

FSBI 2024 Annual Symposium

ADVANCING FISH ECOLOGY,
MANAGEMENT AND FORECASTING
THROUGH OMICS

15th – 19th July, Bilbao



fsbi
An International Society
for Fish Biology



The abstract book associated to this programme is available at:

<https://fsbi.org.uk/wp-content/uploads/2024/06/ABSTRACT-BOOK-FSBI2024.pdf>



Welcome to FSBI2024!

It is with great honour and excitement that I welcome you to the 2024 Annual Symposium of the Fisheries Society of the British Isles. Hosted by AZTI in Bilbao, this year's symposium will showcase how omics are revolutionizing our understanding of fish ecology, management and forecasting. While traditionally prominent in human health research, these cutting-edge technologies are increasingly being applied in ecological research, enabling us to uncover complex biological processes, understand historical dynamics, predict changes, and plan effective management and conservation actions.

Together with the Scientific Committee and thanks to your outstanding contributions, we have built a comprehensive scientific programme that includes recognized keynote speakers. Each session is designed not only to share the newest research but also to inspire and challenge us to discuss the state of the art and future opportunities in our field. Additionally, with the Organizing Committee, we have prepared a variety of social events to enhance the symposium experience. These events provide opportunities for networking, relaxation, and informal discussions, which will certainly serve as seeds for new ideas, friendships, and collaborations.

We also hope that the symposium will provide you with the opportunity to connect with the Basque Country and its people. Known for its strong fisheries sector, deep ecological awareness, and commitment to technological innovation, the Basque Country offers an inspiring setting for our discussions. We encourage you to explore the local culture and innovation landscape, which have long been at the forefront of sustainable fishing practices and environmental responsibility. In support of these values, AZTI plays a pivotal role as a leading technological centre dedicated to advancing food and marine research through rigorous science, all aimed at promoting a sustainable and healthy society. To find out more about AZTI, visit azti.es or scan the QR code below.

I hope you enjoy the symposium and make the most of every moment!

Best regards



Dr Naiara Rodríguez-Ezpeleta, Convenor of #FSBI2024

Message from the FSBI President

It is my great pleasure to welcome you all to the 2024 FSBI Symposium. We are hosted in the beautiful city of Bilbao by colleagues from AZTI - a centre specialising in marine science whose purpose is to drive projects which create a healthy, sustainable, and fair society. The topic of this year's symposium **ADVANCING FISH ECOLOGY, MANAGEMENT AND FORECASTING THROUGH OMICS** aligns strongly with this important goal. With sessions that span omics approaches for population management, eDNA and its applicability for monitoring biodiversity, invasive or endangered species, and disease, to sessions that use multi-omics to understand evolutionary adaptations to extreme environments, this meeting is sure to engage and inspire fish biologists and fisheries scientists across the spectrum.

I'd like to thank Dr Naiara Rodriguez-Ezpeleta (AZTI) and her team for organizing an outstanding scientific and social program. So much work goes into preparing a meeting such as this, and looking at the schedule for the week, I know we have all benefited immensely from the care and forethought of our Local Organizing Committee and their Scientific Advisory Panel. I welcome our dazzling array of Keynote Speakers and congratulate our Society's 2024 Medal Winners. Thank you all for joining us and sharing your knowledge and experiences in fish science with us this week!

I'd like to end by reminding all attendees that the FSBI does more than support an annual meeting. We are an International Society for Fish Biology with members from across the world who we support with funding to enhance their careers and experiences in fish biology. We have training grants where members can gain specialised fundamental and applied training. We have travel grants that allow members to attend conferences around the world, and we have specific funding streams to support research at the undergraduate, postgraduate, and fellowship level, as well as a scheme for our retired fish biology community. Finally, we offer research grants and outreach grants to members at any career stage. To find out more about these opportunities and about our partnership with the Institute of Fisheries Management (IFM) please visit our website (fsb.org.uk) or scan the QR code below. And if you are not a member, please join us!

