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TATA INSTITUTE OF FUNDAMENTAL RESEARCH

ICTS Biophysics Seminar

Title : How to answer ecological questions with messy data?

Speaker : Maria Kuruvilla (University of Victoria)

Date : Tuesday, 21 July 2026

Time : 11:30 AM (IST)

Abstract : Our ability to collect large amounts of data is improving and so is the urgency to answer ecological questions in the face of global change. As ecologists, we can embrace the inherent complexity and noise in ecological data and leverage statistical tools, often used in other fields, to answer these urgent ecological questions. The overarching theme of this talk will be how to use statistical tools such as time series analysis, hierarchical models, simulation studies, and likelihood profiles. I will use my work on Pacific salmon, that are ecologically and culturally important in North America, as examples of these statistical tools and talk about the lessons I learnt while trying to answer:

- 1) Do Pacific salmon use social information while migrating and how do hatchery salmon releases in Washington affect the timing of migration of wild salmon?
- 2) What is the impact of logging on Pacific salmon populations on the West Coast of Canada?

Venue : Feynman Lecture Hall

Zoom Meeting: <https://icts-res-in.zoom.us/j/94935117665?pwd=CzunhSY6tZCbxKZbRiCU0BmdZwkhnv.1>

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