

CORALFISH

NORTHEAST ATLANTIC AND MEDITERRANEAN COLD-WATER CORAL HABITATS CATALOGUE



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Table of Contents

COLD-WATER CORAL HABITATS

1. CW SCLERACTINIAN REEF	7
1.1. CW SCLERACTINIAN REEF	7
1.1.1. <i>Lophelia pertusa</i> Reef	7
1.1.2. <i>Madrepora oculata</i> Reef	8
1.1.3. <i>Mixed Madrepora oculata and Lophelia pertusa</i> Reef	9
1.1.4. <i>Lophelia pertusa</i> and/or <i>Madrepora oculata</i> Reef with dense <i>Aphrocallistes</i> sp.	10
1.1.5. <i>Lophelia pertusa</i> and/or <i>Madrepora oculata</i> Reef with dense free living <i>Crinoids</i>	11
1.2. COLONISED CW SCLERACTINIAN REEF	12
1.2.1. <i>Lophelia pertusa</i> Reef Colonised by <i>Primnoa</i> sp. and <i>Plexauridae</i>	12
1.2.2. CW Scleractinian Reef Colonised by <i>Antipatharians</i> and/or <i>Gorgonians</i>	13
1.3. LOOSELY-PACKED CW SCLERACTINIAN FRAMEWORK WITH SOFT SUBSTRATE	14
1.3.1. Loosely-packed <i>Lophelia pertusa</i> and/or <i>Madrepora oculata</i> Framework with Soft Substrate	14
1.4. COLONISED LOOSELY-PACKED CW SCLERACTINIAN FRAMEWORK WITH SOFT SUBSTRATE	15
1.4.1. Loosely-packed <i>Lophelia pertusa</i> Framework Colonised by <i>Primnoa</i> sp. and <i>Plexauridae</i>	15
1.4.2. Loosely-packed <i>Lophelia pertusa</i> and/or <i>Madrepora oculata</i> Framework with Soft Substrate Colonised by <i>Antipatharians</i>	16
1.4.3. Loosely-packed <i>Solenosmilia variabilis</i> Framework with Soft Substrate Colonised by <i>Gorgonians</i>	17
1.5. PREDOMINANTLY DEAD CW SCLERACTINIAN REEF	18
1.5.1. <i>Isolated Madrepora oculata-Lophelia pertusa</i> colonies on <i>Framestones/Rudstones</i>	18
1.5.2. <i>Isolated Madrepora oculata-Lophelia pertusa</i> colonies on predominantly dead and low coral framework	19
1.6. DEAD CW SCLERACTINIAN REEF	20
1.6.1 <i>Dead Lophelia pertusa</i> and/or <i>Madrepora oculata</i> Framework with <i>Brisingids</i>	20
2. CORAL RUBBLE	21
2.1. CW SCLERACTINIAN RUBBLE	21
3. COLONIAL CW SCLERACTINIANS OR STYLASTERIDS ON HARD SUBSTRATE	22
3.1. DENSELY-PACKED CW SCLERACTINIAN FRAMEWORK ON HARD SUBSTRATE	22
3.1.1. <i>Dense Lophelia pertusa</i> Framework on Vertical Wall	22
3.1.2. <i>Dense Solenosmilia variabilis</i> Framework on Vertical Wall	23
3.1.3. <i>Dense Eguchipsammia</i> Framework on Hard Substrate	24
3.2. COLONISED CW SCLERACTINIAN FRAMEWORK ON HARD SUBSTRATE	25
3.2.1. <i>Solenosmilia variabilis</i> Framework on Vertical Wall Colonised by <i>Gorgonians</i>	25
3.2.2. <i>Solenosmilia variabilis</i> Framework on Vertical Wall Colonised by <i>Ascidians</i>	26

3.3. LOOSELY-PACKED TO ISOLATED COLONIES CW SCLERACTINIANS ON HARD SUBSTRATE	27
3.3.1. <i>Isolated Colonies to Loosely-packed Lophelia pertusa on Hard substrate</i>	27
3.3.2. <i>Isolated Colonies to Loosely-packed Madrepora oculata on Hard substrate (vertical wall)</i>	28
3.3.3. <i>Isolated Colonies to Loosely-packed Madrepora oculata and Lophelia pertusa on Hard substrate</i>	29
3.3.4. <i>Isolated colonies to Loosely-packed Madrepora oculata and Lophelia pertusa on Hard substrate with Euplectellidae</i>	30
3.3.5. <i>Isolated Scleractinian Colonies on Boulders</i>	31
3.3.6. <i>Dendrophyllia cornigera on Hard Substrate and Mixed Substrate</i>	32
3.3.7. <i>Enallopsammia rostrata on Hard Substrate</i>	33
3.4 CW STYLASTERIDS ON HARD SUBSTRATE	34
3.4.1. <i>Errina dabneyi and Sponges on Exposed Rocky Edges</i>	34
3.4.2. <i>Crypthelia sp. on Hard Substrate</i>	35
3.5. DEAD CW SCLERACTINIAN FRAMEWORK ON HARD SUBSTRATE	36
3.5.1. <i>Dead Madrepora oculata-Lophelia pertusa Framework on Hard Substrate</i>	36
4. SOLITARY CW SCLERACTINIANS ON HARD SUBSTRATE	37
4.1. SOLITARY CW SCLERACTINIANS ON HARD/MIXED SUBSTRATE OR COMPACT MUD	37
4.1.1. <i>Vaughanella sp. on Hard Substrate Covered by Soft Substrate</i>	37
4.1.2. <i>Solitary Caryophyllids on Mixed Substrate</i>	38
5. CW ALCYONIINA ON HARD SUBSTRATE	39
5.1. CW ALCYONIINA ON HARD/MIXED SUBSTRATE OR COMPACT MUD	39
5.1.1. <i>Anthomastus sp. on Hard/Mixed Substrate or Compact Mud</i>	39
5.1.2. <i>Nephtheidae on Hard/Mixed Substrate or Compact Mud</i>	40
6. CW ANTIPATHARIANS AND/OR GORGONIANS ON HARD SUBSTRATE	41
6. 1. CW ANTIPATHARIANS ON HARD/MIXED SUBSTRATE OR COMPACT MUD	41
6.1.1. <i>Antipatharians on Hard Substrate</i>	41
6.1.2. <i>Antipathes dichotoma on buried Hard Substrate</i>	42
6.1.3. <i>Leiopathes glaberrima on Boulders</i>	43
6.2. CW GORGONIANS ON HARD/MIXED SUBSTRATE OR COMPACT MUD	44
6.2.1. <i>Iridogorgia sp. and other Gorgonians on Hard/Mixed Substrate</i>	44
6.2.2. <i>Chrysogorgia sp. and Acanella sp. on Hard Substrate</i>	45
6.2.3. <i>Viminella flagellum on Hard/Mixed Substrate</i>	46
6.2.4. <i>Viminella sp. and Dentomuricea sp. on Hard/Mixed Substrate</i>	47
6.2.5. <i>Isidella elongata on Hard/Mixed Substrate or Compact Mud</i>	48
6.2.6. <i>Narella cf. versluysi on Hard Substrate</i>	49
6.2.7. <i>Primnoa resedaeformis on Hard/Mixed Substrate or Compact Mud</i>	50
6.2.8. <i>Acanthogorgia sp. and large Primnoids on Hard/Mixed Substrate</i>	51
6.2.9. <i>Dentomuricea sp. on Mixed Substrate</i>	52
6.2.10. <i>Swiftia pallida on Hard/Mixed Substrate or Compact Mud</i>	53
6.2.11. <i>Plexauridae spp. on Hard/Mixed Substrate</i>	54
6.2.12. <i>Paragorgia arborea on Hard/Mixed Substrate</i>	55
6.2.13. <i>Unidentified white coiled whip coral on Hard/ Mixed Substrate</i>	56
6.2.14. <i>cf. Victorgorgia josephinae on Hard/Mixed Substrate</i>	57

7. MIXED CWC ON HARD SUBSTRATE	58
7.1. MIXED CWCs ON HARD/MIXED SUBSTRATE OR COMPACT MUD	58
7.1.1. <i>Isolated colonies of Scleractinians, Antipatharians and Gorgonians on Hard/Mixed Substrate or Consolidated Mud</i>	58
7.1.2. <i>Isolated Colonies of Scleractinians, Antipatharians and Gorgonians on Hard Substrate Covered by Soft Substrate</i>	59
7.1.3. <i>Primnoa sp., Plexauridae and Lophelia pertusa on Hard Substrate</i>	60
7.1.4. <i>Candidella sp., Lophelia pertusa and various other corals on Hard Substrate</i>	61
7.1.5. <i>Paragorgia johnsoni, Anthomastus sp. and Stylasterids on Hard Substrate</i>	62
7.1.6. <i>Primnoa resedaeformis and Lophelia pertusa on vertical wall</i>	63
7.1.7. <i>Candidella imbricata and Leptopsammia cf. formosa on Hard Substrate</i>	64
7.2 MIXED CWCs AND SPONGES ON HARD/MIXED SUBSTRATE OR COMPACT MUD	65
7.2.1. <i>Lophelia pertusa, Alcyoniina, Encrusting and Glass Sponges on Hard/Mixed Substrate or Compact Mud</i>	65
7.2.2. <i>Large sponges and Isolated Scleractinian colonies on Hard/Mixed</i>	66
7.2.3. <i>Stylasterids, Primnoids, Alcyoniina and large Sponges on Hard Substrate</i>	67
7.2.4. <i>Antipatharians, Short Sponges and Sparse Large Sponges on Hard Substrate</i>	68
7.2.5. <i>Anthomastus sp., white lamellate sponges and Gorgonocephalus sp. on Hard Substrate</i>	69
7.2.6. <i>Callogorgia verticillata, Asconema setubalense and Demosponges on Hard Substrate</i>	70
8. COLONIAL SCLERACTINIANS ON SOFT SUBSTRATE	71
8.1. CW COLONIAL SCLERACTINIANS ON SOFT SUBSTRATE	71
8.1.1. <i>Isolated colonies of Lophelia pertusa and Madrepora oculata on Soft Substrate</i>	71
9. SOLITARY SCLERACTINIANS ON SOFT SEDIMENT	72
9.1. CW SOLITARY SCLERACTINIANS ON SOFT SUBSTRATE	72
9.1.1. <i>Solitary Caryophyllids and Xenophyophores on Soft Substrate</i>	72
9.1.2. <i>Flabellids on Soft Substrate</i>	73
10. GORGONIANS ON SOFT SEDIMENT	74
10.1. CW GORGONIANS ON SOFT SUBSTRATE	74
10.1.1. <i>Radicipes sp. on Soft Substrate</i>	74
10.1.2. <i>Callogorgia sp. on Soft Substrate</i>	75
10.1.3. <i>Acanella sp. on Soft Substrate</i>	76
10.1.4. <i>Acanella arbuscula and Lepidisis sp. on Soft Substrate</i>	77
10.1.5. <i>Acanella arbuscula and Unidentified branched Coral on Soft Substrate</i>	78
11. MIXED CORALS ON SOFT SEDIMENT	79
11.1 MIXED CWC ON SOFT SUBSTRATES	79
11.1.1. <i>Thouarella sp. and Seapens on Soft Substrate</i>	79
12. MIXED CORALS AND SPONGES ON SOFT SEDIMENT	80
12.1. MIXED CWCs AND SPONGES ON SOFT SUBSTRATES	80
12.1.1. <i>Acanella arbuscula and Hyalonema spp. on Soft Substrate</i>	80

13. SEAPENS ON SOFT SEDIMENT	81
13.1. CW SEAPENS ON SOFT SUBSTRATE	81
13.1.1. <i>Funiculina quadrangularis</i> and <i>Burrowing Megafauna</i> on Soft Substrate	81
13.1.2. <i>cf. Halipteris</i> on Soft Substrate	82
13.1.3. <i>Kophobelemnion</i> sp. on Soft Substrate	83
13.1.4. <i>Pennatula</i> sp. on Soft Substrate	84
13.1.5. <i>Distichoptilum gracile</i> on Soft Substrate	85
14. CW HYDRARIANS ON HARD/MIXED SUBSTRATE	86
14.1. CW HYDRARIANS ON HARD/MIXED SUBSTRATE OR COMPACT MUD	86
14.1.1. <i>Hydrarians</i> (<i>cf. fam. Sertulariidae</i>) on Hard Substrate	86
15. CW HYDRARIANS ON SOFT SEDIMENT	87
15.1. CW HYDRARIANS ON SOFT SUBSTRATE	87
15.1.1. <i>Lytocarpia myriophyllum</i> on Soft substrate	87
ACKNOWLEDGEMENTS	88

1.1. CW Scleractinian Reef

1.1.1. *Lophelia pertusa* Reef

Species composition: *L. pertusa* (dominant), others Scleractinians, Sponges, Gorgonians

Documented depth range: 250–1000 m

Locations known: Norway, Iceland, Ireland, UK [Hatton Bank (Howell et al. 2010), Anton Dohrn Seamount (Davies et al. 2015)]

Physiographic provinces: Continental Slope, Oceanic islands and seamounts, Large oceanic banks

Geomorphic units: Carbonate mounds, Canyon system, Submarine glacial landforms

Statistical backup: Yes

Habitats Directive: Biogenic reefs

OSPAR: *Lophelia pertusa* reefs

EUNIS: Deep-sea bioherms/Communities of deep-sea corals/deep-sea *L. pertusa* reefs

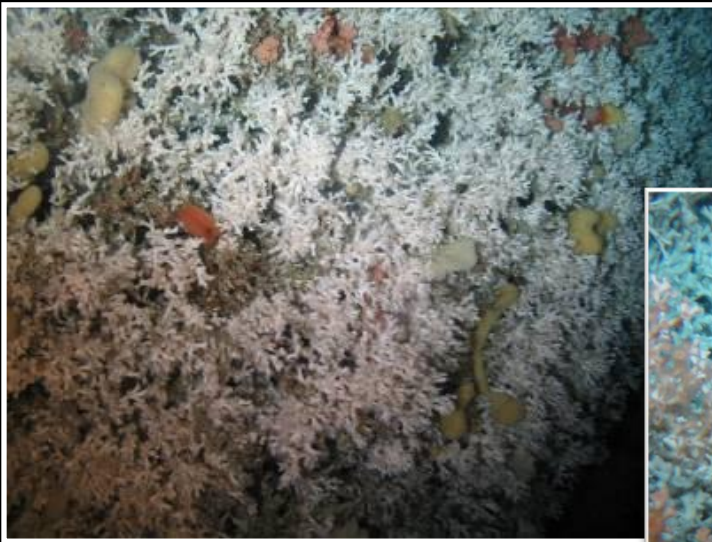


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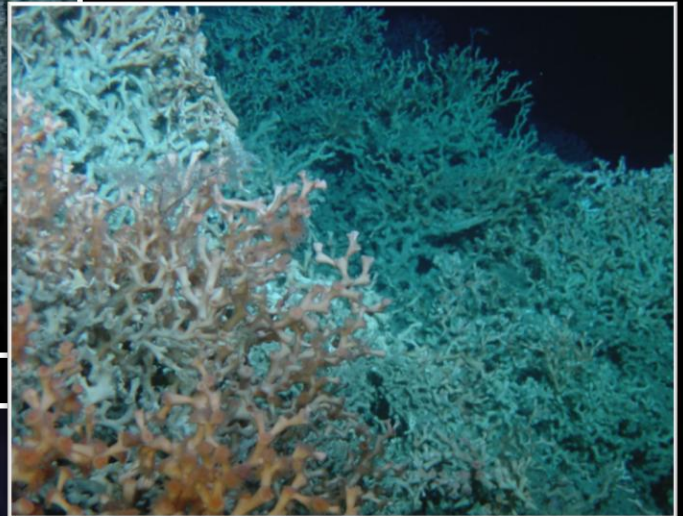


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1.1. CW Scleractinian Reef

1.1.2. *Madrepora oculata* Reef

Species composition: *M. oculata*, rare *Lophelia pertusa*, sponges

Documented depth range: 450–800 m

Locations known: Mediterranean Sea (Santa Maria di Leuca)

