



SCIENCE AND
CONSERVATION EVENTS

SOMETHING IN THE WATER: MANAGING THREATS FOR MIGRATORY FISH

DATE

Tuesday 14 May 2024

TIME

6pm – 7:30pm

LOCATION

Online, Zoom Webinar

Free to attend

Registration required



AGENDA

Hannah McCormick

ZSL

A royal comeback: restoring native sturgeons to UK waters

Dr Caroline Durif

**Norwegian Institute of Marine
Research**

The drastic decline of the European eel and restoration efforts

Dr Céline Artero

**University of Applied Sciences and
Arts, Western Switzerland**

Migration of sea trout in the English Channel - How can scientific information help the managers?

Chaired by **Dr Matthew Gollock**

ZSL

ABSTRACTS

A royal comeback: restoring native sturgeon to UK waters

Hannah McCormick, ZSL

European (*Acipenser sturio*) and Atlantic sturgeon (*Acipenser oxyrinchus*) were once common, native species in the UK. Their significance in British culture has been signified by their status as “Royal Fish” which they have held for 700 years. However, population declines precipitated by overfishing caused sturgeon to be extirpated from UK freshwaters by the mid-20th century. In the absence of “traditional” data sources, sturgeon sightings and catches were collated from digitised newspapers, landings reports, and other historical sources. These data provide the first assessment of sturgeon distribution in UK fresh, coastal, and marine waters from 1600 to present day, and suggest that sturgeon were once widespread in UK coastal and fresh waters. They have helped to inform the work of the UK Sturgeon Alliance, a group of charities championing sturgeon conservation.

While neither of the UK’s native sturgeon species has successfully spawned in Europe for over 30 years, ongoing reintroductions of both mean that numbers are thought to be gradually increasing. This has been evidenced by increasing reports of incidental capture by recreational and commercial fishers in the UK. Working collaboratively with fishers is essential when monitoring rare marine species, as their invaluable knowledge provides an evidence base in the absence of monitoring data. Their efforts can help protect vulnerable species, and reduce

potential harm caused by incidental capture (bycatch). The next phase of the UK’s Sturgeon Alliance’s work will be to make links with fishers to 1) co-develop processes for improving bycatch reporting, 2) use bycatch data to co-create strategies for reducing these incidents and their threat to sturgeon, and 3) collaborate with European colleagues to understand pan-European distributions.

Hannah is Project Manager in the Estuaries and Wetlands team at ZSL. Hannah’s work focuses on UK aquatic species conservation, including marine mammals and sturgeon. She is a member of the UK Sturgeon Alliance, of which ZSL are founding members. The UK Sturgeon Alliance is a group of charities championing native sturgeon conservation, and last year Hannah worked in collaboration with the Alliance to publish the UK Sturgeon Conservation Strategy and Action Plan. The Alliance and ZSL’s sturgeon work now focus on delivering the action plan. These activities including habitat restoration for sturgeon, bycatch mitigation, and understanding past species distributions.

The drastic decline of the European eel and restoration efforts

Dr Caroline Durif, Norwegian Institute of Marine Research

The European eel belongs to the Anguillidae family also called freshwater eels. There are approximately 19 species of freshwater eels throughout the world, but the European eel represents the largest population. It spans from northern Norway to northern Africa and reaches far into the Mediterranean, yet all European eel spawn in one location in the open ocean. The spawning area has long been a mystery and it is only recently, thanks to tracking studies that we can confirm that it is located in the Sargasso Sea.

Freshwater eels have an outstanding ability to adapt to different salinity environments and can also withstand temperatures from freezing to well over 30 degrees Celsius. Thus, they are found in various habitats, ranging from freshwater rivers and lakes, swamps, marshes, and marine coastal waters. Despite this incredible adaptation capability, the European eel has been declining since the 1960s and has been listed as critically endangered since 2008. The reasons for the decline are multiple and include overfishing, habitat loss, barriers to migration (such as hydropower dams and turbines), pollution, diseases, and parasites.

Monitoring and managing this species represent an incredible challenge for biological reasons but also because it is present in many countries under different jurisdictions and policies. The recovery of the European eel will require a strong international collaboration involving institutions both in freshwater and marine habitats.

*Caroline is a principal research scientist at the Institute of Marine Research (IMR) in Norway, where she has been working since 2004. She received her PhD in France on the migration of the European eel (*Anguilla anguilla*) and its challenges linked to hydropower. Her research now deals broadly with fish migration and life-history strategies of fish. She also specializes in studying how the behaviour of marine organisms can be affected by anthropogenic effects – some related to climate change (global warming, ocean acidification, ozone layer depletion) – but also related to the development of human activities in the ocean (renewable marine energy and offshore surveys). Caroline gives scientific advice on the status of eel in Norway and at an international*

level. Since 2023, she chairs the Working Group on Eel under the umbrella of the International Council for the Exploration of the Sea (ICES), the European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC), and the General Fisheries Commission for the Mediterranean (GFCM).

Migration of sea trout in the English Channel – How can scientific information help the managers?

Dr Céline Artero, University of Applied Sciences and Arts, Western Switzerland

From 2018 to 2020, post-spawning sea trout from three populations (one in France and two in England) were tracked with several telemetry methods in order to reconstruct their migration routes around the English Channel and to study their migratory behaviour. Globally, sea trout from the three populations exhibited a similar vertical and horizontal migratory behaviour with some specificities that highlighted the plasticity of the species. Reconstructed migration routes also revealed important migratory corridors for the species in the English Channel. This talk will be presenting the work realised with the Game and Wildlife Conservation Trust.

Céline is a marine researcher that principally studies threatened fish species. She did her university degrees in several universities of France and completed her PhD in French Guiana on the ecology and biology of goliath grouper in French Guiana. She joined the Game & Wildlife and Conservation Trust to track the migration of salmon and sea trout, as juvenile and adult. This work was part of a European project named SALmonids MAnagement Round the CHannel (SAMARCH). Céline will be presenting the results of the marine migration of sea trout.

EVENT FORMAT

- This event will take place online via Zoom and will be filmed and published on our Science and Conservation YouTube channel (zsl.org/IOZYouTube). Please be aware, by attending you consent to being recorded during the Q&A session.
- Places are allocated on a first-come, first-served basis.
- Before attending, please read our Code of Conduct found [here](#).
- The event will run from 6-7:30pm
- It will consist of short talks from the speakers, followed by a Q&A and panel sessions.
- To submit a question to a speaker prior to the event, please send it to scientific.events@zsl.org. Please be aware we may not be able to answer all questions.
- There is no charge for this event, but registration is required.

Conservation and Development During Crises

11 June 2024, 6-7:30pm

In person; Huxley Lecture Theatre, ZSL

Integrated conservation and development projects (ICDPs) have been implemented since the 1980s, with the dual aim of enhancing socio-economic circumstances, and supporting the protection or restoration of ecosystems.

This event will highlight some key impacts from ZSL's and others' UK Aid Match Projects in the face of adversity, in order to identify opportunities to future-proof ICDP's that are reducing human-wildlife conflict and promoting human-wildlife coexistence.

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