



“Aquatic telemetry – How technology can inform conservation with freshwater and marine case study”

A talk by UK-based researchers at BNHS on 6th March

Mumbai: 26th February: Fish have been a source of food and livelihood since earlier times. Those who are engaged in fishing or choose to study fish can certainly now notice changes in the aquatic habitats and consequently on biology of the species that provide ecosystem services. Freshwater and marine habitats are the most threatened ecosystems on planet, facing tremendous pressure of overexploitation of fishery resources and habitat loss through human driven climate change. The efforts for conservation and restoration of aquatic life are now aided by advanced technologies like telemetry. Dr. Catherine Gutmann Roberts and Mr. Thomas Stamp, Bournemouth University (BU) and University of Plymouth and Mahseer Trust (MT), UK, shall be gracing us with their presence at BNHS for a talk on the use of telemetry in rivers, estuarine and marine studies. The hour-long talk shall be based on their research on telemetry which covers barriers to migration, trophic impacts, behavioural types, home ranges, habitat associations and protected areas. There would also be short videos showing the movement of the study species.

BNHS cordially invites you to this talk on "Aquatic telemetry – How technology can inform conservation with freshwater and marine case study" at BNHS Hornbill House on Wednesday, 6th March 2019 at 6:00 PM. Aquatic environments pose a challenge to scientists to carry out telemetry studies. Dr. Catherine Gutmann and Mr. Thomas Stamp have profoundly worked on aquatic telemetry, sharing their experience will help the audience to understand how conservation problems in the aquatic ecosystem can be solved using technology. The talk is open to everyone interested in the study of telemetry and aquatic populations.

Introduction to aquatic radio telemetry:

Aquatic environments are altering profoundly as a result of global climate change driven through human actions; consequently, it affects the organism's distribution pattern. Dramatic changes in species behaviours and distribution pattern leaves complex conservation challenges. Our understanding of organism and community responses to these alterations depend on knowledge of animal movements, interactions, and how the physio-chemical and environmental processes underlying them shape species distributions. Critical understanding of these changes in patterns is required as they provide the wealth of ecosystem services upon which humans depend.

Aquatic telemetry technology is rapidly accelerating our ability to observe animal behaviour and distribution and, as a consequence, is fundamentally altering our understanding of the structure and function of global aquatic ecosystems. These advances provide the toolbox to define how future global aquatic management practices must evolve. Dr. Catherine Gutmann and Mr. Thomas Stamp are experts in radio telemetry in the aquatic environment and would talk about their ongoing research and case studies in freshwater and marine environments.

About the researchers:

Dr. Catherine Gutmann Roberts (Freshwater Researcher) is currently a migration ecology post-doctoral researcher at the Bournemouth University looking at the effects of climate change on migration timing across a range of taxa and assisting with translocation work on salmonids.

Mr. Thomas Stamp (Marine Researcher) is currently studying for a Ph.D. with the University of Plymouth and a local fisheries enforcement body in the southwest UK. His primary focus is how European bass (*Dicentrarchus labrax*) use inshore marine and estuarine habitats in order to provide holistic fisheries management advice which accounts for the habitat requirements of fish.

“Freshwater and marine resources are depleting throughout the world as a consequence of climate change and human-driven extinction. Indian rivers are facing a wide array of problems because of habitat change, consequently, it is affecting the diversity of fish species. The monitoring of population of marine species is now essential. Similar problems are faced by fish or other aquatic vertebrates living in marine and estuarine habitats,” said Dr. Deepak Apte, Director BNHS.

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