

ICES/PICES 6ZPS 2016/W1

Status of pelagic habitats in Scottish coastal waters: an application of the UK plankton index

Kathryn Cook, Eileen Bresnan, John Fraser, Sheila Fraser, Susan Robinson, Lyndsay Brown and Pablo Diaz.

Marine Laboratory, Marine Scotland Science, Aberdeen, UK

The EU Marine Strategy Framework Directive (MSFD) requires Member States to achieve Good Environmental Status (GES) in their marine waters by 2020. Plankton play a key trophic role in marine systems and an assessment of the state of the plankton community is required to determine if it is in GES. Marine Scotland Science operate two sentinel monitoring stations for the MSFD in UK waters: Loch Ewe on the west coast and Stonehaven on the east coast of Scotland. Environmental variables and the plankton community have been monitored on a weekly basis at these sites for 12 and 16 years respectively. These monitoring data reveal differences in the composition and seasonality of the plankton community at both sites. Using the MSFD plankton life form and state space indicator approach proposed by the UK, an assessment will be made to see how these differences in the plankton community are reflected in the indicators and subsequent determination of GES. The indicators that provide information on four different descriptors (D1 biological diversity, D4 food webs, D5 eutrophication and D6 seafloor integrity) will be presented.

Keywords: Marine Strategy Framework Directive, lifeform indicator, state space, Good Environmental Status, Scotland

Contact author: Kathryn Cook, Marine Scotland Science, Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB, UK, Kathryn.Cook@gov.scot