Physiographic provinces: Continental slope

Geomorphic units: Mass-movement deposits, Canyon systems

Statistical backup: Yes

Habitats Directive: Reefs

OSPAR: More or less included on *L. pertusa* reefs but unclear

EUNIS: Deep-sea bioherms/Communities of deep-sea corals (*M. oculata* reef is not defined)

Santa Maria di Leuca,
Mediterranean

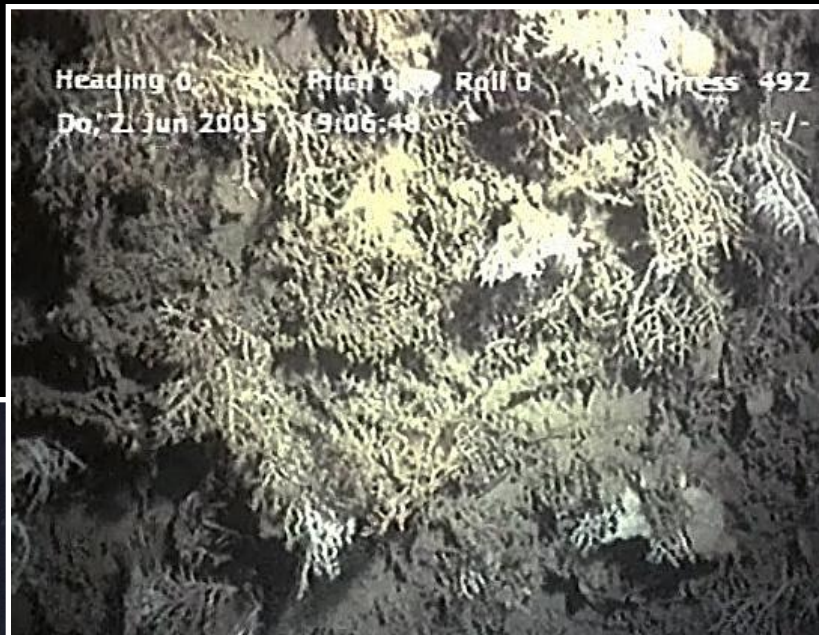


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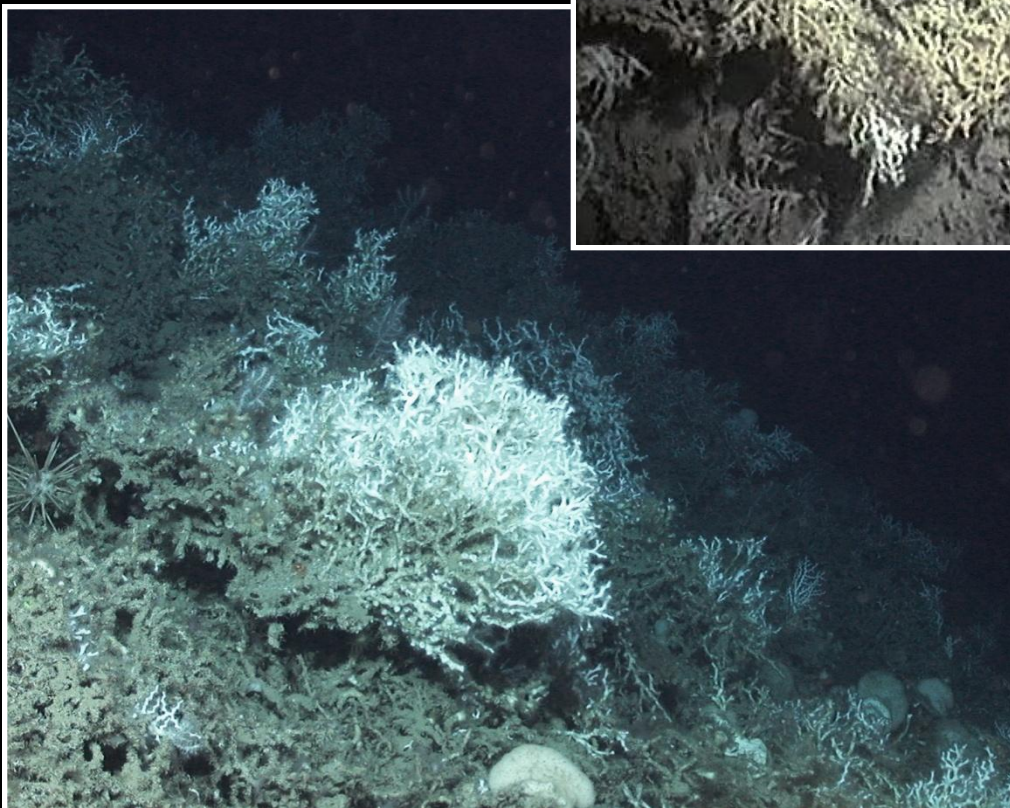


Image: ©MARUM 2006

1.1. CW Scleractinian Reef

1.1.3. Mixed *Madrepora oculata* and *Lophelia pertusa* Reef

Species composition: *M. oculata* and *L. pertusa*, Antipatharians, *Narella versluysi*, Sponges, Crinoids

Documented depth range: 600–1114 m

Locations known: Bay of Biscay, Mediterranean Sea

Physiographic provinces: Continental slope

Geomorphic units: Canyons systems, Mass-movement deposits

Statistical backup: No

Habitats Directive: Reefs

OSPAR: *L. pertusa* reefs but unclear when *M. oculata* is dominant

EUNIS: Deep-sea bioherms/Communities of deep-sea corals (unclear sub category when *M. oculata* dominant)

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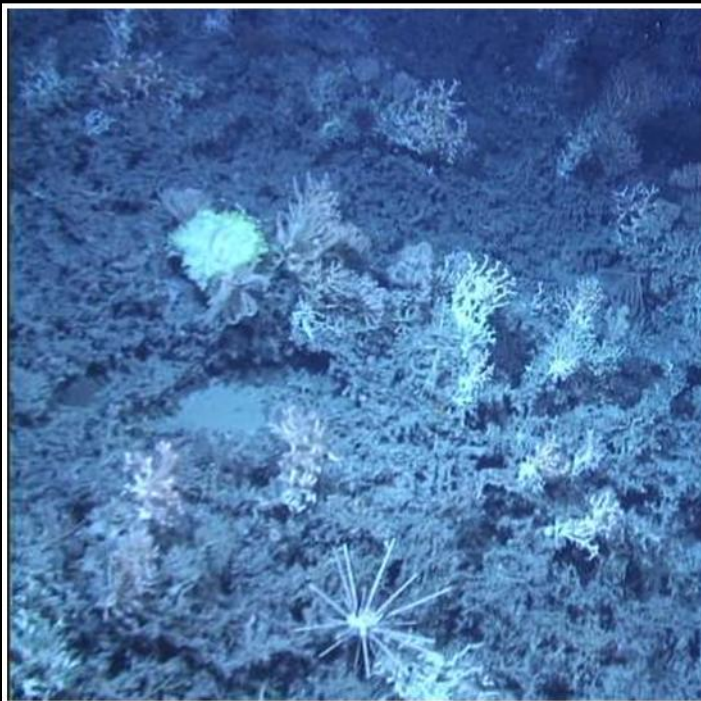
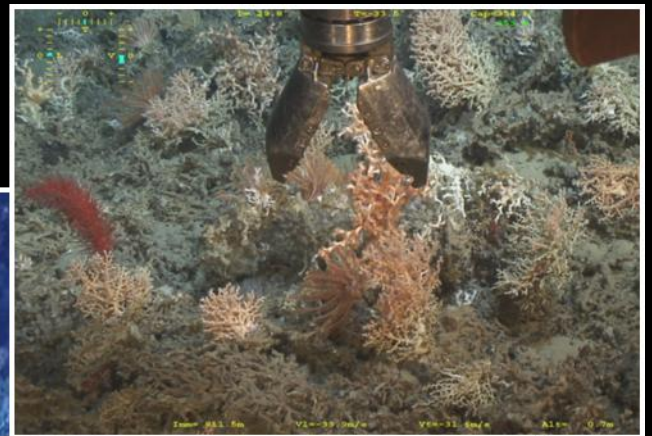


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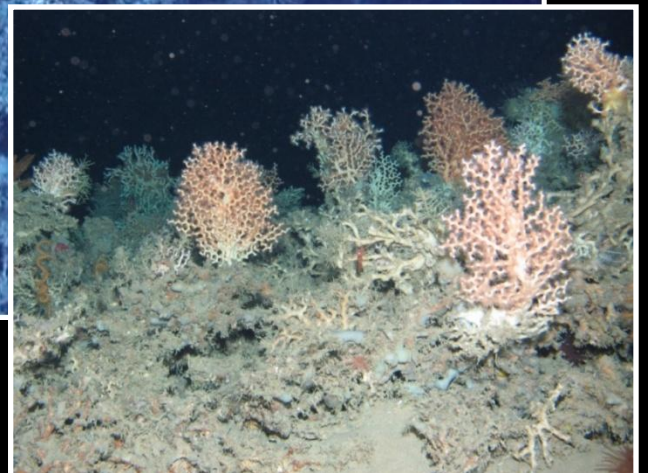


Image: © Ghent University

1.1. CW Scleractinian Reef

1.1.4. *Lophelia pertusa* and/or *Madrepora oculata* Reef with dense *Aphrocallistes* sp.

Species composition: *Lophelia pertusa*, *Madrepora oculata*, *Aphrocallistes* sp.

Documented depth range: 600–1000 m

Locations known: Ireland, Porcupine Seabight, Rockall Bank

Physiographic provinces: Continental slope, Large oceanic banks

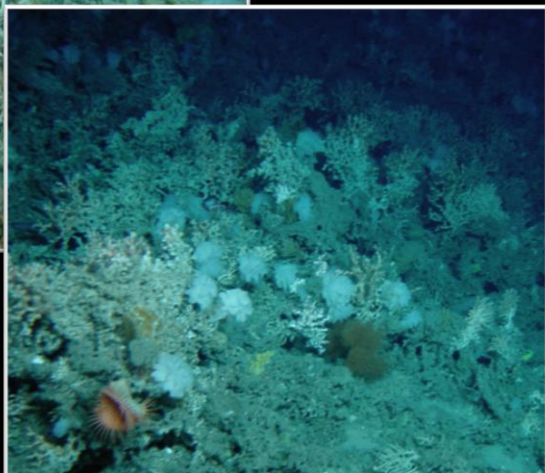
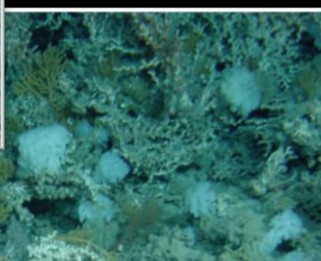
Geomorphic units: Carbonate mounds

Statistical backup: No

Habitats Directive: Reefs

OSPAR: *L. pertusa* reefs but unclear when *M. oculata* is dominant.

EUNIS: Deep-sea bioherms/Communities of deep-sea corals (unclear sub category when *M. oculata* dominant)



Images: © Ifremer, Caracole

1.1. CW Scleractinian Reef

1.1.5. *Lophelia pertusa* and/or *Madrepora oculata* Reef with dense free living Crinoids

Species composition: *M. oculata*, *L. pertusa*, *Koehlermetra atlanticus*

Documented depth range: 500–1000 m

Locations known: Iceland, Ireland – Rockall Bank, Bay of Biscay

Physiographic provinces: Continental slope, Large oceanic banks

Geomorphic units: Canyon system, Submarine glacial landforms

Statistical backup: No

Habitats Directive: Reef

OSPAR: *L. pertusa* reefs but unclear when *M. oculata* is dominant

EUNIS: Deep-sea bioherms/Communities of deep-sea corals

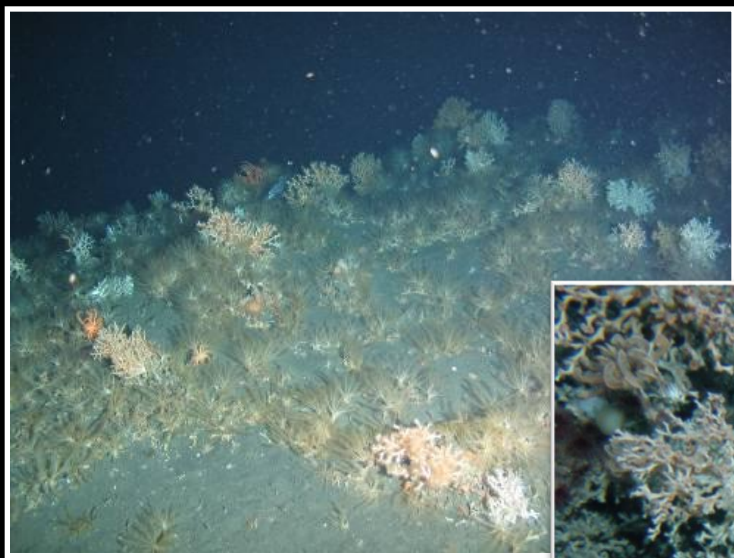


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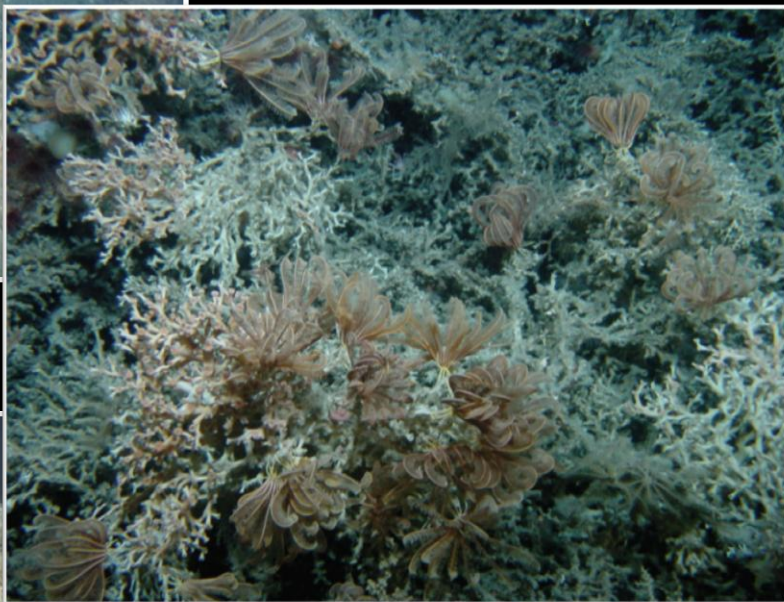


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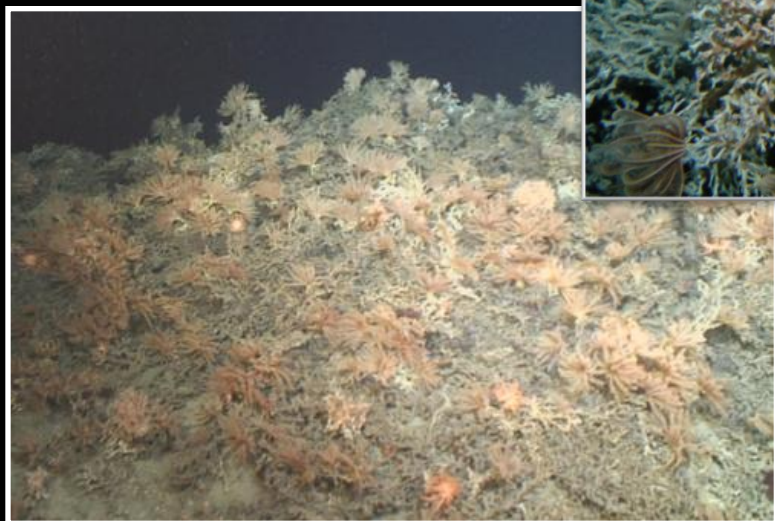


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1.2. Colonised CW Scleractinian Reef

