Michael Ingemann Pedersen - DTU Orbit (01/01/2018)

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Organisations

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25/01/2007 → present
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VIP

Section for Freshwater Fisheries Ecology
25/02/2012 → present
VIP

Publications:

Ål bliver i tusindvis udsat i vandløb, søer og kystnære områder

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Sivebæk, F. (Intern), Pedersen, M. I. (Intern)
Publication date: 2017

Publication information
Source/Publisher: Fiskepleje.dk
Main Research Area: Technical/natural sciences
Links: http://www.fiskepleje.dk/nyheder/2017/07/aal-udsaetninger-i-2017?id=cead4d59-3ab0-4bc7-a5a9-e5c5b367b0f9&utm_source=newsletter&utm_media=mail&utm_campaign=
Publication: Communication › Internet publication – Annual report year: 2017

REKREA - Evaluating Survey Methods for Danish Marine Recreational Fisheries

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Monitoring and Data, Section for Freshwater Fisheries Ecology, Section for Ecosystem based Marine Management, Institute Management
, Aarestrup, K. (Intern), Jørgensen, C. G. (Intern), Skov, C. (Intern)
Publication date: 2017
Event: Poster session presented at World Recreational Fishing Conference 2017, Victoria, Canada.
Main Research Area: Technical/natural sciences
Publication: Research › Poster – Annual report year: 2017

REKREA - Evaluating Survey Methods for Danish Marine Recreational Fisheries

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Monitoring and Data, Section for Freshwater Fisheries Ecology, Section for Ecosystem based Marine Management, Institute Management
, Aarestrup, K. (Intern), Jørgensen, C. G. (Intern), Skov, C. (Intern)
Publication date: 2017
Event: Poster session presented at Danfish International Fisheries Exhibition 2017, Aalborg, Denmark.
Main Research Area: Technical/natural sciences
Publication: Research › Poster – Annual report year: 2017
Survival and growth compared between wild and farmed eel stocked in freshwater ponds

To evaluate the efficiency of eel stocking, we compared the survival and growth of wild eels (2–5 g) with that of “farmed” eels (3–6 g). Wild eels were caught in a river and farmed eels came from a farm, where wild imported glass eels are cultured. Two experiments of 5–12 month duration were conducted in a series of shallow, open ponds of approximately 200 m². Wild and farmed eels were batch tagged, mixed and released in the ponds at an initial density of 0.5 individual/m². Survival was rather high (34–88%) with variations between ponds. No significant difference in survival was found between wild and farmed during the first 5 month in both experiments. Growth rates were significantly higher for farmed eels compared to wild eels in both experiments. The results show that farmed eels performed better than wild eels. In regions with low recruitment the eel population may be increased by importing glass eels, stocked directly or stocked as on-grown farmed eel. The optimal size for stocking (between glass- and 3 g eels) may be determined through future studies.
Survival and growth compared between wild and farmed eel stocked in freshwater ponds

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern), Jepsen, N. (Intern), Rasmussen, G. (Intern)
Publication date: 2017
Main Research Area: Technical/natural sciences
Electronic versions:
Publishers version
Publication: Research - peer-review › Journal article – Annual report year: 2017

Åleudsætninger skal hjælpe bestanden: Mere end 1,5 millioner sætteål blev udsat i år

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Pages: 9-11
Publication date: 2016
Main Research Area: Technical/natural sciences
Publication information
Journal: Fritidsfiskeren
Volume: 36
Issue number: 2
ISSN (Print): 0906-7752
Ratings:
ISI indexed (2013): ISI indexed no
ISI indexed (2012): ISI indexed no
ISI indexed (2011): ISI indexed no
Original language: Danish
Publication: Communication › Journal article – Annual report year: 2016
Report on the eel stock and fishery in Denmark 2015/2016

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Pages: 152-177
Publication date: 2016

Host publication information
Title of host publication: Joint EIFAAC/ICES WGEEL REPORT 2016
Place of publication: Copenhagen
Publisher: International Council for the Exploration of the Sea (ICES)
Series: ICES CM 2016
Number: ACOM:18
Main Research Area: Technical/natural sciences
Links:
http://ices.dk/community/groups/Pages/WGEEL.aspx
Publication: Research › Report chapter – Annual report year: 2016

Små udsætningsål er bedst

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern), Rasmussen, G. (Intern)
Publication date: 2016

Publication information
Source/Publisher: Fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
http://www.fiskepleje.dk/Nyheder/2016/02/Aal-udsætning?id=3310e388-15d3-484b-963c-6e24acd2c266&utm_source=newsletter&utm_media=mail&utm_campaign=2016_02_17_Nyhedsbrev
Publication: Communication › Internet publication – Annual report year: 2016

Stort antal ål bliver udsat i vandløb, søer og kystnære områder

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Sivebæk, F. (Intern), Pedersen, M. I. (Intern)
Publication date: 2016

Publication information
Source/Publisher: Fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
http://www.fiskepleje.dk/Nyheder/2016/06/Udsaetning-af-aal?id=2f97c1e1-c847-405d-be67-5c4ff43a4583&utm_source=newsletter&utm_media=mail&utm_campaign=
Publication: Communication › Internet publication – Annual report year: 2016

