Stig Pedersen - DTU Orbit (12/02/2018)

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Organisations

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25/01/2007 → present
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25/02/2012 → present
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Publications:

Assessment and recruitment status of Baltic Sea trout populations

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, S. (Intern), Degerman, E. (Ekstern), Debowski, P. (Ekstern), Petereit, C. (Ekstern)
Pages: 423-441
Publication date: 2017

Host publication information
Title of host publication: Sea Trout: Science & Management : Proceedings of the 2nd International Sea Trout Symposium
Publisher: Troubador
Editor: Harris, G.
ISBN (Print): 9781788035354
Main Research Area: Technical/natural sciences
Conference: International Sea Trout Symposium, Dundalk, Ireland, 20/10/2015 - 20/10/2015
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

DTU Aqua undersøger trollingfiskeriet i Østersøen

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology, Section for Monitoring and Data
Authors: Pedersen, S. (Intern), Olesen, H. J. (Intern)
Publication date: 2017

Publication information
Source/Publisher: Fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
Publication: Communication › Internet publication – Annual report year: 2017

Perspectives on sea trout stocks in Sweden, Denmark & Norway: monitoring, threats and management

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology, University of Gothenburg, NTNU University Museum, Swedish University of Agricultural Sciences
Authors: Höjesjö, J. (Ekstern), Aldvén, D. (Ekstern), Davidsen, J. G. (Ekstern), Pedersen, S. (Intern), Degerman, E. (Ekstern)
Pages: 443-459
Publication date: 2017
Host publication information
Title of host publication: Sea Trout: Science & Management : Proceedings of the 2nd International Sea Trout Symposium
Publisher: Troubador
Editor: Harris, G.
ISBN (Print): 9781788035354
Main Research Area: Technical/natural sciences
Conference: International Sea Trout Symposium, Dundalk, Ireland, 20/10/2015 - 20/10/2015
Publication: Research - peer-review › Article in proceedings – 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
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
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

Sea trout (Salmo trutta L.) in Denmark
General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Rasmussen, G. H. (Intern), Pedersen, S. (Intern)
Number of pages: 808
Pages: 483-521
Publication date: 2017

Host publication information
Title of host publication: Brown Trout: Biology, Ecology and Management
Publisher: Wiley
Editors: Lobón-Cervia, J., Sanz, N.
ISBN (Print): 978-1-119-26831-4
Chapter: 19
Main Research Area: Technical/natural sciences
Publication: Research - peer-review › Book chapter – Annual report year: 2017

Laksebestanden i Ribe Å 2014
General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology, Institute Management
Authors: Pedersen, S. (Intern), Koed, A. (Intern), Aarestrup, K. (Intern), Jepsen, N. (Intern), Sivebæk, F. (Intern)
Number of pages: 88
Laksebestanden i Ribe Å kan blive meget større - men det kræver en indsats

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

Betydningen af prædation på danske ferskvandsfiskebestande - en oversigt med fokus på skarv

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Jepsen, N. (Intern), Skov, C. (Intern), Pedersen, S. (Intern), Bregnballe, T. (Ekstern)
Number of pages: 78
Publication date: 2014

Cormorant predation on PIT-tagged lake fish
The present study use data from recovered PIT (Passive Integrated Transponder) tags to explore species-and size-specific annual predation rates by cormorants on three common lacustrine fishes (size range 120-367 mm) in a European lake; roach (Rutilus rutilus), common bream (Abramis brama) and perch (Perca fluviatilis). In addition, we quantify the level of age/size truncation that cormorant predation could introduce in a population of perch, an important fish for recreational angling as well as for trophic interactions and ecosystem function in European lakes. Based on three years of PIT tagging of fish in Lake Viborg and subsequent recoveries of PIT tags from nearby cormorant roosting and breeding sites, we show that cormorants are major predators of roach, bream and perch within the size groups we investigated and
for all species larger individuals had higher predation rates. Perch appear to be the most vulnerable of the three species and based on a comparison with mortality estimates from lakes without significant avian predation, this study suggest that predation from cormorants can induce age/size truncation in Lake Viborg, leaving very few larger perch in the lake. This truncation reduces the likelihood of anglers catching a large perch and may also influence lower trophic levels in the lake and thus turbidity as large piscivorous perch often play an important structuring role in lake ecosystem functioning.

**General information**

State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology, Section for Marine Living Resources, Institute Management
Pages: 177-186
Publication date: 2014
Main Research Area: Technical/natural sciences

**Publication information**

Journal: Journal of Limnology
Volume: 73
Issue number: 1
ISSN (Print): 1129-5767
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.574 SNIP 0.861 CiteScore 1.66
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.704 SNIP 0.833 CiteScore 1.62
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.437 SNIP 0.586 CiteScore 1.14
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.547 SNIP 0.934 CiteScore 1.4
ISI indexed (2013): ISI indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.718 SNIP 0.998 CiteScore 1.39
ISI indexed (2012): ISI indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.562 SNIP 0.728 CiteScore 1.29
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.411 SNIP 0.735
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.335 SNIP 0.592
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.401 SNIP 0.794
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 0.592 SNIP 0.617
Scopus rating (2006): SJR 0.845 SNIP 1.091
Scopus rating (2005): SJR 0.456 SNIP 0.814
Scopus rating (2004): SJR 0.283 SNIP 0.519
Scopus rating (2003): SJR 0.475 SNIP 1.072
Scopus rating (2002): SJR 0.649 SNIP 0.768
Scopus rating (2001): SJR 0.384 SNIP 0.706
Scopus rating (2000): SJR 0.187 SNIP 0.284
Daytime habitat selection for juvenile parr brown trout (Salmo trutta) in small lowland streams

