

**Speaker : Shinji Fukuda (Tokyo University of Agriculture and Technology)**

**Title: Use of fish movement tracks in environmental sciences**

Advances in measurement methods such as image analysis and biotelemetry enabled fish movement tracking for better understanding species' ecology and detecting behavioral responses to changes in water quality. While these methods are reasonably easy and affordable, movement data are subject to uncertainties originating from errors in image analysis and positioning methods that can further affect subsequent modelling. In this talk, recent studies using fish movement tracks are reviewed first and then tracking errors in observation data are demonstrated. Lastly, I discuss the importance of sensing technologies for improved monitoring, modelling and assessment of a target system.