

## Working Group on Cephalopod Biology and Life History (WGCEPH)

**2013/MA2/SSGEF03** The Working Group on Cephalopod Biology and Life History (WGCEPH), chaired by Marina Santurtún, Spain and Jean-Paul Robin, France, will work on ToRs and generate deliverables as listed in the Table below.

|           | MEETING DATES | VENUE                        | REPORTING DETAILS                         | COMMENTS (CHANGE IN CHAIR, ETC.) |
|-----------|---------------|------------------------------|---|----------------------------------|
| Year 2014 | 16-19 June    | Lisbon, Portugal             | Interim report by 1 August 2014 to SSGEPD |                                  |
| Year 2015 | 8-11 June     | Tenerife, Spain              | Interim report by 1 August to SSGEPD      |                                  |
| Year 2016 | 14-17 June    | ICES HQ, Copenhagen, Denmark | Final report by 1 August to SCICOM        |                                  |

## ToR descriptors

| ToR | DESCRIPTION  | BACKGROUND  | SCIENCE PLAN TOPICS ADDRESSED | DURATION         | EXPECTED DELIVERABLES   |
|-----|--|---|-------------------------------|------------------|---|
| a   | Report on status and trends in cephalopod stocks: Update, quality check and report relevant data on: European fishery statistics (landings, directed effort, discards and survey catches) across the ICES area and if feasible in waters other than Europe . Produce and update CPUEs and survey data series for the main cephalopod métiers and species and assess the possibility of their use as abundance indices. Examine the above trends in relative exploitation rates (i.e., catch/survey biomass) to evaluate stock status. Start exploring economic data collected under Data Call. | Data call is part of the justification of this ToR. Discussion of the data collected is important to be hold in a framework of experts. The results of the ToR are an output of this discussion. Some of the outputs consist on the identification of cephalopod stocks to be assessed or even managed, the need of more data (spatial, temporal) and the level of species information required. Thus, the baseline work of the ToR is the result of the data call. |                               | Year 1, 2 and 3  | Peer-review paper in relation to status and trends (Year 3: 2016).                |
| b   | Conduct preliminary assessments of the main cephalopod species in the ICES area. Assess production and/or depletion methods utility, if feasible (YEAR 1). Explore other possible assessment methods if needed (e.g. early season assessment) (YEAR 2). Carry out assessment of species with the methods chosen (YEAR 3).  | Data is being collected with the purpose of assessing the status of cephalopods stocks for Integrated Ecosystem Assessment (IEA).   |                               | Year 1, 2 and 3s | Report on the cephalopods assessed (Year 1: 2014, Year 2: 2015 and Year 3: 2016). |

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| c | Implications of the application of some Policies and Directives on cephalopods: e.g. Implication of the CFP (no discards) on cephalopods exploitation, how this regulation has been applied in other places and how it has affected them; New regulation of Manipulation of Animals for research; Natura 2000, Blue growth (wind farms) | There are no policies or management measures directed to cephalopods but many other pressures and activities would affect them. These directives and policies are essential to assess the ecosystem in its whole (IEA)  | Year 1, 2 and 3 | Report on effects of directives and policies on cephalopod assessment (Year 1: 20145, year 2: 2015 and year 3: 2016)   |
| d | Review data availability for the main cephalopod species in relation to the main population parameters: length distribution, sex ratio, first maturity at age, first maturity at length, growth, spawning season (YEAR 2);  | There is a need to update main population parameters to be able to relate them to the most recent fisheries data collected through Data calls and to assess stock status.   | Year 2          | Peer review paper in relation to population dynamics, biology. . (Year 2: 2015)<br>. Report (and/or first draft) of a methodological paper about sampling resolution for best data collection for each stock/species. (Year 2: 2015)   |
| e | Review and report on cephalopod research results in the ICES area, and if feasible in waters other than Europe, including all relevant aspects of: biology, ecology, physiology and behavior, in field and laboratory studies (YEAR 1, YEAR 2 and YEAR 3)   | Experts should be able to assess population status, and give management advice, if needed, for stocks/populations. Also there is a need for understanding response to stress, factors causing changes in cephalopod abundances and distribution. In this way the expert group will have to be able to inform ICES about population status; dynamics and their relationship with environmental variables; the role of cephalopods in the ecosystem; possible indicators for cephalopods under the MSFD and assessment methods used in commercial cephalopod fisheries. | Year 1, 2 and 3 | Database of scientific articles in relation to the topic worked out every year. This data base will make use of the already existing tools (e.g. Mendelei, Research Gate...). (Year 1: 20145, year 2: 2015 and year 3: 2016)<br>Report. (Year 1: 20145, year 2: 2015 and year 3: 2016) |
| f | MSFD and Integrated Ecosystem Assessment: Relevant MSFD indicators (biodiver-   | There is a need of de-  | Year 1, 2       | Report on MSFD descriptors applica-  |

