

2021/WK/HAPISG17 The **Workshop to scope assessment methods to set thresholds and assess adverse effects on seabed habitats (WKBENTH2)**, chaired by Dave Reid (Ireland), Daniel van Denderen (USA), and Jan Geert Hiddink (UK), will be established and will meet in Copenhagen, Denmark, 24-26 May and 8-10 June 2022 to:

- a) Establish a set of criteria that can be used to evaluate the suitability of regional indicators/assessment methods to assess adverse effects on seabed habitats for MSFD purposes
- b) Review methods and criteria to set thresholds of adverse effects on seabed habitats, and suggest operational options that can be illustrated using worked examples
- c) Suggest quantitative and qualitative ways to evaluate and compare the suitability and performance of indicators/assessment methods
- d) Provide input to a draft compilation of regional indicators/assessment methods to set threshold and assess adverse effects on seabed habitats

WKBENTH2 will report by 24 June 2022 for the attention of the Advisory Committee.

Supporting information

Priority	High, in response to the stepwise process of delivering guidance on seafloor integrity for the Marine Strategy Framework Directive (MSFD). The workshop outputs will feed into ICES WGFBIT and the ongoing efforts to provide guidance on assessment methods to set thresholds and assess adverse effects on seabed habitats in the operational implementation of the MSFD.
Scientific justification	<p>Term of Reference a)</p> <p>ICES has previously produced criteria on what makes a good indicator, in general (e.g. WGECO, Rice and Rochet 2005) and specifically for assessing the status of seafloor habitats (WKBENTH 2017). Criteria should facilitate an evaluation on the suitability and shortcomings of any proposed indicators for MSFD assessment purposes, reflecting their performance to assess the parameters specified in Commission Decision (EU) 2017/848 on the condition of seabed habitats and the adverse effects of key pressures. Criteria should take into account the indicators' applicability across MSFD broad habitat types (or subtypes) and their suitability for large sea areas (i.e., all marine waters of MS, marine regions or subregions).</p> <p>Term of Reference b)</p> <p>TOR b will suggest criteria on how to set thresholds and review potential methods that can be used to identify values (or ranges of values) for the indicators which would distinguish a habitat in good condition from the one which is adversely affected or lost (in general or by specific pressures) to set thresholds. This should, for example, reflect on whether there is a linear or non-linear response of the habitat to particular pressures. Options for setting thresholds will take the recent work by EU's TG SeaBed on <i>threshold values for adverse effects on habitat condition (D6C5) and for the maximum allowable extent of habitat loss (D6C4) and of adverse effects (D6C5)</i> as far as possible into account. Ref. document GES_26-2022-13.</p> <p>Term of Reference c)</p> <p>Suggest options on how to quantitatively and qualitatively evaluate and compare the suitability and performance of indicators/assessment methods. This may include identifying data sources (i.e. via TG Seabed), in order to evaluate the performance of selected (reviewed) indicators, in</p>

relation to their ability to assess the state/condition of seabed habitats and adverse effects from specified pressures. Proposed analytical ways to compare methods should ensure that the suitability and shortcomings of the indicator for MSFD assessment purposes at national and regional scales can be evaluated in WKBENTH3 (3-7 October 2022).

Term of Reference d)

ICES appointed experts will compile a detailed review of indicators that can be or are used in seabed habitat assessments. TOR d gives WKBENTH2 the opportunity to provide input towards this compilation. This detailed review provides an overview of indicators used, or under development, by Regional Sea Conventions (RSC), Member States and ICES, for assessing the state/condition of seabed habitats suitable for MSFD assessments. This should include indicators based on both direct observational data and on models. The indicators considered can also include peer-reviewed indicators which have large-scale application. The review should specify the input data, how it is processed, the parameters of habitat quality used, how quality is quantified, any threshold values used, the applicable seabed (habitat) and pressure types, how the output is expressed, and how confidence and uncertainty are handled.

Resource requirements	ICES secretariat and advice process.
Participants	Workshop with researchers and RSCs investigators. If requests to attend exceed the meeting space available ICES reserves the right to refuse participants. Choices will be based on the experts' relevant qualifications for the Workshop. Participants join the workshop at national expense.
Secretariat facilities	Data Centre, Secretariat support and meeting room.
Financial	Covered by DGENV special request.
Linkages to advisory committees	Direct link to ACOM.
Linkages to other committees or groups	Links to HAPISG and SCICOM.
Linkages to other organizations	Links to RSCs and EC.
