

Full Programme (Draft, 15th July 2022)

Monday 25th July

- From 12:00 Registration Desk opens – Lyth Building Foyer, Brackenhurst Campus
Poster set-up
- 14:00 – 16:00 Optional Workshop: “How to progress towards creating an inclusive, diverse and transparent community in fish and fisheries” [Lyth 108A & B]
- 18:30 - 20:30 **Welcome reception** (Lyth Building Foyer)
Event kindly sponsored by Wiley

Tuesday 26th July

- 08:30 - 08:45 **Symposium opening**
Iain Barber & Andrew Hirst
- 08:45 - 09:00 **Welcome to NTU**
Pro Vice-Chancellor (International) Professor Cillian Ryan
- 09:00 - 10:00 *Jack Jones Lecture*

Chair: Colin Adams (FSBI Honorary President)

John Pinnegar
Climate change and the future of fish and fisheries (K1)
- 10:00 - 10:30 **Coffee**
- Session A:** **Adaptation to diverse habitats**

Session Chairs: J. Rob Britton / [TBC]
- 10:30 - 10:45 **Melanie Massey**
Differential reproductive plasticity under thermal variability in a freshwater fish (*Danio rerio*) (A1)
- 10:45 - 11:00 **Guðbjörg Ólafsdóttir**
Migratory ecotypes of Atlantic cod as juveniles: implications for conservation (A2)
- 11:00 - 11:15 **Sam Fenton**
The adaptive diversity of Arctic charr in Scotland (A3)
- 11:15 - 11:30 **Jack Cooper**

The extinct shark *Otodus megalodon* was a transoceanic super-predator: inferences on feeding ecology based on 3D modelling (A4)

11:30 - 11:45

Jessica Rodger

Complex landscape, instream and anthropogenic environmental features drive genetic and morphological structuring amongst brown trout (*Salmo trutta*) in a dendritic river system (A5)

11:45 - 12:00

Rui Vieira

The importance of cephalopods in the diet of fish on the Northwest European shelf (A6)

12:00 - 12:15

Darryl McLennan

Sustained swimming performance is independent of organism-level and mitochondrial-level metabolism in European minnows (A7)

12:15 - 12:30

Josh Hufton

Linking gene expression to divergent adaptations in ecologically functional traits in East African cichlid fishes (A8)

12:30 – 13:30

Lunch (Lyth Refectory)

Session B:

Physiological and behavioural responses to a warming world

Session Chairs: Filip Volckaert / [TBC]

13:30 - 14:15

Invited keynote talk

Ben Geffroy (Ifremer, France)

Environmental change and sex determination in fishes (K2)

14:15 - 14:30

Daniel D'Agostino

Growth impacts in a changing ocean: insights from two coral reef fishes in an extreme environment (B1)

14:30 - 14:45

Bethany Smith

Performance consequences of thermal adaptation in geothermal sticklebacks (B2)

14:45 - 15:00

Annie Grigg

Plastic responses in Zebrafish (*Danio rerio*) due to thermal variability impact body shape and size (B3)

15:00 - 15:15

Patrick Eskuche-Keith

Temperature alters the size selectivity of Southern Ocean fish (B4)

15:15 – 15:45

Coffee

Session Chairs: Chiara Papetti / [TBC]

- 15:45 - 16:00 *Beverton Medal winner talk*
- Catherine (Katie) Peichel** (*virtual*)
Genetics of adaptation to dynamic environments (M1)
- 16:00 – 16:15 **Anne Gro Salvanes**
West Norwegian sill fjords as natural infrastructures for investigating consequences of ocean deoxygenation on fish (B5)
- 16:15 - 16:30 **Martine Solås**
Vertical distribution of mesopelagic sound scattering layers in Norwegian fjords with different oxygen and light conditions (B6)
- 16:30 - 16:45 **Francesco Saltalamacchia**
Life in oxygen-poor environments: growth and life history of the glacier lanternfish (*Benthosema glaciale*) in West Norwegian fjords (B7)
- 16:45 - 17:00 **Barnaby Roberts**
Larval whitefish diet, growth and density in Lake Constance (B8)
- 17:00 - 17:15 **Alexia González-Ferreras**
Temperature and land-use effects on fish metabolism in two river catchments of Northern Spain (B9)
- 17:15 - 17:30 **Grace Vaughan**
Thermal tolerance and acclimatory capacity of fishes living on the world's hottest reefs (B10)
- 17:30 - 17:45 **Emily Saunders**
Laying the foundations for an evidence base of healthy landscapes for sustaining life under water (B11)

Speed Talks (Session 1)

