

Working Group on Cephalopod Biology and Life History (WGCEPH)

2019/FT/EPDSG02 The Working Group on Cephalopod Fisheries and Life History (WGCEPH), chaired by Ana Moreno, Portugal; Daniel Oesterwind, Germany; and Graham Pierce, Spain, will work on ToRs and generate deliverables as listed in the Table below.

	MEETING DATES	VENUE	REPORTING DETAILS	COMMENTS (CHANGE IN CHAIR, ETC.)
Year 2020	2-5 June	by corresp/ webex		physical meeting cancelled - remote work
Year 2021	8-11 June	Online meeting		
Year 2022	June (tbc)	tbc	Final report by DATE to SCICOM	

ToR descriptors

TOR	DESCRIPTION	BACKGROUND	SCIENCE PLAN CODES	DURATION	EXPECTED DELIVERABLES
a	Report on cephalopod fishery status and trends: update, quality check and analyse relevant fishery statistics (landings, directed effort, discards and survey catches).	A core ToR of WGCEPH since the inception of the group. It provides an overview of the current status of cephalopod fishing in the ICES area.	5.1, 5.2	Years 1-3	Fishery status reports (Annual)
b	Review relevant advances in stock identification, stock assessment methods (e.g., use of environmental predictors, development of Management Strategy Evaluation) and fishery management measures. Conduct preliminary assessments of the main cephalopod stocks in the ICES area, based on trends and/or analytical methods <i>inter alia</i> to support the needs of the MSFD reporting.	While catching cephalopods in large-scale fisheries in the EU is essentially unregulated, fishing pressure is increasing. There is a need to to define stocks / management units. Annual assessments will help to identify threats to stock status and are also relevant for MSFD descriptor 3; review of possible management measures will support formulation of advice, should this become necessary.	5.1, 5.2, 6.1	Years 1-3	Stock status reports (Annual); Review of current cephalopod fishery management in the ICES area and possible future options (Y1)
c	Continue to review advances in knowledge of life history and ecology, identifying knowledge gaps and research priorities.	Cephalopods show high variation individual life history and population abundance; understanding this variation is essential to underpin assessment and management. In relation to the ecosystem role of	1.7, 5.2	Years 1-3	Annual report on relevant new knowledge

		cephalopods, few studies consider species interactions other than predation. We also need to better understand the roles of fishing and climate change in determining biodiversity.			
d	Review, develop and recommend tools for cephalopod species identification at all life stages (adults, juveniles, paralarvae and eggs) and update best practice for routine data collection.	Cephalopod species identification in fishery and survey catches remains inconsistent and incomplete. Current standard data collection may be insufficient to support routine assessment. There is a need for easy-to-use regional identification guides (e.g. for fishers, fishery inspectors, buyers, and scientists undertaking sampling).	1.6, 3.2, 5.2	Years 1-3	Updated data collection recommendations (Annual); Plan for ID guides (Y1); New and revised ID guides (Y3)
e	Describe the value chain and evaluate the market drivers of cephalopod fisheries.	More information is needed on the social and economic sustainability of cephalopod fishing.	5.8, 7.2	Years 1-3	Case study reports on Iberian octopus (Y1), English Channel cuttlefish (Y2) and squid fisheries (Y3)
f	Review advances in knowledge on environmental tolerance of cephalopods, develop simple climate envelope models of cephalopod habitat as a potential forecasting aid.	Despite high phenotypic plasticity, cephalopod distribution is limited by extremes of temperature, salinity, dissolved oxygen, etc. and it is expected that climate change will lead to range shifts.	1.3, 1.5, 2.5	Years 1-3	Paper on climate envelopes and forecasting range shifts (Y3)

Summary of the Work Plan

Year 1	Routine reporting on all ToRs. Plan for ID guides (ToR d). Reports on management options (ToR b) and socioeconomics of Iberian octopus fisheries (ToR e)
Year 2	Routine reporting on all ToRs. Report on socioeconomics of English Channel cuttlefish fisheries (ToR e).
Year 3	Routine reporting on all ToRs. Delivery of ID guides (ToR d) and report on socioeconomics of squid fisheries (ToR e). Paper on climate envelope models (ToR f)

Supporting information

Priority	The current activities of this Group will inform ICES about the status of cephalopod stocks and fisheries at a time when fishing pressure is increasing. Cephalopods are not covered by the EU Common Fisheries Policy but there is a need to identify sustainability issues and to be in a position to recommend management actions, should the need arise. Furthermore,
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	<p>the planned preliminary assessments of different stocks can support the MSFD reporting in several member countries. These activities are believed to have a very high priority.</p> <p>ToRs a-d are envisaged as standing ToRs. ToR a is fundamental to support stock assessment (ToR b) and will involve a Data Call. ToR a will also review stock definition, since past preliminary assessments have been based on arbitrary spatial units and there is a need to define more appropriate management units. ToR c provides a review of recent advances in knowledge of cephalopod biology and ecology; improved understanding of life history plasticity, ecological roles and the high year to year variation in abundance remains a priority. ToR d continues efforts to facilitate better routine identification of cephalopod catches to species level.</p> <p>ToR e aims to ensure that social and economic sustainability of cephalopod fisheries are better understood, a key requirement for integrated ecosystem assessment. ToR f addresses effects of ocean warming on cephalopod distribution. Evidently, cephalopods show considerable plasticity, and climate change may also affect larval transport and predator-prey relationships, which will also affect distribution. Nevertheless modelling likely physiological limits to distribution should contribute to forecasting.</p>
Resource requirements	As noted in several previous reports, participation in WGCEPH is limited by availability of funding, especially as many members and potential members are staff of institutions which have no access to “national funds” for attendance at ICES meetings. Although there are no specific resource requirements, funding to assist wider participation would be beneficial.
Participants	Meetings of the Group are normally attended by around 10-15 members and guests, with wider participation via videoconferencing and e-mail.
Secretariat facilities	None.
Financial	No specific financial implications (but see “resource requirements”).
Linkages to ACOM and groups under ACOM	The results of WGCEPH are potentially relevant for advice in the case that formal assessment and management are introduced for any of these species. .
Linkages to other committees or groups	<p>Possible links with ICES groups working on predators of cephalopod (e.g. WGBIE, WGCS, WGMME).</p> <p>WGCEPH would like to encourage improved data collection on cephalopods during trawl surveys. It will make available (e.g. to IBTSWG) detailed diagrams and protocols for identifying cephalopods and collecting biological parameters during the scientific surveys. WGCEPH will provide information to SCICOM and its satellite committees as required to respond to requests for advice/information from NEAFC and EC DG Fish.</p>
Linkages to other organizations	WGCEPH maintains links with ongoing European and national research projects and with the Cephalopod International Advisory Council.