

EIFAAC SYMPOSIUM – RECREATIONAL FISHERIES IN AN ERA OF CHANGE – LILLEHAMMER, NORWAY 14 – 17 JUNE 2015

PROGRAM (Updated 20 May 2015)

Sunday 14th June 2015

From 1400: Registration

1900 - 2100: "Get together" barbeque in the Lillehammer Radisson Hotel Garden

Monday 15th June 2015

From 0700: Breakfast

0800 - 1000: Registration

1000: Plenary Opening of Symposium. Recreational fisheries in an era of change – an international perspective. Chair: Head of Department, Mr Raoul Bierach, Norwegian Environment Agency

1000 – 1015: **Opening. Welcome to Lillehammer and Oppland.** County Governor of Oppland, Ms Christl Kvam

1015 – 1030: **Aim and goal of Symposium.** Symposium project leader Professor, Dr. Øystein Aas, NINA, Norway

1030 – 1105: **Demographic, economic and social change in sustainable recreational fisheries – an international perspective.** Professor, Dr. Robert Arlinghaus, IGB, Germany

1105 – 1120: Break

1120 – 1155: **More people fishing more often – England's national angling strategy.** CEO Mark Lloyd, Angling Trust, UK

1155 – 1230: **Migratory freshwater and diadromous fish resources: Challenges and opportunities for recreational fisheries management.** Professor, Dr. Eva Thorstad, NINA, Norway

1230 – 1330: Lunch

1330 – 1800: **Technical parallel sessions. (See separate program below for details)**

A1: Integrative management of *Esox lucius* considering ecological, evolutionary and socio-economic perspectives. (8 presentations). Chairs: Christian Skov and Robert Arlinghaus.

B1a: Crayfish recreational fisheries management: Challenges and opportunities (4 presentations). Chairs: Stein Johnsen and Jostein Skurdal.

B1b: Use of Data Collected from Anglers for Management of Recreational Fisheries (Intro and 4 presentations). Chairs: Kevin Pope, Gene Wilde and Toine Aarts. **(Starts 16:30)**

- C1: Participation and monitoring of recreational fisheries, recruitment and outreach (9 presentations). Chairs: Øyvind Fjeldseth and Torfinn Evensen.
- D1: Social dynamics in Catch & release recreational fisheries (10 presentations). Chairs: Stian Stensland and Anders Kagervall.

1830: Opening reception at Maihaugen Outdoor Museum

2030: Buffet Dinner at Symposium Hotel

Tuesday 16th June

From 0700: Breakfast

0900 – 1300: Technical parallel sessions. (See separate program below for details)

- A2a: Challenges and opportunities in using reference points for the management of recreational fisheries for Atlantic salmon (7 presentations). Chairs: Teppo Vehanen and Peter Hutchinson.
- A3: The right angle - balancing biological, social and economic goals in the management of recreational fisheries (Intro and 1 presentation). Chairs: Kieran Hyder and Harry Strehlow - **OBS Session starts 12:30.**
- B2: Continued from B1b: Use of Data Collected from Anglers for Management of Recreational Fisheries (10 presentations). Chairs: Kevin Pope, Gene Wilde, and Toine Aarts – **OBS Session starts 0845.**
- C2: Trans-disciplinary approaches to sustainable fish stocking and the Besatzfisch project (7 presentations). Chair: Robert Arlinghaus.
- D2: C&R fisheries – new insights from fish biology research (8 presentations). Chairs: Ingebrigt Uglem and Morten Kraabøl.

1300 – 1400: Lunch

1400 – 1820: Technical parallel sessions. (See separate below program for details)

- A3: The right angle - balancing biological, social and economic goals in the management of recreational fisheries- continued (9 presentations). Chairs: Kieran Hyder and Harry Strehlow.
- B3: Trait-based vulnerability of fish to angling gear (8 presentations). Chairs: Barbara Köck and Robert Arlinghaus.
- C3: Sustainable fishing tourism in freshwater environments (9 presentations). Chair: Egil Liberg.
- D3: Stocking for conservation – the cases of salmon, eel and sturgeon. The IMPRESS project (6 presentations). Chairs: Finn A. Weltzien and Ian Mayer.

