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Organisations

Postdoc, National Institute of Aquatic Resources
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Publications:

Gear technical contributions to an ecosystem approach in the Danish bottom set nets fisheries

General information
State: Accepted/In press
Organisations: National Institute of Aquatic Resources, Section for Ecosystem based Marine Management
Authors: Savina, E. (Intern)
Publication date: 2018

Publication information
Original language: English
Main Research Area: Technical/natural sciences
Publication: Research › Ph.D. thesis – Annual report year: 2018

Danish seine – Ecosystem effects of fishing

General information
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Organisations: National Institute of Aquatic Resources, Section for Ecosystem based Marine Management, Section for Monitoring and Data, Aalborg University
Publication date: 2017
Event: Abstract from Dansk Havforskermøde, Helsingør, Denmark.
Main Research Area: Technical/natural sciences
Publication: Research › Conference abstract for conference – Annual report year: 2017

Discard survival assessment of plaice (Pleuronectes platessa) and lemon sole (Microstomus kitt) caught by demersal otter trawling in Skagerrak

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Ecosystem based Marine Management
Authors: Noack, T. (Intern), Karlsen, J. D. (Intern), Savina, E. (Intern)
Publication date: 2017
Event: Abstract from ICES Annual Science Conference 2017, Fort Lauderdale, United States.
Main Research Area: Technical/natural sciences
Publication: Research › Conference abstract for conference – Annual report year: 2017

Effect of fisher's soak tactic on catch pattern in the Danish gillnet plaice fishery

Soak duration in the gillnet fisheries can vary from a few hours to several days. The industry reports a variation of soak tactics between target species, but also between seasons for the same species. These are determined by the robustness of the target species and the catch of unwanted species. Different soak tactics were compared to estimate the role that the choice of a soak tactic plays in the catch efficiency of both target and unwanted species. In the Danish summer gillnet fishery targeting plaice (Pleuronectes platessa), nets are deployed approximately 12 h (h) during day. Unwanted species are common dab (Limanda limanda) and edible crab (Cancer pagurus). The commercially used 12 h deployment during
day was compared to 12 h deployment during night and 24 h deployment. On average, there were about 1.5 more catches of commercial size plaice (above 27 cm), and 2 and 4 times less catches of the unwanted dab and edible crab, respectively, for 12 h at day compared to the other soak tactics (12 h at night or 24 h). Gillnetters participating in the coastal summer fishery for plaice follow the theoretical optimal soak tactic. The commercially used 12 h deployment during day maximises the catch of commercial sized plaice and limits handling time by catching less unwanted dab and crabs.

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Ecosystem based Marine Management, Aalborg University
Authors: Savina, E. (Intern), Krag, L. A. (Intern), Frandsen, R. P. (Intern), Madsen, N. (Intern)
Pages: 56-65
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Main Research Area: Technical/natural sciences

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Web of Science (2015): Indexed yes
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Scopus rating (2013): SJR 1.037 SNIP 1.173 CiteScore 1.85
ISI indexed (2013): ISI indexed yes
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Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
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Web of Science (2011): Indexed yes
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Scopus rating (2010): SJR 1.041 SNIP 1.1
Web of Science (2010): Indexed yes
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Scopus rating (2009): SJR 0.985 SNIP 1.065
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Scopus rating (2008): SJR 0.938 SNIP 1.142
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 1.022 SNIP 1.075
Web of Science (2007): Indexed yes
Scopus rating (2006): SJR 1.025 SNIP 1.274
Testing the effect of soak time on catch damage in a coastal gillnetter and the consequences on processed fish quality

This study aims at testing how to improve catch quality aboard a coastal gillnetter by looking at an easily controllable parameter known to have an effect on the degree of fish damage, soak time, and investigating if the registered damages on whole fish have an effect on processed products such as fillets. Plaice (Pleuronectes platessa) was captured with commercial gillnets soaked for 12 and 24 hours. Damages were assessed using semi-quantitative indices of individual fish condition gathered in a Catch-damage-index for onboard fish and a Processed fish-damage-index for whole, skinned and filleted plaice processed at a land-based factory. Cumulative link mixed modelling allowed the estimation of the size of effects. Damage in fish was significantly more likely for longer soak times but effects were comparable to those of fish length and between-sets, making a change in soak time not so substantial for improving plaice quality in coastal gillnetting. Damage in fish was significantly more likely for whole than filleted fish, but there was substantial heterogeneity among fish. Severe damage in whole fish may not matter in filleted fish whereas some damage may only be visible at the fillet level.
Developing a computer vision method to quantify impact on seabed of bottom gillnets

