



**Institute of Fisheries  
Management**



**Environment  
Agency**



# **2<sup>nd</sup> International Eel Science Symposium**

*Adelphi Hotel, Liverpool*

*9<sup>th</sup> – 11<sup>th</sup> July 2024*

# Conference Supporters

*The Institute is very grateful to the following companies for their kind sponsorship of the conference.*

## ***Headline Sponsor***

# hydrolox®

## ***Networking Event***



***Conference Dinner***



***Student Sponsor***



***Ice Breaker Sponsor***



# *Further Conference Supporters*



**Monday 8<sup>th</sup> July**

## **Ice Breaker and Early Registration**

**19:00 – 21:00 Sefton Suite, Adelphi Hotel**

To kick off the week in style we invite you to join us and your fellow delegates for a drink in the Sefton Suite of the Adelphi Hotel.

The welcome drink is kindly sponsored by the Sustainable Eel Group.

Join us to connect and unwind before the symposium officially begins.

**The evening is kindly supported by.**



**Sustainable**  
*Eel Group*

# PROGRAMME

Tuesday 9<sup>th</sup> July

09:30 – 17:50

<b>Opening Session</b>		
09:30	<b>Andy Don &amp; Paul Coulson</b> Environment Agency and IFM (UK)	Welcome from the conference conveners
09:40		Official conference opening and welcome to Liverpool
09:50	<b>Keynote Address</b>  <b>Caroline Durif</b> Institute of Marine Research (Norway)	<b><i>The Peter Spillett Lecture</i></b>  What have we learned since Bertin? How trends in science have shaped eel research since 1942
10.20	<b>Break</b>	
<b>Session 1. Marine Phases #1: Tracking</b>		
<b>Session Chair: Andy Don, Environment Agency (UK)</b>		
11:00	<b>Wayne Koster</b> Arthur Rylah Institute for Environmental Research (Australia)	Freshwater and oceanic migrations of short-finned eels ( <i>Anguilla australis</i> ) in Australia
11:20	<b>Ros Wright</b> Environment Agency (UK)	Tracking European eels to the sargasso sea
11:40	<b>Pieterjan Verhelst</b> INBO (Belgium)	Mapping European silver eel ( <i>Anguilla anguilla</i> ) migration routes and behaviour in the North Sea and the Channel
12:00	<b>Takatoshi Higuchi</b> University of Tokyo (Japan)	Spawning migration behaviour and orientation methods of anguillid eels
12:20	Panel Q&A	
12:30	<b>Lunch</b>	

## Session 2. Technical Assessment and Solutions

### Session Chair:

13:30	<b>Jon Bolland</b> University of Hull (UK)	REDEEM project: <b>R</b> esearch and <b>D</b> evelopment of fish and <b>E</b> el <b>E</b> ntrainment <b>M</b> itigation at pumping stations.
13:50	<b>John Burnett</b> ISI Screens INC (USA)	Design of Wedge Wire Screen Systems for Eel Protection at Water Intakes and Diversions
14:10	<b>Sarah Broos</b> INBO (Belgium)	A novel protocol to measure safe eel passage through pumping stations in Belgium
14:30	<b>Jeffrey Tuhtan</b> Tallin University (Estonia)	A method to derive injury and mortality dose-response relationships for European eel using field data
14:50	<b>Iain Russon</b> Fishtek (UK)	Successful elver passage through a tidal gate installed with a Tidal Gate Damper.
15:10	Panel Q&A	
15:25	<b>Break</b>	

## Session 3. Monitoring and Population Assessment #1

### Session Chair:

15:55	<b>Felix Eissenhauer</b> University of New Brunswick (Canada)	A mark-recapture approach to estimate the population size and demographics of American eel elvers ( <i>Anguilla rostrata</i> ) arriving at a dam in a large river
16:15	<b>Ben Griffioen</b> Wageningen Marine Research (The Netherlands)	Glass eel migration in an urbanized catchment: an integral bottleneck assessment using mark-recapture
16:35	<b>Tahri Mardja</b> Chadli BenDjedid University (Algeria)	Redefining Norms: A Proposal to Revise the morphometric Standards of the South Mediterranean European Eel stock
16:55	<b>Tessa van der Hammen</b> Wageningen Marine Research (The Netherlands)	Changes in eel sex ratio and eel growth in the large lake IJsselmeer in The Netherlands
17:15	<b>Abigail Mackay</b> Wildlife and Wetland Trust (UK)	Identifying the presence of <i>Anguilla anguilla</i> in the Somerset levels using eDNA
17:35	Panel Q&A	
17:50	<b>Close</b>	