1.2.1. *Lophelia pertusa* Reef Colonised by *Primnoa* sp. and *Plexauridae*

Species composition: Gorgonian-dominated (*Primnoa* sp., Plexauridae), *L. pertusa*

Documented depth range: 450–500 m

Locations known: Iceland

Physiographic provinces: Continental Slope

Geomorphic units: Submarine glacial landforms

Statistical backup: No

Habitats Directive: Reef

OSPAR: *Lophelia pertusa* reefs and potential Coral gardens

EUNIS: Deep-sea bioherms/Communities of deep-sea corals/deep-sea *L. pertusa* reefs

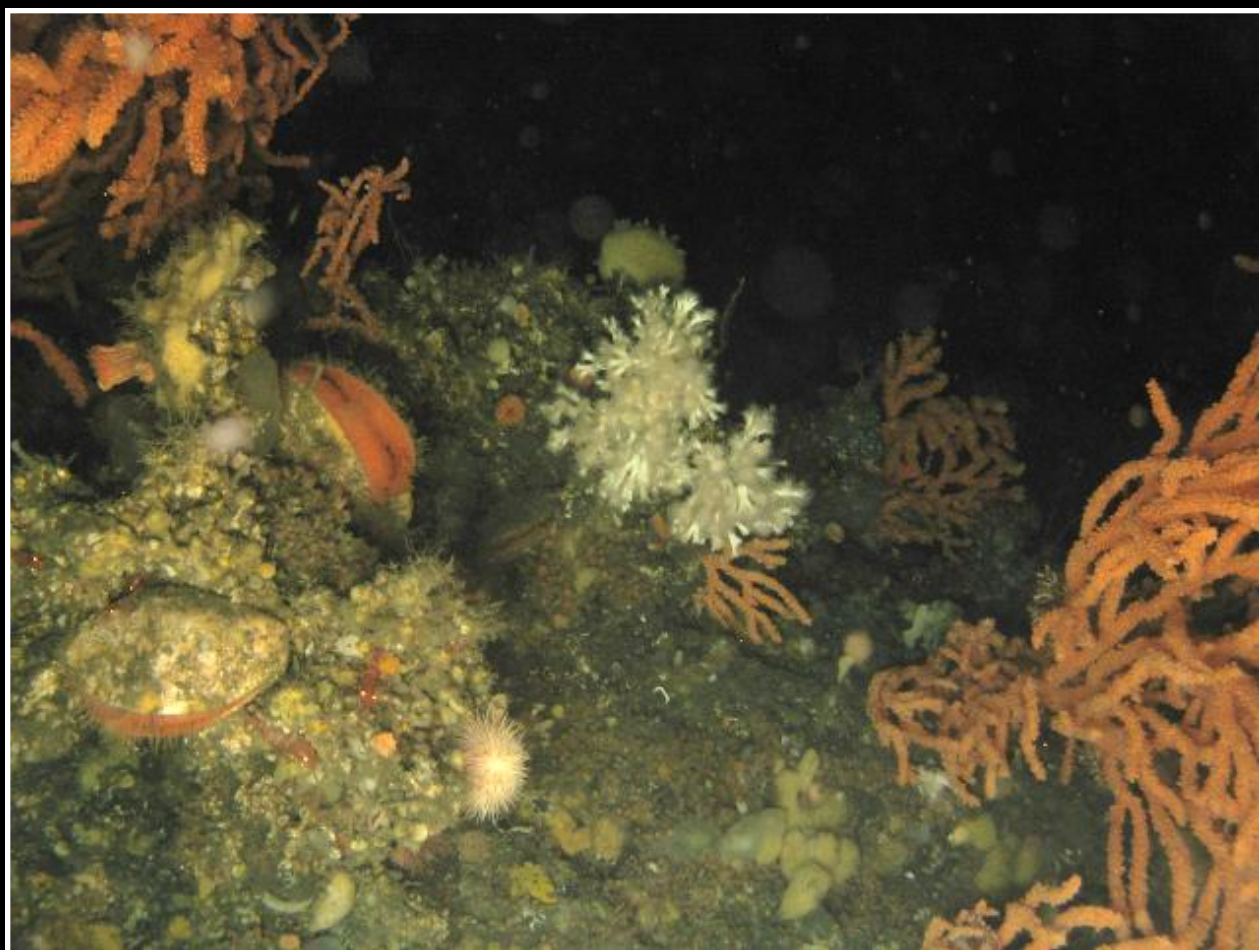


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1.2. Colonised CW Scleractinian Reef

1.2.2. CW Scleractinian Reef Colonised by Antipatharians and/or Gorgonians

Species composition: Antipatharian-dominated (*Leiopathes* sp. and others), Gorgonians (*Narella versluysi* and others), mainly dead Scleractinian framework with isolated living colonies of *L. pertusa* and/or *M. oculata*

Documented depth range: 600–1192 m

Locations known: Bay of Biscay

Physiographic provinces: Continental Slope

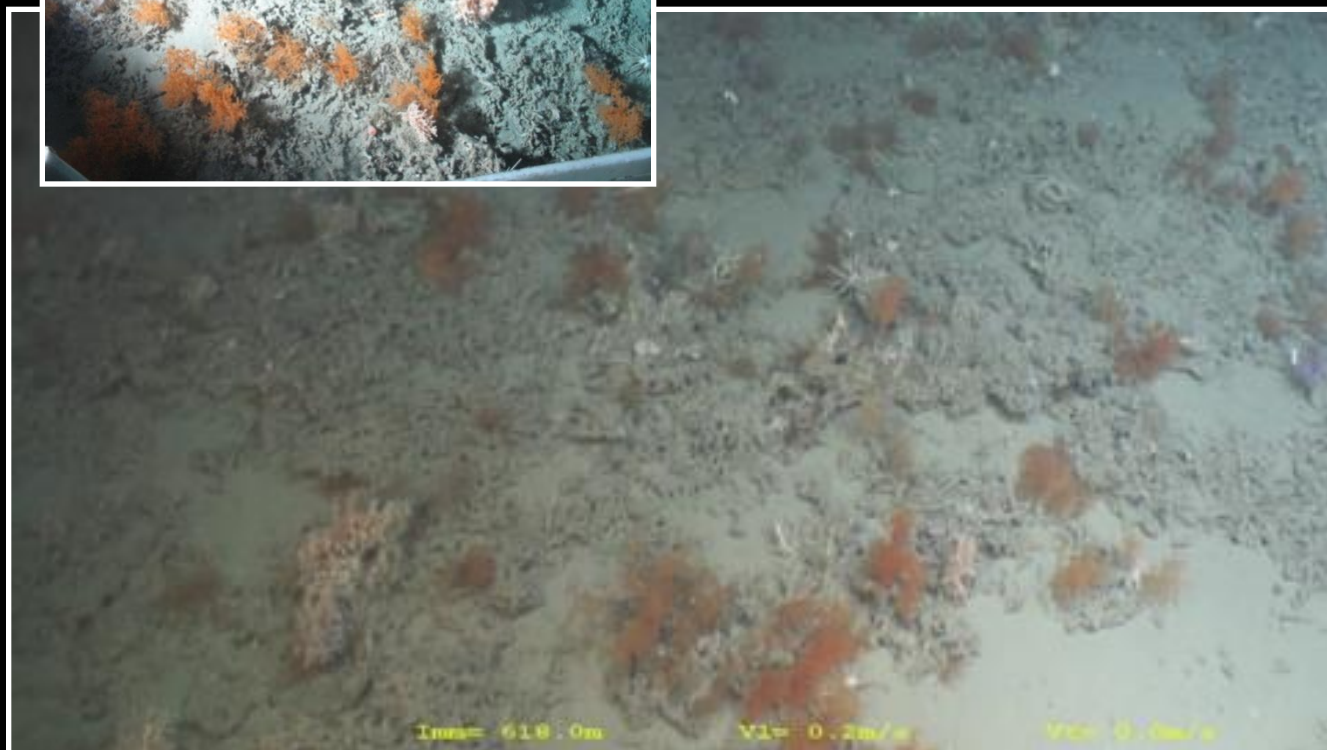
Geomorphic units: Canyon system

Statistical backup: No

Habitats Directive: Reefs

OSPAR: *Lophelia pertusa* reefs and potential Coral gardens

EUNIS: Deep-sea bioherms/Communities of deep-sea corals



1.3. Loosely-packed CW Scleractinian Framework with Soft Substrate

1.3.1. Loosely-packed *Lophelia pertusa* and/or *Madrepora oculata* Framework with Soft Substrate

Species composition: *L. pertusa*, *M. oculata*, Antipatharians, Gorgonians, sponges

Documented depth range: 450–932 m

Locations known: Bay of Biscay, Mediterranean Sea (Santa Maria di Leuca)

Physiographic provinces: Continental slope

Geomorphic units: Canyon system, Mass-movement deposits

Statistical backup: Yes

Habitats Directive: Reefs (unclear)

OSPAR: *L. pertusa* reefs (unclear when *M. oculata* is dominant) and potential Coral gardens

EUNIS: Deep-sea bioherms/Communities of deep-sea corals (unclear due to low density of framework-building species)

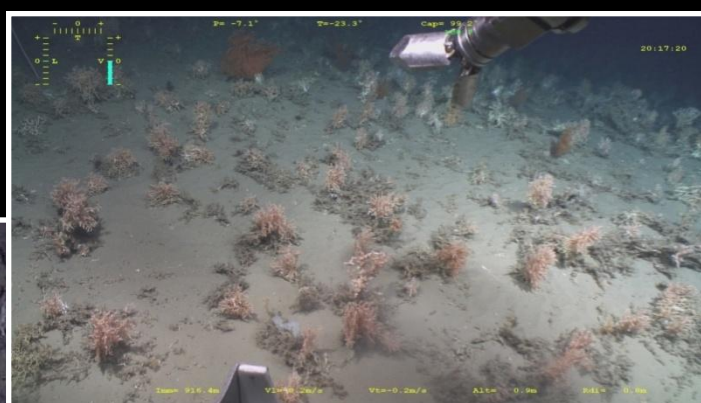


Image: © Ifremer, BOBECO



Images: © CoNISMa,
Santa Maria di Leuca,
Mediterranean

1.4. Colonised Loosely-packed CW Scleractinian Framework with Soft Substrate

1.4.1. Loosely-packed *Lophelia pertusa* Framework Colonised by *Primnoa* sp. and Plexauridae

Species composition: *L. pertusa*, Gorgonians

Documented depth range: 450–500 m

Locations known: Iceland, Balearic Sea

Physiographic provinces: Continental slope

Geomorphic units: Mass-movement deposits, Submarine glacial landforms

Statistical backup: No

Habitats Directive: Reefs (unclear)

OSPAR: *Lophelia pertusa* reefs and potential Coral gardens

EUNIS: Deep-sea bioherms/Communities of deep-sea corals/Deep-sea *L. pertusa* reefs (unclear due to low density of framework-building species)



Image: © Marine Research Institute, Iceland

1.4. Colonised Loosely-packed CW

Scleractinian Framework with Soft Substrate

1.4.2. Loosely-packed *Lophelia pertusa* and/or *Madrepora oculata* Framework with Soft Substrate Colonised by Antipatharians

Species composition: *L. pertusa*, *M. oculata*, Antipatharians, Gorgonians

Documented depth range: 615–1083 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Coral gardens (depending on density)

OSPAR: *L. pertusa* reefs (unclear when *M. oculata* is dominant) and potential Coral gardens

EUNIS: Deep-sea bioherms/Communities of deep-sea corals (unclear due to low density of framework-building species)



1.4. Colonised Loosely-packed CW Scleractinian Framework with Soft Substrate

1.4.3. Loosely-packed *Solenosmilia variabilis* Framework with Soft Substrate Colonised by Gorgonians

Species composition: Gorgonian-dominated (*Chrysogorgia*, *Paragorgia*, *Candidella*, *Primnoa*), *S. variabilis* mainly dead framework

Documented depth range: 1500 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs (unclear)

OSPAR: close to *L. pertusa* reefs but unclear *S. variabilis* is dominant; potential Coral gardens

EUNIS: Deep-sea bioherms/Communities of deep-sea corals (unclear due to low density of framework-building species)

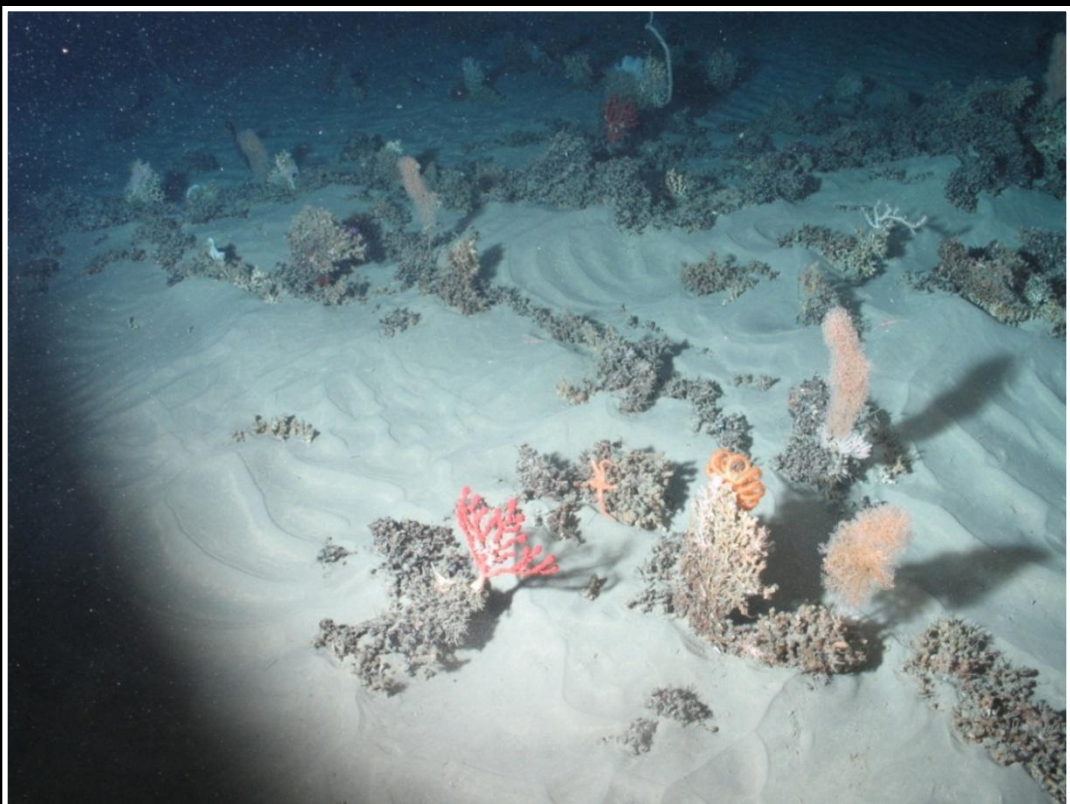


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1.5. Mainly dead CW Scleractinian Reef

1.5.1. Isolated *Madrepora oculata*-*Lophelia pertusa* colonies on Framestones/Rudstones

Species composition: Fossil *M. oculata*, *L. pertusa* and *D. dianthus*.