- 17:45 - 17:48 **Clement Ng**
Contrasting impacts of active and passive fishing techniques on different behavioural and physiological traits (S1)
- 17:48 - 17:51 **Zelin Chen**
Examining anthropogenic and environmental impacts on North Sea food webs (S2)
- 17:51 - 17:54 **Faye Moyes**
Change in functional rarity in marine fish assemblages is linked to shifts in species abundance distributions (S3)
- 17:54 - 17:57 **João Miguel Moreno**
Thermal tolerance in Iberian freshwater fish in face of climate change (S4)
- 17:57 - 18:00 **Rosslyn Watret**
The variability of cortisol within fish tissue (S5)
- 19:00 - 20:00 **Dinner** (Lyth Refectory)
- 20.00 onwards **Pub Quiz** (NTSU Brack Bar) and / or time to explore Southwell

Wednesday 27th July

Session C: Behavioural ecology of fish in a dynamic world

Session Chairs: Felicity Huntingford / [TBC]

08:30 - 09:15

Invited keynote talk

Ulrika Candolin

Impacts of environmental change on the behavioural ecology of fish
(K2)

09:15 - 09:30

Hannah MacGregor

Shoaling behaviour in response to turbidity in three-spined sticklebacks
(C1)

09:30 - 09:45

Cait Newport

The impact of increased temperature and turbidity on the feeding and movement behaviour of three-spined sticklebacks (*Gasterosteus aculeatus*) (C2)

09:45 - 10:00

Anna Garcia

How does reduced visibility impact the sensory basis of distance estimation in goldfish? (C3)

10:00 – 10:30

Coffee

Session Chairs: Carl Smith / [TBC]

10:30 - 10:45

Joris Philip

Among-individual variation in risk-taking behaviour in group and solitary contexts is uncorrelated but independently repeatable in a juvenile Arctic charr (*Salvelinus alpinus*). (C4)

10:45 - 11:00

Jessie Lilly

Investigating the behaviour of Atlantic salmon smolts during the early marine migration. (C5)

11:00 - 11:15

Amy Green

Assessing the impact of river barriers on successful seaward migration of Atlantic salmon, *Salmo salar* along the River Derwent, Cumbria. (C6)

11:15 - 11:30

Hannele Honkanen

Atlantic salmon smolt migration through lakes: combination of stochastic and directed movements. (C7)

11:30 - 11:45

Matthew Newton

Marine migrations of salmon in highly developed seas – potential impact of marine renewable developments. (C8)

11:45 - 12:00

Kristi Källo

Do all roads lead to home? Complexity in straying behavior of anadromous brown trout (*Salmo trutta*) throughout its life. (C9)

12:00 - 13:00 **FSBI Annual General Meeting** (Lyth Building, Rooms 108A & B)

12:00 - 13:30 **Lunch** (Lyth Refectory)

Session D: **Impacts of anthropogenic stressors on fish behaviour and ecology**

Session Chairs: TBC / TBC

13:30 - 14:15 *Invited keynote talk*

Tim Lamont

Learning to listen: acoustic ecology in a dynamic world (K3)

14:15 - 14:30

Ben Williams

The future of how we monitor fish communities through listening (D1)

14:30 - 14:45

Helen Currie

Application of Signal Detection Theory to understand the anti-predator responses of cyprinids to masked acoustic signals in still and flowing water (D2)

14:45 - 15:00

Emma Weschke

Night vision cameras reveal impacts of artificial light on nighttime fish communities (D3)

15:00 - 15:15

Michelle Valliant

Inter and intra-specific variation in how anthropogenic impact correlates with near-shore fish movement (D4)

15:15 - 15:30

George Balchin

Investigating multiscale temporal trends and the effect of diving tourism on shark top predators in the Egyptian Red Sea (D5)

15:30 - 16:00

Coffee

Session Chairs: Ana Gro Vea Salvanes / [TBC]

16:00 - 16:45

Invited keynote talk

Josefin Sundin

Fishy business: the importance of research integrity, transparency, and replication (K4)

16:45 - 17:00

FSBI Medal winner talk

Amy Deacon

Bringing the guppy home (M2)

17:00 - 17:15

Huntingford Medal winner talk

Martha Patricia Rincón Díaz

Fish functional diversity as an indicator of resilience to industrial fishing in Patagonia Argentina (M3)

Speed Talks (Session 2)

17:15 - 17:18

Anthony Snead (virtual)

Left behind: habitat suitability shifts of a euryhaline fish (S6)

17:21 - 17:24

Justas Dainys (virtual)

Recreational angling and commercial fishing: angling prevents recovery of valuable and predatory species after a commercial fishing ban (S7)

17:24 - 17:27

Clemency White

Sensory ecology of sharks in a changing world (S8)

17:27 - 17:30

Chiara Papetti

Species delimitation and population genetic differentiation of Antarctic fish in the Weddell Sea and Antarctic Peninsula (S9)

19:00 - 20:30

Barbeque (on the Lawn / Lyth Refectory, weather depending)

