# WGIPS – Working Group of International Pelagic Surveys

**2014/MA2/SSGIEOM22**

The **Working Group of International Pelagic Surveys** (WGIPS), chaired by Matthias Schaber, Germany, and Bram Couperus, the Netherlands, will meet to work on ToRs and generate deliverables as listed in the Table below.

|  | MEETING DATES | VENUE | REPORTING DETAILS | COMMENTS (CHANGE IN CHAIR, ETC.) |
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| Year 2016 | 18–22 January | Dublin, Ireland | Interim report by 5 March 2016 to SSGIEOM, SCICOM & ACOM | |
| Year 2017 | 16–20 January | Reykjavik, Iceland | Final report by 6 March 2017 to SSGIEOM, SCICOM & ACOM | |
| Year 2018 | 15–19 January | Amsterdam, the Netherlands (tbc) | Final report by 2 March 2018 to EOSG, SCICOM | |

## ToR descriptors

| ToR | Description | Background | Science Plan topics addressed | Duration | Expected Deliverables |
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| a | Combine and review annual ecosystem survey data to provide: indices of abundance and spatial distribution for the stocks of herring, sprat, mackerel, boarfish and blue whiting in Northeast Atlantic waters. | a) Advisory Requirements b) Requirements from other EGs | Goal 3 | years 1–3 | Survey reports containing indices of stock biomass and abundance at age, spatial distributions, zooplankton biomass, and hydrographic conditions. HAWG WGWIDE |
| b | Coordinate the timing, area and effort allocation and methodologies for individual and multinational acoustic and larvae surveys on pelagic resources in the Northeast Atlantic waters covered (Multinational surveys: IBWSS, IESNS, IESSNS, HERAS, IHLS and individual surveys: CSHAS, BFAS, ISAS, PELTIC, GERAS). | a) Science Requirements b) Advisory Requirements c) Requirements from other EGs | Goal 1 & 3 | years 1–3 | Cruise plans for international and individual surveys. HAWG WGWIDE |

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| c | Adopt standardized analysis methodology and data storage format utilizing the ICES pelagic database repository for all acoustically derived abundance estimates of WGIPS coordinated surveys | a) Science Requirements b) Advisory Requirements | Goal 3, 4 & 5 | years 1–3 | Common acoustic database for WGIPS coordinated surveys; Common analysis tools for acoustic and trawl data from WGIPS coordinated surveys including software scripts to produce results in common formats WKEVAL |
| d | Periodically review and update the WGIPS acoustic survey manual to adress and maintain monitoring requirements for pelagic ecosystem surveys | a) Science requirements b) Advisory requirements | Goal 3 | years 1–3 | Updated WGIPS survey manual. |
| e | Review and evaluate survey designs across all WGIPS coordinated surveys to ensure the integrity of survey deliverables | a) Science requirements b) Advisory Requirements c) Requirements from other EGs | Goal 3 | years 1–3 | Optimal sampling designs and precision estimates for the different surveys as a measure of survey quality. HAWG WGWIDE |
| f | Assess and compare scrutinisation procedures employed for the analysis of raw acoustic data from WGIPS coordinated surveys | a) Science requirements b) Advisory requirements | Goal 3 | year 1 | Documented standardized scrutinisation recommendations; Update of survey manual to adress and maintain monitoring requirements for pelagic ecosystem surveys. WKSCRUT |
| g | Develop alternative analysis methods (e.g. using geostatistics) to monitor the pelagic ecosystem by extracting metrics from the collected survey data other than those requirted for single-species stock assessments | a) Science requirements b) Advisory requirements | Goal 1 & 3 | years 1–3 | Manuscripts and working documents. |

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| h | Assess auxilliary pelagic ecosystem surveying technology (e.g. optical technology, multibeam and wideband acoustics) to: (i) achieve monitoring of different ecosystem components, and/or (ii) derive ecosystem indicators from surveys covered by WGIPS | a) Science Requirements b) Advisory Requirements c) Requirements from other EGs | Goal 1 & 3 | years 1–3 | Overview of possible ecosystem indicators that can be derived from WGIPS surveys; and protocols/recommendations for practical implementation of auxiliary pelagic surveying technoologies. |
| i | Develop and refine methods to derive stock- or spawning component-specific survey indices for herring based on biological criteria (e.g. otolith shapa analysis or morphometric measurements) | a) Science Requirements b) Advisory Requirements c) Requirements from other EGs | Goal 1 & 3 | years 1–3 | Provide survey indices of stock biomass and abundance at age for herring in the North Sea and areas 3a and 6a, separated by spawnign component/stock based on biological criteria. |

## Summary of the Work Plan

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| **Year 1** | General meeting, preceded by 3 post-cruise meetings which collate data of multinational surveys. Workshop to evaluate and develop joint methods from current participant-specific acoustic abundance estimation methods used in the HERAS surveys (WKEVAL). Workshop to standardize scruitinisation procedures for pelagic ecosystem surveys covered by the WG (WKSCRUT). Session to familiarise WG members with the use of the new standardized acoustic survey analysis tool (StoX) and data storage format from the ICES pelagic database repository. Session to review and evaluate survey designs across all WGIPS coordinated surveys done in Year 1; and coordinate planning and discuss designs for surveys taking place in Year 2. Session to review and provide possible updates for the WGIPS acoustic survey manual. Session to: (i) explore alternative analysis methods (e.g. geostatistics); and (ii) assess and document auxilary pelagic ecosystem surveying methodology (e.g. optical technology, multibeam and wideband acoustics), in order to monitor components of the wider ecosystem and derive ecosystem indicators from surveys covered by WGIPS. Session to review and adapt stock and spawning component splitting methods applicable to herring in the North Sea, and areas IIIa and Via; and plan methods used on surveys in Year 2 accordingly. Contributing to Session C "Ecosystem Monitoring in Practice" at the 2015 ICES ASC through active involvement of WG members as session convener and presenters. Contributing a paper analysing the HERAS survey time-series to the ICES Symposium on "Marine Ecosystem Acoustics (SOMEACOUSTICS). Submission of a manuscript on blue whiting distribution from the WGIPS survey time-series to a peer reviewed Journal. |

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| **Year 2** | General meeting, preceded by 3 post-cruise meetings which collate data of multinational surveys. |
| | Session to review and evaluate survey designs across all WGIPS coordinated surveys done in Year 2, and coordinate planning and discuss designs for surveys taking place in Year 3. |
| | Session to exchange experiences and analyse progress with the use of the new standardized acoustic survey analysis tool (StoX) and data storage format from the ICES pelagic database repository. |
| | Session to compare and evaluate scrutinisation of Year 2 survey databased on the standardized procedures developed in WKSCRUT. |
| | Session to review and provide possible updates for the WGIPS acoustic survey manual. |
| | Session to review and adapt stock and spawning component splitting methods applicable to herring in the North Sea, and areas IIIa and Via; and plan methods used on surveys in Year 3 accordingly. |
| | Session to draft a manuscript on an example of alternative analysis methods (e.g. geostatistics) used with WGIPS survey data. |
| | Session to analyse progress and draft recommendations for auxiliary pelagic ecosystem surveying methodology (e.g. optical technology, multibeam and wideband acoustics) for monitoring components of the wider ecosystem in surveys covered by WGIPS. |
| | Session to draft a list of potential ecosystem indicators to be measured during WGIPS surveys. |
| **Year 3** | General meeting, preceded by 3 post-cruise meetings which collate data of multinational surveys. Session to review and evaluate survey designs across all WGIPS coordinated surveys done in Year 3. |
| | Session to analyse progress with the use of the new standardized acoustic survey analysis tool (StoX) and data storage format from the ICES pelagic database repository. |
| | Session to review and provide possible updates for the WGIPS acoustic survey manual. |
| | Session to review and adapt stock and spawning component splitting methods applicable to herring in the North Sea, and areas IIIa and Via used on surveys in Years 1–3. |
| | Session to evaluate progress to draft a manuscript on an example of alternative analysis methods (e.g. geostatistics) used with WGIPS survey data. |
| | Session to update recommendations for auxiliary pelagic ecosystem surveying methodology (e.g. optical technology, multibeam and wideband acoustics) for monitoring components of the wider ecosystem in surveys covered by WGIPS. |
| | Session to evaluate progress in listing potential ecosystem indicators to be measured during WGIPS surveys. |

## Supporting information

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| Priority | The Group has a very high priority as its members have expertise in design and implementation of larval and acoustic-trawl surveys, including sampling of additional ecosystem parameters. It will therefore directly contribute to the implementation of integrated pelagic ecosystem monitoring programmes in the ICES area. The Groups core task is the standardization, planning, coordination, implementation, and reporting of acoustic and larvae surveys for main pelagic fish species herring, sprat, blue whiting, mackerel, and boarfish in Northeast Atlantic waters. The work provides essential data in the form of survey indices to WGWIDE and HAWG in the aim to perform integrated ecosystem assessment. |
| Resource requirements | The research programmes which provide the main input to this group are already underway, and resources are already committed. The additional resource required to undertake additional activities in the framework of this group is negligible. |
| Participants | The Group is normally attended by some 20–25 members and guests. |
| Secretariat facilities | None. |

| Financial | No financial implications. |
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| Linkages to ACOM and groups under ACOM | WGWIDE, HAWG |
| Linkages to other committees or groups | There is a very close working relationship with other groups in EOSG, especially relevant links to WGACEGG, WGALES, WGBIFS, WGFAST, WGFTFB, WGISDAA, WGISUR, WGMEGS, WGTC, WGINOR, WGINOSE, WGIAB, WKEVAL, WKMSMAC2, WKSCRUT, WKSUREQ |
| Linkages to other organizations | EU H2020 project 'AtlantOS' |