Framestones colonised by live isolated colonies of *M. oculata*

Documented depth range: 450–800 m

Locations known: Mediterranean Sea (Santa Maria di Leuca)

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems, Mass-movement deposits

Statistical backup: Yes

Habitats Directive: Reefs

OSPAR: Close to *L. pertusa* reefs but *L. pertusa* is not dominant

EUNIS: Deep-sea bioherms/Communities of deep-sea corals ((unclear due to low density of framework-building species)



Santa Maria di Leuca,
Mediterranean

Image: © CoNISMa

Image: © CoNISMa



1.5. Predominantly dead CW Scleractinian Reef

1.5.2. Isolated *Madrepora oculata*-*Lophelia pertusa* colonies on predominantly dead and low coral framework

Species composition: *L. pertusa*, *M. oculata*, Antipatharians, Gorgonians

Documented depth range: 600–900 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: *L. pertusa* reefs (unclear when *M. oculata* is dominant) and potential Coral gardens

EUNIS: Deep-sea bioherms/Communities of deep-sea corals (unclear due to low density of framework-building species)



Image: © Ifremer, BOBEKO

1.6. Dead CW Scleractinian Reef

1.6.1. Dead *Lophelia pertusa* and/or *Madrepora oculata* Framework with Brisingids

Species composition: Completely dead framework of *L. pertusa* and/or *M. oculata*, Brisingid seastars

Documented depth range: 200–900 m

Locations known: Iceland, Bay of Biscay

Physiographic provinces: Continental shelf and slope

Geomorphic units: Submarine glacial landforms, Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: *L. pertusa* reefs (unclear when *M. oculata* is dominant)

EUNIS: Deep-sea bioherms/Communities of deep-sea corals

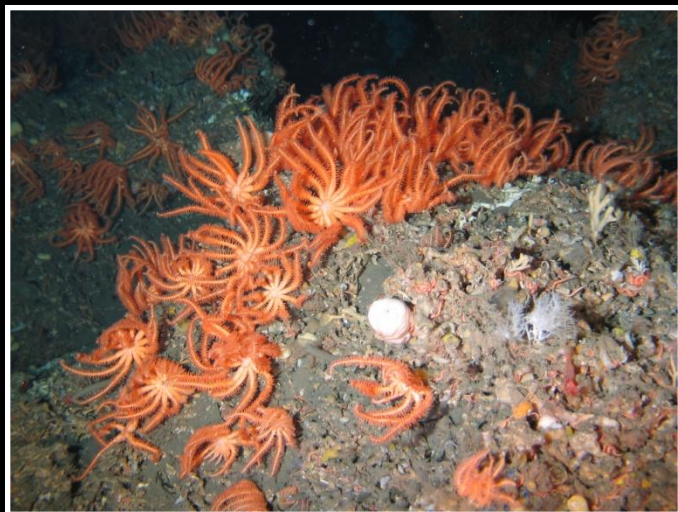


Image: © Marine and Freshwater Research Institute, Iceland

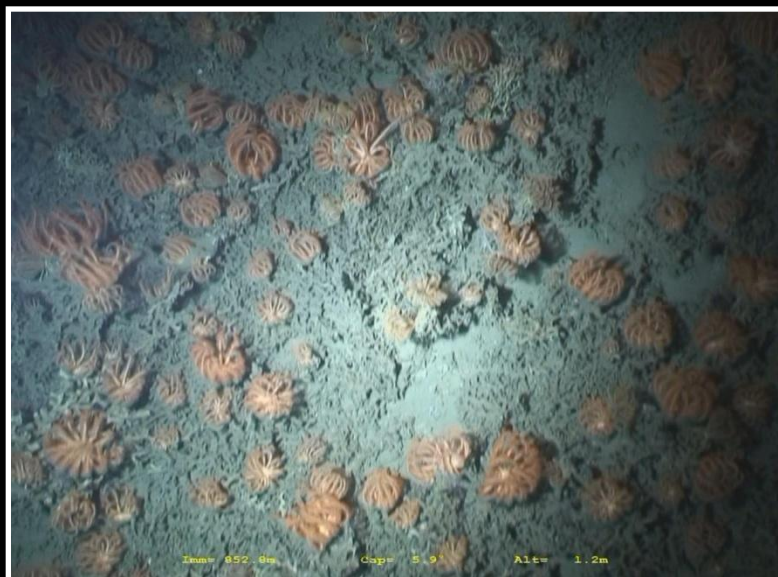


Image © Ifremer, BOBECO

2.1 CW Scleractinian Rubble

Species composition: Large amount of Scleractinian debris (from natural origin, from anthropogenic impact, or large remains down a vertical wall)

Documented depth range: 180–1978 m

Locations known: Bay of Biscay, Mediterranean sea (Santa Maria di Leuca), Azores, Ireland. Celtic Sea (Davies et al. 2014)

Physiographic provinces: Continental shelf and slope

Geomorphic units: Canyon systems, Carbonate mounds, Mass-movement deposits

Statistical backup: Yes

Habitats Directive:

OSPAR: *L. pertusa* reefs

EUNIS: Deep-sea mixed substrata/Deep-sea biogenic gravels (shells, coral debris)



Image: © Ifremer, BOBEKO (large remains)



Image: © Ghent University (anthropogenic impact)



Image: © CoNISMa, Santa Maria di Leuca, Mediterranean



Image: © IMAR/DOP-UAz/EMEPC, 2010

3.1. Densely-packed CW Scleractinian Framework on Hard Substrate

3.1.1. Dense *Lophelia pertusa* Framework on Vertical Wall

Species composition: *L. pertusa*, *Primnoa* sp.

Documented depth range: 1550–1700 m

Locations known: NW Porcupine Bank, Celtic margin (Whittard Canyon), Mediterranean Sea (Gulf of Lions, Gori et al. 2003)

Physiographic provinces: Continental slope, Large oceanic banks

Geomorphic units: Canyon systems, Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: *L. pertusa* reefs but unclear

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Image: ©NOCS

3.1. Dense CW Scleractinian Framework on Hard Substrate

3.1.2. Dense *Solenosmilia variabilis* Framework on Vertical Wall

Species composition: *S. variabilis*

Documented depth range: 1550–1876 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock

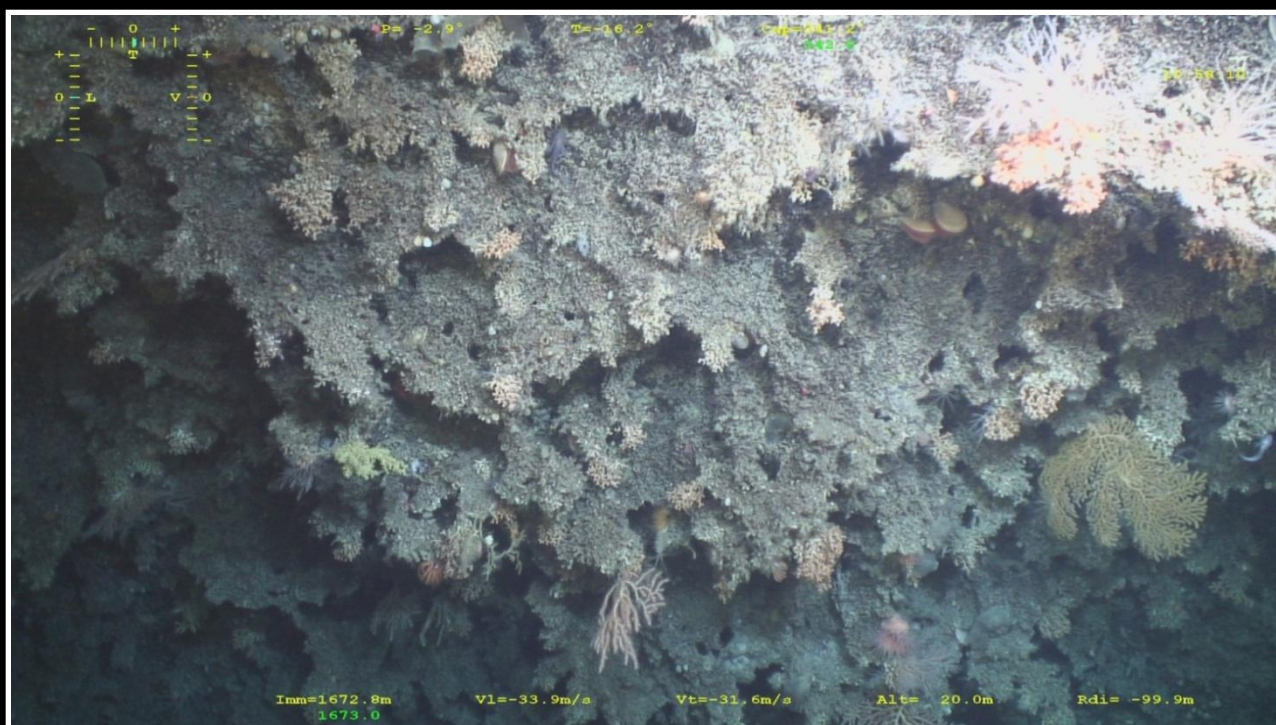


Image: © Ifremer, BOBECO

3.1. Dense CW Scleractinian Framework on Hard Substrate

3.1.3. Dense *Eguchipsammia* Framework on Hard Substrate

Species composition: *Eguchipsammia*

Documented depth range: 280–300 m

Locations known: Azores (Johs Van Hurtere Hills, Ponta da Ilha Ridge Tempera et al. 2015).

Physiographic provinces: Oceanic islands and seamounts

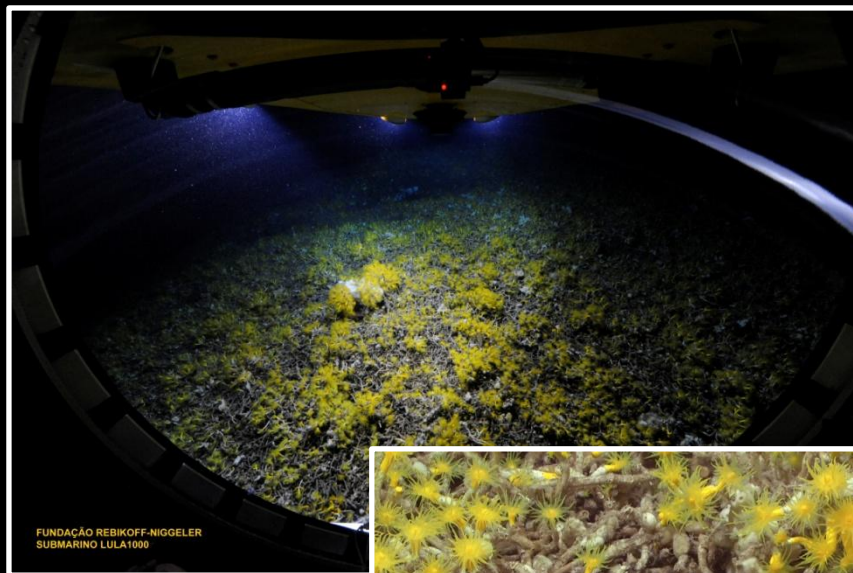
Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



3.2. Colonised CW Scleractinian Framework on Vertical Wall

3.2.1. *Solenosmilia variabilis* Framework on Vertical Wall Colonised by Gorgonians

Species composition: *S. variabilis*, Gorgonians (*Primnoa* sp., *Paragorgia* sp.), Antipatharians, *Acesta* sp., Actinids

Documented depth range: 1430–1890 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Images: © Ifremer, BOBECO

3.2. Colonised CW Scleractinian Framework on Vertical Wall

3.2.2. *Solenosmilia variabilis* Framework on Vertical Wall Colonised by Ascidians

Species composition: *S. variabilis*, ascidians

Documented depth range: 1800–1900m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Image: © Ifremer, BOBEKO

3.3. Loosely-packed to Isolated Colonies of CW Scleractinians on Hard Substrate

3.3.1. Isolated Colonies of *Lophelia pertusa* on Hard substrate

Species composition: *L. pertusa*

Documented depth range: 800–1 100 m

Locations known: Norway, Ireland

Physiographic provinces: Continental slope

Geomorphic units: Carbonate mounds, Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: Unclear

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Image: © Ifremer, Caracole

3.3. Loosely-packed to Isolated Colonies of CW Scleractinians on Hard Substrate

3.3.2. Isolated Colonies of *Madrepora oculata* on Hard substrate (vertical wall)

Species composition: *M. oculata*, in place rare *Lophelia pertusa*

Documented depth range: 205–245 m

Locations known: Bay of Biscay (Avilés Canyon), Mediterranean Sea (Gulf of Lions (Gori et al. 2013), Orejas, Gori, Ligurian Sea (Tunesi et al. 2001), Adriatic Sea, (Bari canyon, Freiwald et al. 2009, Sanfilippo et al. 2012), Santa Maria di Leuca, Sicily Channel (Freiwald et al. 2009)

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems, Mass-movement deposits

Statistical backup: No

Habitats Directive: Reefs

OSPAR: Unclear

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock

Bari Canyon, Adriatic Sea,
Mediterranean



Santa Maria di Leuca (Gallipoli
Canyon), Mediterranean



3.3. Loosely-packed to Isolated Colonies of CW Scleractinians on Hard Substrate

3.3.3. Isolated Colonies of *Madrepora oculata* and *Lophelia pertusa* on Hard substrate

Species composition: *L. pertusa*, *M. oculata*

Documented depth range: 500–1200 m

Locations known: Iceland, Bay of Biscay, Azores

Physiographic provinces: Continental slope, Oceanic islands and seamounts.

Geomorphic units: Canyon systems, Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: *L. pertusa* reefs (unclear when *M. oculata* is dominant)

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock

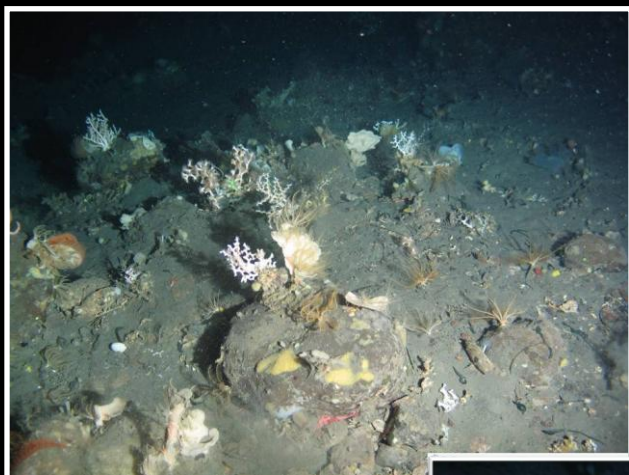


Image: © Marine and Freshwater Research Institute, Iceland

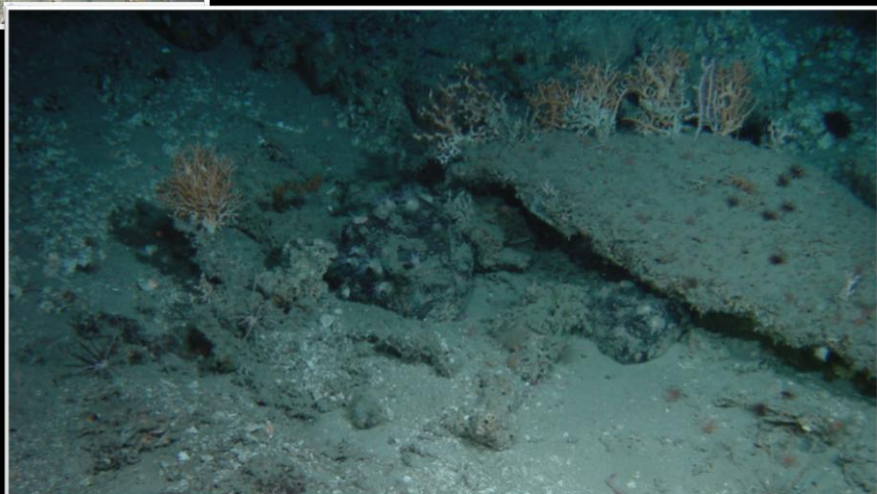


Image: © Ifremer, Caracole

3.3. Loosely-packed to Isolated Colonies of CW Scleractinians on Hard Substrate

3.3.4. Isolated colonies of *Madrepora oculata* and *Lophelia pertusa* on Hard substrate with Euplectellidae

Species composition: *Lophelia pertusa*, *Madrepora oculata*, sponges

Species composition: *M. oculata*, *L. pertusa*, Euplectellidae,

Chrysogorgia sp.