Have a wonderful meeting everyone.

Best wishes,



Professor Holly Shiels, Honorary President FSBI

Symposium Committees

FSBI 2024 Convenor

Naiara Rodriguez-Ezpeleta (AZTI)

Local Organising Committee

Naiara Rodriguez-Ezpeleta (AZTI)

Natalia Díaz-Arce (AZTI)

Oriol Canals (AZTI)

Mukesh Bhendarkar (AZTI)

Ane del Río-Lavin (AZTI)

Iraide Artetxe-Arrate (AZTI)

Meritzel Gonzalez Intxausti (AZTI)

Irantzu Zubiaur (AZTI)

Manuela Abasolo (AZTI)

Ainhoa Ruano (AZTI)

Domino Joyce (University of Hull, UK)

Will Perry (Cardiff U. WRI, UK)

Chris Brodie (Royal HaskoningDHV, UK)

Scientific Advisory Committee

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Aitor Albaina (EHU/UPV)

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Colin Adams (University of Glasgow, UK)

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Sarah Helyar (QUB, UK)

Ilaria Coscia (MI, Ireland)

Kenza Mokhtar (INRH, Morocco)

Romina Henriques (U. Pretoria, South Africa)

Rajeev Raghavan (KUFOS, India)

Journal of Fish Biology Symposium Issue Guest Editors

Naiara Rodriguez-Ezpeleta

Romina Henriques

Ilaria Coscia

Rajeev Raghavan

Domino Joyce

Sarah Helyar

Colin Adams

PRACTICAL INFORMATION

Key Locations

Scan this QR code to find key locations. Your nametag gives you **free access to the Bilbao tram** any time during the symposium.



Wi-Fi

Connect to the Wi-Fi network EHU-wGuest, open the web browser and enter the username (BIZKAIAARETOA) and password (UZTAILAK2024). You can also use eduroam, if you have access through your home institution.

Social Media

We would encourage you to share highlights of the conference across your social media (unless stated otherwise by speakers). When posting, please tag **@TheFSBI @fsbi_symposium @AZTI_brta #FSBI2024**

Media presence

Media representatives may be present during the symposium, and they may request interviews, which can be accepted or declined. If you have any questions regarding media-related queries, please reach out to the Local Organising Committee.

Photography and Recording

Note that we will take photos and videos during the event. By taking part in the symposium, if not specified otherwise, you are granting the organisers the right to use the images resulting from the photographs/videos, and any reproductions or adaptations for publicity or other purposes, including (but not limited to) printed and online publicity, social media and press releases.

Lunch and breaks

Lunch and coffee breaks will be at room Axular on Monday, and at room Chillida on Tuesday to Friday. See programme for scheduled lunch and coffee breaks each day.

SOCIAL ACTIVITIES

Monday 15th July:

19:00 – 22:00

Welcome Reception, including cocktail dinner, at the Bilbao Maritime Museum, “**Itsasmuseum**”. Enjoy a free visit of the museum from 19:00 to 20:00.

Location: Muelle Ramón de la Sota 1; about 15 min either walking or by tram from the venue (nearest stop: Euskalduna).



Tuesday 16th July:

19:00 – 22:00

Dinner and Pub Quiz at the Secret Garden of “**Espacio Open**”, an emblematic Old Cookie Factory in Bilbao.

Location: Ribera de Deusto 70; about 30 min either walking or by tram+bus from the venue (nearest stop: Ribera de Deusto 57).

Wednesday 17th July:

19:00 – 21:00

Boat tour and “pintxos” based dinner along the River of Bilbao. Meeting point at 19h00 at the “Carola” Crane.

Location: Ramón de la Sota Kaia 1; about 15 min either walking or by tram from the venue (nearest stop: Euskalduna).





Thursday 18th July:

19:30 – 23:00

Gala dinner at the **ABBA Euskalduna Hotel**. The banquet will include the FSBI 2024 Medal Awards and there will also be dancing accompanied by music.
Location: Ventosa Bidea 34; about 20 min walking or 10 min by tram from the venue (nearest stop: Sabino Arana).