Stort antal ål udsat i vandløb, søer og kystnære områder

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Sivebæk, F. (Intern), Pedersen, M. I. (Intern)
Pages: 17
Publication date: 2016
Yield per recruit from stocking two different sizes of eel (Anguilla anguilla) in the brackish Roskilde Fjord
Stocking of young eel is widely practised, as a measure, to meet the management target of the EU eel recovery plan. The target of the recovery plan is to increase the escapement to 40% silver eel biomass, relative to pristine conditions. The scientific information to predict the outcome in silver eel biomass from stocking is limited and may depend on whether translocation of wild glass eel or yellow eel is used, or if the stocked eels used are yellow eel from aquaculture. We evaluated the yield from stocking two different sizes, 3 and 9 g eels from aquaculture. A professional fishery recaptured 12.7% of the 3 g and 9.4% of the 9 g eels, originally stocked. Growth rate and mortality rate were different for the two stocked sizes, favouring the small eels. Brutto yield per recruit (YPR) was 13 and 9.2 g and netto YPR was 9.8 and 0.31 g for 3 and 9 g eel, respectively. We conclude that there seems to be no advantage in using larger 9 g eels compared with small 3 g eels for stocking.
Åleudsætninger skal hjælpe bestanden

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Publication date: 2015

Relativ forekomst af fiskesamfund i en dansk fjord – med speciel fokus på Europæisk ål og sortmundet kutling

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Ecosystem based Marine Management, Section for Freshwater Fisheries Ecology, State Research Centre for Agriculture and Fishery Mecklenburg-Vorpommern
Authors: Christoffersen, M. (Intern), Jepsen, N. (Intern), Pedersen, M. I. (Intern), Støttrup, J. (Intern), Dorow, M. (Ekstern)
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

Report on the eel stock and fishery in Denmark 2014/2015

General information
Den truede ål under lup

General information
State: Published
Organisations: National Institute of Aquatic Resources, Institute Management, Section for Marine Ecology and Oceanography, Section for Freshwater Fisheries Ecology, University of Copenhagen
Authors: Reeh, L. (Intern), Munk, P. (Intern), Pedersen, M. I. (Intern), Riemann, L. (Ekstern), Nielsen, T. G. (Intern)
Pages: 38-42
Publication date: 2014
Main Research Area: Technical/natural sciences

Publication information
Journal: Aktuel naturvidenskab
Issue number: 1
ISSN (Print): 1399-2309
Ratings:
ISI indexed (2013): ISI indexed no
ISI indexed (2012): ISI indexed no
ISI indexed (2011): ISI indexed no
Original language: Danish
Publication: Communication › Journal article – Annual report year: 2014

Eels in culture, fisheries and science in Denmark

General information
State: Published
Organisations: National Institute of Aquatic Resources, Secretariat for Management and Communication, Section for Marine Ecology and Oceanography, Centre for Ocean Life, Section for Freshwater Fisheries Ecology, Section for Marine Living Resources, Section for Administration and Service, Danish Eel Farmers Association
Pages: 41-61
Publication date: 2014
Report on the eel stock and fishery in Denmark 2013/2014

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Pages: 245-269
Publication date: 2014

Host publication information
Title of host publication: Joint EIFAAC/ICES WGEEL REPORT 2014
Place of publication: Copenhagen
Publisher: International Council for the Exploration of the Sea (ICES)
Series: ICES CM 2014
Volume: ACOM:18
Main Research Area: Technical/natural sciences
Electronic versions:
Publishers version
Publication: Research › Report chapter – Annual report year: 2014

Ålen og det omgivende miljø

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Publication date: 2013

Publication information
Source/Publisher: Fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
http://www.fiskepleje.dk/Fiskebiologi/aal/miljoe
Publication: Communication › Internet publication – Annual report year: 2013

Ålens alder og vækst

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Publication date: 2013

Publication information
Source/Publisher: Fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
http://www.fiskepleje.dk/Fiskebiologi/aal/alder_og_størrelse
Publication: Communication › Internet publication – Annual report year: 2013

Ålens føde og adfærd

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Publication date: 2013

Publication information
Source/Publisher: Fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
http://www.fiskepleje.dk/Fiskebiologi/aal/alder_og_størrelse
Publication: Communication › Internet publication – Annual report year: 2013
Ålens formering

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Publication date: 2013

Publication information
Source/Publisher: Fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
http://www.fiskepleje.dk/Fiskebiologi/aal/formering
Publication: Communication › Internet publication – Annual report year: 2013

Ålens levesteder

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Publication date: 2013

Publication information
Source/Publisher: Fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
http://www.fiskepleje.dk/Fiskebiologi/aal/levested
Publication: Communication › Internet publication – Annual report year: 2013

Baggrundsmateriale for udarbejdelse af åleforvaltningsplan i Danmark

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern), Rasmussen, G. (Intern)
Number of pages: 24
Publication date: 2013

Publication information
Publisher: Institut for Akvatiske Ressourcer, Danmarks Tekniske Universitet
ISBN (Electronic): 978-87-7481-177-0
Original language: Danish
Applicant: Naturstyrelsen
Series: DTU Aqua-rapport
Number: 271-2013
ISSN: 1395-8216
Main Research Area: Technical/natural sciences
Electronic versions:
Publishers version
Links:
http://www.aqua.dtu.dk/Publikationer/Forskningsrapporter/Forskningsrapporter_siden_2008
Publication: Commissioned › Report – Annual report year: 2013
Loss of European silver eel passing a hydropower station

The aim of this study was to assess escapement success of silver eels, *Anguilla anguilla* (L.), in a lowland river while passing a reservoir and a hydropower station. It was hypothesized that passage success would be lowest at the hydropower station and that survival and migration speed would be highest in the free-flowing river section upstream the reservoir. Forty-five female silver eels 56–86 cm in length were tagged with acoustic transmitters and released in November 2006. Their migration was monitored via automatic listening stations (ALS) in various sections of the river, covering a total migration distance of 64 km. Survival and progression rate of downstream migration was highest in the upstream river section and significantly lower in the reservoir. The eels apparently had trouble finding their way past the...
turbines and spent between 1.5 and 35 h in the forebay. The results show that within the study period, only 23% of the tagged eels reached the tidal limit, mainly due to difficulties in passing the hydropower dam. With such high loss-rates, the escapement goals set in the management plan cannot be achieved.