Physical habitat is important in determining the carrying capacity of juvenile brown trout, and within freshwater management. Summer daytime physical habitat selection for the parr lifestage (7-20 cm) juvenile brown trout (Salmo trutta) was assessed in 6 small lowland streams. Habitat preference was determined for the four variables; water velocity, water depth, substrate and cover, and the preferences for physical habitat selection were expressed in terms of habitat suitability indices (HSIs). The statistical confidence of HSI's was evaluated using power analysis. It was found that a minimum of 22 fish observations was needed to have statistical confidence in the HSIs for water depth, and a minimum of 92 fish observations for water velocity during daytime summer conditions. Generally parr were utilising the deeper habitats, indicating preference for deeper water. Cover was also being selected for at all sites, but selection was inconsistent among sites for the variables substrate and velocity. The results indicate that during daytime summer conditions water depth is a significant variable for parr habitat selection in these small lowland streams, with cover also being important. Therefore, daytime refugia may be a critical limiting factor for parr in small lowland streams, and important for stream management actions under the Water Framework Directive.
Laksene i Østersøen, hvor kommer de mange laks fra?

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, S. (Intern)
Publication date: 2014

Publication information
Source/Publisher: Fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
http://www.fiskepleje.dk/Nyheder/2014/02/2014_02_25_Oestersoelaks
Publication: Communication › Internet publication – Annual report year: 2014
Skarpædation på søfisk: Et indblik fra Viborg Søerne

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology, Institute Management
Authors: Skov, C. (Intern), Jepsen, N. (Intern), Baktoft, H. (Intern), Pedersen, S. (Intern), Koed, A. (Intern)
Pages: 34-38
Publication date: 2014
Main Research Area: Technical/natural sciences

Publication information
Journal: Vand & Jord
Volume: 21
Issue number: Marts
ISSN (Print): 0908-7761
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

Vandplanerne - forslag til fiskeindeks for ørred

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology, Institute Management
Authors: Pedersen, S. (Intern), Jepsen, N. (Intern), Nielsen, J. (Intern), Baktoft, H. (Intern), Kristensen, E. (Ekstern), Koed, A. (Intern)
Publication date: 2014
Event: Abstract from Ferskvandssymposium Aarhus Universitet, Aarhus, Denmark.
Main Research Area: Technical/natural sciences
Publication: Research › Conference abstract for conference – Annual report year: 2014

Diel foraging and shelter use of large juvenile brown trout (Salmo trutta) under food satiation
The diel partitioning of juvenile brown trout Salmo trutta foraging behaviour is controlled by a number of factors including predation risk, competition, temperature and food availability. The present study uses PIT-tagging and visual observation to assess the use of shelter and foraging behaviour of Danish wild juvenile brown trout (13.5-15.6 cm). The experiment was conducted in a fluvarium and the fish were fed to satiation. It was hypothesised that food satiation would promote nocturnal foraging and increase daytime shelter use. Our results showed a significant difference in diel shelter use between day and night with a significant increase in shelter use during daytime conditions. Visual observations showed a significant preference for nocturnal feeding. Together with the significantly reduced shelter use during the night, our results support the hypothesis that young stream living trout only feed during the day to the extent needed to sustain growth

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Conallin, J. (Ekstern), Jyde, M. (Ekstern), Filrup, K. (Ekstern), Pedersen, S. (Intern)
Number of pages: 6
Pages: Article number 110085
Publication date: 2012
Main Research Area: Technical/natural sciences

Publication information
Journal: Knowledge and Management of Aquatic Ecosystems
Issue number: 404
ISSN (Print): 1961-9502
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Distribution by origin and sea age of Atlantic salmon (Salmo salar) in the sea around the Faroe Islands based on analysis of historical tag recoveries

Distribution by origin and sea age of Atlantic salmon (Salmo salar) in the sea around the Faroe Islands based on analysis of historical tag recoveries. – ICES Journal of Marine Science, 69: 1598–1608. A database of 2651 tags applied to Atlantic salmon (Salmo salar) smolts in 13 countries or jurisdictions and recovered in the Faroes longline salmon fishery from 1968 to 2000 was analysed for geographic distribution and origin of the salmon captured with respect to differences in sea age, season of the fishery, and hydrographic features in the Faroes area. The results indicated that salmon were not distributed randomly in the Faroes area by fishing season, sea age, or country of origin. The distribution of salmon in the Faroes zone partly depends on their geographic origin; salmon from countries in the northern European stock complex were distributed significantly farther northeast than those from countries in the southern European stock complex. Furthermore, the proportion of tag recoveries from southern European countries was higher in autumn, and the proportion recovered from northern European countries higher in winter. The apparent temporal and spatial segregation of stocks of different origin suggests that there may have been differential exploitation on these stocks, which provides information that could inform fishery management with regard to temporal and/or spatial fishery options for the Faroes commercial salmon fishery should it recommence in future.