Spawning Run

Inspired by the American Fisheries Society, we are having an early morning run along the river of Bilbao on **Wednesday morning, meeting at 07:00 am**. Please read the information below, which we will also read out to you before the run.

Participants on this 5km run are doing this activity at their own risk, and AZTI does not accept responsibility for injury, loss and damage sustained by a participant unless the above injury, loss and damage is proven to have been caused as a direct result of negligence on the part of the organisers. Running is a physically active sport, and - if in doubt about your physical ability - you should seek advice from your doctor before taking part.



KEYNOTE SPEAKERS

Prof Gary Carvalho (University of Bangor, UK)

Emeritus Prof. Gary Carvalho has for four decades employed genetic markers to address ecological and evolutionary questions. Alongside many colleagues and students, he has utilised genetic and genomic tools to study fish behaviour, population structure, size, and distribution. He has engaged with governance and policy to foster awareness and the inclusion of genetics in management, especially in commercially exploited fishes.



Dr. Kerry Naish (University of Washington, USA)

Dr. Kerry Naish focuses on studying the evolutionary responses of populations to natural and anthropogenic influences, using a combination of molecular, genomic and quantitative genetic approaches. Her work has implications for the conservation and management of aquatic populations helping understand how populations respond to a changing environment. Through her work, she identifies natural environmental influences on the evolution of fitness traits to anticipate responses to environmental changes and conservation actions.



Dr. Zuzana Musilova (Charles Univ., Czech Republic)

Dr. Zuzana Musilova, researcher at the Department of Zoology, Faculty of Science, Charles University in Prague, works on the evolution of fish sensory systems, focusing on different groups of fish from the deep-sea lineages, through tropical cichlids to European freshwater species. The main goal is to search for molecular mechanisms of sensory adaptation and to link them to the fish ecology, evolution and biology.



Dr. Sophie von der Heyden (U. Stellenbosch, South Africa)

Dr. Sophie von der Heyden, lecturer at the Department of Botany and Zoology at Stellenbosch University (SU), utilizes genetic and genomic approaches for studying marine and freshwater systems in Africa and beyond, with a strong emphasis on using molecular techniques for conservation and biodiversity planning. This has led to fascinating insights about the evolutionary dynamics of one of the world's most unique ecosystems, but also the development, uptake and expansion of molecular approaches for studying natural systems.



Dr. Sissel Jentoft (University of Oslo, Norway)

Dr. Sissel Jentoft, researcher at the Centre for Ecological and Evolutionary Synthesis (CEES), has extensive experience within marine evolutionary and population genomics understanding how genomes are influenced by adaptation to changing climates and environments. The overarching goal of her work is to gain new and unprecedented knowledge to further improve the development of sustainable management and restoration programs for key marine resources.



Dr. Stefano Mariani (Liverpool J. M. University, UK)

Dr. Stefano Mariani, Professor at the School of Biological and Environmental Sciences, Liverpool John Moores University, developed his passion for fish ecology along the Tyrrhenian coast, where he completed his BSc, MSc and PhD degrees, and headed to England (Hull) to expand his knowledge in population genetics. Then, he established his own research group in Dublin and begun his investigations on seafood (mis)labelling. A return to England (Salford and then Liverpool) led to a new passion: eDNA.