**General information**

State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern), Jepsen, N. (Intern), Aarestrup, K. (Intern), Koed, A. (Intern), Pedersen, S. (Intern), Økland, F. (Ekstern)
Pages: 189-193
Publication date: 2012
Main Research Area: Technical/natural sciences

**Publication information**

Journal: Journal of Applied Ichthyology
Volume: 28
Issue number: 2
ISSN (Print): 0175-8659
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 0.94
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 1
Scopus rating (2015): CiteScore 0.84
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): CiteScore 1.06
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): CiteScore 0.99
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): CiteScore 0.99
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): CiteScore 1.04
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 1
BFI (2008): BFI-level 1
Web of Science (2008): Indexed yes
Web of Science (2001): Indexed yes
Web of Science (2000): Indexed yes
Original language: English
DOIs: 10.1111/j.1439-0426.2011.01913.x
Source: orbit
Source-ID: 278156
Publication: Research - peer-review › Journal article – Annual report year: 2011

Passage for ål ved dambrug og kraftværk i Gudenåen og Kongeåen
Formålet med denne undersøgelse er, at belyse om der er problemer for ål ved passage af dambrug i Kongeåen og Gudenåen, samt et vandkraftværk i øvre Gudenå. Baggrunden for undersøgelsen er, at EU i 2007 har udarbejdet en


General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern), Jepsen, N. (Intern)
Number of pages: 24
Publication date: 2012

Publication information
Place of publication: Charlottenlund
Publisher: Institut for Akvatiske Ressourcer, Danmarks Tekniske Universitet
ISBN (Electronic): 978-87-7481-164-0
Original language: English

Series: DTU Aqua-rapport
Number: 259-2012
Main Research Area: Technical/natural sciences
Electronic versions:
259_2012_passage_for_aal_ved_dambrug_og_kraftvaerk_i_gudenaen_og_kongeaanen.pdf
Links:
http://www.aqua.dtu.dk/Publikationer/Forskningsrapporter/Forskningsrapporter_siden_2008
Publication: Commissioned › Report – Annual report year: 2012

Report on the eel stock and fishery in Denmark 2011/12

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Pages: 241-261
Publication date: 2012

Host publication information
Title of host publication: Report of the 2012 Session of the Joint EIFAAC/ICES WGEEL 2012

Series: ICES CM 2012
Volume: ACOM:18
Main Research Area: Technical/natural sciences
Publication: Research › Report chapter – Annual report year: 2013
Report on the eel stock and fishery in Denmark 2010

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, M. I. (Intern)
Publication date: 2011

Publication information
Place of publication: Copenhagen
Publisher: International Council for the Exploration of the Sea (ICES)
Original language: English

Series: Report on the 2011 Session of the Joint EIFAC/ICES Working Group on Eels
Main Research Area: Technical/natural sciences
Publication: Research › Report – Annual report year: 2012

Udvandring af blankål fra Ribe Å i 2010

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern), Mikkelsen, J. S. (Intern)
Number of pages: 11
Publication date: 2011

Publication information
Place of publication: Charlottenlund
Publisher: DTU Aqua. Institut for Akvatiske Ressourcer
ISBN (Print): 978-87-7481-140-4
Original language: Danish

Series: DTU Aqua-rapport
Number: 241-2011
ISSN: 1395-8216
Main Research Area: Technical/natural sciences
Electronic versions:
241-2011_udvandring-af-blankaal-fra-ribe-aa-i-2010.pdf
Links:
http://www.aqua.dtu.dk/Publikationer/Forskningsrapporter/Forskningsrapporter_siden_2008
Source: orbit
Source-ID: 314862
Publication: Research › Report – Annual report year: 2011

Ål

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Publication date: 2010

Publication information
Source/Publisher: www.fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
http://www.fiskepleje.dk/fiskebiologi/aal.aspx
Source: orbit
Source-ID: 258266
Publication: Communication › Internet publication – Annual report year: 2010
Ål og konsekvenser av vannkraftutbygging – en kunnskapsoppsummering

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Thorstad, E. B. (Ekstern), Larsen, B. M. (Ekstern), Hesthagen, T. (Ekstern), Næsje, T. F. (Ekstern), Poole, R. (Ekstern), Aarestrup, K. (Intern), Pedersen, M. I. (Intern), Hanssen, F. (Ekstern), Østborg, G. (Ekstern), Økland, F. (Ekstern), Aasestad, I. (Ekstern), Sandlund, O. T. (Ekstern)
Number of pages: 137
Publication date: 2010

Publication information
Place of publication: Oslo
Publisher: Norges vassdrags- og energidirektorat
ISBN (Print): 978-82-410-0708-8
Original language: English
Number: 1-2010
ISSN: 1502-234X
Main Research Area: Technical/natural sciences
Links:
http://www.nina.no/archive/nina/PppBasePdf/rapporter%20%20ekstern%20rapportserie/2010/Thorstad%20%C3%85l%20Milj%C3%B8basert%20Vannf%C3%B8ring%20%202010.pdf
Source: orbit
Source-ID: 271519
Publication: Research › Report – Annual report year: 2010

Effektvurdering af åleudsætninger i Roskilde Fjord

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Number of pages: 31
Publication date: 2010