1830 - 1930 (voluntary): Film from “Besatzfisch”-project. Short introduction by Robert Arlinghaus.

2000: Three-Course Dinner at Symposium Hotel

Wednesday 17th June 1100 – 1300

From 0700: Breakfast

0830 - 1100: Plenary theme: Habitat restoration, biodiversity conservation and recreational fisheries. Chair: Mr Thomas Moth Poulsen, EIFAAC/FAO

0835 – 0900: **Citizen science and recreational fisheries: Monitoring and managing the Eel.** Joe Pecorelli, Zoological Society of London, UK

0900-0925: **Watershed restoration – lessons from four decades and three continents.** Dr. Martin O’Grady, Fisheries Ireland

0925 - 0950: **Management of the Danish salmon stocks - What to do when your starting point is a whole lot of nothing?** Vice-director, Dr. Anders Koed, DTU Aqua, Denmark

0950 - 1010: Break

1010 – 1035: Restoring River Ecosystems and the Foundations of Recreational Fisheries. Dr. Luther Aadland, Minnesota Department of Natural Resources, USA

1035 - 1050: **Reflections on restoration and conservation in European watersheds.** Environmentalist, angler and actor Jasper Pääkkönen, Finland (to be confirmed)

1050 – 110: Break

1110 – 1300: Plenary closing theme: Integrative challenges of recreational fisheries management. Chair: Mr Thomas Moth Poulsen, EIFAAC/FAO

1100 – 1125: **The changing face of recreational fisheries in the Great Lakes and its ecological and socio-economic consequences.** Professor William Taylor, Michigan State University, USA.

1125 - 1150: **Cross-disciplinary approaches to optimal, sustainable recreational fisheries management.** Dr. Fiona Johnston, IGB, Germany.

1150 – 1250: **The future of recreational fisheries in a globalized world. A roundtable summary of the Symposium. Convened by Cathal Gallagher,** EIFAAC, with contributions from cooperating organisations and supporters, keynote speakers, session chairs and other Symposium attendees.

1250 – 1300: **Closing of Symposium.** Arne Eggereide, Norwegian Environment Agency.

1300 – 1400: Lunch

Excursions open for Symposium attendees according to registration in the afternoon from 1630.

Technical sessions (detailed timetable and room distribution will be published in May 2015)

Monday afternoon

Detailed Time Schedule for Monday Afternoon. Session rooms will be marked A, B, C and D and assigned and clearly marked from Sunday afternoon.

All presentations 15 + 5 minutes. General discussion at end of session. All session chairs must comply to the overall time schedule to facilitate listeners change between sessions. All presentations should be uploaded and checked before the session starts.

Time	A1 <i>Esox lucius</i> Management	B1a Crayfish	C1 Participation & Outreach	D1 C&R Social dynamics
13:30	Intro	Intro	Intro	Intro
13:40	A1-1	B1a-1	C1-1	D1-1
14:00	A1-2	B1a-2	C1-2	D1-2
14:20	A1-3	B1a-3	C1-3	D1-3
14:40	Break	Break	Break	Break
15:00	A1-4	B1a-4	C1-4	D1-4
15:20	A1-5	B1a Discussion	C1-5	D1-5
15:40	A1-6	B1a Discussion	C1-6	D1-6
16:00	Break	Break + 10 min	Break	Break
16:20	A1-7	16:30 Intro to: B1b/B2 Angler data	C1-7	D1-7
16:40	A1-8	B1b-1	C1-8	D1-8
17:00	A1 Discussion	B1b-2	C1-9	D1-9
17:20	A1 Discussion	B1b-3	C1 Discussion	D1-10
17:40		B1b-4	C1 Discussion	D1 Discussion
18:00	END	END	END	END

A1: Integrative management of *Esox lucius* considering ecological, evolutionary and socio-economic perspectives. Chairs: Christian Skov & Robert Arlinghaus

