

**Working Group entitled “Towards a EUROpean OBServatory of the non-indigenous calanoid copepod *Pseudodiaptomus marinus*” (WGEUROBUS)**

**2018/MA2/EPDSG04** A Working Group entitled “Towards a EUROpean OBServatory of the non-indigenous calanoid copepod *Pseudodiaptomus marinus*” (WGEUROBUS), chaired by Marco Uttieri, Italy, and Arantza Iriarte, Spain, will be established and will work on ToRs and generate deliverables as listed in the Table below.

|           | MEETING DATES | VENUE                       | REPORTING DETAILS                     | COMMENTS (CHANGE IN CHAIR, ETC.)         |
|-----------|---------------|-----------------------------|---------------------------------------|--|
| Year 2019 | 14–15 October | Peniche, Portugal           |                                       |  |
| Year 2020 | 28–29 October | online meeting/ by corresp. |                                       | physical meeting cancelled - remote work |
| Year 2021 | 26–27 October | Online meeting              | Final report by 10 December to SCICOM |  |

**ToR descriptors**

| ToR | DESCRIPTION   | BACKGROUND   | <a href="#">SCIENCE PLAN CODES</a> | DURATION  | EXPECTED DELIVERABLES   |
|-----|---|--|------------------------------------|-----------|---|
| a   | Compile and analyse data on the geographical distribution, seasonal patterns and interannual variations of <i>Pseudodiaptomus marinus</i> in European waters. | <i>Pseudodiaptomus marinus</i> was first observed in European waters in 2007, and it has since been expanding relatively rapidly in European waters, reaching transitional, coastal, as well as oceanic environments. Much of the information on its occurrence, though, is still unpublished and a clear view of the spatial and temporal distribution of this species in Europe is lacking. Thus a need to compile data and update the geographical distribution, seasonality and interannual variations of this species in European waters has been identified. Furthermore, the analysis of the spatial and temporal variations will be very useful to understand which are the environmental conditions that favor the establishment of this alien species. | 1.3; 1.9                           | Years 1-2 | Peer-reviewed publication   |
| b   | Identification of key ecological, biological and behavioural traits of <i>Pseudodiaptomus marinus</i> .   | The identification of the ecological, biological and behavioural traits of this species will help to understand its successful colonization of different types of environments and will provide vital information to establish its potential uses.   | 1.7                                | Years 1-3 | A database compiling known traits for <i>P. marinus</i> in different environments in European waters.<br><br>Manuscript/Conference presentation |
| c   | Molecular   | Molecular characterization is a useful tool  | 4.4                                | Years 1-3 | Establishment of a  |

|   |  |  |     |           |   |
|---|--|--|-----|-----------|---|
|   | identification of <i>Pseudodiaptomus marinus</i> strains occurring in different environments in European waters. | to identify the geographic origin of <i>Pseudodiaptomus marinus</i> genotypes present in European waters. Genomics and transcriptomics analyses may help to understand the apparent versatility regarding the environmental conditions in which it can live.   |     |           | repository of European voucher specimens preserved according to a commonly agreed protocol, to be used for comparative studies. |
|   |  |  |     |           | Manuscript/Conference presentation  |
| d | Investigate the possible dormancy strategies of <i>Pseudodiaptomus marinus</i> .                                 | <i>Pseudodiaptomus marinus</i> has no documented resting stages, however recent data point at the potential adoption of dormancy strategies to overcome unfavourable conditions. The exploration of this topic will shed light on possible biological adaptations used to increase the invasiveness of this species. | 1.7 | Years 1-3 | Manuscript  |

### Summary of the Work Plan

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|--------|---|
| Year 1 | The group will deal with all of the ToRs during the Year 1 (with various degrees of intensity).                     |
| Year 2 | The group will continue with all of the ToRs and we expect that two of those will be completed during Year 2 (a, b) |
| Year 3 | The group will focus on completion of the remaining ToRs (c, d)   |

### Supporting information

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|--|---|
| Priority                               | Biological invasions represent a serious threat to aquatic ecosystems, and are presently a major issue in the scientific community. Among non-indigenous copepods, the calanoid copepod <i>Pseudodiaptomus marinus</i> , native to the Indo-Pacific, has been increasingly reported in European waters since 2007. This species is particularly well-suited to serve as a model organism for ecotoxicological studies, and is amenable to experimental rearing.<br>The participants will constitute a network to explore joint initiatives to study the different aspects of the biology and ecology of <i>P. marinus</i> . |
| 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                           | Approximately 30 participants expected  |
| Secretariat facilities                 | None.   |
| Financial                              | No financial implications.  |
| Linkages to ACOM and group under ACOM  | There are no obvious direct linkages.   |
| Linkages to other committees or groups | This workshop is directly related to research and advisory goals of several EPDSG EGs, including the Working Group on Integrative Morphological and Molecular Taxonomy (WGIMT) and Working Group on Zooplankton Ecology (WGZE). There are also direct linkages with HAPISG EGs, including the Working Group on Introductions and Transfers of Marine Organisms (WGITMO) and Working Group on Ballast and Other Ship Vectors (WGBOSV).   |

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Linkages to other organizations

The work of this group is potentially aligned with similar work by the Intergovernmental Oceanographic Commission of UNESCO (IOC) and the International Maritime Organization (IMO).

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