Publication information
Place of publication: Charlottenlund
Publisher: DTU Aqua. Institut for Akvatiske Ressourcer
ISBN (Print): 978-87-7481-128-2
Original language: Danish
Series: DTU Aqua-rapport
Number: 230-2010
ISSN: 1395-8216
Main Research Area: Technical/natural sciences
Electronic versions:
230_10_Effektvurdering-af-aaleudsætninger-i-Roskilde-Fjord.pdf
Source: orbit
Source-ID: 271517
Publication: Research › Report – Annual report year: 2010

European eel and aquaculture

General information
State: Published
Organisations: Institute Management, National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology, Section for Public Sector Consultancy, Section for Aquaculture, Section for Population Ecology and Genetics
Number of pages: 19
Qualitative assessment of the diet of European eel larvae in the Sargasso Sea resolved by DNA barcoding

European eels (Anguilla anguilla) undertake spawning migrations of more than 5000 km from continental Europe and North Africa to frontal zones in the Sargasso Sea. Subsequently, the larval offspring are advected by large-scale eastward ocean currents towards continental waters. However, the Sargasso Sea is oligotrophic, with generally low plankton biomass, and the feeding biology of eel larvae has so far remained a mystery, hampering understanding of this peculiar life history. DNA barcoding of gut contents of 61 genetically identified A. anguilla larvae caught in the Sargasso Sea showed that even the smallest larvae feed on a striking variety of plankton organisms, and that gelatinous zooplankton is of fundamental dietary importance. Hence, the specific plankton composition seems essential for eel larval feeding and growth, suggesting a linkage between eel survival and regional plankton productivity. These novel insights into the prey of Atlantic eels may furthermore facilitate eel larval rearing in aquaculture, which ultimately may replace the unsustainable
use of wild-caught glass eels.

**General information**

State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Section for Ocean Ecology and Climate
Pages: 819-822
Publication date: 2010
Main Research Area: Technical/natural sciences

**Publication information**

Journal: Biology Letters
Volume: 6
Issue number: 6
ISSN (Print): 1744-9561
Ratings:
BFI (2018): BFI-level 2
BFI (2017): BFI-level 2
Web of Science (2017): Indexed Yes
Scopus rating (2016): CiteScore 2.69 SJR 1.653 SNIP 1.03
BFI (2015): BFI-level 2
Scopus rating (2015): SJR 1.906 SNIP 1.128 CiteScore 2.85
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 1.949 SNIP 1.229 CiteScore 3.07
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 2.211 SNIP 1.407 CiteScore 3.69
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 1.994 SNIP 1.465 CiteScore 3.39
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 2.406 SNIP 1.466 CiteScore 3.58
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 2.209 SNIP 1.254
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 2.263 SNIP 1.37
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 2.028 SNIP 1.304
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 1.954 SNIP 1.36
Scopus rating (2006): SJR 1.278 SNIP 0.903
Web of Science (2006): Indexed yes
Web of Science (2005): Indexed yes
Original language: English
DOIs:
10.1098/rsbl.2010.0411
Source: orbit
Source-ID: 263932
Survival and progression rates of large European silver eel Anguilla anguilla in late freshwater and early marine phases

The population of European silver eel Anguilla anguilla has declined tremendously in the last decades. The cause of this decline is unknown, and it is necessary to investigate the migratory behaviour and survival rates of silver eels during the reproductive migration in order to understand if the decline is related to factors acting during that migration. We estimated survival and progression rates of European silver eel migrating in the lower part of the River Gudenaa and during the first phase of the marine migration in the Randers Fjord in Denmark. Fifty migrating silver eel (total body length: 56 to 84 cm) were captured, and each was equipped with an acoustic transmitter. Their migration was subsequently monitored using an array of automatic listening stations, and progression rate and mortality in the river, inner part of the fjord and outer part of the fjord were estimated. Survival was high in fresh water. However, 60% of eels were lost in the inner and outer fjord, supporting the hypothesis that mortality is large in the early phase of the marine migration and that fishing may be a major cause of mortality of silver eels. There was no indication that the slowest-migrating individuals were more prone to fishing mortality than the faster-migrating individuals. Progression rate increased as the eels proceeded downstream and out of the fjord. The migration was predominantly nocturnal, both in the river and fjord. Based on the available evidence, a considerable increase in eel survival in the river–fjord system will be needed in order to fulfill the goals in the European Union recovery plan for eels.
Udsatte ål vandrer væk fra udsætningsområderne

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Publication date: 2010

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Source/Publisher: www.fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
Source: orbit
Source-ID: 262345
Åleforvaltningsplan i Danmark

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Institute Management
Authors: Pedersen, M. I. (Intern), Rasmussen, G. (Intern)
Number of pages: 75
Publication date: 2009

Publication information
Publisher: DTU Aqua. Institut for Akvatiske Ressourcer
Original language: Danish
Main Research Area: Technical/natural sciences
Links:
http://ferv.fvm.dk/Admin/Public/DWSDownload.aspx?File=%2fFiles%2fFiskeri%2fProjektdatabase%2fPilotprojekter%2f3704-3-06-0157_forvaltningsplan_aal.pdf

Bibliographical note
Finansieret af EU fiskerisektorprogram FIUF og Fødevareministeriet (DFFE j. nr. 3704-3-06-0157).
Source: orbit
Source-ID: 252597
Publication: Research › Report – Annual report year: 2009

Does stocking of Danish lowland streams with elvers increase European eel populations?

