

The status of *Sabellaria spinulosa* reef off the Moray Firth and Aberdeenshire coasts

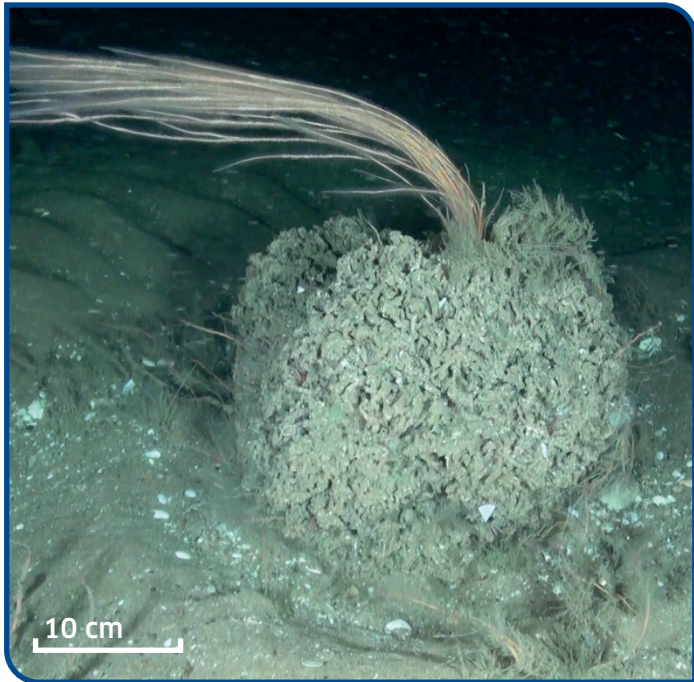


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FIGURE 1. Newly discovered *Sabellaria spinulosa* reef 'bommie' habitat

FIGURE 2. *Ophiactis balli* and other marine fauna living in and on the newly discovered *Sabellaria spinulosa* reef 'bommies'

Introduction

Sabellaria spinulosa is a gregarious tube dwelling marine polychaete that is known to form extensive reef habitats across Europe. The reef habitats formed by *S. spinulosa* provide an important habitat to a variety of marine fauna and are thought to provide key ecosystem services including the provision of important feeding and nursery grounds for some fish species. *S. spinulosa* reefs have been identified as a priority for protection under the OSPAR Convention for the Protection of the Marine Environment of the North East Atlantic and Annex I of the Habitats Directive, in part due to the recognised decline in this habitat across Europe. Until recently, there was little evidence that this habitat occurred in Scottish waters.

However, *S. spinulosa* aggregations with reef-like properties have recently been observed in data collected through a variety of sources from the east coast of Scotland. Video, still images and ROV clips collected from five such surveys were analysed comprehensively to determine the status of the *S. spinulosa* reefs on the east coast of Scotland and to develop guidance for the future conservation of this habitat in this region.

Key findings

Existing *S. spinulosa* 'reefiness' criteria developed by the Joint Nature Conservation Committee were applied to seabed imagery data collected from five sites on the east coast of Scotland (see

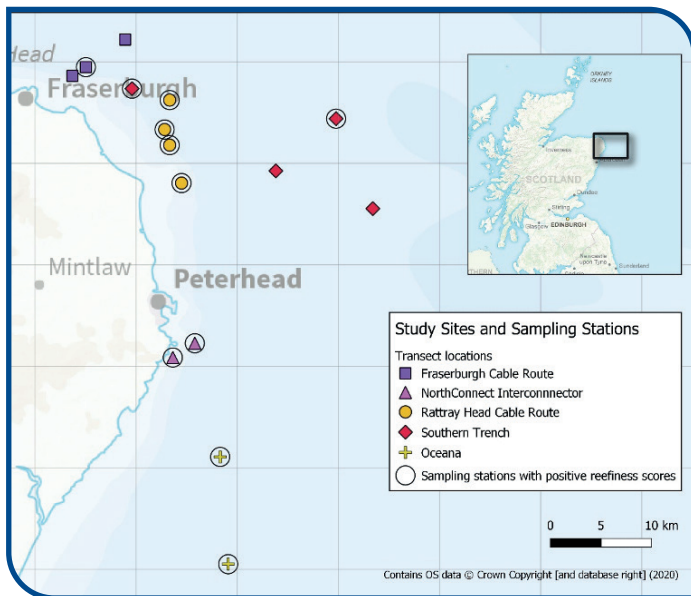


FIGURE 3. Study sites and sampling stations on the east coast of Scotland

Figure 3). Four of the five sites were found to support significant areas of reef measuring up to 0.62 km² in extent, with the best examples being identified at the Rattray Head and Southern Trench study sites (see Figure 4). A new and unique *S. spinulosa* reef habitat was identified at the fifth site surveyed during an *Oceana* research cruise. *S. spinulosa* aggregations in this area are limited in their extent by the available substrate with well-developed reef clumps (analogous to coral reef ‘bommies’ in the tropics) occurring on isolated cobbles and boulders, in an otherwise fairly featureless soft bottom habitat (see Figure 1). These reef ‘bommies’ were found to support a high diversity of epifauna including high numbers of the brittle star *Ophiactis balli* which was found to be living within the crevices of the reef structure itself, with only its arms visible from the surface (see Figure 2).

Detailed analysis of the reefs on the east coast of Scotland have been used to critique existing reefiness criteria and to provide recommendations regarding the future



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FIGURE 4. *Sabellaria spinulosa* reef at Rattray Head

conservation and management of *S. spinulosa* reefs in Scotland.

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Read the report: [The status of sabellaria spinulosa reef off the Moray Firth and Aberdeenshire coasts and guidance for conservation of the species off the Scottish east coast](https://doi.org/10.7489/12336-1) (<https://doi.org/10.7489/12336-1>)