A cross-regional comparison of non-indigenous species indicators: problems and opportunities for a common assessment

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Trends in abundance, temporal occurrence, spatial distribution of non-indigenous species (NIS), ratio between invasive NIS and native species and impacts of NIS are indicators which assessment is required under descriptor D2 - Non-indigenous species introduced by human activities are at levels that do not adversely alter the ecosystem of the European Marine Strategy Framework Directive. Although most European Member States have delivered the initial assessment and monitoring programmes reports, these are substantially heterogeneous. Inconsistencies on the use of indicators were examined within and between ecoregions as a baseline to evaluate sensitivity/certainty of estimates of the environmental status based on descriptor D2. This cross-regional comparison of NIS indicators emphasized the need for an integrated approach between member states that ensures the use of shared databases across regions, the intercalibration of methods and criteria for the use of indicators and a common effort for the development of research on NIS impacts. Some guidelines on the criteria used to assess environmental status based on D2 indicators are recommended by the ICES Working Group on Introduction and Transfers of Marine Organisms.