SYMPOSIUM OVERVIEW

Time	Monday 15	Tuesday 16	Wednesday 17	Thursday 18	Friday 19
07:00 - 7:30					
07:30 - 8:00			Spawning Run		
08:30 - 9:00		Opening Ceremony			
09:00 - 9:30		Jack Jones Lecture	Keynote & Talks	Keynote & Talks	Keynote & Talks
09:30 - 10:00		Coffee/Tea	Coffee/Tea	Coffee/Tea	Coffee/Tea
10:00 - 10:30		Talks	Talks	Talks	Talks
10:30 - 11:00					
11:00 - 11:30					
11:30 - 12:00					
12:00 - 12:30	Registration opens				
12:30 - 13:00					
13:00 - 13:30	LUNCH	LUNCH	LUNCH & free time	LUNCH	LUNCH
13:30 - 14:00			AGM		
14:00 - 14:30					
14:30 - 15:00	environmental DNA workshop	Talks	Keynote & Talks	Keynote & Talks	
15:00 - 15:30					
15:30 - 16:00	Coffee/Tea				
16:00 - 16:30		Coffee/Tea & Poster session	Coffee/Tea	Coffee/Tea	
16:30 - 17:00	Publishing/com. WK				
17:00 - 17:30			Talks	Talks	
17:30 - 18:00	EDI WK				
18:00 - 18:30					
18:30 - 19:00					
19:00 - 19:30					
19:30 - 20:00					
20:00 - 20:30					
20:30 - 21:00	Reception & dinner	Pub Quiz & dinner	Boat tour & dinner	Medals & Gala Dinner	
21:00 - 21:30					
21:30 - 22:00					
22:00 - 22:30					
22:30 - 23:00					

VENUE

The symposium will take place at the Bizkaia Aretoa building; scan this QR to find your way around the venue.

- Workshops will take place at the **Oteiza Auditorium**
- Poster session will happen at the **Chillida Gallery**
- Talks will be at the **Mitxelena Auditorium**



PROGRAMME

Monday 15th July

12:00 - 13:00	REGISTRATION OPENS	
13:00 - 14:00	LUNCH BREAK	
14:00 - 15:30	Registration	environmental DNA sampling workshop
15:30 - 16:00	COFFEE BREAK	
16:00 - 17:15	Registration	Publishing and science communication workshop
17:15 - 18:30	Registration	Equality, diversity and inclusion workshop
19:00 - 22:00	RECEPTION + DINNER	

Tuesday 16th July

09:00 - 9:30		OPENING CEREMONY
<i>Session 1: Leveraging Connectivity, Mixing, and Biomass for Better Management</i>		
9:30 - 10:30	Gary R. Carvalho	JACK JONES LECTURE: Genes, Fish and Fisheries: translating science into policy
10:30 - 11:00		COFFEE/TEA BREAK
11:00 - 11:10	Alice Manuzzi	Demographic histories and adaptative potential in marine demersal fishes: implications for management.
11:10 - 11:20	Daniel Estévez-Barcia	Population genomics and adaptation differences between inshore and offshore populations of Greenland halibut (GRINFISH project)
11:20 - 11:30	Noemi Pasini	Evidence of genetic admixture of two exploited Mediterranean fish species in the Balearic Islands
11:30 - 11:40	Damianos Alexandridis	Population genomic analysis of the European anchovy (<i>Engraulis encrasicolus</i>) in Central and Western Mediterranean
11:40 - 11:50	Ane del Río-Lavin	Revisiting Stock Delimitation of European Anchovy (<i>Engraulis encrasicolus</i>) in the North-east Atlantic Using a Genomic Approach
11:50 - 12:00	Siv N. K. Hoff	Delineate the population structure of a keystone marine fish species in the Northern Atlantic region using whole genome sequencing data
12:00 - 12:10		Leg stretching break
12:10 - 12:20	Rute R. da Fonseca	The population structure of the small pelagic European sardine inferred from whole genome data
12:20 - 12:30	Marina Puebla-Aparicio	Unravelling population structure of the European sardine (<i>Sardina pilchardus</i>) using low-coverage whole genome sequencing to inform assessment