	First author/presenter	Country	Title of presentation
A1-1	Skov & Berg	Denmark	Transition of pike fisheries in Denmark; regulations, stocking activities, animal welfare and habitat improvement
A1-2	Guillerault et al.	France	Status of pike and pike management in France
A1-3	Arlinghaus et al.	Germany	Sustainably managing pike (<i>Esox lucius</i>) using harvest slots – theoretical considerations and practical implementation issues in Germany
A1-4	Hamda & Venturelli	USA	Range-wide model predictions of the effect of northern pike regulations on yield, catch-at-age, and population structure
A1-5	Tiainen et al.	Finland	Capability of slot-length limit regulation in conserving large pike
A1-6	Wilde et al.	USA	A Review of the Effects of Northern Pike Regulations

A1-7	Olin et al.	Finland	Reproductive characteristics of pikeperch (<i>Sander lucioperca</i>) in relation to size-selective recreational fishing in south Finnish lakes
A1-8	Vindenes et al.	Norway	Evaluating the relative fitness importance of early life conditions and maternal size effects in Windermere pike - an integral projection model approach

B1a: Crayfish recreational fisheries management: Challenges and opportunities.

Chairs: Stein Johnsen & Jostein Skurdal

	First author/ presenter	Country	Title of presentation
B1a-1	Skurdal & Johnsen	Norway	Catch them if you can – management dilemmas after exclusion of native noble crayfish by alien signal crayfish
B1a-2	Edsman	Sweden	How to save the native noble crayfish and the crayfish fishery at the same time - the importance of culture, consumption and economy
B1a-3	Edsman et al.	Sweden	Fecundity and female size – Bigger is not always better.
B1a-4	Jussila et al.	Finland	Active spreading of an invasive species challenges ecosystem-based management of crayfisheries

B1b & B2: Use of Data Collected from Anglers for Management of Recreational Fisheries. Chairs: Pope, Wilde & Aarts

	First author/ presenter	Country	Title of presentation
B1b-1	Wilde et al.	USA	A Conceptual Model for Angler-supplied Data
B1b-2	Ring Kleiven	Norway	Citizen science in Norwegian marine recreational fisheries
B1b-3	Venturelli & Skov	USA/ Denmark	Using angler smartphone applications for data collection and fisheries management
B1b-4	Blomqvist et al.	Sweden	Gill-tags and smartphones – bringing salmon management into the 21 st. century
B2-1	Belin	Sweden	Cellphone applications for catch reports and Swedish anglers willingness to report their catches
B2-2	Dahlman & Douglas	Sweden	Digital fishing licenses and catch report system in Sweden
B2-3	Arlinghaus et al.	Germany	Can principles of swarm intelligence help us assess the abundance of freshwater fishes in angling waters? An experimental test in pike (<i>Esox lucius</i>)
B2-4	Stabo & Hellenberg	Sweden	Specialist angler data – a resource in recreational fishing management
B2-5	Skov et al.	Denmark	Angler log books as a tool to inform fisheries management
B2-6	Aarts	Netherlands	MijnVISmaat: using voluntary angler catch-data for more than monitoring fish-stocks.
B2-7	Pope et al.	USA	Assessment of ecosystem services using data collected from anglers
B2-8	Chizinski et al.	USA	Angler-catch networks over space and time
B2-9	Pegg et al.	USA	Master Anglers: Using Angler Records to Assist with Population Assessment

B2-10	Sawynok et al.	Australia	Looking into the “Crystal Bowl”
	Karlsson et al. (POSTER)	Sweden	Strategy for recreational fishing data collection in Sweden

C1: Participation and monitoring of recreational fisheries, recruitment and outreach.

Chairs: Øyvind Fjeldseth & Torfinn Evensen

	First author/ presenter	Country	Title of presentation
C1-1	Carlstrand, Persson et al.	Sweden	New approaches to monitoring recreational fisheries in Sweden
C1-2	vanAalderen et al.	Netherlands	Survey of recreational fishery on inland waters in the Netherlands
C1-3	Birzaks et al.	Latvia	Licensed angling in Latvia – lessons learned
C1-4	Mawle	UK	The rise and fall of rod licence sales in England and Wales (UK)
C1-5	Andersen et al.	Norway	Why do people quit salmon angling? A study of Norwegian salmon fishery participation dynamics
C1-6	Andersen et al.	Norway	Differences in motivation and satisfaction between lapsed and active salmon anglers in Norway
C1-7	Owen	UK	Angling Volunteers – Education, integration & Enforcement
C1-8	Ruud et al.	Norway	A year campaigning for recreational fisheries in Norway – lessons learned
C1-9	Collins	UK	Who says “It’s only fishing!”?