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|    | <p>sity, community role, exploitation and contaminants) applied to cephalopods.</p>  | <p>pressure of cephalopods under MSFD descriptors and indicators. ToR a address topics in relation to fisheries (exploitation) and ToR e addresses MSFD from the literature review (knowledge base). In this case, ToR f will cover MSFD focused on the applicability of descriptors on cephalopod populations (status) and level of exploitation (pressures). Thus, ToR a, e and f are complementary in this respect.</p>           | <p>ble to cephalopods Year 2014 and Year 2015.</p>   |
| g  | <p>Collect and explore social and economic data (YEAR 2), final analysis (YEAR3).<br/>Data on:</p> <ul style="list-style-type: none"> <li>- Landings in value (total national and cephalopods, species by species),</li> <li>- number of days at sea/days fishing and number of days targeting cephalopods (already collected under ToR a)</li> <li>- number of licenses (total for SSF and cephalopods)*</li> <li>- estimate the number of fishers and vessels involved in cephalopods fisheries**</li> <li>- identify governance measures in place for cephalopods***</li> </ul> | <p>Cephalopods are increasingly important for small-scale fisheries across Europe. Data is being collected with the purpose to assess the socio-economic importance, and dependence on, cephalopods fisheries in Europe, mainly for small-scale artisanal fisheries</p>  | <p>Year 2: 2015 &amp; Year 3: 2016</p> <p>Peer-review paper in relation to socio-economic importance, management and governance of cephalopods in Europe (Year3: 2016)</p> |
| h) | <p>Produce four short paragraphs for the ICES Ecosystem Overviews on the state of cephalopod diversity/populations, one paragraph for each of the following ICES ecoregions: Greater North Sea, Celtic Seas, Bay of Biscay &amp; the Iberian coast and Baltic Sea.</p>   | <p>Each paragraph should be maximum 150 words in length and can be supported by one figure. Paragraphs for each ecoregion should be similar in style and address the overall state and comment on the pressures accounting for changes in state. These will go in section four of the ecosystem overviews and not supposed to be long descriptions, but a short synopsis of important points for managers and policy developers.</p> | <p>Year 2: 2015 &amp; Year 3: 2016</p> <p>Contribution to report on ICES Ecosystem Overviews Year 2015 and update in Year 2016.</p>  |

## Summary of the Work Plan

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|---------------|---|
| Year 1 (2014) | <p>Report on the cephalopods assessed (b)</p> <p>Report on effects of directives and policies on cephalopod assessment (c)</p> <p>Report on scientific articles in relation to the topic worked out every year (e)</p> <p>Report on MSFD descriptors applicable to cephalopods (f)</p>  |
| Year 2 (2015) | <p>Report on the cephalopods assessed (b)</p> <p>Report on effects of directives and policies on cephalopod assessment (c)</p> <p>Peer review paper in relation to population dynamics, biology (d)</p> <p>Report (and/or first draft) of a methodological paper about sampling resolution for best data collection for each stock/species (d)</p> <p>Protocol for setting the database format needed on scientific articles in relation to the topic worked out every year (e)</p> <p>Report on cephalopod application of MSFD descriptors (f)</p> |
| Year 3 (2016) | <p>Peer-review paper in relation to status and trends (a)</p> <p>Report on the cephalopods assessed (b)</p> <p>Report on effects of directives and policies on cephalopod assessment (c)</p> <p>Peer review paper on cephalopod management and alternative proposals to improve it (c)</p> <p>Database on scientific articles in relation to the topic worked out every year (e)</p> <p>Peer review paper on cephalopod application of MSFD descriptors (f)</p>   |

## Supporting information

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| Priority                               | <p>The current activities of this Group will lead ICES into issues related to Cephalopods role in the ecosystem and importance as part of directed and indirected fisheries. Cephalopods are important components of marine ecosystems. Thus, for promoting the sustainable use of the seas and conserving marine ecosystems, cephalopod biology and life history has to be understood. As an example, directed cephalopod fisheries, especially small-scale fisheries, are increasingly important and it is necessary to have in place a useful system of data collection and stock evaluation that would be adequate to support management. These activities are considered. These activities are believed to have a very high priority.</p> |
| Resource requirements                  | <p>As noted in the 2012 report and previously, participation in WGCEPH is limited by availability of funding, especially as many members and potential members are university staff with no access to "national funds" for attendance at ICES meetings. Efforts to attend to the group are acknowledged.</p> <p>The future direction of the group focusing more into assessment would hopefully lead to group to be applicable for DCF funding. The group is willing that effort started in 2010 could be recognised in that way. The additional resource required to undertake additional activities in the framework of this group is negligible.</p>  |
| Participants                           | <p>The Group was reduced in number of attendees from around 15 members and guests to 9 members. In 2013, number of attendees was even reduced to 6 full time attendees. With a strong bias towards participants from the Iberian peninsula. It is desirable that more researcher working on National Fisheries Institution would have the chance to know the group work and participate in it.</p>   |
| Secretariat facilities                 | None.  |
| Financial                              | No financial implications.   |
| Linkages to ACOM and group: under ACOM | <p>There are obvious direct linkages with assessment groups WGHMM, WGCS as cephalopods are caught in stocks/fisheries considered in those groups. Also WGNEW has a linkage to this group.</p> <p>PGCCDBS</p> <p>IBTSWG</p>   |

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Provision of information to SciCom and its satellite committees as required to respond to requests for advice/information from NEAFC and EC DG Fish.

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Linkages to other committees c There is a starting working relationship with WGCRAON as a common workshop on the  
groups nned of assessment and management on cephalopods and cragon will be deployed in  
October 2013. It is also a relevant linkage with groups under SCICOM.

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Linkages to other organization

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