aquatic Resources
Danish Shellfish Centre
Department of Applied Mathematics and Computer Science
Foreningen Muslingeerhvervet
**New application of farmed blue mussels: Mussel meal (39089)**

The aim of this project was to create knowledge and develop the use of mussels as feed supplement for poultry and pigs. Specifically, the objective was to optimize the rearing of mussels, optimize the process and examine the biological basis for the use of mussels as feed supplement for poultry and pigs.

The results show that crude protein content and fatty acid content in mussel meal was at 57% and 15%, whereas the silage had a content of 17% and 5%. The analyzes showed a high proportion of pure protein and mussel amino acid composition was close to the values found in fish meal.

Experiments on pigs showed that there was no problem getting the pigs to eat the feed mixes with mussels and the digestibility of crude protein and amino acids was higher than for the control feed mixture of fish protein. Feed mixed with mussel silage gave the best digestibility. Overall experiments show that there is a clear potential for mussels as a protein source especially for pigs.

This project was coordinated by DTU Aqua.

The project was funded by the Danish Ministry of Food, Agriculture and Fisheries and Vækstforum Region Nordjylland.

National Institute of Aquatic Resources

Danish Shellfish Centre

Aarhus University

Vilsund Blue

Period: 13/07/2012 → 31/12/2014
Number of participants: 3
Research areas: Shellfish and seaweed & Coastal Ecology
Project Manager, academic:
Nielsen, Carsten Fomsgaard (Intern)
Fitridge, Isla (Intern)
Project Coordinator:
Petersen, Jens Kjerulf (Intern)