12:30 - 12:40	Lisette Delgado	Integrating genomics and telemetry to unravel Northern Cod movement
12:40 - 12:50	Alfonso Diaz-Suarez	Fine-scale genomic structuring of a freshwater apex predator
12:50 - 13:00	Hayler Edu Ibarra Arcila	Comparative population genomics of <i>Pimelodus yuma</i> and <i>Pimelodus grosskopfii</i> in the Neotropical Magdalena-Cauca river basin.
13:00 - 14:00	LUNCH BREAK	
14:00 - 14:10	David Murray	Combining population genomics with fisheries data to inform stock identification
14:10 - 14:20	Mayuresh Gangal	Biology – Management Vulnerability Matrix: a robust approach to evaluate vulnerability of fish populations to overexploitation
14:20 - 14:30	Jordi Viñas	From mitochondrial DNA to genomics, the case of <i>Euthynnus</i> spp.
14:30 - 14:40	Daria Zelenina	Application of genetics and genomics in forecasting pink salmon catches and fisheries management in the Sea of Okhotsk basin.
14:50 - 15:00	Ian Richardson	A Machine learning best practices approach towards universal genetic stock identification of Atlantic herring, <i>Clupea harengus</i>
15:10 - 15:20	Leg stretching break	
15:20 - 15:30	John Hargrove	Integrating molecular monitoring into management of salmonids in the Pacific Northwest, USA
15:30 - 15:40	Natalia Diaz-Arce	Genetic based methodologies to improve bluefin tuna management and conservation
15:40 - 15:50	Daniel Ruzzante	Population abundance estimation with the Close Kin Mark Recapture approach: insight from research on brook trout and Atlantic halibut
15:50 - 16:00	Iker Pereda-Agirre	Close-Kin Mark-Recapture for abundance estimation of the European hake and the white anglerfish

16:00 - 18:00	POSTER SESSION + COFFEE/TEA
19:00 - 22:00	PUB QUIZ + DINNER

Wednesday 17th July

07:00 - 8:00	Spawning Run	5KM run along the Bilbao River
<i>Session 2: Disentangling species interaction dynamics</i>		
09:00 - 9:50	Kerry Naish	KEYNOTE: Eco-evolutionary dynamics in managed and unmanaged systems: case studies from Pacific salmon
9:50 - 10:00	Aina Pons	Exploring the connection between the social network and the gut microbiome in a wild marine fish population
10:00 - 10:10	Marta Barluenga	Host-parasite interactions drive biodiversity in cichlid fish
10:10 - 10:20	Sarah Salisbury	Mechanisms underlying variation in sea lice resistance among salmonid species revealed by single nuclei RNA sequencing
10:20 - 10:30	Goshi Kato	Transcriptome analysis of <i>Flavobacterium psychrophilum</i> infected and proliferated in ayu <i>Plecoglossus altivelis</i>
10:30 - 11:00	COFFEE/TEA BREAK	
11:00 - 11:10	Ana Verissimo	Revealing the diet of small pelagic fish larvae via metabarcoding of stomach contents

11:10 - 11:20	Filipe Ribeiro	Catfished: how metabarcoding increases knowledge about the predation of invasive European catfish on Iberian fish communities
11:20 - 11:30	Victor Awugo	Nutrigenomics in Aquaculture: A New Paradigm
<i>Session 3: Medal winners and their journeys</i>		
11:30 - 11:45	Skúli Skúlason	The evolution of diversity of fishes and how it contributes to the understanding of biodiversity and its conservation
11:45 - 12:00	Erika J Eliason	Using fish physiology to inform management
12:00 - 12:15	Peter A. Henderson	The central role of time series in ecological research
12:15 - 12:30	Michael I. Grant	Diadromous life history movements of threatened non-marine elasmobranchs revealed through elemental analysis of vertebrae
12:30 - 14:30	LUNCH & Free time	12:30 – 13:00 LUNCH for AGM attendees
		13:00 - 14:30 FSBI AGM
<i>Session 4: Understanding the mechanisms of development and adaptation</i>		
14:30 - 15:10	Zuzana Musilova	KEYNOTE: Vision under pressure: how deep-sea fish and cichlids see in the dark
15:40 - 15:50	Craig Primmer	Beyond GWAS: Complex mechanisms underlie the simple genomic architecture of Atlantic salmon age at maturity
15:10 - 15:20	Morgane Frapin	Effect of vgll3 genotype on liver transcriptome in Atlantic salmon before and after spawning season

15:20 - 15:30	Maddi Garate Olaizola	Will climate change impact the Baltic cod? Larvae performance under future environmental conditions
15:30 - 15:40	Anti Vasemägi	Multi-omics refines tissues, candidate genes and putative regulatory links involved in the humic adaptation of keystone freshwater fish
15:50 - 16:00	Konrad Taube	Regulatory landscape of chromatin accessibility sheds light on biological processes of humic-water adaptation
16:00 - 16:30	COFFEE/TEA BREAK	
16:30 - 16:40	Katja Maamela	Maturation-related traits are mediated by vgll3 genotype, population, and diet in female Atlantic salmon
16:40 - 16:50	Amaia Lamarins	How do Atlantic salmon respond to selective pressures under various genetic architectures of life-history traits?
16:50 - 17:00	Niladri Mondal	Genome and body size diversity of the fishes using comparative phylogenetic methods
17:00 - 17:10	Giovanna Mottola	Conservation challenges and genomic insights in salmonid populations: a study of brown trout in Northern Finland
17:10 - 17:20	Bjarni K. Kristjánsson	Diversity of Lake Mývatn threespine stickleback in space and time
17:20 - 17:30	Daniela G. Félix-López	Causal analysis of the transcriptome of the Greenland shark reveals pathways associated with ageing
19:00 - 21:00	BOAT TOUR + DINNER	

Thursday 18th July

<i>Session 5: Capitalizing on environmental DNA for biodiversity research</i>		
09:00 - 9:50	Sophie von der Heyden	KEYNOTE: Can environmental DNA metabarcoding really fill the marine biomonitoring gap in South Africa?
9:50 - 10:00	Sylvain Roblet	Comparison of Environmental DNA metabarcoding and Underwater Visual Census for the monitoring of taxonomic and functional dimensions of fish diversity
10:00 - 10:10	Zifang Liu	Environmental DNA and its bycatch reveal vertebrate composition inside and outside Special Areas of Conservation in Cardigan Bay
10:10 - 10:20	Mukesh Bhendarkar	Potential and challenges of environmental DNA (eDNA) metabarcoding for assessing the ecological status of estuaries
10:20 - 10:30	Gert-Jan Jeunen	Monitoring fisheries catch and bycatch composition through on-board passive eDNA sampling
10:30 - 11:00		COFFEE/TEA BREAK
11:00 - 11:10	Vera G Fonseca	Fish and other Metazoan Biodiversity through environmental DNA
11:10 - 11:20	William Perry	Combining the old and the new: assessing Atlantic salmon (<i>Salmo salar</i>) abundance and habitat use in rivers using eDNA metabarcoding.
11:20 - 11:30	Giulia Mariani	How far can eDNA travel into marine waters? Dynamics revealed by opportunistic water sampling
11:30 - 11:40	Jake M. Jackman	Understanding fish eDNA distribution patterns through hydrodynamic and particle tracking modelling in a dynamic estuary
11:40 - 11:50	Richard McBride	Flatfish Distributions Across the Northeast U.S. Continental Shelf: Comparing Bottom Trawl and eDNA Metabarcoding Results
11:50 - 12:00	Govindhaswamy Umapathy	eDNA-based assessment of highly invasive Armoured Sailfin Catfish and African sharptooth catfish in the Water Bodies of Eastern Ghats, India