General information

State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology, Norwegian Institute for Nature Research, Faroe Marine Research Institute, University of Oslo, Fisheries and Oceans Canada, Marine Institute, Cefas, BIO, Marine Scotland Science, Institute of Marine Research, Directorate of Fisheries
Pages: 1598-1608
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
Web of Science (2018): Indexed yes
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
Workshop on Baltic Sea Trout, Helsinki, Finland, 11-13 October 2011

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, S. (ed.) (Intern), Heinimaa, P. (ed.) (Ekstern), Pakarinen, T. (ed.) (Ekstern)
Number of pages: 95
Publication date: 2012

Publication information
Place of publication: Charlottenlund
Publisher: DTU Aqua. Institut for Akvatiske Ressourcer
ISBN (Print): 978-87-7481-149-7
Original language: English
Series: DTU Aqua report
Number: 248-2012
ISSN: 1395-8216
Main Research Area: Technical/natural sciences
Electronic versions:
248_2012_workshop_on_baltic_sea_trout.pdf
Publication: Research › Report – Annual report year: 2012

Non-indigenous signal crayfish Pacifastacus leniusculus is now common in Danish streams: Preliminary status for national distribution and protective actions

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Skov, C. (Intern), Aarestrup, K. (Intern), Sivebæk, F. (Intern), Pedersen, S. (Intern), Vrålstad, T. (Ekstern), Berg, S. (Intern)
Pages: 1269-1274
Publication date: 2011
Main Research Area: Technical/natural sciences

Publication information
Journal: Biological Invasions
Volume: 13
Issue number: 6
ISSN (Print): 1387-3547
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 1.294 SNIP 1.193 CiteScore 2.71
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.444 SNIP 1.19 CiteScore 2.58
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 1.416 SNIP 1.402 CiteScore 2.78
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 1.553 SNIP 1.29 CiteScore 2.9
ISI indexed (2013): ISI indexed yes
Ørred- og laksebestande i Østersøen

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

Publication information
Source/Publisher: www.fiskepleje.dk
Main Research Area: Technical/natural sciences
Links:
http://www.fiskepleje.dk/nyheder.aspx?guid=%7b19C601AD-D9D0-41B6-90EC-E334DB74A71C%7d
Source: orbit
Source-ID: 268322
Publication: Research - peer-review › Journal article – Annual report year: 2010

Salmon and sea trout populations and rivers in the Baltic Sea: HELCOM assessment of salmon (Salmo salar) and sea trout (Salmo trutta) populations and habitats in rivers flowing to the Baltic Sea

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Number of pages: 29
Publication date: 2011
Sea trout and salmon populations and rivers in Denmark: HELCOM assessment of salmon (Salmo salar) and sea trout (Salmo trutta) populations and habitats in rivers flowing to the Baltic Sea

General information
State: Published
Organisations: National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Pedersen, S. (Intern)
Number of pages: 29
Publication date: 2011

Publication information
Series: Baltic Sea Environment Proceedings
Number: 126A
ISSN: 0357-2994
Main Research Area: Technical/natural sciences
Links:
Source: orbit
Source-ID: 276592
Publication: Research - peer-review › Report – Annual report year: 2011

Effects of density on foraging success and aggression in age-structured groups of brown trout
The benefit of monopolizing a limited resource is influenced by competitor density and by the relative competitive ability of defenders and intruders. Nevertheless, few studies have investigated the effect of density on resource defence in groups with large asymmetries in competitive ability, as a consequence of, for example, age and/or body size. We used two age classes (i.e. size groups) of stream-living brown trout, Salmo trutta, to investigate this issue. While old (and large) trout are assumed to be superior during interference competition, younger individuals may be both numerically dominant and constitute more than half of the total population biomass. In this experiment, the ability of one yearling to monopolize a concentrated food source was observed at four densities of under-yearlings (zero, two, six and 12) in an indoor seminatural stream. We predicted that the success of defence would decrease with increasing under-yearling density and that the frequency of defence (i.e. aggression) would peak at an intermediate density. As predicted, yearlings made significantly more unsuccessful foraging attempts and adopted darker body coloration at high density of under-yearlings, suggesting increased stress levels. However, in contrast to our second prediction, the number of aggressive interactions increased progressively with density. These novel findings suggest that the cost of defence increases with under-yearling density, probably as a consequence of stress from interference with under-yearlings employing alternative competitive strategies. However, the difference in size seems to enable yearlings to defend the food resource at higher density of competitors than predicted from the resource defence theory.

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, University of Gothenburg
Authors: Kaspersson, R. (Ekstern), Höjesjö, J. (Ekstern), Pedersen, S. (Intern)
Pages: 709-715
Publication date: 2010
Main Research Area: Technical/natural sciences

Publication information
Journal: Animal Behaviour
Habitat suitability indices development in Denmark: are international indices applicable under small lowland stream conditions?

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Report of the Study Group on Biological Characteristics as Predictors of Salmon Abundance (SGBICEPS)

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern)
Number of pages: 158
Publication date: 2010

Publication information
Place of publication: Copenhagen
Publisher: International Council for the Exploration of the Sea
Original language: English
Bibliographical note
Stig Pedersen has written chapter 4.6 (p. 52-60)
Source: orbit
Source-ID: 266433
Publication: Research › Report – Annual report year: 2010

Report of the Working Group on Baltic Salmon and Trout (WGBAST), 24–31 March 2010, St Petersburg, Russia

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: EFSA Publication
Number of pages: 253
Publication date: 2010

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

Bibliographical note
Stig Pedersen has written Section 4.3 Other factors influencing the salmon fishery (pp 119-120) and: Section 7 Sea trout pp 202 - 234
Source: orbit
Source-ID: 271013
Publication: Research › Report – Annual report year: 2010

Study Group on data requirements and assessment needs for Baltic Sea trout (SGBALANST)

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: EFSA Publication
Publication date: 2010

