# Proposed topics for discussion

## Theme 1: Data Complexity and Integration

**Relevant talks**: Marian Scott, Claire Miller, Ben Marchant, Craig Wilkie

**Prompt questions**:

- What are the most pressing barriers to integrating heterogeneous environmental data sources?
- How can we balance model complexity with interpretability when fusing diverse datasets?
- Are there good examples of success (or failure) in multi-source integration we can learn from?

## Theme 2: Modelling Choices and Scalability

**Relevant talks**: Dave Miller, Israel Martínez-Hernández, Michael Tso

**Prompt questions**:

- What modelling approaches scale best to large or high-frequency datasets?
- How do we decide between simpler models (e.g., regression/GAMs) and complex hierarchical or functional models?
- What compromises have you made between model flexibility and computational feasibility?

## Theme 3: Decision-Driven Modelling

**Relevant talks**: Claire Miller, Claire Risley, Michael Tso

**Prompt questions**:

- How do we make our models useful for decision-makers and practitioners?
- What statistical uncertainties matter most in practice, and how should we communicate them?
- How do we build adaptive systems that react to real-time information?

## Theme 4: Collaboration and Co-Production

All talks are relevant here

**Prompt questions**:

- What has helped or hindered successful collaboration across academia, agencies, and industry?
- What would an ideal collaborative workflow look like for tackling a spatio-temporal environmental problem?
- Are there shared needs (e.g., open datasets, tools, training) that we could address together?