## Poster Session and Networking

**19:00 – 21:00 British Music Experience, Cunard Building**

Please join us and fellow delegates to view the wide array of posters we have had submitted from across the globe. There is also an opportunity to walk around the venue to view the musical exhibits and interactive displays.

The [British Music Experience](#) housed in the Cunard Building on Liverpool's historic docklands.

Drinks and light nibbles will be provided

**The evening is kindly supported by.**





Wednesday 10<sup>th</sup> July

8:45 – 18:00

<b>Session 4. Protecting the Eel: Economics and Legislation</b>		
<b>Session Chair:</b>		
08:45	<b>Keynote Address</b> <b>Eden Skipper</b> Ngati Makō hapū tribe (New Zealand)	<b><i>The Christopher Moriarty Lecture</i></b>  If the lake is full of tuna and the houses full of our language, the people will be well
09:15	<b>Kristen Steel</b> University College London (UK)	<i>Connecting socioeconomics and conservation in the face of Brexit: summary of key findings in the Lough Neagh eel fishery</i>
09:35	<b>Ayesha Taylor</b> Environment Agency (UK)	Back to the Future - England's Eel Management Plans
09:55	<b>Willem Dekker</b> Swedish University of Agricultural Sciences (Sweden)	The development of European eel protection policies in recent decades
10:15	<b>Chris Grzesiok</b> Environment Agency (UK)	Regulation into Outcomes: Environment Agency Mobile Pump Fish Screening Field Trials – Results and Findings
10:35	Panel Q&A	
10:50	<b>Break</b>	
<b>Session 5. Behavioural Studies</b>		
<b>Session Chair:</b>		
11:20	<b>Benjamin Bluck</b> University of Southampton (UK)	Blinded by the Light? Movement Behaviour of Glass Eel ( <i>Anguilla anguilla</i> ) in Response to Artificial Light
11:40	<b>Ryoshiro Wakiya</b> University of Tokyo (Japan)	Amphibious feeding mode in an Anguillid fish
12:00	<b>Andrew Moore</b> AFBI NI (UK)	Adventures with eels under UV illumination; from detection to deflection
12:20	<b>Guglielmo Sonnino Sorisio</b> Cardiff University (UK)	Evaluation of current eel screening regulations and eel dynamics at exclusion screens and bypasses

12:40	<b>Michael Williamson</b> Institute of Zoology Zoological Society of London (UK)	HR2 technology and 3D tracking of European eel in a landlocked drinking water reservoir
12:55	Panel Q&A	
13:05	<b>Lunch</b>	

### **Session 6. *Monitoring and Population Assessment #2***

#### **Session Chair:**

14:00	<b>Kota Takeuchi</b> University of Tokyo (UK)	Rapid Loss Rates of Farmed Japanese Eels Stocked into Two Different Rivers
14:20	<b>Elin Myrenas</b> Swedish University of Agricultural Sciences (Sweden)	How are restocked eels doing compared to natural recruits? Insights from long-term monitoring in marine and freshwater habitats in Sweden
14:40	<b>Carl Sayer</b> University College London (UK)	European eel ( <i>Anguilla anguilla</i> ) use of coastal grazing marshes in eastern England: informing eel conservation
15:00	<b>Pierre Campton</b> MRM (France)	Eel's downstream migration knowledge on the Rhone Mediterranean basin (France)
15:20	<b>Niklas Sjoberg</b> Swedish University of Agricultural Sciences (Sweden)	Trap and transport –a way forward to facilitate number of spawning eels in the Atlantic Ocean?
15:40	Panel Q&A	
15:55	<b>Break</b>	

### **Session 7. *Protecting the Eel: Trade and Trafficking***

#### **Session Chair:**

16:10	<b>Andrew Kerr</b> Sustainable Eel Group (UK)	The SEG story its role and growing contribution to eel protection
16:30	<b>Florian Stein</b>	Trafficking in eels: What can science do to help law enforcement?