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

Bibliographical note
Various contributions, especially sections 4.1.4 (pp 15-16) and 4.1.6 (pp 17-19)
Source: orbit
Source-ID: 281659
Publication: Research › Report – Annual report year: 2010

Disse mærker anvendes

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Impact of groundwater abstraction on physical habitat of brown trout (Salmo trutta) in a small Danish stream

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Olsen, M. (Ekstern), Bøgh, E. (Ekstern), Pedersen, S. (Intern), Pedersen, M. (Ekstern)
Pages: 394-405
Publication date: 2009
Main Research Area: Technical/natural sciences

Publication information
Journal: Hydrology Research
Volume: 40
Issue number: 4
ISSN (Print): 0029-1277
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Web of Science (2017): Indexed Yes
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.666 SNIP 0.69 CiteScore 1.66
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.026 SNIP 0.811 CiteScore 1.57
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.94 SNIP 1.053 CiteScore 1.78
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 1.196 SNIP 1.101 CiteScore 1.91
ISI indexed (2013): ISI indexed yes
Web of Science (2013): Indexed yes
BFI (2012): BFI-level 1
Scopus rating (2012): SJR 0.707 SNIP 0.818 CiteScore 1.18
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.517 SNIP 0.786 CiteScore 1
ISI indexed (2011): ISI indexed yes
Web of Science (2011): Indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.873 SNIP 0.816
Report of the Study Group on Data Requirements and Assessment Needs for Baltic Sea Trout (SGBALANST), 3-5 February 2009, Copenhagen, Denmark

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern)
Number of pages: 97
Publication date: 2009

Publication information
Place of publication: Copenhagen
Publisher: International Council for the Exploration of the Sea
Original language: English
Series: ICES C.M.
Number: DFC:03
Main Research Area: Technical/natural sciences

Bibliographical note
Stig Pedersen has written chapter 1-4 (p. 1-13) and edited Chapter 5 (p. 14-92)
Source: orbit
Source-ID: 252844
Publication: Research › Journal article – Annual report year: 2009

Sand i vandløb - er sandfang en løsning?

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern)
Pages: 40-45
Publication date: 2009
Main Research Area: Technical/natural sciences

Publication information
Journal: Miljø- & vandpleje
Volume: 34
ISSN (Print): 1397-5951
Original language: Danish
Source: orbit
Source-ID: 252832
Publication: Research › Journal article – Annual report year: 2009

Varierede vandløb vinder

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Davids, J. (Ekstern), Holm, M. (Ekstern), Olsen, M. (Ekstern), Pedersen, S. (Intern), Astrup, E. (Ekstern)
Pages: 16-21
Publication date: 2009
Main Research Area: Technical/natural sciences

Publication information
Journal: Miljø- & vandpleje
Issue number: 34
ISSN (Print): 1397-5951
Effekten af sandfang i vandløb

Forsøg med prægning af udsatte laks ved Nexø 2003-2008

Hvilken indflydelse har fysiske forhold på ørredens habitat i vandløb?

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern), Rasmussen, G. (Intern)
Publication date: 2008

Publication information
Place of publication: Copenhagen
Publisher: International Council for the Exploration of the Sea
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 277827
Publication: Research › Report – Annual report year: 2008

Other factors influencing the salmon fishery: From: Report of the Baltic Salmon and Trout Assessment Working Group (WGBAST), Gdynia, Poland

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern)
Publication date: 2008

Publication information
Place of publication: Copenhagen
Publisher: International Council for the Exploration of the Sea
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 277828
Publication: Research › Report – Annual report year: 2008


General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern)
Publication date: 2008

Publication information
Place of publication: Copenhagen
Publisher: International Council for the Exploration of the Sea
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 231336
Publication: Research › Report – Annual report year: 2008


General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
**Sedimenttransport og sandfang i vandløb – i relation til vandløbets fisk**

**General information**
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern), Vejlgaard Just, K. (Ekstern)
Publication date: 2008
Event: Abstract from Ferskvandssymposium på Århus Universitet, Århus, Denmark.
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 229436
Publication: Research › Conference abstract for conference – Annual report year: 2008


**General information**
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern)
Publication date: 2008

**Publication information**
Place of publication: Copenhagen
Publisher: International Council for the Exploration of the Sea
Original language: English
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 277832
Publication: Research › Report – Annual report year: 2008

**Tyklæbet multe (Chelon labrosus) i Danmark: Biologi og fangster**

**General information**
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Institute Management
Authors: Pedersen, S. (Intern), Rasmussen, G. (Intern)
Number of pages: 13
Publication date: 2008

**Publication information**
Place of publication: [s.l.]
Publisher: [s.n.]
Original language: Danish
Main Research Area: Technical/natural sciences

**Bibliographical note**
Udarbejdet til §7 Udvalget
Source: orbit
Source-ID: 229434
Publication: Research › Report – Annual report year: 2008
Straying of Atlantic salmon, *Salmo salar*, from delayed and coastal releases in the Baltic Sea, with special focus on the Swedish west coast

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Institute Management, Section for Population Ecology and Genetics
Authors: Pedersen, S. (Intern), Rasmussen, G. (Intern), Eg Nielsen, E. (Intern), Karlsson, L. (Ekstern), Nyberg, P. (Ekstern)
Pages: 21-32
Publication date: 2007
Main Research Area: Technical/natural sciences