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Number of pages: 449
Pages: 149-156
Publication date: 2009

Host publication information
Title of host publication: Eels at the edge: science, status, and conservation concerns
Publisher: American Fisheries Society
Editors: Casselman, J., Cairns, D.
ISBN (Print): 978-1-888569-96-4

Series: American Fisheries Society Symposium
Number: 58
ISSN: 0892-2284
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 252596
Publication: Research - peer-review › Book chapter – Annual report year: 2009

Oceanic spawning migration of the European eel (Anguilla anguilla)

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Section for Population Ecology and Genetics
Authors: Aarestrup, K. (Intern), Økland, F. (Ekstern), Hansen, M. M. (Intern), Righton, D. (Ekstern), Gargan, P. (Ekstern), Castonguay, M. (Ekstern), Bernatchez, L. (Ekstern), Howey, P. (Ekstern), Sparholt, H. (Ekstern), Pedersen, M. I. (Intern), McKinley, R. S. (Ekstern)
Pages: 1660
Publication date: 2009
Main Research Area: Technical/natural sciences

Publication information
Journal: Science
Oceanic spawning migration of the European eel (Anguilla anguilla) (vol 325, pg 1660, 2009)

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Section for Population Ecology and Genetics
Authors: Aarestrup, K. (Intern), Økland, F. (Ekstern), Hansen, M. M. (Intern), Righton, D. (Ekstern), Gargan, P. (Ekstern), Castonguay, M. (Ekstern), Bernatchez, L. (Ekstern), Howey, P. (Ekstern), Sparholt, H. (Ekstern), Pedersen, M. I. (Intern), McKinley, R. S. (Ekstern)
Pages: 936-936
Publication date: 2009
Main Research Area: Technical/natural sciences

Publication information
Journal: Science
Volume: 326
Issue number: 5955
ISSN (Print): 0036-8075
Ratings:
BFI (2018): BFI-level 3
BFI (2017): BFI-level 2
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 2
Web of Science (2016): Indexed yes
BFI (2015): BFI-level 2
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 2
Scopus rating (2014): SJR 12.012 SNIP 8.269 CiteScore 12.68
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 2
Scopus rating (2013): SJR 12.305 SNIP 7.87 CiteScore 12.43
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 2
Scopus rating (2012): SJR 13.159 SNIP 8.124 CiteScore 12.39
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 2
Scopus rating (2011): SJR 14.049 SNIP 8.309 CiteScore 11.97
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 2
Scopus rating (2010): SJR 13.216 SNIP 7.791
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 2
Scopus rating (2009): SJR 11.644 SNIP 7.033
Web of Science (2009): Indexed yes
BFI (2008): BFI-level 2
Report on the eel stock and fishery in Denmark 2008

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Publication date: 2009

Publication information
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 252599
Publication: Research › Report – Annual report year: 2009

The effect of stocking the shallow Roskilde Fjord

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Publication date: 2009

Publication information
Original language: English
Series: Report of the Study Group on Anguillid Eels in Saline Waters (SGAESAW)
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 252600
Publication: Research › Report – Annual report year: 2009
Survival and behaviour of European silver eel in late freshwater and early marine phase during spring migration

General information

State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Aarestrup, K. (Intern), Thorstad, E. (Ekstern), Koed, A. (Intern), Jepsen, N. (Intern), Svendsen, J. C. (Intern), Pedersen, M. I. (Intern), Skov, C. (Intern), Okland, F. (Ekstern)
Pages: 435-440
Publication date: 2008
Main Research Area: Technical/natural sciences

Publication information

Journal: Fisheries Management and Ecology
Volume: 15
Issue number: 5-6
ISSN (Print): 0969-997X
Ratings:
BFI (2018): BFI-level 1
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 1.85 SJR 0.843 SNIP 0.88
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.988 SNIP 1.159 CiteScore 1.91
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.913 SNIP 0.995 CiteScore 1.85
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.737 SNIP 0.807 CiteScore 1.36
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Report on the eel stock and fishery in Denmark 2007

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Number of pages: 283
Publication date: 2007

Publication information
Publisher: [s.n.]
Original language: English
Main Research Area: Technical/natural sciences

Bibliographical note
Report on the 2007 Session of the Joint EIFAC/ICES Working Group on Eels
Source: orbit
Source-ID: 227075
Publication: Research › Report – Annual report year: 2007
Ålen er på verdensplan i alvorlig tilbagegang

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information
Journal: http://www.fiskepleje.dk
Original language: Danish
Links:
http://130.226.135.19/fiskepleje/aalitilbagegang.htm
Source: orbit
Source-ID: 227081
Publication: Research › Journal article – Annual report year: 2003

The effect of stock enhancement by elvers Anguilla anguilla L. in danish fresh and brackish waters: Two case stories

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information
Journal: http://www.giuliodeleo.it/AFS-Index.html
Original language: Danish
Links:
http://www.giuliodeleo.it/AFS-Index.html
Source: orbit
Source-ID: 227078
Publication: Research › Journal article – Annual report year: 2003
Fiskebiologi

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Sivebæk, F. (Intern), Skov, C. (Intern), Pedersen, M. I. (Intern), Jacobsen, L. (Intern), Koed, A. (Intern), Berg, S. (Intern)
Publication date: 2002
Main Research Area: Technical/natural sciences

Publication information
Journal: www.fiskepleje.dk
Original language: Danish
Source: orbit
Source-ID: 227079
Publication: Research › Journal article – Annual report year: 2002

Hvorfor er der så få ål?