D1: Social dynamics in C&R fisheries. Chairs: Stian Stensland & Anders Kagervall

	First author/ presenter	Country	Title of presentation
D1-1	Stensland & Aas	Norway	The role of norms, informal sanctions and assumed consequences in catch & release angling
D1-2	Kagervall et al.	Sweden	Catch and release in Sweden - Characteristics and development
D1-3	Riepe & Aarlinghaus	Germany	Moral evaluation of catch-and-release practices by the German public
D1-4	Stensland	Norway	The growth of catch & release angling as a constraint and facilitator for participation in salmon angling
D1-5	Haugen & Stensland	Norway	Comparison of attitudes towards C&R among Norwegian salmon, marine and inland recreational anglers
D1-6	Ødegaard, M.	Norway	From a living thing to a living being – changing views on catch and release of Atlantic salmon in Alta river, Norway
D1-7	Øian et al.	Norway	Rhetoric and hegemonies in controversies over management policies in the salmon river of Orkla, Norway
D1-8	Olaussen	Norway	Catching catch-and-release- evidence from an Atlantic salmon recreational fishery
D1-9	Bower et al.	Canada/India	Where recreation and conservation meet: rapid integrated assessment of the catch-and-release mahseer (<i>Tor spp.</i>) recreational fishery of the Cauvery River, India
D1-10	Petrere	Brazil	Catch and release - protection or damage to the fish? A case study from Amazonas fisheries

Tuesday AM

Detailed Time Schedule for Monday Afternoon. Session rooms will be marked A, B, C and D and assigned and clearly marked from Sunday afternoon.

All presentations 15 + 5 minutes. General discussion at end of session. All session chairs must comply to the overall time schedule to facilitate listeners change between sessions. All presentations should be uploaded and checked before the session starts.

Time	A2a Atlantic salmon	B2 Angler data (obs starts at 0845)	C2 Trans-discipl. approaches to stocking	D2 C&R Biology
0900	Intro	B2-1 (0850 – 0910)	Intro	Intro
0910	A2-1	B2-2	C2-1	D2-1
0930	A2-2	B2-3	C2-2	D2-2
0950	A2-3	B2-4	C2-3	D2-3
1010	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
1030	A2-4	B2-5	C2-4	D2-4
1050	A2-5	B2-6	C2-5	D2-5
1110	A2-6	B2-7	C2-6	D2-6
1130	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
1150	A2-7	B2-8	C2-7	D2-7
1210	Discussion	B2-9	Discussion	D2-8
1230	1230: Intro A3 Right Angle Mgt	B2-10	Discussion	Discussion
1250	A3-1 (1240)	Discussion		Discussion
1300	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>	<i>Lunch</i>

A2a: Challenges and opportunities in using reference points for the management of recreational fisheries for Atlantic salmon. Chairs: Teppo Vehanen & Peter Hutchinson

	First author/Presenter	Country	Title of presentation
A2-1	Hindar et al.	Norway	Development of biological reference points for Atlantic salmon and brown trout populations: methods and challenges
A2-2	Larsson et al.	Sweden	Management of Salmon rivers in Sweden – a shift from species to populations
A2-3	Gargan, Gallagher et al.	Ireland	A review of the process for management of Atlantic salmon in Ireland on a single stock basis following scientific stock assessment of achievement of conservation limit
A2-4	Mawle	UK	The effectiveness of a Decision Structure to regulate salmon fisheries in England and Wales (UK)
A2-5	Forseth et al.	Norway	Attainment of conservation limits and the harvestable surplus as foundation for catch advise for Atlantic salmon fisheries in Norway
A2-6	Erkinaro et al.	Finland/Norway	Development in setting spawning targets for, and analysing the mixed-stock fishery on the Atlantic salmon populations of the River Teno/Tana

A2-7	Asgeirsson & Strand	Iceland	To fish or not to fish? The use of counter data in support of rational management of the recreational salmon fishery in Norwegian salmon rivers
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B2: See above on B1b

C2: Trans-disciplinary approaches to sustainable fish stocking and the Besatzfisch project. Chair: Robert Arlinghaus

