

# Theme session Report

## Scientific advances under ICES Science Plan

Conveners: Sarah Bailey (Canada), Antonina dos Santos (Portugal), Kevin Friedland (USA), Ellen Kenchington (Canada)

The intent of this session was to allow broad dissemination of important new research in science areas that are not represented by other Annual Science Conference (ASC) theme sessions, thereby increasing the scope of the ASC and fostering the establishment of more multidisciplinary scientific work and links between scientists. This session was open to contributions relevant to any of the seven priorities of ICES Science Plan:

- Ecosystem science
- Impacts of human activities
- Observation and exploration
- Emerging techniques and technologies
- Seafood production
- Conservation and management science
- Sea and society

The session was comprised of 16 oral and 10 poster presentations covering a broad selection of topics, that were arranged by theme topics during the live session, such as social and environmental influences, gear assessment, population dynamics and stock management:

- social network analysis of ICES expert groups,
- influence of gender and career stage on ASC participation,
- drivers affecting commercialization of cephalopods,
- tracing the catch location of whitefish products,
- predicting bottom trawl size selectivity of blue whiting based on fish morphology,
- investigating the effects of bottom trawl survey net wingspan on catch efficiency,
- assessment of vertical line use in Gulf of Maine fixed gear fisheries,
- a non-lethal approach to measure persistent contaminants in fish,
- historical record of trace elements in otoliths from eastern Baltic cod,
- close-kin mark-recapture for thornback ray,
- assessment of fish population structure and connectivity of European seabass,
- comparison of health status and regional variability in the condition of sardine,
- energy distribution of European anchovy in relation to reproduction,
- deep-water reorganization of East Greenland fish communities,

- historical time series analysis of the distribution of the demersal fish community across the West Spitsbergen shelf,
- new data on biology and climate impact on Polar cod,
- implications of shifts in Pacific and Arctic physical environments,
- genetic connectivity and sustainable management of Atlantic tuna,
- the Norwegian catch-sampling lottery,
- recovery analysis of blackspot seabream,
- influence of mismatch between management area and stock area on stock status,
- a transboundary framework to structure cumulative impact assessment,
- a framework to produce stock assessments for the Marine Strategy Framework Directive.

The session was equally attractive to early career and more established scientists, and the great diversity of topics made for an engaging and stimulating multi-disciplinary session. The session provided opportunities for new connections across study outcomes and individual researchers.