Documented depth range: 1048–1108 m

Locations known: Azores, Ireland (Porcupine Bank), Bay of Biscay

Physiographic provinces: Oceanic islands and seamounts, Continental slope, Large oceanic banks

Geomorphic units: Bedrock and escarpments, Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: Unclear

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



3.3. Loosely-packed to Isolated Colonies of CW of Scleractinians on Hard Substrate

3.3.5. Isolated Scleractinian Colonies on Boulders

Species composition: *Madrepora oculata*, *L. pertusa* (rare), sponges, *Desmophyllum dianthus*, *C. calveri*, Antipatharians

Documented depth range: 450–800 m

Locations known: Mediterranean Sea (Santa Maria di Leuca, Bari Canyon)

Physiographic provinces: Continental slope

Geomorphic units: Mass-movement deposits, Canyon systems

Statistical backup: Yes

Habitats Directive: Reefs

OSPAR: Unclear

EUNIS: Deep-sea rock and artificial substrata/boulders on the deep-sea bed



Image: © CoNISMa, Santa Maria di Leuca, Mediterranean Sea

Image: © MARUM, Bari Canyon, Mediterranean Sea

3.3. Loosely-packed to Isolated Colonies of CW Scleractinians on Hard Substrate

3.3.6. *Dendrophyllia cornigera* on Hard Substrate/ Mixed Substrate

Species composition: *D. cornigera*, Sponges

Documented depth range: 75–733 m

Locations known: Bay of Biscay (more developed on NW and N coast of Spain), Mediterranean Sea [widespread up to 200 m depth; Ionian Sea up to 500 m depth (Mastrototaro et al. 2010), Sicily Channel (Freiwald et al. 2009) up to 733 m]

Physiographic provinces: Continental shelf and slope, Oceanic islands and seamounts

Geomorphic units: Canyon system, Mass-movement deposits, Bedrock and escarpments

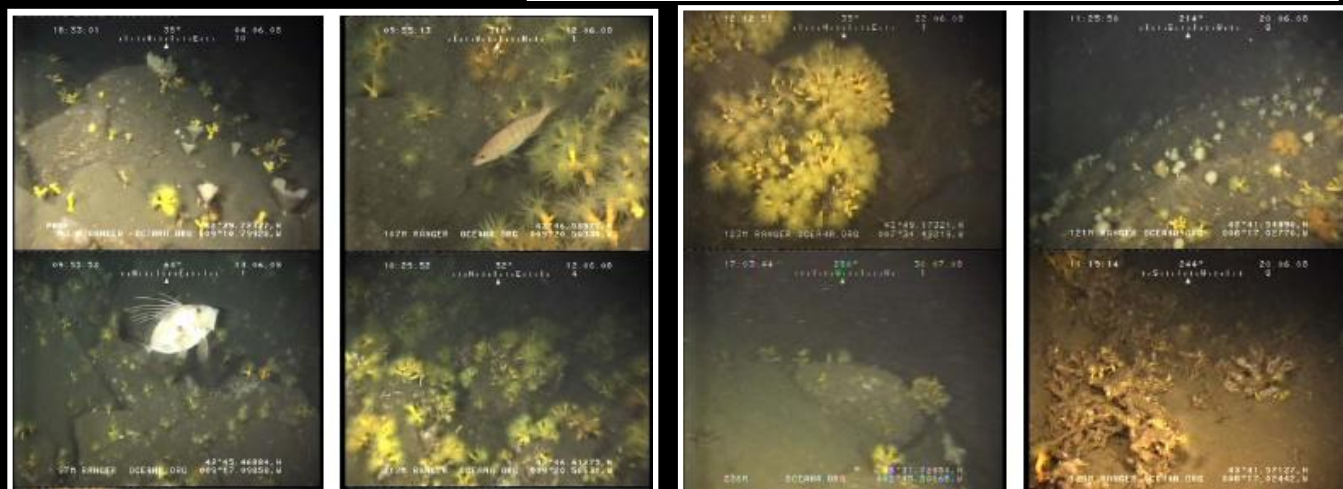
Statistical backup: No

Habitats Directive: Reefs

OSPAR: Unclear

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata

Image: © Ifremer, BOBEKO



Images: © OCEANA

3.3. Loosely-packed to Isolated colonies of CW Scleractinians on Hard Substrate

3.3.7. *Enallopsammia rostrata* on Hard Substrate

Species composition: *E. rostrata*, Sponges

Documented depth range: 1220–1600 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

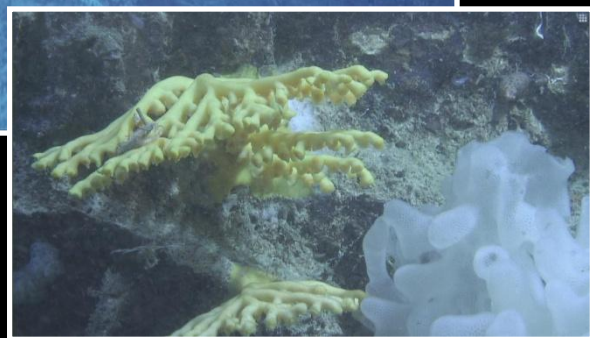
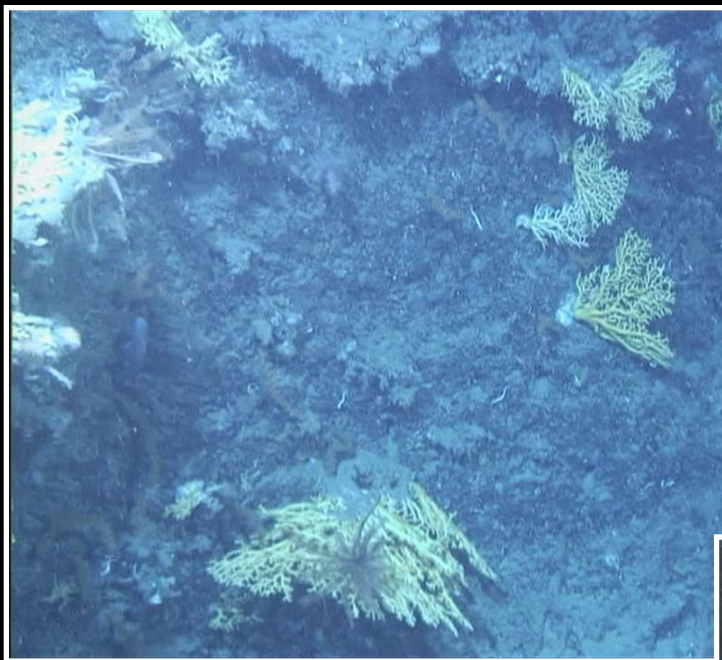
Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: Unclear

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Images: © NUIG, Celtic Explorer

3.4. CW Stylasterids on Hard substrate

3.4.1. *Errina dabneyi* and Sponges on Exposed Rocky Edges

Species composition: *E. dabneyi*, Lithistid sponges, Encrusting Sponges

Documented depth range: 350–400 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Image: © EMEPC, 2009

3.4. CW Stylasterids on Hard substrate

3.4.2. *Crypthelia* on Hard Substrate

Species composition: *Crypthelia* sp., other stylasterids, *Narella* cf. *versluysii*, sponges (fam. Farreidae), *Anthomastus* sp.

Documented depth range: 834–844 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Image: © IMAR/DOP-UAz, DEEPFUN, 2012

3.5. Dead CW Scleractinian Framework on Hard Substrate

3.5.1. Dead *Madrepora oculata*-*Lophelia pertusa* Framework on Hard Substrate

Species composition: dead *Madrepora oculata*, *Lophelia pertusa*

Documented depth range: 793–1987 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: Unclear

EUNIS: Deep-sea bioherms/communities of deep-sea corals or Deep-sea rock and artificial substrata/deep-sea bedrock

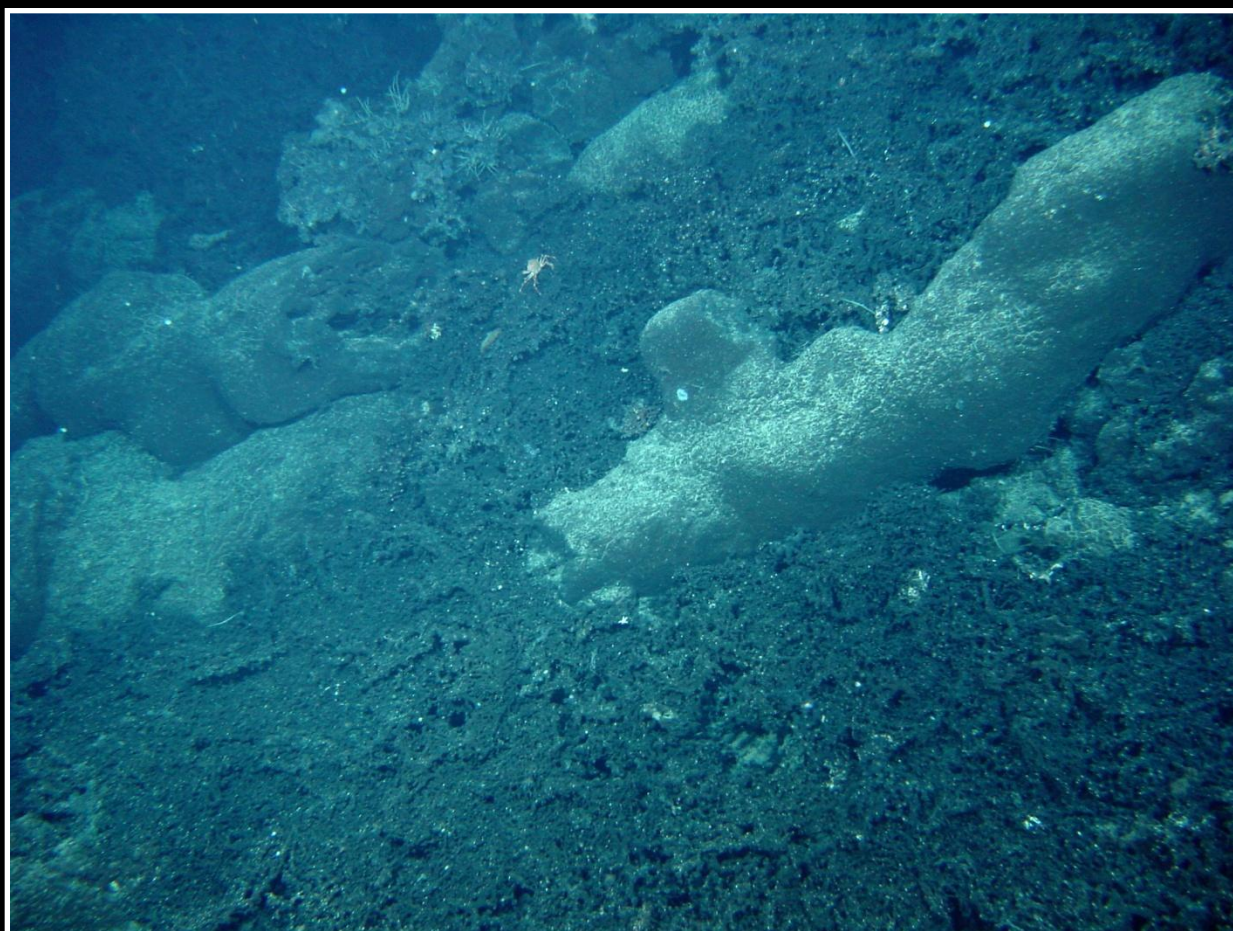


Image: © SEAHMA, 2002

4.1. Solitary CW Scleractinians on Hard/Mixed Substrate or Compact Mud

4.1.1. *Vaughanella* sp. on Hard Substrate Covered by Soft Substrate

Species composition: *Vaughanella* sp.

Documented depth range: 1400 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata or Deep-sea mixed substrata



Image: © Ifremer, BOBEKO

4.1. Solitary CW Scleractinians on Hard/Mixed Substrate or Compact Mud

4.1.2. Solitary Caryophyllids on Mixed Substrate

Species composition: *D. Dianthus*, *C. calveri*, sponges

Documented depth range: 196–800 m

Locations known: Mediterranean Sea (off-shore Santa Maria di Leuca (Ionian Sea, Apulian margin)

Physiographic provinces: Continental slope

Geomorphic units: Mass-movement deposits

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Santa Maria di Leuca,
Mediterranean

Images: © CoNISMa



5.1. CW Alcyoniina on Hard/Mixed Substrate or Compact Mud

5.1.1. *Anthomastus* sp. on Hard/Mixed Substrate or Compact Mud

Species composition: *Anthomastus* sp.

Documented depth range: 2040 m

Locations known: Bay of Biscay (Roberts et al. 2014)

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata or Deep-sea mixed substrata



5.1. CW Alcyoniina on Hard/Mixed Substrate or Compact Mud

5.1.2. Nephtheidae on Hard/Mixed Substrate or Compact Mud

Species composition: Nephtheidae, Sponges, Stylasterids

Documented depth range: 600 m

Locations known: Iceland, Norway

Physiographic provinces: Continental slope

Geomorphic units: Submarine glacial landforms, Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock

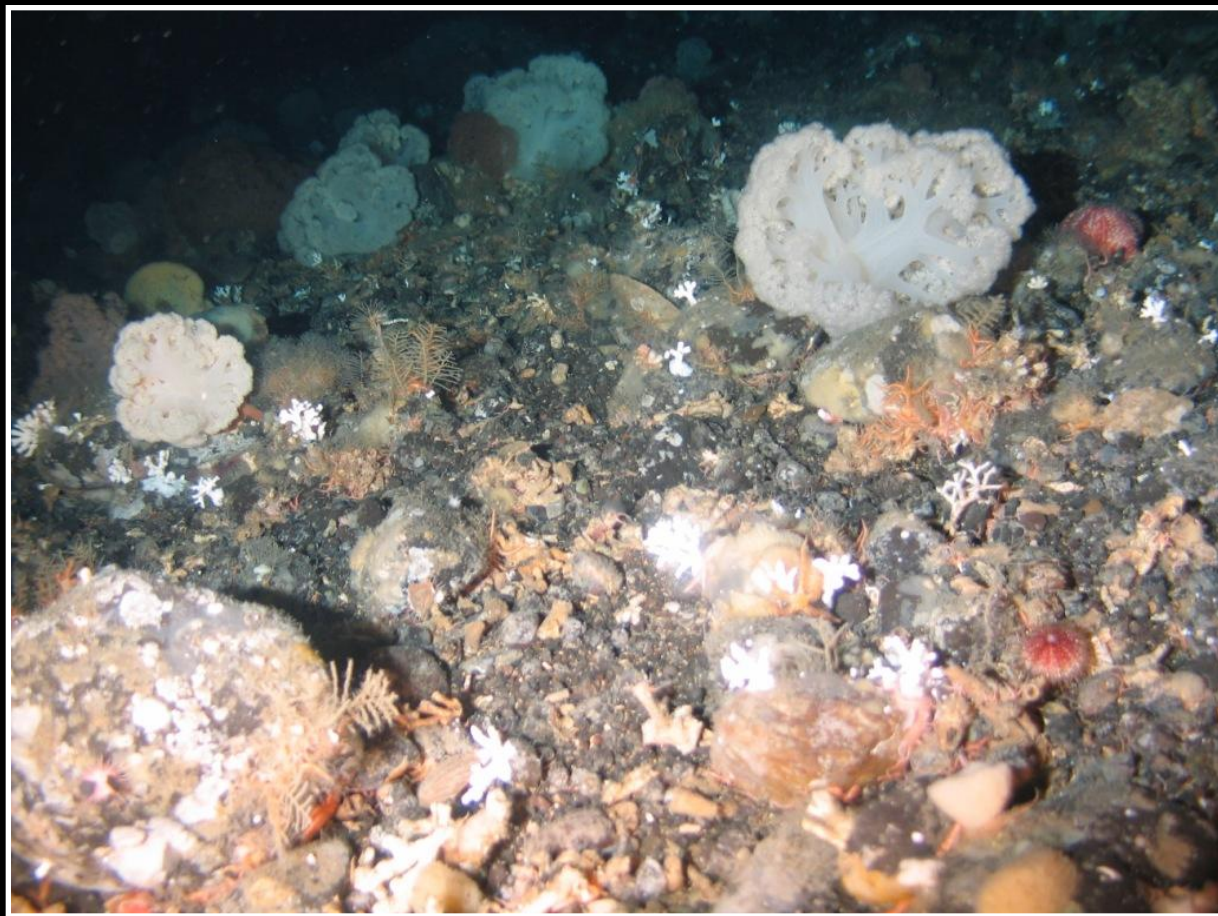


Image: © Marine and Freshwater Research
Institute Iceland

6.1. CW Antipatharians on Hard/Mixed Substrate or Compact Mud

6.1.1. Antipatharians on Hard Substrate

Species composition: *Leiopathes* sp., *Stichopathes* sp., Gorgonians

Documented depth range: 600–1200 m

Locations known: Bay of Biscay, Rockall Bank

Physiographic provinces: Continental slope, Large oceanic banks

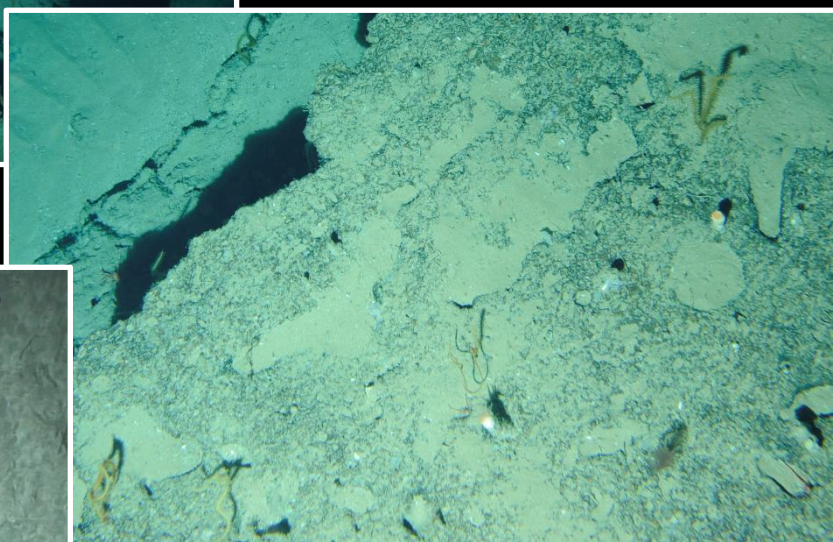
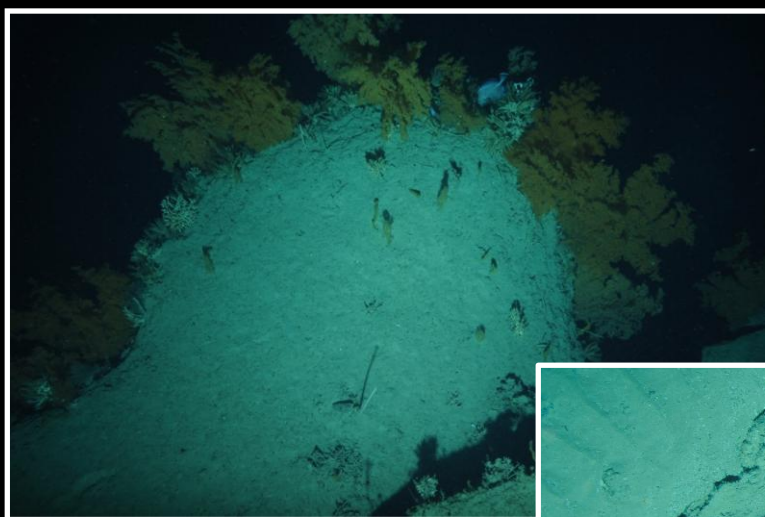
Geomorphic units: Canyon systems, Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Images: © Ifremer, EVHOE, BOBECO

6.1. CW Antipatharians on Hard/Mixed Substrate or Compact Mud

6.1.2. *Antipathes dichotoma* on Hard Substrate with Intense sedimentation

Species composition: *A.dichotoma dichotoma*

Documented depth range: 278–305 m

Locations known: Bay of Biscay (Cap Breton canyon)

Physiographic provinces: Continental slope

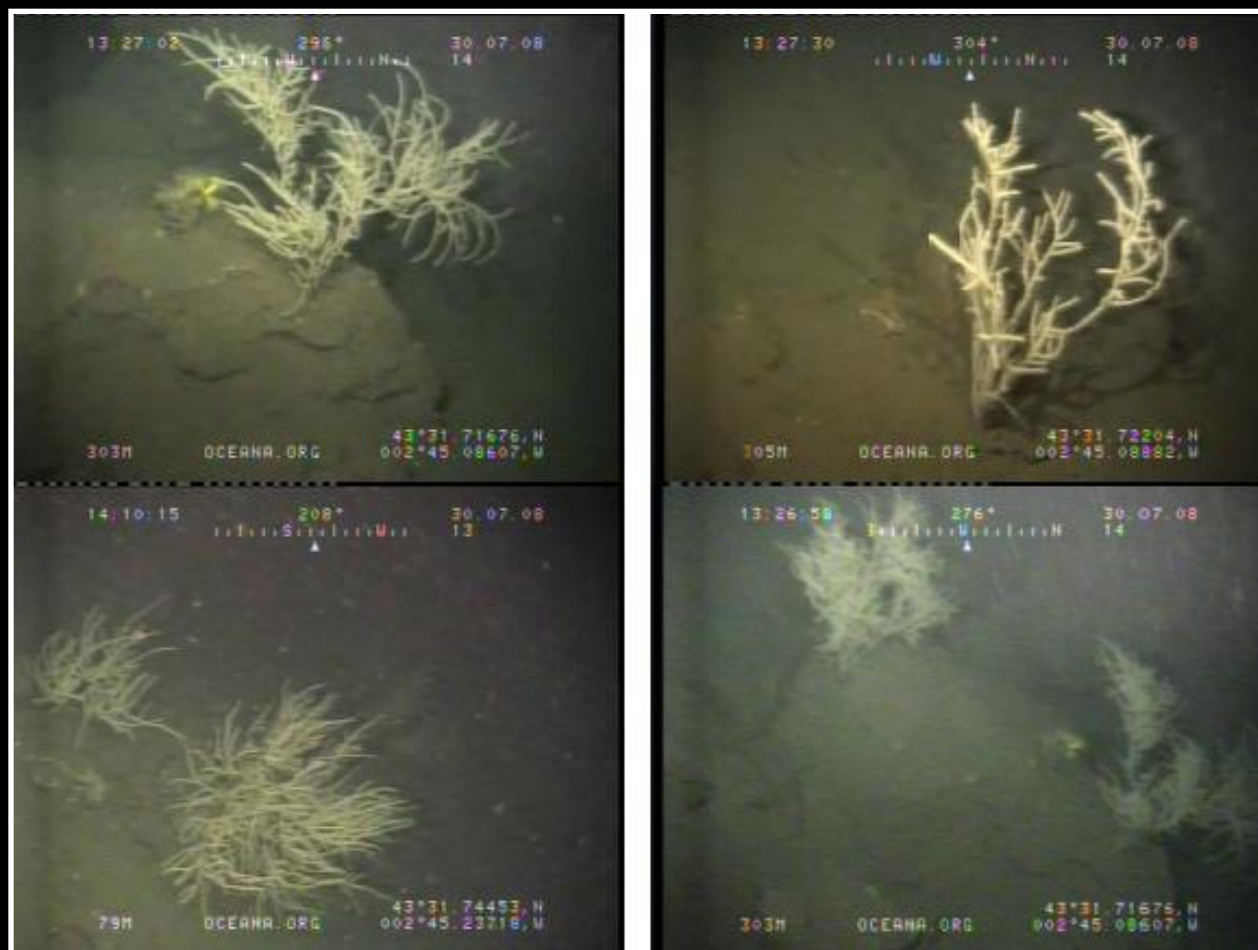
Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata or Deep-sea mixed substrata



Images: © OCEANA

6.1. CW Antipatharians on Hard/Mixed Substrate or Compact Mud

6.1.3. *Leiopathes glaberrima* on Boulders

Species composition: *Leiopathes glaberrima*, *Desmophyllum dianthus*

Documented depth range: 450–800 m

Locations known: Mediterranean Sea (Ionian Sea: Italy, Greece), Sicily Channel)

Physiographic provinces: Continental slope

Geomorphic units: Mass-movement deposits

Statistical backup: Yes

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/ Boulders on the deep-sea bed



Santa Maria di Leuca, Mediterranean. Image: © CoNISMa



Image © HCMR, Greece

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.1. *Iridogorgia* sp. and other Gorgonians on Hard/Mixed Substrate

Species composition: *Iridogorgia* sp., bamboo corals (fam. Isididae), unidentified gorgonians.

Documented depth range: 2097–2437 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

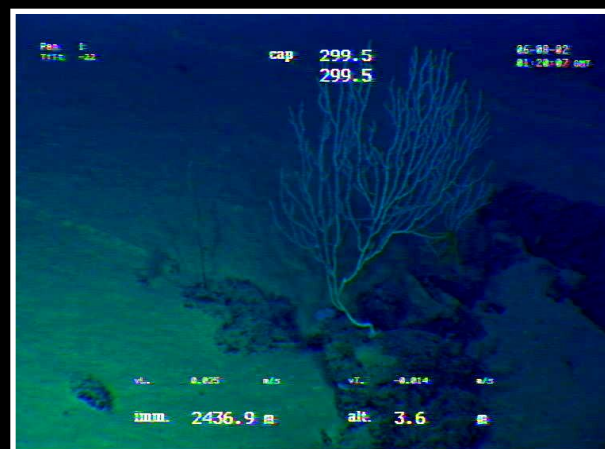
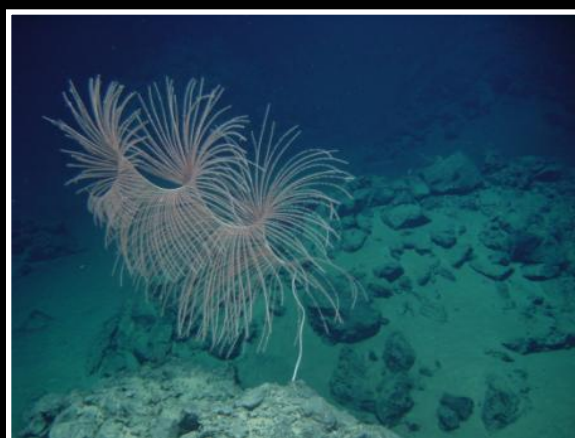
Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Images: © SEAHMA, 2002

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.2. *Chrysogorgia* sp. and *Acanella* sp. on Hard Substrate

Species composition: *Chrysogorgia* sp., *Acanella* sp., unidentified Gorgonians, *Madrepora oculata*, unidentified Sponges

Documented depth range: 1047–1065 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Image: © EMEPC, 2009

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.3. *Viminella flagellum* on Hard/Mixed Substrate

Species composition: *V. flagellum*, Stylasterids, *Acanthogorgia* sp., cf. *Lytocarpia myriophyllum*, unidentified sponges.

Documented depth range: 130–526 m

Locations known: Azores, Mediterranean Sea (Sicily Channel, Giusti *et al.* 2012)

Physiographic provinces: Oceanic islands and seamounts

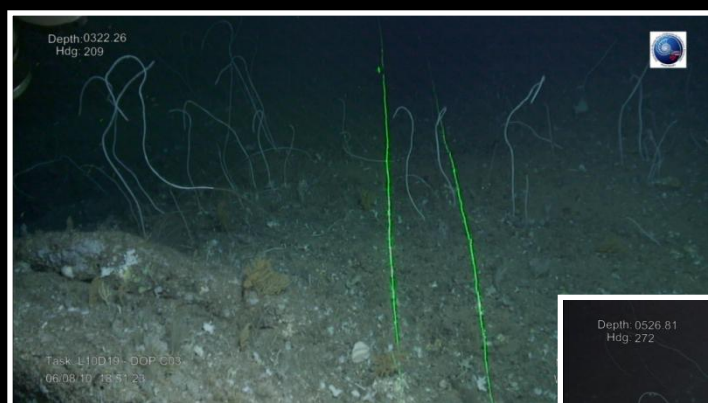
Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Images: © IMAR/DOP-UAz/EMEPC, 2010

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.4. *Viminella* sp. and *Dentomuricea* sp. on Hard/Mixed Substrate

Species composition: *Viminella flagellum*, *Dentomuricea* sp.

Documented depth range: 200–287 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

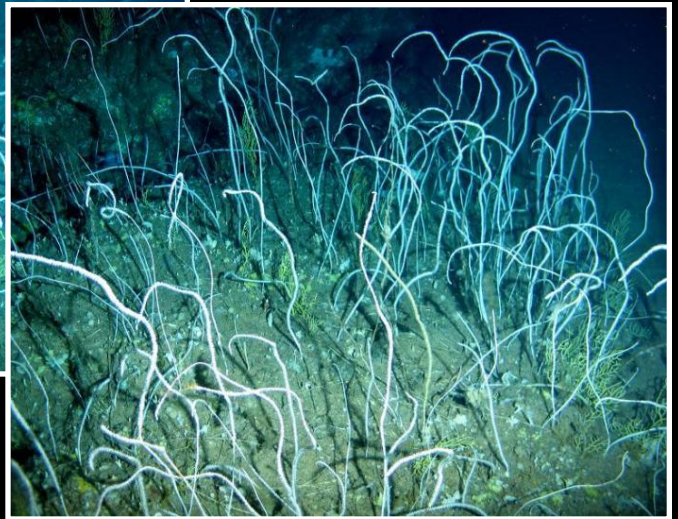
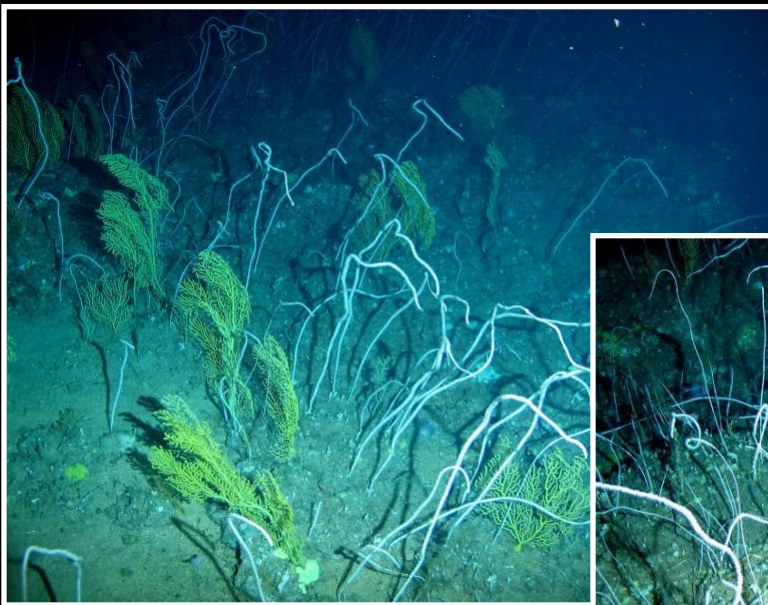
Geomorphic units: Bedrock and escarpment

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/Deep-sea bedrock or Deep-sea mixed substrata



Images: © Gavin Newman/Greenpeace

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.5. *Isidella elongata* on Hard/Mixed Substrate or Compact Mud

Species composition: *I. elongata*

Documented depth range: 500–1200, 2010–2116 m

Locations known: Ireland, Bay of Biscay, Mediterranean Sea (Cartes et al. 2013), Gulf of Cadiz and North of Morocco (Grasshoff, 1988, 1989)