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Number of pages: 407
Pages: 147-153
Publication date: 2002

Host publication information
Title of host publication: At leve med de ferske vande - dengang, nu og i fremtiden
Place of publication: Silkeborg
Publisher: Ferskvandsfiskeriforeningen for Danmark
Editors: Goldschmidt, H., Braagaard, S.
ISBN (Print): 87-98-92230-0
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 227068
Publication: Research › Book chapter – Annual report year: 2002

Karpers indvirkning på vandmiljøet

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Publication date: 2002
Main Research Area: Technical/natural sciences

Publication information
Journal: www.fiskepleje.dk
Original language: Danish
Links:
http://www.dfu.min.dk/fiskepleje/karpe%20detaljer.htm
Source: orbit
Source-ID: 227070
Publication: Research › Journal article – Annual report year: 2002
Predation on Atlantic salmon and sea trout during their first days as postsmolts
Radio-tagged smolts of Atlantic salmon Salmo salar and sea trout Salmo trutta were predated heavily by sea birds after crossing the saline limit in the estuary of the River Skjern, Denmark. Most predation took place within the first 9 h after estuarine entry. The field data do not contradict the hypothesis of maladaptive anti-predatory behaviour. (C) 2002 The Fisheries Society of the British Isles. Published by Elsevier Science Ltd. All rights reserved.
Temporal and spatial consistency of monitoring data

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern)
Publication date: 2002

Publication information
Place of publication: Ijmuiden
Publisher: Netherlands Institute of Fisheries Research
Original language: English

Series: Monitoring of glass eel recruitment
Number: C007/02-WD
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 225286
Publication: Research - peer-review › Journal article – Annual report year: 2002

En samfundsøkonomisk costbenefit analyse af anvendelse af glasål
Estuarine predation on radiotagged wild and domesticated sea trout (Salmo trutta L.) smolts

Avian predation on emigrating wild and domesticated sea trout smolts was investigated in a fjord in the western Baltic Sea. In April 1997, 50 domesticated and 50 wild smolts were intraperitoneally tagged with radio-transmitters and released in a small coastal stream. Predation was recorded by signal interception in an estuarine breeding colony of cormorants and herons near the outlet of the stream. Of the 78 emigrating smolts, 51 (65%) were recorded as eaten. Predation rates were significantly higher among small than large smolts and significantly higher among domesticated smolts. The first 2 days after entering the sea, both wild and domesticated smolts suffered a severe daily predation rate (range 20-34%). The results support the hypothesis of a transient period immediately after exposure to full-strength sea water, where smolts experience an elevated risk of predation. A transient increase in postsmolt mortality may be found also in moderately saline environments (20-23 ppt).
Fishing mortality on silver eels, Anguilla anguilla (L.), in Denmark

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, M. I. (Intern), Dieperink, C. (Ekstern)
Pages: 77-82
Publication date: 2000
Main Research Area: Technical/natural sciences

Publication information
Journal: Dana : a journal of fisheries and marine research
Volume: 12
ISSN (Print): 0106-553X
Ratings:
Web of Science (2000): Indexed yes
Original language: English
Source: orbit
Source-ID: 227066
Publication: Research - peer-review › Journal article – Annual report year: 2000

Long-term survival and growth of stocked eel, Anguilla anguilla (L.), in a small eutrophic lake

Original language: English
Source: orbit
Source-ID: 225278
Publication: Research - peer-review › Journal article – Annual report year: 2001
Tagging the European eel Anguilla anguilla (L.) with coded wire tags

The coded wire tag (CWT) system was examined as a possible tool for tagging European eels (Anguilla anguilla). Two size groups of eels (3.8 and 10.2 g) were tagged with CWTs in the dorsal musculature, Tag loss 28 days after tagging was 3.1% for the small and 0.7% for the large groups of eels. Of the tag loss in the small eels, 61% were lost during the first 2 h after tagging. In the small group, eels that lost tags were significantly (P

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Thomassen, S. (Ekstern), Pedersen, M. I. (Intern), Holdensgaard, G. (Ekstern)
Pages: 57-61
Publication date: 2000
Main Research Area: Technical/natural sciences

Publication information
Journal: Aquaculture
Volume: 185
Issue number: 1-2
ISSN (Print): 0044-8486
Ratings:
BFI (2018): BFI-level 2
BFI (2017): BFI-level 2
Web of Science (2017): Indexed yes
Salttolerance hos sætteål - et indledende forsøg
Recapture rate, growth and sex of stocked cultured eels Anguilla anguilla (L.)
A total of 84,791 Alcian blue marked eels, size range 15 - 33 cm, were released in a lake, a fjord and an open coastal area. Recaptures were made by fishermen up to 4 years following release. Recaptures were most successful at the freshwater lake where 12.6% were recaptured, 2.7% in the fjord and 0.2% at the open coast. Length increment was estimated to be between 2.5 and 6.5 cm annually. The sex ratio (female/male) of yellow eels increased in subsequent years of recaptures, possibly as a result of environmental sex determination following release. The use of Alcian blue for a long-term marking experiment, based on samplings by fishermen, are concluded to be questionable.
**Status over bundgarnsfiskeriet i Danmark 1994**

**General information**
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Koed, A. (Intern), Pedersen, M. I. (Intern)
Publication date: 1996

**Publication information**
Place of publication: Silkeborg
Publisher: Danmarks Fiskeriundersøgelser
Original language: Danish
Series: DFU-rapport
Number: 9-96
Main Research Area: Technical/natural sciences
Electronic versions:
9_96_status_over_bundgarnsfiskeriet_i_danmark_1994.pdf
Source: orbit
Source-ID: 226270
Publication: Research › Report – Annual report year: 1996

**Stoprist og stopnet i kasteruser: Tidsforbrug ved røgtning og effekt på fangst af ål**

**General information**
State: Published
Organisations: Unknown
Authors: Pedersen, M. I. (Intern)
Number of pages: 8
Publication date: 1995

**Publication information**
Place of publication: Silkeborg
Publisher: DFU
Original language: Danish
Series: Intern rapport / Danmarks Fiskeriundersøgelser
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 278328
Publication: Research › Report – Annual report year: 1995

**Projects:**

Forbedring af forvaltningsgrundlaget for bestande i det rekreative fiskeri (39370)

National Institute of Aquatic Resources
Section for Monitoring and Data
Section for Ecosystem based Marine Management
Section for Freshwater Fisheries Ecology
Institute Management
Period: 14/07/2016 → 14/07/2018
Number of participants: 16
Acronym: REKREA
Population dynamics of stocked eel in a river system (38261)
The objectives are to evaluate the effect of stocking eel in a river system, and examine how anthropogenic factors such as weirs, trout farms and ponds in a river system may delay or hinder the downstream migration of silver eel.