Publication information
Journal: Fisheries Management and Ecology
Volume: 14
Issue number: 1
ISSN (Print): 0969-997X
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
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
Scopus rating (2012): SJR 0.636 SNIP 0.868 CiteScore 1.32
ISI indexed (2012): ISI indexed yes
Web of Science (2012): Indexed yes
BFI (2011): BFI-level 1
Scopus rating (2011): SJR 0.844 SNIP 0.932 CiteScore 1.29
ISI indexed (2011): ISI indexed yes
BFI (2010): BFI-level 1
Scopus rating (2010): SJR 0.847 SNIP 0.808
Web of Science (2010): Indexed yes
BFI (2009): BFI-level 1
Scopus rating (2009): SJR 0.796 SNIP 0.936
BFI (2008): BFI-level 1
Scopus rating (2008): SJR 0.823 SNIP 0.87
Web of Science (2008): Indexed yes
Scopus rating (2007): SJR 0.813 SNIP 1.255
Habitatmodellering i Ledreborg Å. Effekten på ørred ved reduceret vandføring

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Clausen, B. (Ekstern), Olsen, M. (Ekstern), Pedersen, S. (Intern), Pedersen, M. (Ekstern)
Number of pages: 58
Publication date: 2006

Publication information
Publisher: Danmarks Miljøundersøgelser
ISBN (Print): 978-87-7772-930-0
Original language: Danish

Series: Faglig rapport fra DMU
Number: 580
Main Research Area: Technical/natural sciences
Links:
http://www2.dmu.dk/1_viden/2_Publikationer/3_fagrapporter/rapporter/FR580.pdf
Source: orbit
Source-ID: 227106
Publication: Research › Journal article – Annual report year: 2007

Ørrederne i Karup Å

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern), Christiansen, R. (Ekstern), Glüsing, H. (Ekstern)
Pages: 18-22
Publication date: 2006
Main Research Area: Technical/natural sciences

Publication information
Journal: Cardinalen
Volume: 3
Original language: Danish
Source: orbit
Source-ID: 227112
Vilde fisk og udsatte fisk i Karup Å

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern)
Pages: 10-20
Publication date: 2006
Main Research Area: Technical/natural sciences

Publication information
Journal: Fisk og Hav
Issue number: 61
ISSN (Print): 0105-9211
Ratings:
ISI indexed (2013): ISI indexed no
ISI indexed (2012): ISI indexed no
ISI indexed (2011): ISI indexed no
Original language: Danish
Links:
http://www.aqua.dtu.dk/Publikationer/Fisk-og-hav.aspx
Source: orbit
Source-ID: 227111
Publication: Research › Journal article – Annual report year: 2006

Habitat preferences of adult wild and hatchery strain brown trout (Salmo trutta) in a meandering and a regulated section of a macrophyte-rich lowland stream

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern), Clausen, B. (Ekstern), Friberg, N. (Ekstern), Baattrup-Pedersen, A. (Ekstern)
Publication date: 2005
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 281685
Publication: Research › Poster – Annual report year: 2005

Movement and mortality of stocked brown trout in a stream
The movement and mortality of stocked brown trout Salmo trutta were investigated using radio telemetry. Four brown trout left the study area whereas the remaining fish were stationary. After 5 weeks, 13 out of 50 tagged brown trout were still alive in the stream. Surviving fish had a significantly lower mean movement per day than fish, which later either died or disappeared. This difference in behaviour was most pronounced 2 to 8 days after release. Predation by the otter Lutra lutra was probably the main cause of the observed mortality. (c) 2005 The Fisheries Society of the British Isles

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Aarestrup, K. (Intern), Jepsen, N. (Intern), Koed, A. (Intern), Pedersen, S. (Intern)
Pages: 721-728
Publication date: 2005
Main Research Area: Technical/natural sciences

Publication information
Journal: Journal of Fish Biology
Volume: 66
Issue number: 3
ISSN (Print): 0022-1112
Post release behaviour of wild and domesticated resident brown trout (Salmo trutta) in canalised and meandering stream sections

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern), Jepsen, N. (Intern), Friberg, N. (Ekstern), Baattrup-Pedersen, A. (Ekstern)
Publication date: 2005
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 224662
Publication: Research - peer-review › Journal article – Annual report year: 2005


General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern)
Pages: 208-210
Publication date: 2004
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 281687
Publication: Research › Poster – Annual report year: 2005

Udsætningsforsøg med ørred (Salmo trutta) i Gudenåen og Randers Fjord: Gennemført i 1982-83, 1987-89 og 1994-96

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Institute Management
Authors: Pedersen, S. (Intern), Rasmussen, G. (Intern)
Number of pages: 52
Publication date: 2004

Publications and electronic versions:

Journal: Ferskvandsfiskeribladet
Volume: 102
Issue number: 9
ISSN (Print): 0015-0223
Ratings:
ISI indexed (2013): ISI indexed no
ISI indexed (2012): ISI indexed no
ISI indexed (2011): ISI indexed no
Original language: Danish
Source: orbit
Source-ID: 281684
Publication: Research › Journal article – Annual report year: 2004

Place of publication: Silkeborg
Publisher: Danmarks Fiskerundersøgelser
ISBN (Print): 87-90968-57-3
Original language: Danish
Series: DFU-rapport
Number: 131-04
Main Research Area: Technical/natural sciences
Electronic versions:
Danish delayed release experiments with Baltic salmon (Salmo salar L.) 1995-99

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Institute Management
Authors: Pedersen, S. (Intern), Rasmussen, G. (Intern)
Pages: 1-18
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information
Journal: ICES C.M. 2003/
Volume: R:04
Original language: English
Source: orbit
Source-ID: 227100
Publication: Research › Conference article – Annual report year: 2003