Physiographic provinces: Continental slope

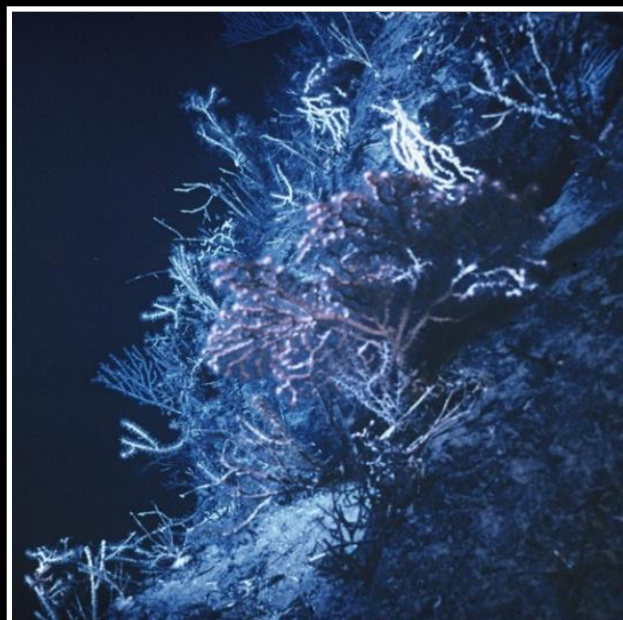
Geomorphic units: Canyon systems; Carbonate mounds; Smooth and featureless slope regions

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or mixed substrata or Facies of compact muds with *Isidella elongata*



Images: © Ifremer, CYMOR2

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.6. *Narella* cf. *versluysi* on Hard Substrate

Species composition: *N. cf. versluysi*, *Anthomastus* sp., unidentified sponges (fam. Euplectellidae, fam. Farreidae)

Depth range: 764–828 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata

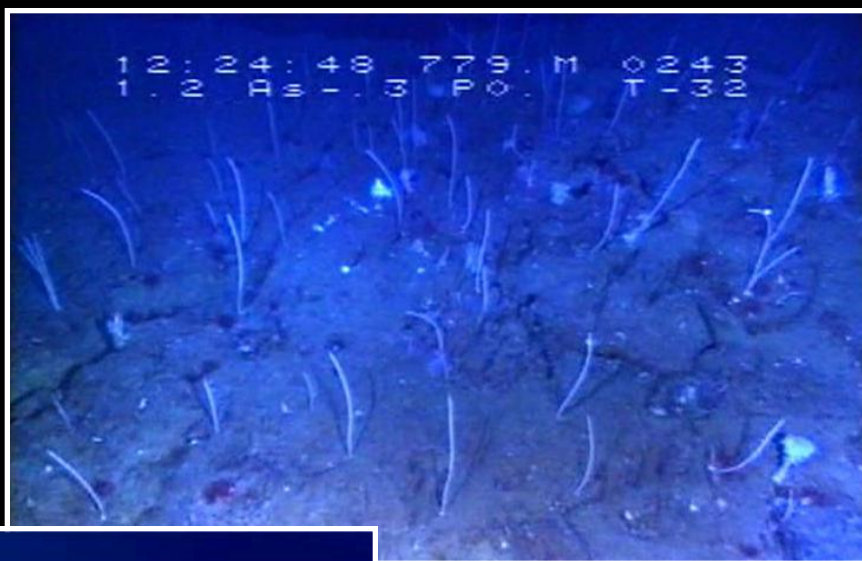


Image: © Ifremer, DIVANAUT, 1994



Image: © SEAHMA, 2002

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.7. *Primnoa resedaeformis* on Hard/Mixed Substrate or Compact Mud

Species composition: *P. resedaeformis*

Documented depth range: 200–300 m

Locations known: Iceland

Physiographic provinces: Continental shelf and slope

Geomorphic units: Submarine glacial landforms

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Image: © Marine and Freshwater Research Institute Iceland

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.8. *Acanthogorgia* spp. and large Primnoids on Hard/Mixed Substrate

Species composition: *Acanthogorgia* spp., cf. *Bebryce mollis*, *Paracalyptrophora josephinae*, *Callogorgia verticillata*, *Viminella flagellum*, sparse antipatharians.

Documented depth range: 300–500 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata

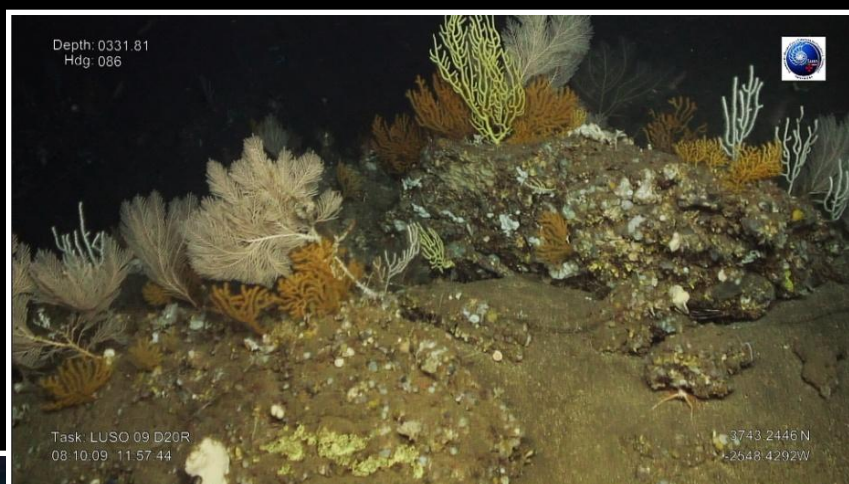


Image: © EMEPC, 2009



Image: Gavin Newman © Greenpeace

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.9. *Dentomuricea* sp. on Mixed Substrate

Species composition: *Dentomuricea* sp., *Viminella flagellum*, short and encrusting sponges

Documented depth range: 200–300 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Image: © IMAR-DOP/UAz-EMEPC

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.10. *Swiftia pallida* on Hard/Mixed Substrate or Compact Mud

Species composition: *S. pallida*

Documented depth range: 299–624 m

Locations known: Greece, Ionian Sea

Physiographic provinces: Continental slope

Geomorphic units: Mass-movement deposits, Smooth and featureless slope regions

Statistical backup: Yes

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.1 1. Plexauridae spp. on Hard/Mixed Substrate

Species composition: Plexauridae spp.

Documented depth range: 200–400 m, 1800–2350 m

Locations known: Iceland, Bay of Biscay

Physiographic provinces: Continental shelf and slope

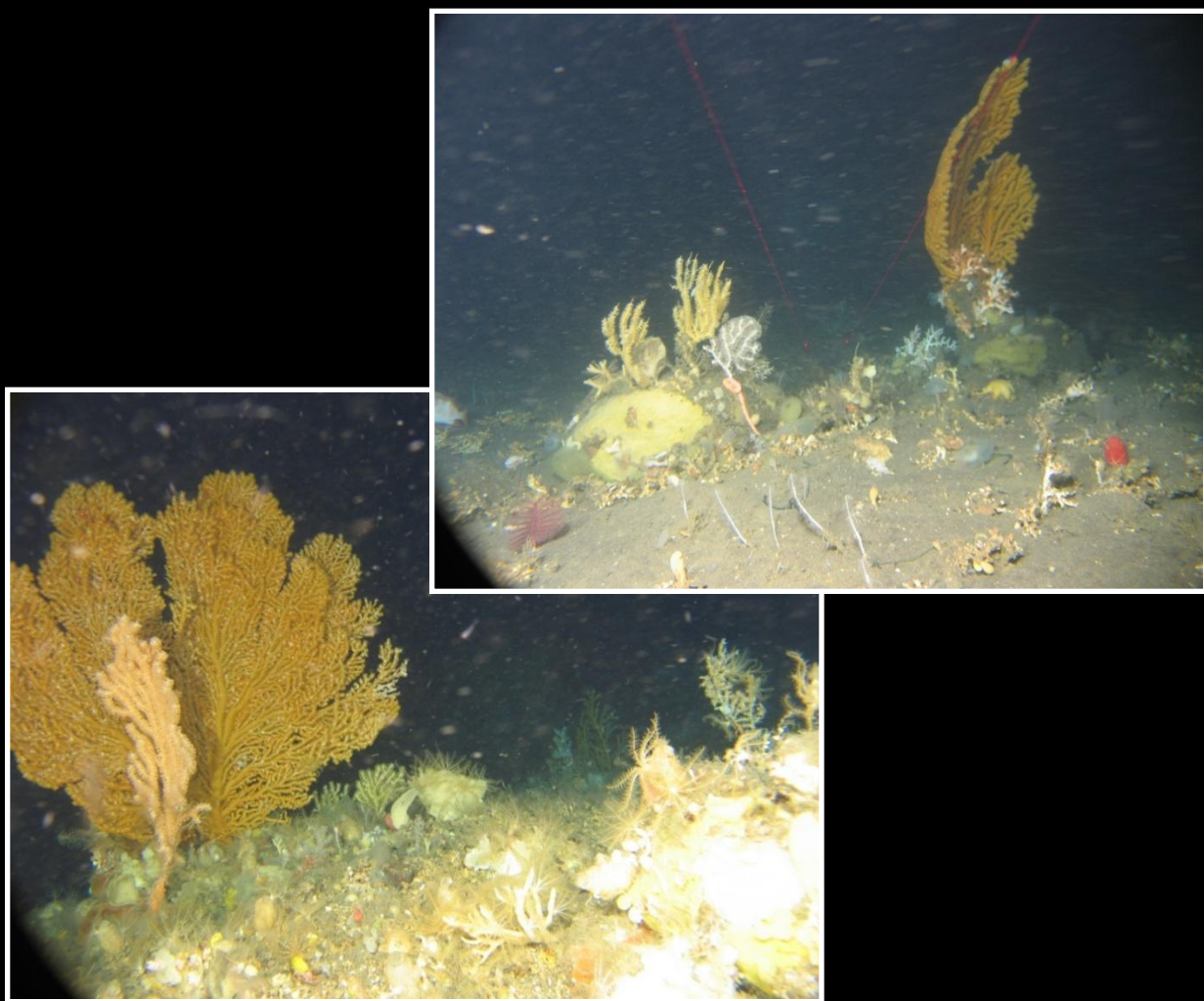
Geomorphic unit: Submarine glacial landforms, Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Images: © Marine and Freshwater Research Institute, Iceland

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.12. *Paragorgia arborea* on Hard/Mixed Substrate

Species composition: *P. arborea*

Documented depth range: 200–1300 m

Locations known: Norway

Physiographic provinces: Continental shelf and slope

Geomorphological setting: Submarine glacial landforms

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Image: © Mareano

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.13. Unidentified white coiled whip coral on Hard/Mixed Substrate

Species composition: unidentified white coiled whip coral, Sponges (fam. Farreidae)

Documented depth range: 1650–1690 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

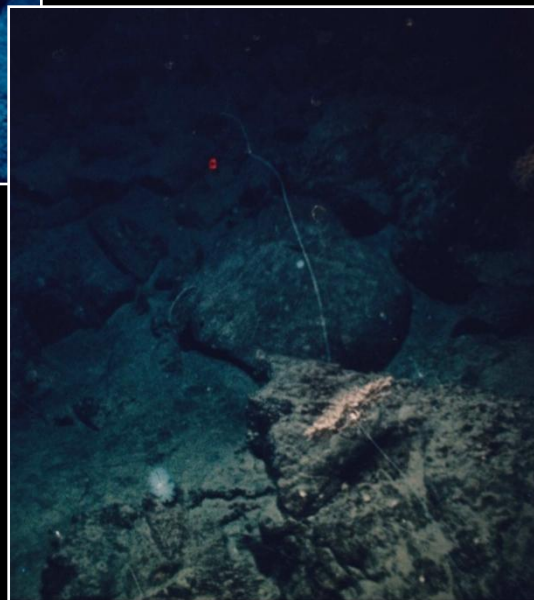
Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Images: © Expedition Azores 1969/Station Marine d'Endoume

6.2. CW Gorgonians on Hard/Mixed Substrate or Compact Mud

6.2.14. cf. *Victorgorgia josephinae* on Hard/Mixed Substrate

Species composition: cf. *Victorgorgia josephinae*, Hexactinellid Sponges, Stylasterids.

Documented depth range: 2140–2230 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata

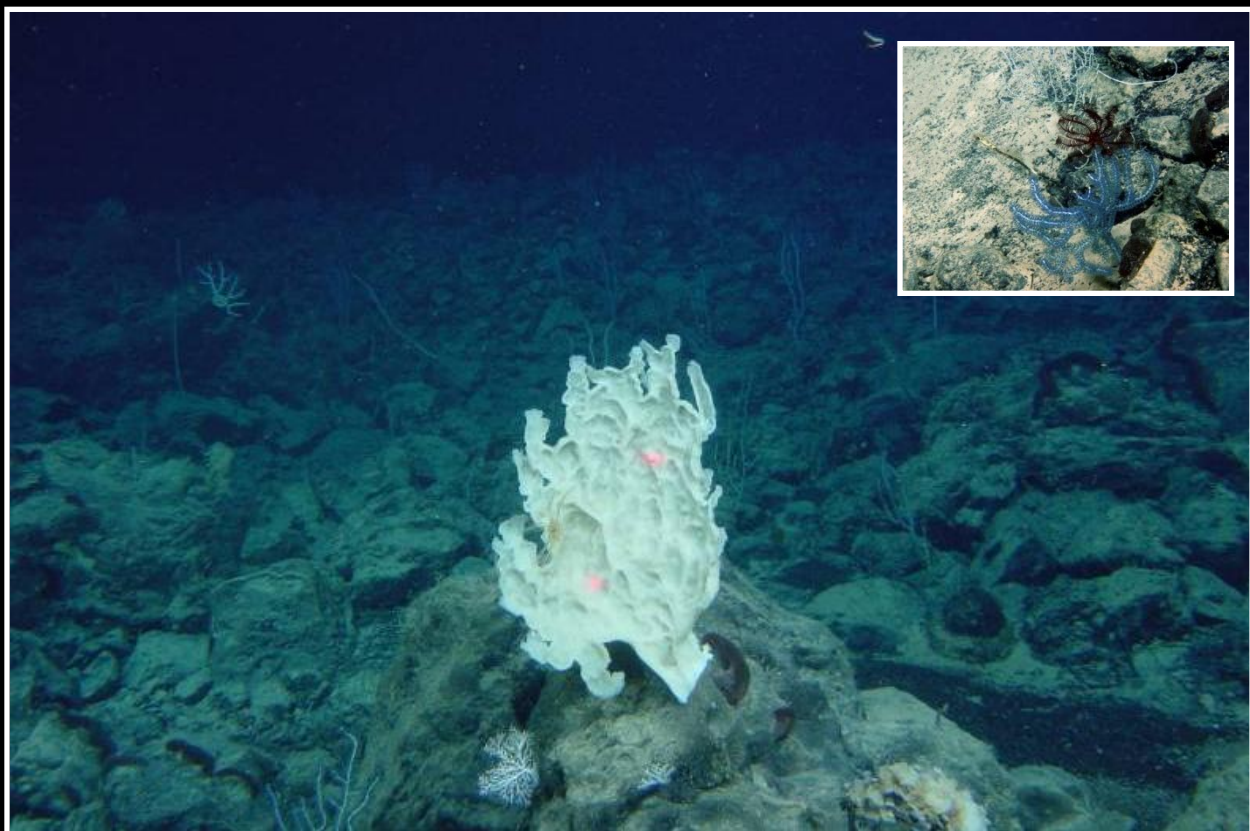


Image: © SEAHMA, 2002

7.1. Mixed CWCs on Hard/Mixed Substrate or Compact Mud

7.1.1. Isolated colonies of Scleractinians, Antipatharians and Gorgonians on Hard/Mixed Substrate or Consolidated Mud

Species composition: Antipatharians (*Leiopathes* sp.), isolated colonies of *Lophelia pertusa* and/or *Madrepora oculata*, solitary Caryophyllids, Gorgonians, Crinoids

Documented depth range: 700–1800 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Images: © Ifremer, BOBGEO, BOBECO