A few studies have previously been performed to assess the biological value of stocking elvers in small to medium size streams. The studies however showed, that the eels either suffer high mortality or disperse to downstream sections of the streams where monitoring by electro fishing is not possible. Thus, only limited information on the fate of the stocked elvers is available. This project seeks to alleviate this shortcoming.

No, or only very little, natural recruitment occurs to the upper part of River Gudenå. Therefore, the area is excellent for eel stocking experiments, and all migrating fish can be monitored in a downstream fish trap.

During 1987, 1988 and 1992 the area was stocked with 1.6 million elvers. In 2001 and 2002 coded wire tagged eels of size 3.5 gram and 10 gram were stocked. The size and age composition of the silver eel run at Vestbirk fish trap suggest that most males from these stockings have by now, left the feeding areas during the spawning runs, whereas older females are immigrating in these years. All eel passing the trap are being recorded and measured. The population parameters; growth rate, numbers, sex and age at silvering are used to describe the yield of the stockings.

Silver eels leaving the upper reaches of the River Gudenå have to pass several weirs and lakes when migrating towards the sea. How these obstructions influence the migration is largely unknown, but a delay and possibly a higher mortality may be expected. Migrating silver eels are equipped with telemetric tags (PIT) and the progression rate of downstream migrants will be recorded by automatic listening stations and manual tracking.

National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Period: 01/01/2011 → 31/12/2013
Number of participants: 4
Research area: Freshwater Fisheries and Ecology
Project participant:
Mikkelsen, Jørgen Skole (Intern)
Project Manager, academic:
Pedersen, Michael Ingemann (Intern)
Jepsen, Niels (Intern)
Aarestrup, Kim (Intern)

Silver eel biomass and non-fishing mortality (38845)
The EU-plan for restoring the European eel population, requires for each MS to issue a national Management Plan and report status of the eel population to the EU Commission in 2012 (and 2015, 2018). Among other things, the report must include estimates of the total production of silver eels (from freshwater), the magnitude of non-fisheries mortality and the reduction of this due to management measures.
This project aimed at providing solid estimates of mortality and biomass. This was be done by trapping silver eels in a number of representative river-systems and extrapolate the results to a national level. The mortality in association with hydropower passage has already been measured (and published), but the mortality of silver eels migrating pass fish farms (with weirs) was measured using radio-telemetry. Sixty migrating silver eels will be radio tagged (surgical implants) and followed on their way downstream in the river Kongeå, where they had to pass 3 fish farms to reach the sea. The results revealed massive loss and delay of silver eels at fish farms.

This project was coordinated by DTU Aqua.

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

National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Period: 01/01/2011 → 31/12/2012
Number of participants: 4
Research area: Freshwater Fisheries and Ecology
Project participant:
Aarestrup, Kim (Intern)
Mikkelsen, Jørgen Skole (Intern)
Project Manager, academic:
Jepsen, Niels (Intern)
Pedersen, Michael Ingemann (Intern)

Survival and growth of eel in coastal habitats (38830)

Very little is known about settling, habitat utilization and survival of European eel (Anguilla anguilla) in coastal areas (fjords and estuaries). We don’t know what proportion of elvers take residence in the coastal zone. For eels stocked in fjords and estuaries, only little is known about survival and growth. In Denmark it has been suggested that the main production of eel takes place in the coastal areas and not in freshwater. Thus, it is very important to obtain some information about this to enhance our management of this threatened species.

The overall objective is to investigate the importance of various marine habitats for settlement, density, survival and growth of eel. In relation to survival, the importance of fishing and cormorant predation will be sought estimated.

In the first stage (pilot) new sampling methods are being tested in order to be able to generate data about the juvenile eel in the coastal habitats. This is not trivial as no methods have proved effective in sampling small (<15 cm) eels on the coast. To distinguish between wild and stocked eels, 25,000 coded wire tagged eels have been stocked in a semi-closed estuary and the lower river. Spring and fall sampling will provide information on relative survival and growth of these and wild eels.

National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Period: 01/01/2011 → 31/12/2016
Number of participants: 4
Research area: Freshwater Fisheries and Ecology
Project participant:
Mikkelsen, Jørgen Skole (Intern)
Project Manager, academic:
Jepsen, Niels (Intern)
Pedersen, Michael Ingemann (Intern)
Aarestrup, Kim (Intern)

Assess the yield from eel stocking in a marine fjord (38262)

The overall objective of the project was to estimate the outcome of stocking eel in a marine area, to estimate the yield to the fishery and the proportions of eels escaping the fishery. To reach this goal it was necessary to estimate the total catch in the fjord, the fishing mortality and whether eels stay in the fjord area or migrate to adjacent waters.

Stocking is a widely used measure to enhance local eel populations throughout Europe. About 1.5 million elvers are stocked annually in Danish marine waters. There are only vague indications that these stockings actually improve the number of fish that are available to the fisheries and the spawning population.