Evening

NTSU Brack Bar open / free time to explore Southwell

Thursday 28th July

Session E:

Ecology of invasions, parasites and disease

Session Chairs: Ian Winfield / [TBC]

08:30 - 09:15

Invited keynote talk

J. Rob Britton

Contemporary perspectives on the ecological impacts of invasive freshwater fishes: from individual effects to ecosystem collapse (K5)

09:15 - 09:30

Daniel Gomez-Uchida

Genomic signatures of selection support preadaptation of invasive Chinook salmon in multiple continents (E1)

09:30 - 09:45

Theresa Henke

The origin of non-indigenous European flounder (*Platichthys flesus*) in Iceland and its hybridization with European plaice (*Pleuronectes platessa*) (E2)

09:45 - 10:00

Emily Yeung

Boldness, activity and exploration tendency in round goby (*Neogobius melanostomus*) in central Ontario. (E3)

10:00 - 10:30

Coffee

Session Chair: Amy Deacon / [TBC]

- 10:30 - 10:45 **Chris Harrod**
Impacts and responses to a massive escape of non-native Atlantic salmon in southern Chile: consumption of native prey countered by biotic resistance from native predators and opportunistic fishing. (E4)
- 10:45 - 11:00 **Karina González**
Spatial and temporal variation in the trophic ecology of the world's highest-altitude (4500 m) self-sustaining population of invasive rainbow trout (Lago Chungará, Chile). (E5)
- 11:00 - 11:15 **Ada Fontrodona Eslava**
Multifaceted temporal biodiversity change in the stability of tropical fish communities (E6)
- 11:15 - 11:30 **Vitalja Bartuseviciute**
How does fishing affect resistance? Empirical insights from a guppy-*Gyrodactylus* model system (E7)
- 11:30 - 11:45 **Ben Parker**
Freshwater fish, parasites and microplastics (E8)

Speed Talks (Session 3)

- 11:45 - 11:48 **Helen Currie**
*A novel mechanical approach to understanding the impact of the invasive nematode *Anguillicoloides crassus* on the European eel (*Anguilla anguilla* L.) swimbladder (S11)*
- 11:48 - 11:51 **Amy Shurety**
Environmental impacts on northern marine food webs across spatiotemporal scales (S10)
- 11:51 - 11:54 **Sophia Webb**
*Population structure and introgression in wild populations of European seabass (*Dicentrarchus labrax*) (S11)*
- 11:54 - 11:57 **Régis Santos (virtual)**
Trends in abundance indices derived from commercial fishery for priority marine stocks in the Azores (S12)
- 12:57 - 12:00 **Michael Curtis (virtual)**
*Assessing metapopulation dynamics of two endangered cyprinids (*Notropis oxyrinchus* and *Notropis buccula*) in a drought-prone river system (S13)*
- 12:05 - 12:20 **Le Cren Medal winner talk**
- Steven J. Cooke (virtual)**
Dynamic fisheries management for a dynamic world (M4)
- 12:30 - 13:30 **Lunch (Lyth Refectory)**

Session F: Populations and communities in a dynamic world

Session Chairs: Anne Magurran / [TBC]

13:30 - 14:15

Invited keynote talk

Christina Hicks

Fisheries and nutrition (K6)

14:15 - 14:30

Adam Andrews

Historical perspectives on population dynamics: Investigating responses of Atlantic bluefin tuna to climate and exploitation throughout two millennia with bioarcheology (F1)

14:30 - 14:45

Mar Pineda

Investigating the mechanism underlying fishing-associated selection in the ornamental fishing industry (F2)

14:45 - 15:00

Eleanor Greenway

Population dynamics of elasmobranchs in the North Sea (F3)

15:00 - 15:15

Sarah Borsetti (American Fisheries Society Travelling Fellow talk)

Interactive effects of wind farms and future ocean conditions on the U.S. surfclam fishery (F4)

15:30

Depart on buses for Nottingham (Nottingham Castle tour and symposium banquet and medal awarding ceremony)

Buses leave Nottingham for the return journey to Brackenhurst at 23:00

Friday 29th July

Session G: Tools and methods for the analysis of fish and fisheries in a dynamic world

Session Chair: Iain Barber / [TBC]

09:00 - 09:15

Spencer Weinstein (American Fisheries Society Travelling Fellow talk)

A mixed methods approach to characterizing the diversity of chars (*Salvelinus* spp.) in the central Canadian Arctic (G1)

09:15 - 09:30

Chris Brodie

Can eDNA be used to monitor and predict fluctuations of Atlantic bluefin tuna in British waters? (G2)

09:30 - 09:45

Iestyn Penry-Williams

Environmental DNA-derived predator diversity as a predictor of anti-predator behavioural divergence between prey populations (G3)

09:45 - 10:00

Molly Clark

A novel method for studying fish groups and populations in the field (G4)