	First author/ Presenter	Country	Title of presentation
C2-1	Aas et al.	Norway	A comparative analysis of salmonid stocking governance in France, Germany, Norway, Sweden and Atlantic Canada. Implications and consequences for recreational fisheries management
C2-2	Post et al.	Canada	Landscape Scale Dynamics of Fishers, Fish and Policy: Experiments, Data and Models of Canadian Recreational Fisheries
C2-3	Arlinghaus et al.	Germany	A transdisciplinary sustainability science route to sustainable fish stocking in recreational fisheries
C2-4	Riepe et al.	Germany	The human dimensions of stocking in German angling clubs
C2-5	Huehn et al.	Germany	Natural reproduction and stock enhancement outcomes: evaluation of stocking fish into populations with and without natural reproduction using carp and pike as model species
C2-6	Johnston et al.	Germany (Can)	The costs and benefits of stocking reproducing and non-reproducing species: a bioeconomic modelling approach
C2-7	Fujitani	Germany	Engaging with stakeholders for sustainable inland fisheries: A randomized controlled experiment on learning for sustainable stocking in German recreational fisheries

D2: C&R fisheries – new insights from fish biology research. Chairs: Ingebrigt Uglem & Morten Kraabøl

	First author/ presenter	Country	Title of presentation
D2-1	Havn et al.	Norway	Recapture of released Atlantic salmon in seven Norwegian rivers
D2-2	Lennox et al.	Norway/Canada	Behavior of Atlantic salmon released by recreational anglers: insight from electronic tags
D2-3	Mawle	UK	The impact of different angling lures on rod-caught salmon
D2-4	Kraabøl	Norway	C&R brown trout in a specially regulated fly fishery
D2-5	Lennox et al.	Norway/Canada	Evaluating air exposure thresholds for recreational grayling fisheries with physiological and behavioral tools
D2-6	Weltersbach et al.	Germany	Post-release hook shedding mechanism of deep-hooked European eels (<i>Anguilla anguilla</i>)

D2-7	Stålhammar et al.	Sweden	Effects of lure type, fish size and water temperature on hooking location and bleeding in northern pike (<i>Esox lucius</i>) angled in the Baltic Sea
D2-8	Ferter et al.	Norway	Studying barotrauma and survival of physoclistous fish after rapid decompression: lessons learned from an Atlantic cod (<i>Gadus morhua</i>) experiment

Tuesday PM

Detailed Time Schedule for Monday Afternoon. Session rooms will be marked A, B, C and D and assigned and clearly marked from Sunday afternoon.

All presentations 15 + 5 minutes. General discussion at end of session. All session chairs must comply to the overall time schedule to facilitate listeners change between sessions. All presentations should be uploaded and checked before the session starts.

Time	A3 Right angle	B3 Trait based vulnerability	C3 Sustainable Fishing Tourism	D3 IMPRESS project
1400		Intro	Intro	Intro
1410	A3-2	B3-1	C3-1	D3-1
1430	A3-3	B3-2	C3-2	D3-2
1450	A3-4	B3-3	C3-3	D3-3
1510	Break	Break	Break	Break
1530	A3-5	B3-4	C3-4	D3-4
1550	A3-6	B3-5	C3-5	D3-5
1610	A3-7	B3-6	C3-6	D3-6
1630	Break	Break	Break	Break
1650	A3-8	B3-7	C3-7	Discussion
1710	A3-9	B3-8	C3-8	Discussion
1730	A3-10	Discussion	Discussion	Discussion
1750	Discussion	Discussion	Discussion	Discussion
1810	END	END	END	END

Please note: It will be possible to arrange Discussion sessions related to already completed sessions during the last hours of this session. Rooms will be available upon order.

