

Working Group on the History of Fish and Fisheries (WGHIST)

The **Working Group on the History of Fish and Fisheries** (WGHIST), chaired by Ruth Thurstan, UK, and Emily Klein, USA, will work on ToRs and generate deliverables as listed in the Table below.

	Meeting dates	Venue	Reporting details	Comments (change in Chair, etc.)
Year 2018	4–7 September	Brest, France	Interim report by 1 December	
Year 2019	early Sept 2019	TBC – possibly University of Exeter, Penryn, UK	Interim report by 1 December	
Year 2020	early Sept 2020	TBC – possibly ICES HQ, Copenhagen, Denmark	Final report by 1 December	

ToR descriptors

ToR	Description	Background	Science Plan topics addressed	Duration	Expected Deliverables
a	Collection and assembly of metadata on marine social-ecological systems through time, and further development of data products and best practices that encourage the use of these resources.	Data from WGHIST supports the development of tools for marine living resource management and provides data to the global community via the ICES Data Centre. In addition, WGHIST can work with ICES Data Centre to identify opportunities for promoting and facilitating access to and the digitization of historical and archival resources housed by other institutions. WGHIST can also develop guidelines for the use of and best practise in using long-term/historical data in research and management.	10, 27, 31	All years	Digital products, such as indexing WGHIST metadata on the ICES Spatial Facility. Guidelines on best practice within ICES and beyond when using and/or applying historical data to contemporary advice and/or management.
b	Review outcomes of WKIHSD meeting and peer-reviewed research from the historical ecology community, and from these consider preparing brief overviews of key historical information for submission to ICES Ecosystem and/or Fisheries Overviews.	ICES Overviews present an opportunity to increase the visibility of available historical data via brief summaries that include key aspects of specific ecoregions/fisheries (e.g., historical pressures, year of commencement of significant fishing activity, historical landings, historical distribution of fishing/other activities compared to today). WGHIST proposes to submit information, based upon the outcomes of WKIHSD and peer-reviewed research from the historical ecology community, on a	10	All years	Overview text, suitable for inclusion in ICES Overviews (in a comparable format to Trends in Non-Indigenous Species), on key historical activities and data available on ecoregions and/or fisheries.

	number of ecoregions and/or fisheries in a form similar to 'Trends in Non-Indigenous Species', for consideration for inclusion in ICES Overviews.				
c	Evaluate changes in marine ecological and social-ecological systems through time via cross-disciplinary collaboration, and demonstrate the importance of this knowledge for contemporary science and management.	The interdisciplinary nature of WGHIST, with expertise in marine ecology, fisheries biology, historical ecology, palaeoecology, social and environmental history, offers a unique forum for conducting research into marine social-ecological systems and the scale, direction and drivers of social-ecological change through time.	1, 6, 10, 14	All years, culminating in year 3	Submission of (1) manuscript reviewing the development of major fishing technologies through time, and the ecological, social and/or cultural changes facilitated by these innovations; and/or (2) manuscript on the benefits and challenges of cross-disciplinary collaborative work.
d	Continue to use non-traditional data sources and approaches for advancing our knowledge of change and dynamics in marine ecological and social-ecological systems through time.	Several members of WGHIST work with unconventional resources and approaches, and are well versed in using interdisciplinary methods to extract non-traditional data and interpret trends over long (decadal to centennial) periods of time.	27	All years, culminating in year 3	Submission of manuscript or alternative (WGHIST report) on non-traditional methods, approaches (e.g. empirical dynamic modelling, time series analysis), their outcomes and application (e.g., data poor fisheries).