In 1998 and 1999 a total of 100,000 coded wire tagged eel were stocked in the inner parts of Roskilde Fjord. During 1999-2015 the eel catches made by professional and recreational fishermen were analyzed for recapture of tagged fish in order
to establish the ratio of tagged to untagged fish in the eel catches. Based on the knowledge of numbers of fish caught in
the yellow eel fishery as well as the silver eel fishery, the yield to the fishery was calculated. Migration patterns of the
stocked eel were studied by collecting data from different strata of the fjord and adjacent fisheries, Isefjord and Arresø.
Migrating silver eels were Carlin tagged and released to the fishery in September and October. Based on reported
recaptures from fishermen an estimate of fishing mortality was established as well as of the number of silver eels leaving
the fjord and migrating toward the Sargasso spawning grounds. The total catches made by recreational fishermen were
established through questionnaires to recreational fishermen.

The overall result suggests that about 13 % of the stocking were captured by the fishery in Roskilde Fjord and 5 % left the
fjord as silver eels on spawning migration.

This project was coordinated by DTU Aqua.

The project was funded by the Danish Rod and Net License Funds.

National Institute of Aquatic Resources

Section for Freshwater Fisheries Ecology
Period: 01/01/1996 → 31/12/2015
Number of participants: 5
Research areas: Freshwater Fisheries and Ecology & Coastal Ecology
Project participant:
Christensen, Hans-Jørn Aggerholm (Intern)
Carøe, Morten (Intern)
Mikkelsen, Jørgen Skole (Intern)
Project Manager, academic:
Rasmussen, Gorm (Intern)
Project Coordinator:
Pedersen, Michael Ingemann (Intern)

Population dynamics of eel (38260)
The project has 3 main goals:

1) Evaluation of the feasibility of eel stocking
In compliance with the National eel MP, 1.3 million pre-fed eel are stocked annually in lakes and rivers. In coastal areas 0.2
million are stocked. Very little is known about the feasibility of these stockings. Due to the long life cycle of eels, both short
and long term experiments are carried out.
Short-term: Wild and cultured (pre-fed) eels of similar size (2-5 gram) are stocked in a number of large open ponds (old
tROUT farm) and their growth and survival is recorded during their first year. Similar experiments are performed with wild
glass eels stocked in different densities in the ponds.
Long-term: Small CW-tagged eel were stocked in the river Gudenåen in 2001, 2002 and 2011. The return from these
stockings in the form of migrating silver eels are monitored by scanning eel caught in a trap (at a hydropower station),
operating every autumn from 2006-2013. Furthermore the silver eels caught in the trap are PIT tagged and recorded when
reaching the lowermost obstacle in the river (Tange HPS).
In Ribe Å, in Vestervandetlake and in Karrebæk estuary CW-tagged eel were stocked in 2011 and 2012. The monitoring
of catches for tagged eel started in 2015 and will continue for several years to get an estimate of how much the stocked eel
contribute to the fisheries and how the ratio wild/stocked is, giving an indication of the natural recruitment.

2) Monitoring of recruitment/elvers
The recruitment of eel has been continually declining since early 80'ies and is now at a historical low. Monitoring of the
number of elvers/glass eels arriving every year is therefore very important for the whole of EU. In DK we have two stations,
where upstream migrating elvers are caught and recorded on a daily basis. Both stations are on the Danish East Coast. On
the West coast the immigration is monitored by electric fishing/sampling in small streams in early summer.

3) Monitoring of the prevalence of the swim bladder parasite Anguillicola in Danish eels
The swim bladder worm Anguillicola crassus was introduced to Europe from the far east in the beginning of the 1980's.
The parasites are thought to be one of the causes of the decline of the European eel population. Therefore the colonisation
of Anguillicola in Denmark has been monitored in fresh and marine water bodies to assess the abundance of parasites and
the general health of parasitized eels. The geographical distribution and the stability of the parasite abundance are of
international interest due to the decline of the eel stock, but also because large effort is done to secure that the 1.5 million
annually stocked eel are free of parasites.
This project is coordinated by DTU Aqua.
This project is funded by the Danish Rod and Net Fishing Licence Funds.

National Institute of Aquatic Resources
Monitoring of glass eel recruitment to Danish inland waters (38263)
The objectives are to collect data on the glass eel recruitment from the ocean to Danish inland waters, to be used in national and international advice on fisheries and stocks.

A decline in recruitment of glass eel to the Danish coast and elsewhere in Europe has been persistent through several decades. The yield in fisheries has also declined and the stock is considered by ICES to be outside safe biological limits. Several hypotheses have been proposed for the decline, but no unambiguous cause has been identified. Monitoring of the stock is traditionally a national task, though coordinated international monitoring is needed, especially to evaluate if any change in management have the intended effect on the size of recruitment.

In Denmark the monitoring is currently taking place at two hydropower stations where ascending eels are monitored in bypass traps, where personnel at the hydropower stations are doing the daily monitoring. The distance from the ocean to the hydropower dams are 5 and 35 km and the ascending eels do not directly reflect the annual size of the glass eel recruitment, but consist of several age groups (0-5 years).

Glass eels recruitment directly from the ocean is also quantified by electro fishing in four small brooks on the west coast of Denmark. Sections of each brook are electro fished three times a year allowing for calculation of numbers and fluctuations in the recruitment to the brooks. The monitoring data are used in the ICES stock assessment group on eel WGEEL.
National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Degree of recognition: International

Related external organisation
ICES - Joint EIFAC/ICES Working Group on Eels - WGEEL
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar