

INTERNATIONAL CONFERENCE ON



FISH TELEMETRY

ARENDALE, NORWAY 2019



PROGRAM // 2019

PROGRAM

Monday // June 24th

- 8:30** **WELCOME** // **Esben Moland Olsen and Sissel Rogne**
SESSION CHAIR: EVEN MOLAND
- 9:00** **KEYNOTE TALK** // **Jenn Caselle**
Life on the edge: Ecology of predators and prey at Palmyra atoll, a predator-dominated ecosystem
- 9:45** **THOMAS STAMP**
Project I-BASS: Using acoustic telemetry to measure the effectiveness of spatial management for European bass (*Dicentrarchus labrax*)
- 10:00** **ELLA ROTHERMEL**
Seasonal and environmental predictors of Atlantic Sturgeon and Striped Bass occurrence in the Maryland Wind Energy Area
- 10:15** **LACHLAN FETTERPLACE**
Can MPAs conserve fish on marine soft sediments? An assessment of the movement patterns of the bluespotted flathead.
- 10:30** **SPEED TALK** // **Daniel Swadling**
Fish movements, seagrass canopies and the effectiveness of acoustic telemetry
- 10:35** **SPEED TALK** // **Jessica Garcia**
Potential of a Mediterranean marine reserve (*Corsica, France*) to protect multiple fish species according to their movement patterns
- 10:40** **SPEED TALK** // **David Abecasis**
Movements of meagre (*Argyrosomus regius*) along the Portuguese coast
- 10:45** **MORNING TEA**
SESSION CHAIR: PAUL COWLEY
- 11:15** **PEDRO AFONSO**
Oceanic islands as essential fish habitat for migratory elasmobranchs

11:30 **JOHN FILMALTER**

The associative behaviour of silky sharks, *Carcharhinus falciformis*, with floating objects in the western Indian Ocean

11:45 **VINAY UDYAWER**

The scale and capacity for dispersal in sharks and rays

12:00 **ROSS DWYER**

Saving reef sharks with parks

12:15 **KYE ADAMS**

No-take marine protected areas buffer the indirect impacts of fishing on the recruitment of elasmobranchs

12:30 **EVAN BYRNES**

Drivers of spatiotemporal variation in activity and habitat use patterns of a large coastally dependent elasmobranch

12:45 **LUNCH**

SESSION CHAIR: TBA

13:45 **DAVID VILLEGAS-RÍOS**

Individual differences in time spent inside a marine reserve: drivers and eco-evolutionary consequences

14:00 **CHRISTOPHER MONK**

Are individual differences in fish movement related to angling vulnerability? Whole-lake experiments using high-resolution acoustic telemetry

14:15 **LOUISE CHAVARIE**

Individual differences from behavioral and morphological perspectives: are they linked?

14:30 **JACK HOLLINS**

Does intraspecific variation in metabolic traits influence patterns of space use and susceptibility to capture in wild fish?

Monday // June 24th

- 14:45** | **SPEED TALK // Sam Shry**
Energetic status modulates facultative migration in brown trout (*Salmo trutta*) differentially by age and environment
- 14:50** | **SPEED TALK // Torstein Kristensen**
Maximizing data acquisition from large fjord systems with sparse receiver coverage: Anadromous brown trout migrations.
- 14:55** | **SPEED TALK // Philippe Gaudin**
Marine movements and exploratory behaviour of introduced anadromous brown trout at the colonization front in sub-Antarctic Kerguelen Archipelago
- 15:00** | **AFTERNOON TEA**
SESSION CHAIR: FREDERICK WHORISKEY
- 15:30** | **ENEKO ASPILLAGA**
Opportunities of high-resolution movement monitoring systems in coastal marine environments
- 15:45** | **MICHELLE HEUPEL**
Power of the people: outputs from national-scale acoustic tracking
- 16:00** | **ROB HARCOURT**
You can't please all the people all the time, but you can try: a rational approach to designing and refining a collaborative, continental-scale, acoustic telemetry network
- 16:15** | **FABRICE JAINE**
Open data in the era of acoustic telemetry networks: lessons learned from managing a collaborative, continental-scale, multi-species detection database

SESSION CHAIR: ESSEN MOLAND OLSEN

8:00 **KEYNOTE TALK // Steven Cooke**

The human dimension of fish tracking science and application

8:45 **AMY WEINZ**

Using predation transmitters to assess patterns of predation and habitat use of yellow perch (*Perca flavescens*) in the Laurentian Great Lakes

9:00 **JORDAN MATLEY**

Tracking large-scale walleye migrations in Lake Erie

9:15 **JILL BROOKS**

Seiches influence the behaviour of fish in a large lake ecosystem

9:30 **ELODIE LÉDÉE**

Multi-year and cross-seasons telemetry tracking of the spatial ecology of four fish species informs fish habitat management and restoration in a degraded freshwater coastal embayment

9:45 **SPEED TALK // Darryl Hondorp**

Tagging the tiny: preliminary insights into the spatial ecology of a diminutive invasive fish

9:50 **SPEED TALK // Todd Hayden**

Like clockwork: Telemetry reveals repeated seasonal movement patterns of walleye (*Sander vitreus*) over multiple years in Lake Huron.

9:55 **SPEED TALK // Siviya Ivanova**

Lake thermal dynamics drive lake trout habitat use and behaviour in a large deep lake

10:00 **MORNING TEA**

SESSION CHAIR: LOUISE CHAVARIE

10:30 **JAN GRIMSRUD DAVIDSEN**

Under Pressure - the Importance of Estuaries for Brown Trout

PROGRAM

Tuesday // June 25th

- 10:45** | **ISABEL MOORE**
Coastal habitat use by anadromous *Salmo trutta* smolts in northwest Scotland
- 11:00** | **KRISTIN BØE**
The interrelation between iteroparity, marine movement and resource use - insights from Atlantic salmon
- 11:15** | **ROBERT LENNOX**
Influence of pathogens on behaviour and life history of sea trout (*Salmo trutta*) in Norwegian fjord systems
- 11:30** | **MEGAN MOORE**
Steelhead at the surface: impacts of a “floating” bridge on survival and migration behavior
- 11:45** | **WILLIAM TWARDEK**
Assessing the consequences of fishery gear type and handling practices on capture and release of wild Steelhead using radio telemetry
- 12:00** | **PETER DAVIES**
Catchment-wide spatial behaviour and marine migration of anadromous twaite shad (*Alosa fallax*) from the River Severn, UK, determined by acoustic telemetry
- 12:15** | **SPEED TALK // Andrine Halvorsen**
Marine migration and habitat use of anadromous brown trout *Salmo trutta* and Arctic char *Salvelinus alpinus* in a Norwegian fjord
- 12:20** | **SPEED TALK // Marthe Tangvold Bårdsen**
Interactions Between Sea Trout and Farmed Salmonids:
Risk of pathogen exchange with special emphasis on Piscine orthoreovirus (PRV)
- 12:25** | **SPEED TALK // Jean-Philippe Benitez**
Movement behaviours of fish species within a large anthropised river after the reestablishment of the longitudinal connectivity

12:30 LUNCH

SESSION CHAIR: COLIN SIMPFENDORFER

13:30 DANIEL COFFEY

Assessing performance and habitat suitability of a vertically migrating deepwater shark under a changing climate

13:45 MARK ROYER

Scalloped hammerhead swimming performance and thermoregulation strategies during deep dives into cold water

14:00 ENRICO GENNARI

Do white sharks just swim around? Investigation on multiple behavioural patterns in their coastal habitat use.

14:15 CHARLIE HUVENEERS

Swimming strategies and energetics of endothermic white sharks during foraging

14:30 PAUL COWLEY

Movement patterns, residency and habitat connectivity of juvenile bull sharks *Carcharhinus leucas* in the Umzimvubu Estuary, South Africa.

14:45 SPEED TALK // Pedro Afonso

New non-invasive high frequency multisensor towed tags for deep-diving large bodied sharks and rays.

14:50 SPEED TALK // Jayson Semmens

Influence of dissolved oxygen levels on Maugean skate (*Zearaja maugeana*) habitat use established using animal-borne environmental sensors

14:55 SPEED TALK // Paul Cowley

Recycling acoustic telemetry hardware to promote research in developing countries through the Global Acoustic Telemetry Exchange (GATE) program

PROGRAM

Tuesday // June 25th

15:00

AFTERNOON TEA

SESSION CHAIR: CARLA FREITAS

15:30

KIM HOLLAND

Sharks as Oceanographers: Near real-time oceanographic profiles acquired from tiger sharks

15:45

JOLIEN GOOSSENS

What moves European seabass?

16:00

PIETERJAN VERHELST

Spatio-temporal analysis of movement behaviour in three fish species reveals the importance of inter-individual variability

16:15

JAN REUBENS

Interoperability in acoustic telemetry – a plea for industry commitments

Thursday // June 27th

SESSION CHAIR: SUSANNA HUNEIDE THORBJØRNSEN

8:30**KEYNOTE TALK // Eva Thorstad**

A 25-year love relationship with Atlantic salmon, telemetry and management advice

9:15**JOHN FREDRIK STRØM**

Ocean predation and mortality of adult Atlantic salmon

9:30**SINDRE ELDØY**

The importance of nutritional state on the marine migratory behaviour of sea trout (*Salmo trutta*).

9:45**ANDREA REID**

Combining Western scientific and Indigenous fisheries approaches to monitor post-release fate of Pacific salmon bycatch

10:00**XAVIER BORDELEAU**

Consequences of captive breeding: Fitness implications for wild-origin, hatchery-spawned Atlantic salmon kelts upon their return to the wild

10:15**SPEED TALK // Knut Vollset**

A systematic review of juvenile salmonid tag effects

10:20**SPEED TALK // Shad Mahlum**

Assessing the near shore spatial use of returning Atlantic salmon prior to river entry

10:25**SPEED TALK // Helge Bjerck**

Phenology and mortality in the early stages of smolt migration of Atlantic salmon (*Salmo salar*) in a complex fjord

10:30**MORNING TEA**

SESSION CHAIR: PHILIP HARRISON

11:00**KIM-BIRNIE GAUVIN**

Combining physiology and telemetry to understand migration timing and success in Atlantic salmon and sea trout kelts

11:15**MONTANA MCLEAN**

Immediate behavioral and physiological response from catch-and-release of wild white sturgeon (*Acipenser transmontanus*)

Thursday // June 27th

- 11:30** | **JACQUELINE CHAPMAN**
Using telemetry in combination with disease and gene expression profiling to inform post-release behaviour and survival
- 11:45** | **JACOB BROWNSCOMBE**
Acoustic telemetry and stable isotopes inform connectivity between habitats and fisheries to influence management
- 12:00** | **MICHAEL OVIDIO**
What happens to glass eels after restocking in rivers? A long-term telemetry study on their dispersal and behavioural traits
- 12:15** | **SPEED TALK: Karen Murchie**
Combining telemetry and citizen science to understand sucker migrations in Laurentian Great Lakes tributaries
- 12:20** | **SPEED TALK: Bernardo Quintella**
Movements of adult European catfish (*Silurus glanis*) in a recently invaded reservoir
- 12:25** | **SPEED TALK: Kotaro Ichikawa**
Behavior of the nototheniid fish, *Trematomus* spp., under the sea ice around the Syowa Station in Antarctica
- 12:30** | **LUNCH**
SESSION CHAIR: ANDY MOORE
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- 13:30** | **KIM AARESTRUP**
Return of the king: First data on Atlantic Bluefin tuna behaviour in newly retaken areas
- 13:45** | **JASON HARTOG**
Predicting tuna availability through understanding migration dynamics and oceanographic influences
- 14:00** | **WEI-CHUAN CHIANG**
Environmental condition effects on movement behavior of blue marlin in the northwest Pacific Ocean
- 14:15** | **YUUKI WATANABE**
Is the loss of sea ice good or bad for Antarctic penguins?

- 14:30** | **TEA BASIC**
How to design eel sampling protocols for lacustrine habitats?
Explaining eel behaviour through space and time.
- 14:45** | **SPEED TALK: Eduardo Martins**
A state-space formulation for an integrated model of travel time and survival during migration
- 14:50** | **SPEED TALK: Raf Baeyens**
Fine scale fish positioning with acoustic telemetry in small freshwater systems.
- 14:55** | **SPEED TALK: Guðbjörg Ólafsdóttir**
Movement patterns and environmental preferences of migratory and resident Atlantic cod juveniles
- 15:00** | **AFTERNOON TEA**
SESSION CHAIR: DAVID VILLEGAS-RÍOS
- 15:30** | **CHRISTOPHER HOLBROOK**
Removing false positive detections from animal telemetry data: A framework for implementation and evaluation
- 15:45** | **INGE VAN DER KNAAP**
Effects of seismic sound on the movement and behaviour of Atlantic cod (*Gadus morhua*) in the Belgian part of the North Sea
- 16:00** | **KATE MCQUEEN**
Can data storage tags help us to decipher the otolith code of Baltic cod?
- 16:15** | **INES SOUSA**
Diel and seasonal movement patterns of two batoid species within a coastal marine reserve
- 16:30** | **ANA MARTINS**
Tidal diel patterns of movement activity and habitat use by juvenile mangrove whiprays in a coral reef flat environment
- 16:45** | **FREDERICK WHORISKEY**
Electronic tags, electric fish: Nova Scotia's Atlantic Torpedo rays

PROGRAM

Friday // June 28th

SESSION CHAIR: ESBEN MOLAND OLSEN

8:30

KEYNOTE TALK: JOHAN MOURIER

Entering the connected world of fish: tracking individual movements to the emergence of fish interactions

9:15

DAVID MORENO

The odd sharks of Macquarie Harbour: Understanding the movement of two elasmobranch species with contrasting spatial dynamics using a fixed-array design.

9:30

STEVEN KESSEL

Spatial distribution and connectivity of lemon sharks (*Negaprion brevirostris*) in the Northwest Atlantic region

9:45

DENNIS HEINRICH

Spatial distribution and activity of juvenile lemon sharks (*Negaprion brevirostris*) following the establishment of a novel feeding site.

10:00

MICHAEL WILLIAMSON

Mind the gap: using detection gaps to infer resource partitioning in reef shark species in the British Indian Ocean Territory

10:15

SPEED TALK: David Grimardias

Below dam behaviour and bypass crossing efficiency of three potamodromous fish species in a large river (*Rhône River, Switzerland*): Effects of individual body characteristics

10:20

SPEED TALK: Jessie Lilly

Use of New High Residency (HR) Acoustic Tagging Technology to Predict if Striped Bass and Atlantic Sturgeon will Spatially and Temporally Overlap with Tidal Turbines in Minas Passage, Nova Scotia.

10:25

SPEED TALK: Jonathan Bolland

The importance of motivation during fish pass assessments for river-resident fish

10:30

MORNING TEA

SESSION CHAIR: KIM BIRNIE-GAUVIN

- 11:00** **HENRIK BAKTOFT**
Quantifying energy demands in Atlantic salmon kelts negotiating hydropower facilities
- 11:15** **KARL ØYSTEIN GJELLAND**
Safe smolt migration past hydropower water intakes – how to find the best mitigation alternatives
- 11:30** **PHILIP HARRISON**
Using telemetry to quantify turbine entrainment rates of two sympatric salmonids, *Salvelinus confluentus* and *Salvelinus namaycush*, in a hydropower reservoir.
- 11:45** **SARAH LAROCQUE**
Migration and survival of Atlantic salmon smolts in a Lake Ontario tributary and the effects of fish origin, dams, and year
- 12:00** **NATALIE KLINARD**
Post-stocking movement, habitat use, and survival of a reintroduced prey fish in a large freshwater lake
- 12:15** **SCOTT COLBORNE**
Sequence analysis of acoustic telemetry data identifies multiple lake sturgeon habitat use patterns in the Laurentian Great Lakes
- 12:30** **CHRISTOPHER VANDERGOOT**
Acoustic telemetry as a potential tool for mixed-stock analysis of fishery harvest: A feasibility study using Lake Erie Walleye
- 12:45** **DAVID CROOK**
Integrating acoustic telemetry with high resolution sonar to elucidate population-level effects of fish movement in a northern Australian stream
- 13:00** **CONFERENCE WRAP UP**
- 13:15** **LUNCH**

DEVOTION TO DETECTION