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Ecosystem based Marine Management
Authors: Savina, E. (Intern), Lundgren, B. (Intern), Krag, L. A. (Intern), Madsen, N. (Intern)
Publication date: 2015
Event: Poster session presented at DEMaT’15, Aberdeen, United Kingdom.
Main Research Area: Technical/natural sciences
Electronic versions: Postprint
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Publication: Research - peer-review › Journal article – Annual report year: 2016

Discards of Danish set nets fisheries in the Kattegat

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Ecosystem based Marine Management
Authors: Savina, E. (Intern), Krag, L. A. (Intern), Frandsen, R. (Intern), Madsen, N. (Intern)
Publication date: 2014
Main Research Area: Technical/natural sciences
Electronic versions: Postprint
DOI: 10.1016/j.foodcont.2016.05.044
Publication: Research - peer-review › Journal article – Annual report year: 2016

Projects:

Environmentally friendly fisheries (Skånfisk) (39161)
The project consists of two sub-projects:

Ecosystem Approach to Danish gill- and trammel nets
Although the fleet has reduced since the mid-1990s, Danish gill- and trammel nets are still of importance and are likely to gain increasing interest as environmentally friendly practices. However, such a development may only happen if the ecosystem approach is guaranteed. There is limited knowledge about ecosystem impacts, such as for example physical damage to habitats or discards, and their minimization may require development of alternative practices. With regard to the upcoming challenges of an Ecosystem Approach to Fisheries, the project aims at (1) studying the sweeping behavior of nets and their effect on the seabed; (2) quantifying invertebrates and fish discards and understanding how the capture process can influence discard behavior; (3) developing technical innovation that could improve catch quality and therefore maximize the production. Trials are conducted on gill- and trammel nets within the Danish coastal waters.

Danish seine - ecosystem effects of fishing
The amount of scientific studies on Danish seining is rather low. Therefore, the current study “Danish seine – Ecosystem effects of fishing” investigates various topics to increase the knowledge of impacts, Danish seines have on the environment and further to give advices to potentially improve selectivity characteristics and efficiency of the gear. We compared catch profiles of Danish seines and bottom trawls based on a perennial observer dataset. Furthermore, we carried out two sets of experimental trials on commercial vessels. The first set in 2014 looked at codend selectivity as well as direct interactions the gear has on the benthic and demersal fauna. The second set of trials in 2015 allowed us to create detailed descriptions of the fishing process in terms of geometry and forces acting between net and ropes and furthermore, to evaluate the behavior of fish in relation to the gear and to evaluate impacts of the gear on the sea bottom.

This project is coordinated by DTU Aqua.
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National Institute of Aquatic Resources
Section for Ecosystem based Marine Management
Period: 01/01/2014 → 31/03/2017
Number of participants: 4
Research area: Fisheries Technology
Project participant:
Krag, Ludvig Ahm (Intern)
Phd Student:
Savina, Esther (Intern)
Noack, Thomas (Intern)
Project Coordinator:
Madsen, Niels (Intern)

Using commercial gears to sample ecosystem effects
National Institute of Aquatic Resources
Period: 15/12/2013 → 30/09/2017
Number of participants: 6
Phd Student:
Savina, Esther (Intern)
Supervisor:
Larsen, Finn (Intern)
Main Supervisor:
Krag, Ludvig Ahm (Intern)
Examiner:
Eigaard, Ole Ritzau (Intern)
O’Neill, F.G. (Ekstern)
Rochet, Marie-Joëlle (Ekstern)

Financing sources
Source: Internal funding (public)
Name of research programme: Offentlig finansiering
Project: PhD