

Interactive comment on “Marine monitoring in Europe: is it adequate to address environmental threats and pressures?” by Suzanne J. Painting et al.

Sander Wijnhoven (Referee)

sander.wijnhoven@ecoauthor.net

Received and published: 5 September 2019

Review 'Painting et al' OS-2019-75: By Sander Wijnhoven (Ecoauthor; www.ecoauthor.net) 5 Sept 2019

Marine monitoring in Europe: is it adequate to address environmental threats and pressures?

Suzanne J. Painting, Kate A Collingridge, Dominique Durand, Antoine Grémare, Veronique Créach, Christos Arvanitidis, Guillaume Bernard

The paper of Painting et al. (Marine monitoring in Europe: is it adequate to address

C1

environmental threats and pressures?) gives a nice overview of the results of an inventory to identify whether current marine monitoring is sufficient to address environmental threats and pressures. This is an important question that should in the first place be asked by national governments and in the second place by those driving policy concerning marine environmental health by the EU (responsible Directives) and Regional Seas Conventions. Although the answer is not really a surprise (current monitoring of threats is partially adequate or not adequate); it is good to have it verified, to see where the major points of concern are, and to use this paper as one of the starting points for improvement. Although there are a few aspects (basically terminology and points of discussion as indicated below) that could/should be clarified, the methodology seems to be solid and transparent. The paper is generally well written and well structured.

P1-L18-19 (Abstract): 'Regime shift was identified as a pressure ...'. - Is regime shift a pressure or the effect of a pressure, which might have an impact on itself?

Ok, I learn from the questionnaire that changes in temperature or salinity conditions are meant and not necessarily 'regime shifts' as "large, abrupt, persistent changes in the structure and function of a system". Thermal pollution or salt or freshwater discharge is definitely a pressure. Changes in thermal or salinity condition can also be effect of extractions, obstructions, global change, etc., and there with an impact. Clarify 'regime shift' as used here and elsewhere.

(The file with the supplementary material referred to is (still) named 'What is your gender'. – Please change the file-name.

P1-L19-L23: What is the difference between the main impacts and the key impacts; is it possible that those key impacts are actually effects of impacts? Clarify 'key impacts' as used here and elsewhere.

P8-Ch3.1: Talking about 36 responses you mean '36 individuals who filled in form S1', that probably came with in total a huge amount of forms S2 and S3 I guess? How do you prevent getting a skewed/biased view on the theme as for instance almost 40% of

C2

the responses is from the UK? It seems that it is via working with 'national responses' as I gradually start to understand. Is there a pattern in the number of pressures or impacts identified per country with the number of responses per country than?

P8-L198: '100% of the national responses' – What does this mean? Are there responses considered not national (e.g. from researchers/people not working for the government)? Or does this mean that when one of the responses from a country includes the pressure (independent of the number of responses), it is considered to be identified for that country?

P13-Ch3.4.1: 'Responses to the questionnaire indicated that marine monitoring programmes provide less coverage of biological parameters than physical water column parameters and chemical parameters.' – Is this indeed the result per programme? Then the question arises about coverage (does monitoring take place at the same scale or with similar numbers of stations, or are there singular programmes covering large areas compared to several few station programmes for other aspects)? Is the presence or absence of monitoring of certain parameters at a national-subregional sea (or finer scale) level not a better indicator? Or are we only talking platform-based monitoring? Please discuss this?

P16-L358: Talking about percentages based on only 6 cases is a bit strange (17% is one respondent); at least do both.

P17-L372: 'Figure 133' should be 'Figure 13'. P26-L642-643: 'Such monitoring programmes would require considerable effort, highlighting the need to define/characterize relevant environmental'. - What do you mean?

Interactive comment on Ocean Sci. Discuss., <https://doi.org/10.5194/os-2019-75>, 2019.