Summary of the Work Plan

Year 1	<p>In Year 1, WGHIST will work with the ICES Data Centre to explore the opportunities for developing data products that encourage use of and enhance the visibility of historical and long-term data (ToR a). Work on the proposed manuscripts (ToRs c, d) will also commence during the Year 1 meeting, as will identification of historical data/literature for the ecosystem overviews (ToR b). Potential areas of interest already identified by WGHIST members for ToRs c and d include: quantifying changes in ecosystem services over time, detailing fishing technology change and cumulative impacts upon fishing efficiency, and invoking cross-disciplinary knowledge to expand our understanding of linked social-ecological system change through time. Post-meeting work will involve soliciting contributions from the wider WGHIST membership list and continued development of manuscripts. WGHIST will also support WKIHSD with data resources and expertise (ToR a).</p> <p>The WGHIST 2018 meeting will also re-establish links with the ICES SIHD and other WG with expertise relevant to WGHIST aims, through invitation of SIHD and WG Chairs to the WGHIST meeting, whether in person or remotely, and by the WGHIST Chairs remaining in communication with SIHD and other WG throughout the year. These efforts aim to strengthen cross-disciplinary ties and enhance communication and learning among ICES WGs. Links with external groups (e.g. Oceans Past Initiative) will also be maintained to enhance interdisciplinary learning and collaboration.</p>
Year 2 and 3	<p>In years 2 and 3 WGHIST will continue to develop digital tools for historical metadata, explore opportunities for improving the accessibility of historical data for use by the scientific community, and develop protocols for best practise when using historical data, potentially in collaboration with the ICES Data Centre and other WGs. While these tools will be finalised in year 3, it is our hope that progress will be ongoing throughout years 1 and 2, including the provision of digital updates to the ICES community during this time. If so, this will afford WGHIST members and the wider ICES</p>

community multiple opportunities to make use of these tools and feedback to the Chairs and Data Centre on these tools, thus enabling the tools to be improved over this iteration.

Years 2 and 3 will also see progress on the proposed manuscripts and ecosystem overviews, and the WGHIST chairs will work to maintain and enhance connections with SIHD and other relevant WG, as above. Year 2 will forward manuscript and guidelines in our ToRs, which will be circulated among WGHIST members in between the meetings. This circulation may include scientists and practitioners with targeted expertise outside WGHIST. In both years, specific research from WGHIST will be used to expand this work. Deliverables will then be completed in Year 3.

Supporting information

Priority	<p>The value of historical marine ecology for evaluating current ecosystem health and providing appropriate baselines is now well published. In addition, understanding social-ecological system change has great potential for greater appreciation of both the system resilience and how they may change in the future.</p> <p>Scientific Scope: WGHIST 2018-2020 will focus on operationalizing historical data for current scientific questions and management needs. In particular, this iteration of WGHIST will emphasize increasing the visibility and accessibility of historical data to ICES and the wider scientific community, and conducting interdisciplinary research that improves our understanding of social-ecological change through time and the impacts these changes have had, and continue to have, upon fisheries provision.</p>
Resource requirements	<p>WGHIST will continue consultation with ICES Data Centre staff. Future Data Centre staff attendance will be an asset to WGHIST, but if this cannot be achieved in person, remote connections worked well during the previous iteration and will be leveraged. WGHIST co-chairs will also be contacting SIHD chairs to discuss their interest and ability to attend future meetings, again either in person or remotely. Any assistance ICES can provide for supporting remote access to meetings is greatly appreciated.</p>
Participants	<p>WGHIST predicts attendance of 8-15 group members and guests each year. These will include ecologists, historians, social scientists, economists, policy experts, data analysts working in or connected to historical marine ecology. In addition, we will invite guests in contemporary management and policy, and in the social sciences, who may participate remotely.</p>
Secretariat facilities	<p>None in 2018 or 2019. Meeting rooms and ability for participants to access the meeting at ICES HQ remotely in 2020.</p>
Financial	<p>No financial implications.</p>
Linkages to ACOM and groups under ACOM	<p>WGHIST will actively seek out connections within ACOM for the application of historical ecology work into scientific advice (e.g. stock baselines, change through time, context for IEAs, etc).</p>
Linkages to other committees or groups	<p>Direct support of WKIHSD. Potential links to ACOM, EPDSG, HAPISG, IEASG, SIHD as well as WGBIODIV, WGBFAS, WGEKO, WGMARS, WGMIXFISH, WGRMES, WGSAM, DIG and WGSEDA, depending on interest and availability of committee and group members to join in person or remotely.</p>
Linkages to other organizations	<p>There is interest for the European Commission in regards to MSFD baseline development as well as Integrated Ecosystem Assessments. Participants in the Oceans Past Initiative (OPI) will also be interested in our work and outcomes, and WGHIST will promote connections with this group. Finally, WGHIST has an international participation beyond ICES member countries, including Australia, South Africa, and Italy.</p>
