

Integration of molecular tools for biodiversity, risk assessment, ecosystem advice within a changing climate

Conveners: Dave Clarke (Ireland), Cynthia McKenzie (Canada), Rowena Stern (UK)

This theme session provides an opportunity to discuss the current molecular tools available and the approaches which have been implemented in assessing biological case studies. Topics include challenges facing the routine implementation of these molecular tools alongside current methods in regulatory and long-term monitoring programmes, and exploring the best tools to contribute to specific policy and marine management decisions.



Three key topics will be addressed:

- Potential harmonization and standardization of protocols used for various molecular approaches to facilitate the comparison among studies and monitoring programs as well as the strategy to disseminate the information. It is timely to compare experiences, standardise protocols to find a satisfactory mechanism for targeting the organisms of interest, such as harmful microalgae and non-indigenous species.
- Applying generated molecular datasets to long term time series, development of methods that improve uptake or accessibility, comparison of molecular datasets with other method datasets, and their potential integration with widely used datasets e.g. PANGAEA, OBIS.
- The potential to utilize these tools through case studies using science-based advice for strategic planning (including coastal monitoring and management), policy development and operational processes in providing additional data on areas regarding biodiversity, bioinvasions, climate change and modelling.

We invite abstract submissions from (but not limited to) the following areas:

- Biological case studies
- Biodiversity assessments
- Ecosystem, monitoring and advice such as for policy or management
- Climate Change studies integrating molecular tools alongside others
- Modelling integrating biological and physico-chemical data from multiple data sources
- Invasive Species detection, pathways and vectors, strategic planning, policy development
- Harmful Algal Blooms - monitoring and predictive forecasting

The session may result in the publication of an ICES Cooperative Research Report, Viewpoint or a review article, depending on the number of participants and the variety of the research fields.

Abstract Submission Deadline: **21st March 2023**

[Abstract Call & Submission](#)