**ICES WGSHIP Meeting – Report**

**25-27 November 2019
ICES Headquarters, Copenhagen, Denmark**

**Meeting Summary**

Representation from the scientific community in eleven countries were in attendance, including Canada, Denmark, Australia, Finland, Germany, Italy, Norway, Sweden, United Kingdom, United States of America, and Belgium. National reports on the status of research activities related to shipping and shipping-related pressures were presented.

The scope of the working group will include all vessel types, not limited to merchant mariners, including merchant shipping, commercial fishing vessels, recreational vessels, and passenger ferries. The characteristics and intensity of different vessel types may differ, but the pressures, effects, and impacts of all vessels may be considered by the working group. Fishing activities themselves are not within the scope of the working group.

Linkages and relationships with other groups were discussed and considered, including other ICES working groups, such as the ICES WG BOSV (Ballast and Other Shipping Vectors), PAME (Protection of Arctic Marine Environment), GESAMP, FAO, IMO and many others.

A conceptual model for the group to use to define the activities and associated pressures of shipping will be developed. Areas of active research on shipping-related stressors include pollution, plastic debris, introduction of invasive species, oil spill, turbulent mixing, and scrubber discharge,

Each of the Terms of Reference and related deliverables were discussed and action items are detailed below.

**Action Items for Follow Up**

* Develop a template for group to use in national reports (Katja and Ida-Maja)
* Meeting report to summarize action items and resolutions (Cathryn)
* Follow up with PAME and share WGSHIP meeting report. WGSHIP members will attend PAME meetings when possible (Cathryn and Sarah).
* Update WGFTFB on activities of WGSHIP (Raymon)
* Next WG meeting – May or November 2020 in Hamburg, Germany (Katja and Cathryn).

**Planned Deliverables:**

1. WG 3-year scientific report based on national completion of template, including glossary of terms (Cathryn Murray)
2. Conceptual model of effects of shipping and associated pressures, with further use in ICES Ecosystem Overviews (Cathryn Murray and Ida-Maja Hassellöv).
3. Technical review of AIS data processing, uncertainty, and implications for use (Jessica Redfern)
4. Review of mitigation measures for underwater noise and effectiveness and tradeoffs with other shipping pressures (Nathan Merchant)
5. ICES Viewpoint on the effects of scrubber water on marine environment (Ida-Maja Hassellöv and Marja Koski)