

DCE comments to OSPAR POCH Assessment, Coral Gardens: 2021 status assessment, sheet BDC2021/coral_gardens

Scientific briefing from DCE – Danish Centre for Environment and Energy

Date: 20 December 2021 | 93



AARHUS
UNIVERSITY

DCE – DANISH CENTRE FOR ENVIRONMENT AND ENERGY

Data sheet

Scientific briefing from DCE – Danish Centre for Environment and Energy

Category: Scientific briefing

Title: DCE comments to OSPAR POCH Assessment, Coral Gardens: 2021 status assessment, sheet BDC2021/coral_gardens

Author: Karsten Dahl
Institution: Department of Ecoscience

Referee: Peter Henriksen
Quality assurance, DCE: Kirsten Bang
Linguistic QA: Theresa Elias

Claimant: Ministry of Environment

Please cite as: Dahl, K. 2021. DCE comments to OSPAR POCH Assessment, Coral Gardens: 2021 status assessment, sheet BDC2021/coral_gardens. Aarhus University, DCE - Danish Centre for Environment and Energy, 8 pg. – Scientific briefing no. 2021|93
https://dce.au.dk/fileadmin/dce.au.dk/Udgivelser/Notater_2021/N2021_93.pdf

Reproduction permitted provided the source is explicitly acknowledged

Front page photo: The soft coral *Alcyonium digitatum* at the boulder reef Lasø Trindel

Number of pages: 8

Contents

1	Introduction	4
2	Corals on hard bottom in Danish waters (North Sea, Skagerrak and Kattegat)	5
2.1	Soft coral	5
2.2	Hard coral	6
3	Threats and impacts part (Hard bottom habitats)	7
4	Protection	8

1 Introduction

At the request of the Ministry of Environment this scientific briefing reflects DCE's view on a draft assessment on "Coral Gardens" as part of the OSPAR POCH Assessment.

General reflections:

The term "coral garden" should be defined in the assessment, preferably with reference to a background paper.

Moreover, the following issues should be reflected:

- Does the assessment include all sorts of coral on hard and soft bottom?
- How abundant (dominant) should corals be to be included as a "garden"?
- The (fishery) pressure on soft and hard bottom is likely VERY different, even though soft and hard bottom corals exist in the same area. Will the assessment separate the two bottom types?

The following comments are restricted to hard bottom corals.

2 Corals on hard bottom in Danish waters (North Sea, Skagerrak, and Kattegat)

The following text is relevant for updating figure 1 with soft corals and hard corals. The information is extracted from the database covering the Danish national reef monitoring program.

Registration of coral cover is part of the Danish National reef monitoring program. This program is conducted at reef sites (habitat type 1170) or the “bubbling” reef sites (type 1180) being part of the designation of a number of Natura 2000 sites. The program includes point investigations either by divers (<25m depth) or approx. 200m ROV transects at >25m depth.

2.1 Soft coral

We have registered the soft coral *Alcyonium digitatum* (Dead man’s finger) on all reef sites in Kattegat, Skagerrak, and the North Sea below approx. 18m water depth. It is a dominant or the most dominant fauna species in almost all areas measured as cover on the hard substrate.

Other soft corals like *Urticina feline*, and *Metridium senile* exist but are scattered in distribution, except on some formations of “bubbling reefs” (type 1180) in the northern Kattegat. Here *Metridium senile* can occur in higher numbers.

The following is a list of positions for sites where the soft coral *Alcyonium digitatum* is located:

(Position is given as degree and minutes with decimals)

Table 2.1. Overall positions for reef sites where the soft coral *Alcyonium digitatum* is located. Position is given as degree and minutes with decimals.

Name of location	Protected for trawl fishery (T) or all fishery (ALL)	East	North
Store Middelgrund	T	12° 04.239	56° 33.347
Kims Top og den Kinesiske Mur	T	11° 35.536	57° 00.788
Læsø Trindel og Tønneberg Banke	T for 1170 and ALL for 1180	11° 14.819	57° 25.65
Lønstrup Rødgrund		9° 41.67	57° 29.488
Herthas Flak	T for 1170 and ALL for 1180	10° 52.063	57° 38.518
Schultz og Hastens Grund samt Briseis Flak	T	11° 11.375	56° 09.634
Knudegrund		10° 48.165	55° 30.918
Gule Rev		8° 10.63	57° 18.11
Jyske Rev, Lille fiskebanke		6° 44.26	56° 50.3
Store Rev		9° 16.97	57° 42.25
Thyborøn Stenvolde		7° 45.27	56° 38.22
Hirsholmene, havet vest herfor og Ellinge Å’s udløb	T for 1170 and ALL for 1180	10° 37.739	57° 29.423
Havet omkring Nordre Rønner	T for 1170 and ALL for 1180	11° 02.507	57° 22.698
Gilleleje Flak	T	12° 12.208	56° 9.786

2.2 Hard coral

We have identified one hard coral *Caryophyllia smithii* on reef sites in Danish waters.

In Kattegat it is very rare but in Skagerrak it is much more common. Table 2.2 gives overall positions for reef sites where the hard coral is located.

Table 2.2. Overall positions for reef sites where the hard coral *Caryophyllia smithii* is located. Position is given as degree and minutes with decimals.

Name of location	Protected for trawl fishery (T) or all fishery (ALL)	East	North
Store Middelgrund (one species found)	T	12° 04.239	56° 33.347
Kims Top og den Kinesiske Mur (rare)	T	11° 35.536	57° 00.788
Herthas Flak (rare)	T for 1170 and ALL for 1180	10° 52.063	57° 38.518
Gule Rev	T	8° 10.63	57° 18.11
Store Rev	T	9° 16.97	57° 42.25

3 Threats and impacts (Hard bottom habitats)

Trawl fishery seems to be an issue for soft corals at some reef locations in Skagerrak and the North Sea (Jyske rev and Gule rev). Data from the same area is only available from one year, so it is not possible to evaluate the development over time.

There are signs of fishery pressure or other physical disturbance at one location (Store Middelgrund) in Kattegat. There are no signs of physical disturbance at all on other investigated reef locations. Data are available over 30 years from the same locations. There have been no significant changes over the years.

4 Protection

The following text is relevant with regard to figure 1 in the assessment.

All listed boulder reef areas (Habitat type 1170) and areas with “bubbling reefs” (habitat type 1180) are part of the designation in Natura 2000 sites.

However, not all reef sites are presently protected against trawl fishery (see table above). In Skagerrak and The North Sea, the process of initiating a ban on trawling on reef sites is still ongoing.

All sites with “bubbling reefs” in Kattegat are protected against all types of fishery including a buffer zone around the formations.