A3: The right angle - balancing biological, social and economic goals in the management of recreational fisheries. (Obs – starts with Intro 1230 after session A2) Chairs: Kieran Hyder & Harry Strehlow

	First author/presenter	Country	Title of presentation
A3-1	Hyder & Strehlow	UK/Germany	Sea Angling in Europe – challenges for co-management
A3-2	Wolos & Trella (presenter)	Poland	Does medium-intensive commercial fishing affect effectiveness of angler catches in Polish inland waters?
A3-3	Eldøy et al.	Norway	A review of the processes for salmon fisheries management in Norway
A3-4	Eriksson, T.	Sweden	Managing multiple use freshwater fisheries in the Swedish mountain areas
A3-5	Ruokonen et al.	Finland	Migration Patterns and Strategies of the River Teno Brown Trout - Insights for sustainable management

A3-6	Jepsen	Denmark	The conflict between cormorants and anglers - effects of predation on recreational fishing
A3-7	O'Grady et al.	Ireland	Scientific inputs to the focussed restoration and management of one of Irelands foremost wild brown trout fisheries, Lough Corrib.
A3-8	Ring Kleiven et al.	Norway	Recreational fishing as a self-subsidising activity: implications for sustainability of targeted fish stocks
A3-9	Bowers et al.	Canada	Knowledge gaps in recreational fisheries management in growing economies
A3-10	Treer et al.	Croatia	The co-existence of recreational and commercial fisheries in Croatian rivers

B3: Trait-based Vulnerability of Fish to Angling Gear.

Chairs: Barbara Köck & Robert Arlinghaus

	First author/ presenter	Country	Title of presentation
B3-1	Uusi-Heikkilä et al.	Finland	The Evolutionary and Ecological Legacy of Size-selective Fishing
B3-2	Tsuboi et al.	Japan	Behaviour-mediated alteration of positively size-dependent vulnerability to angling in response to historical fishing pressure in a freshwater salmonid
B3-3	Vainikka et al.	Finland	Selectivity of angling for behaviour in Eurasian perch <i>Perca fluviatilis</i>
B3-4	Alos et al.	Germany	Movement behavioural traits predict angling vulnerability in sedentary fish
B3-5	Köck et al.	Sweden	Angling selection on salmonid behavioural traits: implications for the invasion potential of an introduced species.
B3-6	Klefoth et al.	Germany	Towards a mechanistic understanding of vulnerability to angling – the role of behavior exemplified by experimentally angled common carp (<i>Cyprinus carpio</i>)
B3-7	Monk et al.	Germany	Testing the relationship between vulnerability to angling and behaviour in carp (<i>Cyprinus carpio</i>) at a whole-lake scale
B3-8	Killen et al.	UK	Catchability of Individual Fish by Trawling is Driven by Capacity for Anaerobic Metabolism

C3: Sustainable fishing tourism in freshwater environments. Chair: Egil Liberg

	First author/ presenter	Country	Title of presentation
C3-1	Rautiainen et al.	Finland	Health and well-being of hunters and fishers on state forest land in Finland
C3-2	Dervo & Nygård	Norway	Creating a sustainable grayling tourism fishery – the importance of harvest regulations and local economic impacts
C3-3	Andersson et al.	Sweden	Swedish annual report of developments in recreational fishing and fishing tourism in 2014
C3-4	O'Reilly	Ireland	Economic Impacts of Angling Events in Ireland
C3-5	Agnarsson et al.	Iceland	Dynamics of salmon fishing: Comparative analysis of angling in Iceland and Norway

C3-6	Palm et al.	Sweden	Socioeconomic study of Swedish recreational fishing entrepreneurs
C3-7	Liberg et al.	Norway	Sustainable salmon fishing tourism in the Barents region – the importance of balancing social, economic and ecological dimensions
C3-8	Stensland et al.	Norway	Spatial mobility of anglers in the Norwegian salmon sport fishery

D3: Stocking for conservation – the cases of salmon, eel and sturgeon. The IMPRESS project. Chairs: Finn A. Weltzien & Ian Mayer

	First author/ presenter	Country	Title of presentation
D3-1	Weltzien	Norway	Overview of the IMPRESS research network
D3-2	Forseth & Finstad	Norway	Cultivation of Atlantic salmon in Norway – enhancement or conservation, lessons learned
D3-3	Mayer	Norway	Are current production regimes effective for stock enhancement programmes
D3-4	Martin	France	Conservation and management of native Atlantic salmon stocks. A case study: the Loire river, France.
D3-5	Gessner	Germany	Conservation and management of sturgeon stocks: overview of sturgeon production and research priorities
D3-6	Asturiano	Spain	Conservation and management of the European eel: current status of eel populations and research priorities