Speed Talks (Session 4)

- 10:00 - 10:03 **Re'em Neri (virtual)**
Social media monitoring reveals wide-spread Elasmobranch fishery in the Gaza strip (S14)
- 10:03 - 10:06 **Tasaduq Shah (virtual)**
*Effects of formalin and alcohol on length, weight and condition factor of snow trout *Schizopyge niger* (Cyprinidae) (S15)*
- 10:06 - 10:09 **Régis Santos (virtual)**
Length-based estimates of growth and mortality of seven data-limited fishes in the Azores (S16)
- 10:09 - 10:12 **Denise Crampton (virtual)**
*Taxonomic revision of the *Astatotilapia* (Teleostei: Cichlidae: Haplochromini) inhabiting the East flowing rivers of Tanzania, with the description of four new species from the Rufiji river catchment (S17)*
- 10:12 - 10:15 **Sathyaruban Sutharshiny (virtual)**
Goldfish accepted the formulated dry pellets incorporated with palmyrah fruit pulp? (S18)

10:15 - 10:45

Coffee

Session Chair: Andrew Hirst / [TBC]

- 10:45 – 11:00 **Kitty Pillay**
Using metabarcoding and stable isotope analysis to investigate the feeding paradigm of mangrove fishes (G5)
- 11:00 - 11:15 **Nildeniz Top-Karakuş**
DNA barcoding reveals absence of genetic diversity and synonymy of three freshwater Aegean *Luciobarbus* species (G6)
- 11:15 - 11:30 **Daria Zelenina**
The major histocompatibility complex in Pacific salmon: balancing versus directional selection (G7)
- 11:30 - 11:45 **Paul Bangura**
Linking Vgll3 genotype and aggressive behaviour in juvenile Atlantic salmon (*Salmo salar*) (G8)
- 11:45 - 12:15 Closing address and student prizes (sponsored by Wiley)
- 12:15 - 14:00 Farewell lunch and departure

Posters

In-person, physical posters (*with speed talk)

Ella Ackroyd	Dynamic colour change in zebrafish (<i>Danio rerio</i>) (P1)
Zelin Chen	Examining anthropogenic and environmental impacts on North Sea food webs* (P2)
Helen Currie	A novel mechanical approach to understanding the impact of the invasive nematode <i>Anguillicoloides crassus</i> on the European eel (<i>Anguilla anguilla</i> L.) swimbladder* (P3)
Jack Cooper	Are shark teeth proxies for functional traits? (P4)
Justas Dainys	Recreational angling and commercial fishing: angling prevents recovery of valuable and predatory species after a commercial fishing ban* (P5)
Francesca Mason	Parasite toxicity in the small-spotted catshark <i>Scyliorhinus canicula</i> (P6)
Matthew Newton	Can freshwater migration patterns of Atlantic salmon be predicted by random models? (P7)
Clement Ng	Contrasting impacts of active and passive fishing techniques on different behavioural and physiological traits* (P8)
Chiara Papetti	Species delimitation and population genetic differentiation of Antarctic fish in the Weddell Sea and Antarctic Peninsula* (P9)
Amy Shurety	Environmental impacts on northern marine food webs across spatiotemporal scales* (P10)
Roslyn Watret	The variability of cortisol within fish tissue* (P11)
Webb, Sophia	Population structure and introgression in wild populations of European seabass (<i>Dicentrarchus labrax</i>) * (P12)
Clemency White	Sensory ecology of sharks in a changing world* (P13)

Virtual, electronic posters (*with virtual speed talk)

Denise Crampton	Taxonomic revision of the <i>Astatotilapia</i> (Teleostei: Cichlidae: Haplochromini) inhabiting the East flowing rivers of Tanzania, with the description of four new species from the Rufiji river catchment*
Michael Curtis	Assessing metapopulation dynamics of two endangered cyprinids (<i>Notropis oxyrhynchus</i> and <i>Notropis buccula</i>) in a drought-prone river system*
João Miguel Moreno	Thermal tolerance in Iberian freshwater fish in face of climate change*
Faye Moyes	Change in functional rarity in marine fish assemblages is linked to shifts in species abundance distributions*
Re'em Neri	Social media monitoring reveals wide-spread Elasmobranch fishery in the Gaza strip*
Régis Santos	Length-based estimates of growth and mortality of seven data-limited fishes in the Azores*
Régis Santos	Trends in abundance indices derived from commercial fishery for priority marine stocks in the Azores*
Tasaduq Shah	Effects of formalin and alcohol on length, weight and condition factor of snow trout <i>Schizopyge niger</i> (Cyprinidae)*
Anthony Snead	Left behind: habitat suitability shifts of a euryhaline fish*
Sathyaruban Sutharshiny	Goldfish accepted the formulated dry pellets incorporated with palmyrah fruit pulp?