12:00 - 12:10		Leg stretching break
12:10 - 12:20	Filipe O. Costa	Assessing the impact of genetic markers and sampled water volume in eDNA-based detection of marine fish species in a large aquarium
12:20 - 12:30	Emilie Boulanger	Understanding the detection of fish life stages from eDNA metabarcoding across seasons
12:30 - 12:40	Quentin Mauvisseau	Investigating fish community composition and its seasonal changes in the Oslo fjord through eDNA metabarcoding
12:40 - 12:50	Maddalena Tibone	Characterization of the mesopelagic fish layer in Irish waters: a multidisciplinary approach integrating acoustic signatures, eDNA and direct catch data
12:50 - 13:00	Chris Brodie	Validating pelagic fish identity and abundance from acoustic backscatter using a multi-species eDNA approach
13:00 - 13:10	Cristina Claver	Estimating small pelagic fish stock abundance using environmental DNA
13:10 - 13:20	Yixuan Tang	Environmental DNA outperforms trawling in revealing fish composition in a Biosphere Reserve Lake in Mongolia
13:20 - 13:30	Sebastian Mynott	Marine Biodiversity Monitoring: Insights from a 12-Year eDNA Time-Series
13:30 - 14:30		LUNCH BREAK
<i>Session 6: Exploring the genomic signatures of connectivity and adaptation</i>		
14:30 - 15:20	Sissel Jentoft	KEYNOTE: Characterization of genomic architecture, sub-populations and cryptic ecotypes within codfishes: management implications
15:20 - 15:30	Halvor Knutsen	Divergent Temperature Tolerance Revealed in Atlantic Cod Ecotypes
15:30 - 15:40	Jingyao Niu	Whole genome analyses of archival fish specimens to understand demography and thermal adaptations

15:40 - 15:50	Samantha V. Beck	Genomic insights into run timing in Canadian Atlantic salmon (<i>Salmo salar</i>): Assessing vulnerability to climate change
15:50 - 16:00	Lorenz Hauser	Extrinsic and intrinsic drivers of population structure in Pacific herring
16:00 - 16:30	COFFEE/TEA BREAK	
16:30 - 16:40	Romina Henriques	Genclim: evolutionary and socioeconomic consequences of shifting distribution ranges in commercially exploited marine fishes
16:40 - 16:50	Cait Nemecek	Potential inversions among small brook trout (<i>Salvelinus fontinalis</i>) populations of Nova Scotia, Canada
16:50 - 17:00	Gopi Krishnan Prabhakaran	Genomic perspectives on adaptation and biological invasion: A comparative study on catfishes
17:00 - 17:10	María Saura	Evidence of inbreeding depression for morphological traits in European hake
17:10 - 17:20	Joshka Kaufmann	Unexpected variation in genetic diversity in a small Atlantic Salmon population: the role of anthropogenic impacts
17:20 - 17:30	María-Eugenia López	Poolseq and dynamic outlier thresholding uncover novel and confirmed targets underlying humic-driven adaptation in Eurasian perch
17:30 - 17:40	Stellia Sebihi	Genetic differentiation along an ocean/river gradient captures the signature of intragenerational selection in the European eel (<i>Anguilla anguilla</i>)
17:40 - 17:50	Thomas Reed	Whole genome resequencing reveals polygenic signatures of directional and balancing selection on alternative migratory life-histories in brown trout
19:30 - 23:00	GALA DINNER	

Friday 19th July

<i>Session 7: Harnessing DNA for species identification and phylogenetic analyses</i>		
09:30 - 10:20	Stefano Mariani	KEYNOTE: From Revolutionary to Complementary: a DNA Journey through the Seafood Trade
10:20 - 10:30	Lucilia Lorusso	Next-Generation Sequencing (NGS) applications for seafood authentication and sustainability
10:30 - 11:00 COFFEE/TEA BREAK		
11:00 - 11:10	Ram Krishan Negi	DNA barcoding for identification of freshwater fish species in the River Beas, India
11:10 - 11:20	W. W. Rochelle Chan	Molecular barcoding of fish larvae reveals intergenerational connectivity across a seascape
11:20 - 11:30	André O. Ferreira	Unveiling diversity and seasonal variations in ichthyoplankton communities using DNA metabarcoding
11:30 - 11:40	Rajeev Raghavan	Phreatic puzzles: remarkable patterns of cryptic diversity and distribution in fossorial and aquifer-dwelling fishes of southern India
11:40 - 11:50	João T. Fontes	Benchmarking the species discriminatory power of commonly used markers and amplicons in marine fish (e)DNA metabarcoding
11:50 - 12:00 Leg stretching break		
12:00 - 13:00 AWARDS & CLOSING CEREMONY		
13:00 - 14:00 LUNCH		