Fate of stocked trout Salmo trutta L. in Danish streams: Survival and exploitation of stocked and wild trout by anglers

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Technical University of Denmark
Authors: Pedersen, S. (Intern), Dieperink, C. (Ekstern), Geertz-Hansen, P. (Intern)
Pages: 39-50
Publication date: 2003
Main Research Area: Technical/natural sciences

Publication information
Journal: Ecohydrology and Hydrobiology
Volume: 3
Issue number: 1
ISSN (Print): 1642-3593
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
BFI (2016): BFI-level 1
Scopus rating (2016): SJR 0.558 SNIP 1.023 CiteScore 1.68
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 0.388 SNIP 0.634 CiteScore 1.06
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.3 SNIP 0.616 CiteScore 0.66
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.219 SNIP 0.411 CiteScore 0.45
ISI indexed (2013): ISI indexed no
Scopus rating (2012): SJR 0.232 SNIP 0.327 CiteScore 0.31
ISI indexed (2012): ISI indexed no
Scopus rating (2011): SJR 0.286 SNIP 0.377 CiteScore 0.46
ISI indexed (2011): ISI indexed no
Scopus rating (2010): SJR 0.253 SNIP 0.453
Monitering af laks (Salmo salar) i vestsvenske ølve - Fase 2

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Institute Management, Section for Population Ecology and Genetics
Authors: Pedersen, S. (Intern), Rasmussen, G. (Intern), Eg Nielsen, E. (Intern)
Publication date: 2003

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

Bibliographical note
Rapport til DFFE
Source: orbit
Source-ID: 227104
Publication: Research › Report – Annual report year: 2003

Dansk laksefiskeri i Østersøen 2001 og status for forsøg med forsinket udsatte laks ved Bornholm og Møn

General information
State: Published
Organisations: Section for Monitoring, National Institute of Aquatic Resources, Section for Freshwater Fisheries Ecology
Authors: Hansen, F. I. (Intern), Pedersen, S. (Intern)
Number of pages: 32
Publication date: 2002

Publication information
Place of publication: Silkeborg
Publisher: Danmarks Fiskeriundersøgelser
ISBN (Print): 87-90968-22-0
Original language: Danish

Series: DFU-rapport
Number: 103-02
Main Research Area: Technical/natural sciences
Electronic versions:
103-02_ansk_laksefiskeri_i_østersøen.pdf
Links:
http://www.difres.dk/dk/publication/files/22122003$103-02%20Dansk%20laksefiskeri%20i%20Østersøen%202001.pdf
Source: orbit
Source-ID: 225614
Publication: Research › Report – 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.
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).

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Dieperink, C. (Ekstern), Pedersen, S. (Intern), Pedersen, M. I. (Intern)
Pages: 177-183
Publication date: 2001
Main Research Area: Technical/natural sciences

Publication information
Journal: Ecology of Freshwater Fish
Volume: 10
Issue number: 3
ISSN (Print): 0906-6691
Ratings:
BFI (2018): BFI-level 1
Web of Science (2018): Indexed yes
BFI (2017): BFI-level 1
Web of Science (2017): Indexed yes
BFI (2016): BFI-level 1
Scopus rating (2016): CiteScore 1.66 SJR 0.804 SNIP 0.885
BFI (2015): BFI-level 1
Scopus rating (2015): SJR 1.022 SNIP 1.192 CiteScore 1.92
Web of Science (2015): Indexed yes
BFI (2014): BFI-level 1
Scopus rating (2014): SJR 0.866 SNIP 0.994 CiteScore 1.58
Web of Science (2014): Indexed yes
BFI (2013): BFI-level 1
Scopus rating (2013): SJR 0.971 SNIP 1.072 CiteScore 1.77
Udsætningsforsøg med ørred (S. trutta L.) i vandløb 1995-1998

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern), Geertz-Hansen, P. (Intern)
Number of pages: 36
Publication date: 2001

Publication information
Place of publication: Silkeborg
Publisher: Danmarks Fiskeriundersøgelser
ISBN (Print): 87-90968-10-7
Original language: Danish

Series: DFU-rapport
Number: 93-01
Main Research Area: Technical/natural sciences
Electronic versions:
Survival of sea-water-adapted trout, *Salmo trutta* L., ranched in a Danish fjord

The effect of seawater adaptation on the survival of coastally released post-smelt trout, *Salmo trutta* L., was investigated by release: (1) directly (with no adaptation); (2) after retention in net pens in the sea for 29-131 days (delayed release); (3) after feeding with a high salt diet (12-13.5% NaCl) for 4 weeks; and (4) after a combination of (2) and (3). In total, 17 640 trout (age = 1+, 1.5 and 2+ years; mean fork lengths = 18.2-25.6 cm) were released in 14 batches in the summer or autumn months of 1986-1989. All fish were of domesticated origin and Carlin tagged. Survival and instantaneous mortality rates (total and fishing mortality) were estimated from reported recaptures. Mortality rates were estimated for: (1) the post-smelt period; (2) the period until the legal size of capture (40 cm) was attained; and (3) for larger sea-trout. Release with a delay of 4 weeks gave an increased survival rate. A longer adaptation period did not increase survival. On average, survival was increased by 36%. Survival was not increased by high-salt diets. Until attainment of the legal size for capture, survival was 9.6% higher on average, with extremes as low as 1.7% and as high as 38% in individual batches.