	Deutscher Angelfischerverband e.V. (Germany)	
16:50	<b>Joshua Song</b> <b>Yang Choo</b> National University of Singapore (Singapore)	Eel-egal Meals? Investigating for the Illegal European Eel Trade in Singapore's Imported Eel Products
17:10	<b>Andreea Troneci</b> University of Glasgow	Europe's biggest wildlife crime: Eight years of coordinated counter eel trafficking
17:30	Panel Q&A	
17:45	<b>Close</b>	

# Conference Dinner

**19:15 onwards, The Mersey Ferry**

Join us for an evening afloat on the River Mersey. Guests will enjoy an evening meal and drinks whilst taking in the views of Liverpool and the Wirrals historic waterfront as the sun sets.



The evening is kindly supported by.



# Thursday 11<sup>th</sup> July 8:45 – 15:45

<b>Session 8. Marine Phases #2</b>		
<b>Session Chair:</b>		
08:45	<b>Keynote Address</b>  <b>Robert Schabetsberger</b> University of Salzburg (Austria)	<b><i>The Darren Bedworth Lecture</i></b>  From myth to reason: Progress towards unravelling the mysteries of tropical Anguillid eels
09:15	<b>Laura Gentile</b> University of Bolgna (Italy)	Silvering process of female European eel in the north Adriatic: who is really ready to migrate?
09:35	<b>Hikaru Itakura</b> University of Tokyo (Japan)	Increased marine heatwaves diminish production of a dominant estuarine predator
09:55	<b>Hakan Westerberg</b> Swedish University of Agricultural Sciences (Sweden)	On whales and eels
10:15	<b>Kazuki Yokouchi</b> Japan Fisheries Research and Education Agency (Japan)	Exploring the Eel Mysteries: Insights from cruise surveys of Japanese Eel Spawning Grounds and Larval Distribution in the Western North Pacific
10:35	Panel Q&A	
10:50	<b>Break</b>	
<b>Session 9. Threats, Diseases and Propagation</b>		
<b>Session Chair:</b>		
11:10	<b>Arjan Palstra</b> Wageningen University and Research (The Netherlands)	Research and collaboration to support eel propagation
11:30	<b>Billy Nzau Matondo</b> University of Liege (Belgium)	An overview of an intense 6-year monitoring study of eels: life history traits, epidemiology, ecotoxicology and trophic ecology.

11:50	<b>Gordon O'Brien</b> Charles Sturt University (Australia)	Ecological risk assessment of multiple anthropogenic stressors affecting the Western Indian Ocean Anguillid eels populations
12:10	<b>John Price</b> Environment Agency (UK)	Viral Pathogens in wild European eels in England – mortalities to management
12:30	<b>Jonathan McDowell</b> Queen University Belfast (UK)	Investigation into reproductive fitness by comparing lipid content and contaminant burden within silver eels ( <i>Anguilla anguilla</i> ) from the heavily constrained water courses of Lough Neagh and Lough Erne, Northern Ireland
12:50	Panel Q&A	
13:05	Lunch	
<b>Session 10. Eel Health: Genetics and Mortality</b>		
<b>Session Chair:</b>		
14:00	<b>Rob van Gemert</b> Swedish University of Agricultural Sciences (Sweden)	Evaluating stress during trap and transport in the European eel using heart rate biologgers
14:20	<b>Arif Wibowo</b> National Research and Innovation Agency (Indonesia)	An insight into the genetic diversity trend of Angulid species in Indonesia using mitochondrial data analysis.
14:40	<b>Ezgi Ogutcen</b> University of Salzburg (Austria)	Resolving the history of anguillid eels with genome-wide data
15:00	Panel Q&A	
15:15	<b>Andy Don &amp; Paul Coulson</b> Environment Agency & IFM (UK)	Closing comments. presentations and thanks
15:25	Conference Close	

# **Closing De-Brief**

**17:15 pm onwards, The Bridewell Pub**

**Open to all**

Join us for a final drink and fishy chat in a converted police station!