Posters

Giulia Mariani	Validation of a pipeline for eDNA analysis by mock communities: evaluation of variables influencing mitochondrial DNA abundance
Luis Machado	Fish-DNA-Monitor: Supporting management of fisheries resources in Guinea-Bissau through eDNA metabarcoding
Vivian Fischbach	Larval length per developmental stage decreases during spawning season of Atlantic herring
Luciano Pastorelli	Performance of environmental DNA metabarcoding for long-term integrated fish monitoring around marine infrastructure
Ilaria Coscia	Using genomic tools to monitor skate and ray communities in Irish Atlantic coastal waters
Rajeeshkumar MP	Abandoned, Lost, or Discarded Fishing Gears (ALDFG) in the Arabian Gulf
Alessia Prestanti	Environmental DNA (eDNA) as a non-invasive genetic tool for monitoring Antarctic fish community
Simo Njabulo Maduna	Invasion genomics of a non-indigenous salmonid in Norway: local lessons, global challenges
Lou-Anne Jannel	eDNA metabarcoding, a promising tool for monitoring aquatic biodiversity in the estuaries of Reunion Island (South-West Indian Ocean)
Luca Schiavon	Genetic connectivity in a key nesting icefish in the Weddell Sea, a candidate area for protection in the Southern Ocean
José Gregorio Martínez	Influence of a hydroelectric dam on the selection and local adaptation of the Amazonian fish <i>Cichla temensis</i>
Rajeev Raghavan	Mitogenome organization and evolution in a living fossil, <i>Aenigmachanna gollum</i>
Arya Sidharthan	Mitogenome-based phylogenetics and molecular evolution in <i>Travancoria elongata</i> , an endangered mountain loach from the Western Ghats Biodiversity Hotspot
Gaëlle Brahy	Can telomere length be estimated from fish scales to inform on individual stress?
Marina Papadopoulou	A tale of clones, robots, and agents: the role of behavioural individuality in the schooling dynamics of the Amazon molly

Ana Sánchez	Using the microbiome to discriminate production method in turbot (<i>Scophthalmus maximus</i>): wild versus farmed.
Oriol Canals	Quantification of Atlantic bluefin tuna environmental DNA in the Mediterranean Sea
Claudio Silva De Freitas	Ecological consequences of single base pair variation in rhodopsin
Becca Millard	Untangling the diets of gelatinous zooplankton using DNA metabarcoding
Danielle Davenport	Regional environmental genetic adaptation leads to differential climate vulnerability of two ecologically important copepods in the Northwest Atlantic
Ambra D'Aurelio	Assessing past fish distribution throughout collagen fingerprint: a study on archaeological remains of Salmonids
Jose A. Fernandes-Salvador	Omics and experimental needs to advance with ecosystem models under management and climate scenarios
V. Thranduil Hudgins	The Rapid Historic Expatriation of <i>Dipturus batis</i> , <i>Dipturus intermedius</i> and Other British Elasmobranchs Based off Notes Made by W. C. MacIntosh in 1884
Emma Weschke	Unveiling the nightlife of coral reef fish in our changing world
Eve Croxford	Nocturnal predators drive community composition of acoustically enriched restoration reefs
Camille Leblanc	Developmental plasticity within and among populations of Icelandic Arctic charr
Alex Piro	Does mercury biomagnification in a boreal lake food web vary year-round? – assessing patterns with bulk $\delta^{15}\text{N}$ and compound-specific $\delta^{15}\text{N}$ of amino acids
Pavan-Kumar, Annam	Unravelling Ballast Water Biodiversity: A Genomic Approach to Non-Native Species Management
Charlotte Robison-Smith	Problem Polymers in Aquaculture: Proteomic Insights into PVP Exposure

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