General information

State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Institute Management
Authors: Pedersen, S. (Intern), Rasmussen, G. (Intern)
Pages: 295-303
Publication date: 2000
Main Research Area: Technical/natural sciences
Udsættning af store ørreder i vandløb

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources
Authors: Pedersen, S. (Intern), Geertz-Hansen, P. (Intern)
Pages: 8-11
Publication date: 1998
Main Research Area: Technical/natural sciences
Udsætningsforsøg med ørred (Salmo trutta L.) i fynske vandløb og kystområder

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Institute Management
Authors: Pedersen, S. (Intern), Rasmussen, G. (Intern)
Number of pages: 52
Publication date: 1997

Publication information
Place of publication: Silkeborg
Publisher: Danmarks Fiskeriundersøgelser
Original language: Danish
Series: DFU-rapport
Number: 48-97
Main Research Area: Technical/natural sciences
Electronic versions:
48_97_uds_ningsfors_g_med_red_i_fynske_vandl_b_og_kystomr_der.pdf
Source: orbit
Source-ID: 227107
Publication: Research › Report – Annual report year: 1997

Limfjordens ørredbestande, II, Udsætningsforsøg

General information
State: Published
Organisations: Section for Freshwater Fisheries Ecology, National Institute of Aquatic Resources, Institute Management
Authors: Pedersen, S. (Intern), Rasmussen, G. (Intern), Ebert, K. (Ekstern)
Publication date: 1995

Publication information
Place of publication: Silkeborg
Publisher: Danmarks Fiskeriundersøgelser
Original language: Danish
Series: IFF-rapport
Number: 45
Main Research Area: Technical/natural sciences
Source: orbit
Source-ID: 227103
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
Fish index for streams (39024)
One of the (many) Danish shortcomings in fulfillment of the WFD requirements is the lack of a fish-based assessment method for rivers. DTU Aqua and Danish Centre for Environment and Energy (Aarhus University) was asked by the Danish Nature Agency to make basic analyses to enable the development of a national fish index to be used to produce the WFD required water plans. The challenge was to find a method to evaluate the ecological quality of small streams with only very few fish species. Using the extensive DTU Aqua database, a single-metric system was developed and tested. The results showed that the density of 0+ trout and salmon is a well-suited indicator that reflects water quality, physical modifications and connectivity. The method has now been implemented in the legislation and is used in the national water plans alongside the intercallibrated Lithuanian index LZI that is used in larger streams/rivers.

The project was coordinated by the Danish Nature Agency.

The project was funded by the Danish Nature Agency.

National Institute of Aquatic Resources

Section for Freshwater Fisheries Ecology

Danish Nature Agency

Aarhus University

Predation from birds and mammals and the significance for populations of freshwater fish (38829)
It is a well-known fact that predation can be a keyfactor for many fish populations and in some areas predation may even be themost important regulating factor for fish stocks of major recreationalimportance. Several species of predators were earlier persecuted, but are nowprotected and have experienced high population growths recently. This includesspecies like: cormorant, grey heron, seals and otter. Thus, the protection of these species has been a conservation success, but has also caused severeconflicts between various user-groups. To handle and mitigate these conflicts,scientific documentation is severely needed.
During a long period, DTU Aqua has carried out a number of projects that directly or as side-results have assessed the magnitude of predation and its impact on various fish stocks. This has provided some insight in when, where and by whom the important recreational fish species are being eaten. This project gathered and synthesized this knowledge to provide an overview of the significance of predation.

Outputs:
- Synthesis and analyses of existing knowledge/results.
- Method evaluation for scanning for PIT tags in cormorant/heron colonies.
- Investigations of possible causes for the recent drastic decline in grayling (Thymallus thymallus) populations.

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

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:
Skov, Christian (Intern)
Aarestrup, Kim (Intern)
Pedersen, Stig (Intern)
Jepsen, Niels (Intern)

Reporting tagging experiments (38250)
The project 1) manages expenses (rewards) and databases with results from tagging experiments and 2) elaborates results on selected previously not reported issues from former tagging experiments.

1) Handling incoming reports on recaptures of tagged fish comprises payment of rewards and registering of recaptures. Reports from previous experiments are normally received over a longer period of time and it is practical to locate expenses in one continuous project. Dating back to the 1970’s and until recent years numerous tagging experiments have been conducted on salmon and trout at DTU Aqua. The use of tags and tagging has been and remains a key method in fish studies. Results from tagging experiments has previously been stored in separate databases, but one objective of the project is to assemble results in a single database accessible using GIS software in order to facilitate access to conducted experiments, being relevant both for research and advisory activities.

2) The elaboration of results from former tagging experiments, where results may already have been used for their primary purpose, aims at extracting as much as possible the information available in the results. Information from the experiments are extracted ad hoc for various purposes, and elaborated for reporting on selected issues.

Presently work is being carried out on a series of tagging experiments on wild and reared sea trout (smolt and adults) in river Kolding Å, as well as on catch pattern of salmon in the Baltic Sea in relation to fishing effort and environmental variables for a selected time series. It is the intention to analyze results on data from several countries around the Baltic Sea in corporation with relevant national institutes.

