



Evidence requirement R083: Approaches to maintaining knowledge on location of ephemeral features

1. Requirement overview:

Requirements	An approach to provide and update the location and distribution data for patchy or ephemeral protected species and habitat features.
Requirement detail	<p>An important component of managing impact is clarifying the presence of sensitive features. Traditional methods of determining the location of features provide a snapshot of distribution. For the majority of features, this snapshot remains representative for extended time periods.</p> <p>Some features however, are characterised by high variability with spatially patchy distributions, temporal instability and/or large natural fluctuations in local populations such that they may be present at a location only for a short period of time (ephemeral). Examples include Sabellaria reef, blue mussel beds, pink sea fan and mobile habitats like sandbanks.</p> <p>At present the MMO receives advice from statutory nature conservation bodies on a case by case basis. MMO can also receive or require information from developers in the form of an environmental statement or survey results if a need can be identified in advance. This generally requires reactive responses from applicants and managers.</p> <p>High variability makes attribution of impacts challenging. The MMO therefore seeks approaches to provide and maintain up to date knowledge of the distribution of mobile and ephemeral protected features.</p>
MMO use	<p>Marine Licensing:</p> <p>Required to improve the transparency and consistency of decision-making and support proactive consideration of ephemeral species.</p> <p>Marine Planning:</p> <p>Information on the distribution and protection of important species will help support the development of marine plan policy or inform others on policy implementation. Data has the potential to support the evaluation of existing marine plans.</p>

External interest	Natural England, Joint Nature Conservation Committee, Environment Agency, Department for Environment, Food and Rural Affairs,
Delivery target	Ongoing for licensing, Q4 2018 for Marine Planning to inform the 3 rd iteration of marine plans

2. Aims and objectives

Aim:

To better describe the location of patchy and ephemeral marine species, such as pink sea fan, including increasing timeliness of data, given the mobility of the species covered.

Objectives:

Objectives to deliver this requirement include to

- improve use of new data generated on the location of ephemeral features by diverse organisation under different purposes
- enhance timeliness of recording and access to existing data on the location of ephemeral features
- develop proactive approach to maintaining update the location / distribution data for patchy or ephemeral protected features

3. Existing evidence

MMO	The MMO has not produced any research in this area.
Academic	<p>Pearce et al (2014) mapped Sabellaria spinulosa reefs using high-resolution side scan sonar and multibeam echo soundings showing changes in both location and extent of S. spinulosa distribution and extent between the baseline surveys prior to wind farm development, confirming the species ephemeral nature, and highlighting impact assessment challenges</p> <p>Pikesley et al (2016) draw on volunteer-based marine survey programme ('Seasearch') for describing the spatial distribution and relative abundance of pink sea fan colonies throughout southwest UK coastal waters demonstrating the utility of well-organised citizen science data collection</p>
Other	<p>Natural England Research Report 065 (2016) Tested a methodology based on identification of areas that consistently support reef within the Wash and North Norfolk Coast Special Area of Conservation. This was evidenced by existing datasets with the highest confidence to inform management of damaging and potentially damaging activities.</p>

	<p>The Crown Estate reports on the ecological function and value of Sabellaria reef habitats, but did not address the ephemeral nature or temporal dynamics of reef habitat.</p> <p>Environmental statements (available by project through the MMO public register) can include consideration of ephemeral species</p> <p>Regional Environmental Characterisations by the Marine Aggregate Levy Sustainability Fund describe the current location of Sabellaria in the Characterisation areas for example identifying Sabellaria spinulosa reefs locally within the East Coast Regional Environmental Characterisation. Coverage is restricted to areas in proximity of aggregates extraction licences and so concentrated in the south and east of England. The issue is that the information is dispersed and patchy data therefore add to the complexity of maintaining timely records for ephemeral species</p>
--	---

4. Current activity

MMO works on a case by case basis with statutory nature conservation bodies to appropriately manage impacts on ephemeral species. Applications for a marine license are supported by Environmental Statements and survey results where appropriate.

5. Associated evidence requirements

Ref	Title
R023	The distribution and condition of protected species and habitats in English waters.

More information on this evidence requirement is available [here](#).

6. Potential delivery route

The MMO will undertake **Knowledge Exchange** across organisations that collect data on, or advice regarding ephemeral features. These include statutory nature conservation bodies that provide advice on such features and developers that may generate data on location of features such as renewables or aggregates industries seeking ways organisations to meet MMO needs. The MMO will undertake **Partnering** with relevant organisations to improve the storage and access to data in the most proportionate way.

7. Contact

For more information or to add further research to the existing evidence list please email evidence@marinemanagement.org.uk.

Table 1: Delivery timescales 2017 to 2020

Delivery Route	2017				2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Partnering								***								
Influencing the research of others								***								

Key

	No activity
	Actively undertaking
	Outside of delivery target

*** Planning team delivery timescale