



[SUNDAY](#)[MONDAY](#)[TUESDAY](#)[WEDNESDAY](#)[THURSDAY](#)[FRIDAY](#)2:00 **Jena Edwards** Transcending boundaries in fish movement ecology through the  
 European Tracking Network**Movements in ecology****Netherlands**

## **Transcending boundaries in fish movement ecology through the European Tracking Network**

Jena Edwards <sup>1</sup>, David Abecasis , Hendrik Winter , Aytaç Özgül , David Villegas-Rios , Kim Aarestrup , Kim Birnie-Gauvin , Tomas Brodin , Bruno Macena , Claudia Meneses , Pieterjan Verhelst , Josep Alos , Eneko Aspillaga , Marija Smederevac-Lalic , Inge Van Der Knaap , Pablo Arechavala-Lopez , Einar Kärgerberg

<sup>1</sup> Royal Netherlands Institute for Sea Research (NIOZ) – 1790 AB Den Burg, Texel, Pays-Bas, Netherlands

In the marine realm, few barriers exist to limit the extent of animal migrations. As a result, mobile marine animals can occupy vast home ranges and undertake migrations that span across entire ocean basins. These large-scale movements can in turn, complicate both research and management occurring at local or regional scales. Advances in aquatic telemetry are continuing to allow researchers to monitor marine animal movements across greater distances and with increasing resolutions. However, for acoustic telemetry studies that typically use an array of fixed receivers to detect presence of tagged animals moving within a defined region, the spatial scale of acquired movement data is often restricted to regions delimited by invisible geographic or jurisdictional boundaries. To overcome this limitation, acoustic telemetry networks such as the European Tracking Network have been established to facilitate collaboration among movement ecologists and to house archives of detection data for more efficient data sharing. By combining the detections of individual tagged animals recorded across multiple discrete arrays, the extent of monitoring can be greatly expanded to reflect more ecologically-relevant spatial and temporal scales. To exemplify the benefit of the acoustic telemetry networks for large-scale collaboration and fundamental research on migratory fish, we have compiled examples of movement trajectories collected by an international group of researchers using multiple acoustic arrays and spanning national or international boundaries. From basin-wide migrations to cross-continental displacements, this diverse dataset demonstrates how connectivity between acoustic telemetry arrays and research institutes can lead to novel insights in movement ecology for a range of fish species.

**Keywords:** Acoustic telemetry, telemetry network, transboundary movement, movement ecology, fish migration

[Information for Delegates](#)