National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Period: 01/01/2011 → 01/01/2099
Number of participants: 2
Research area: Freshwater Fisheries and Ecology
Project participant:
Baktoft, Henrik (Intern)
Pedersen, Stig (Intern)

Salmonid freshwater habitats (38256)
The procurement of knowledge in this project aims at improving the basic available knowledge for advising on restoration and stream maintenance activities. Realizing that the question of stream restoration is huge, focus is on selected issues often in cooperation with external partners whenever relevant. Regular cooperation has been done with other Danish universities (Roskilde University, Aalborg University, Aarhus University), local authorities, Environmental centers and anglers associations.
In the coming years it is expected that several issues will be particularly relevant, such as stream restoration (removal/sanitation of barriers and restoration of spawning areas), implementation of EU Water plans, fine sediments and sand transport in streams. Realizing that erosion and transport of fine sediment (sand) is a major problem in many Danish streams, several methods to mitigate this have been tested. One attempt to prevent the embedment of excessive amounts of fine sediment in spawning gravel, has been placing tubes below the gravel in order to allow the sediment transported by the stream to be transported past the area with spawning gravel. Investigations on artificial spawning areas constructed with tubes will be carried out by measuring the content of fine sediment in the gravel on comparable artificial gravel areas with and without tubes.

A database with ongoing and previous stream restoration projects has been created. This is continuously being updated, to enable meta-analysis on relevant variables with the purpose of providing advice on restoration projects. Focus will be on the identification of factors influencing restoration effects towards fish populations.

A number of restoration projects (addition of spawning gravel) are being followed over a longer time span (years). Habitat parameters such as depth, water velocity, substrate composition and vegetation cover was initially measured before the restoration together with fish species and size composition. The same variables are measured annually to register effect from and durability of the restoration.

In a stream where approximately half of the productive area was previously inaccessible to migrating trout, all obstacles are being removed in a major restoration project. Habitat parameters are measured for the entire system, aiming at modelling the effect of the removal of barriers on trout production (cooperation with project 38259).

In a study on brown trout population dynamics and effects on the population from sports fishing, two sections (total length approx. 8 km) have been mapped for habitat quality. All fish with sufficient size for tagging inside the two sections have been tagged (PIT tags) and migrations in and out of the experimental section is monitored. A controlled fishing pressure is being applied to one of the sections in order to evaluate the effect on trout population from sport fishing.

The project is coordinated by DTU Aqua.

National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Aalborg University
Period: 01/01/2011 → 31/12/2016
Number of participants: 2
Research area: Freshwater Fisheries and Ecology
Project participant:
Pedersen, Stig (Intern)
Project Manager, academic:
Aarestrup, Kim (Intern)
Project

Workshop on Baltic Sea Trout Helsinki, Finland, 11-13 October 2011 (38836)
In order to provide solutions for the possible implementation of management initiatives suggested in ICES recommendations a three day workshop was established.

An updated status of sea trout populations in the Baltic Sea was presented directly to invited managers from all countries around the Baltic Sea and to the EU Commission DG MARE/E2.

The status in each country was presented by national experts from all countries around the Baltic Sea. For a wider perspective the status of sea trout in Scandinavia, the status for Norwegian trout populations was presented by an invited expert from Norway.

Possible solutions to problems for the sea trout already implemented in some countries were presented and discussed between managers and scientists. Furthermore expected effects from additional implementations and the need of these were discussed. A set of statements were formulated.

Project report can be downloaded from aqua.dtu.dk

This project was coordinated by DTU Aqua.

The project was funded by Nordforsk, Nordic Council of Ministers.

National Institute of Aquatic Resources
Activities:

ICES - Baltic Salmon and Trout Assessment Working Group - WGBAST (External organisation)
Period: 2015
Stig Pedersen (Participant)
National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Degree of recognition: International

Related external organisation

ICES - Baltic Salmon and Trout Assessment Working Group - WGBAST
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Working Group on North Atlantic Salmon - WGNAS (External organisation)
Period: 2015
Stig Pedersen (Participant)
National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Degree of recognition: International

Related external organisation

ICES - Working Group on North Atlantic Salmon - WGNAS
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Baltic Salmon and Trout Assessment Working Group - WGBAST (External organisation)
Period: 2014
Stig Pedersen (Participant)
National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Degree of recognition: International

Related external organisation

ICES - Baltic Salmon and Trout Assessment Working Group - WGBAST
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Baltic Salmon and Trout Assessment Working Group - WGBAST (External organisation)
Period: 2013 → …
Stig Pedersen (Participant)
National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Degree of recognition: International

Related external organisation
ICES - Baltic Salmon and Trout Assessment Working Group - WGBAST
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Workshop on sea trout - WKTRUTTA (External organisation)
Period: 2013 → …
Stig Pedersen (Chairman)
National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology

Related external organisation

ICES - Workshop on sea trout - WKTRUTTA
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Baltic Salmon and Trout Assessment Working Group - WGBAST (External organisation)
Period: 2012 → …
Stig Pedersen (Participant)
National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Degree of recognition: International

Related external organisation

ICES - Baltic Salmon and Trout Assessment Working Group - WGBAST
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Inter Benchmark Protocol for Baltic salmon - IBPsalmon (External organisation)
Period: 2012 → …
Stig Pedersen (Participant)
National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Degree of recognition: International

Related external organisation

ICES - Inter Benchmark Protocol for Baltic salmon - IBPsalmon
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar

ICES - Working Group on North Atlantic Salmon - WGNAS (External organisation)
Period: 2012 → …
Stig Pedersen (Participant)
National Institute of Aquatic Resources
Section for Freshwater Fisheries Ecology
Degree of recognition: International

Related external organisation

ICES - Working Group on North Atlantic Salmon - WGNAS
Activity: Membership › Membership of committees, commissions, boards, councils, associations, organisations, or similar