7.1. Mixed CWCs on Hard/Mixed Substrate or Compact Mud

7.1.2. Isolated Colonies of Scleractinians, Antipatharians and Gorgonians on Hard Substrate Covered by Soft Substrate

Species composition: *Madrepora oculata*, *Lophelia pertusa*, *Leiopathes* sp., *Parantipathessopathes*, *Narella versluysi*

Documented depth range: 900 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata

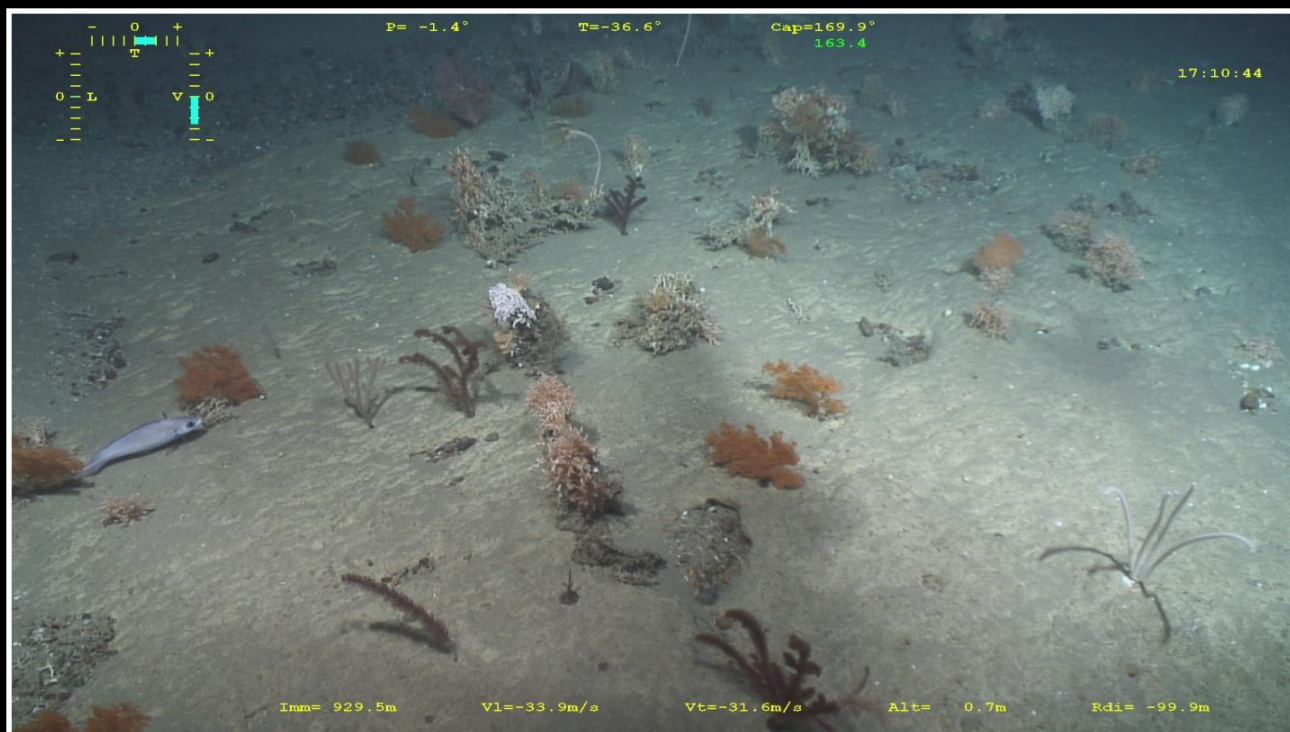


Image: © Ifremer, BOBECO

7.1. Mixed CWCs on Hard/Mixed Substrate or Compact Mud

7.1.3. *Primnoa* sp., Plexauridae and *Lophelia pertusa* on Hard Substrate

Species composition: *Primnoa* sp., Plexauridae, *Lophelia pertusa*

Documented depth range: 200–500 m

Locations known: Iceland

Physiographic provinces: Continental Shelf and Slope

Geomorphic units: Submarine glacial landforms

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock

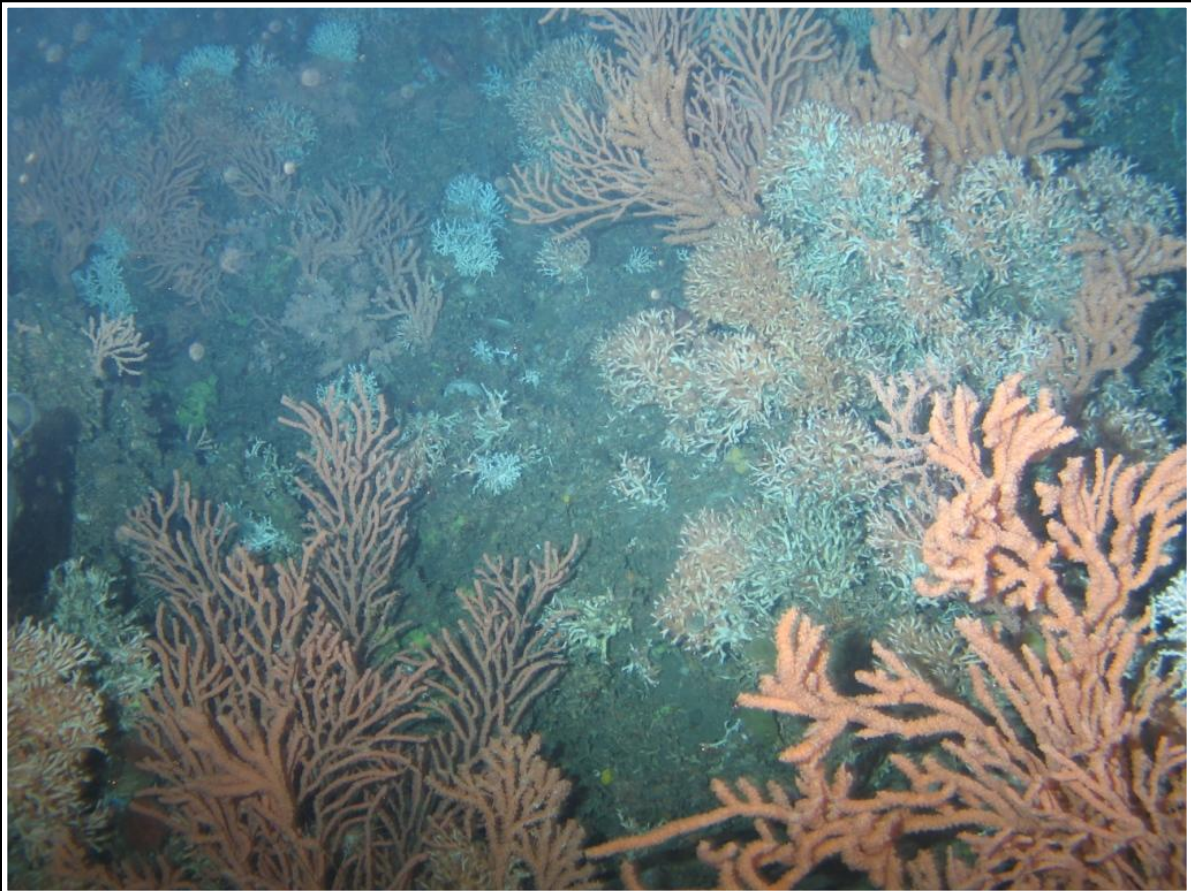


Image: © Marine and Freshwater Research Institute, Iceland

7.1. Mixed CWCs on Hard/Mixed Substrate or⁶¹ Compact Mud

7.1.4. *Candidella imbricata*, *Lophelia pertusa* and various other corals on Hard Substrate

Species composition: *Candidella imbricata*, *Lophelia pertusa*, *Antipathes erinaceus*, various Gorgonians, Scleractinians and Hydrarians

Documented depth range: 906–923 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock

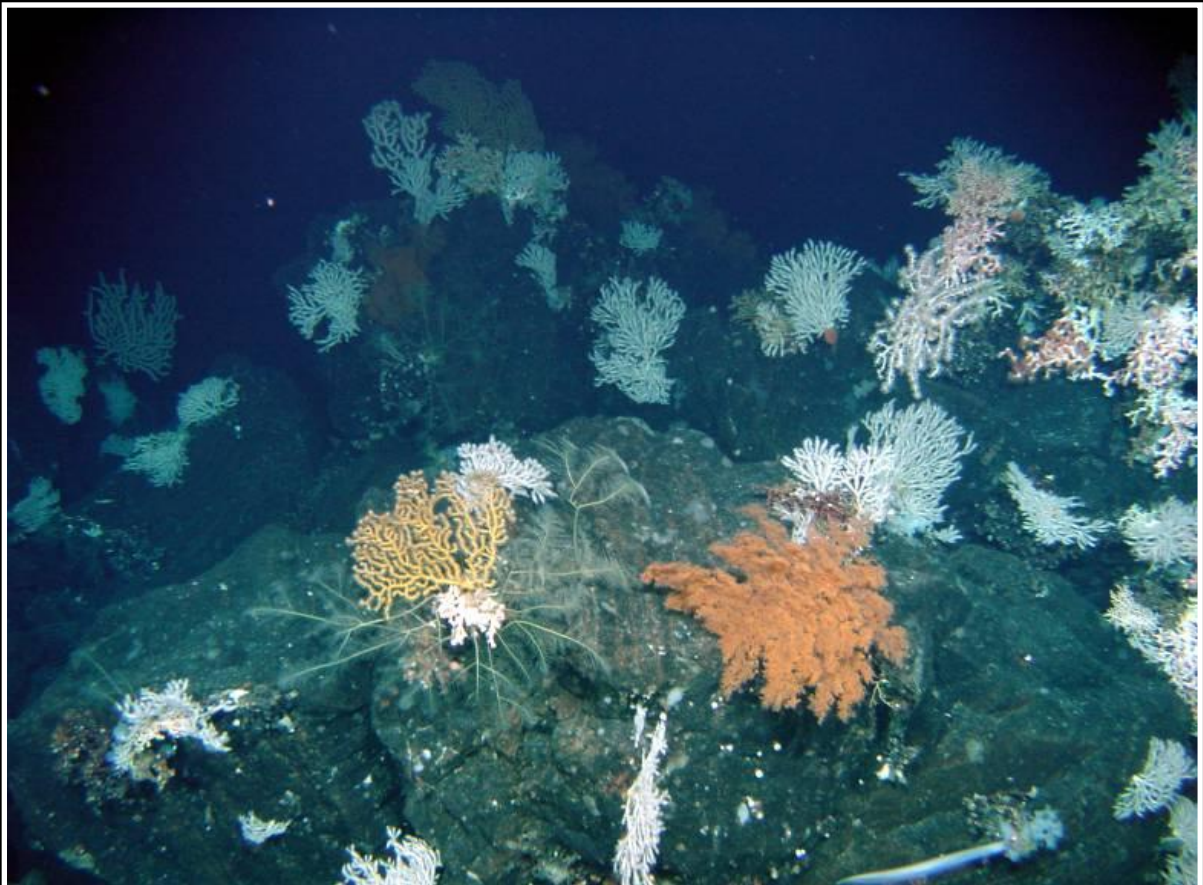


Image: © SEAHMA, 2002

7.1. Mixed CWCs on Hard/Mixed Substrate or Compact Mud

7.1.5. *Paragorgia johnsoni*, *Anthomastus* sp. and Stylasterids on Hard Substrate

Species composition: *P. johnsoni*, short sponges, *Anthomastus* sp., cf. stylasterids, large sponges.

Documented depth range: 603–613 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Images: © Ifremer, DIVANAUT, 1994

7.1. Mixed CWCs on Hard/Mixed Substrate or Compact Mud

7.1.6. *Primnoa resedaeformis* and *Lophelia pertusa* on Vertical Wall

Species composition: *P.resedaeformis*, *L.pertusa*

Documented depth range: 200–250 m

Locations known: Iceland

Physiographic provinces: Continental shelf

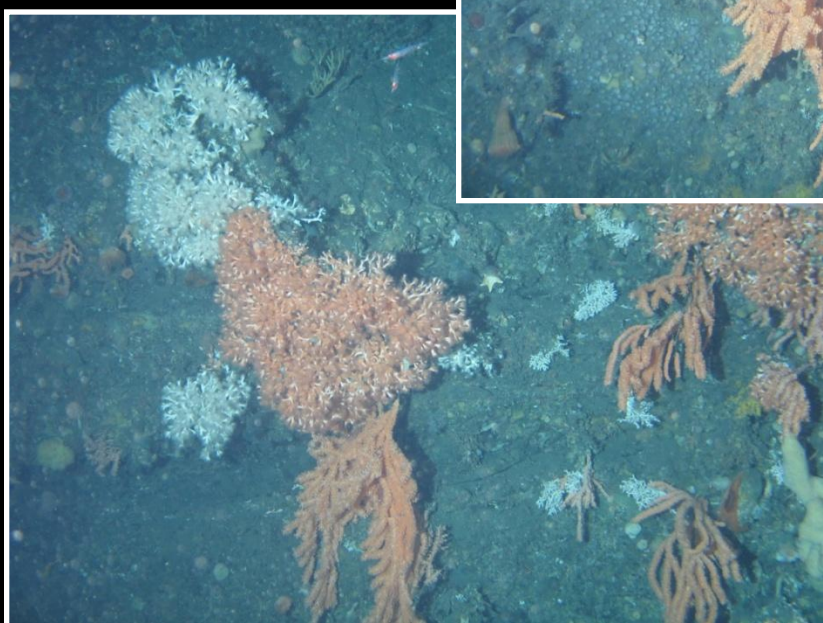
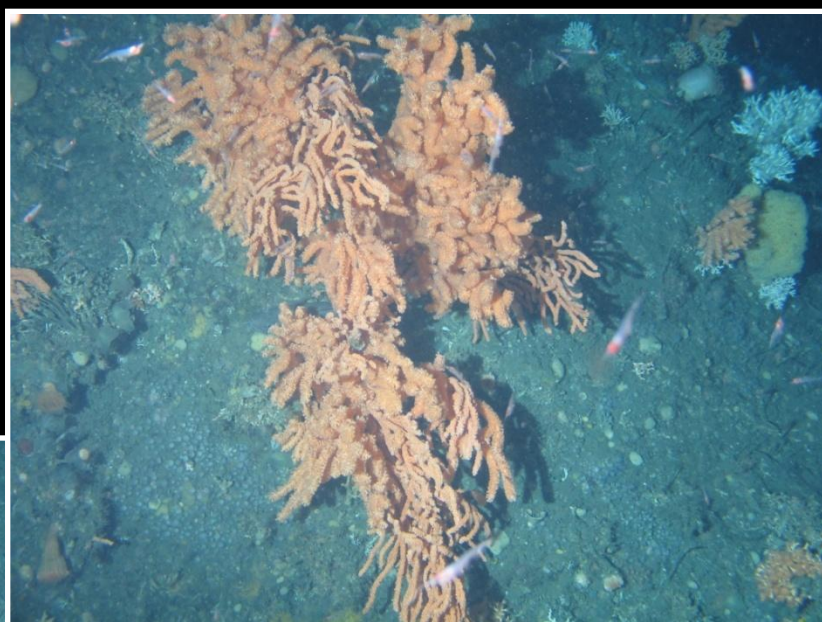
Geomorphic units: Submarine glacial landforms

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Images: © Marine and Freshwater Research Institute, Iceland

7.1. Mixed CWCs on Hard/Mixed Substrate or Compact Mud

7.1.7. *Candidella imbricata* and *Leptopsammia* cf. *formosa* on Hard Substrate

Species composition: *C. imbricata*, *L.* cf. *formosa*, *Desmophyllum dianthus*, *Chrysogorgia* sp., *Acanella* sp.

Depth range: 837–995 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock or Deep-sea mixed substrata



Image: © IMAR/DOP-UAz/
EMEPC, 2010



Image: © SEAHMA, 2002

8. Mixed CWCs and Sponges on Hard/Mixed Substrate or Compact Mud

8.1.1. *Lophelia pertusa*, Alcyoniina, Encrusting and Glass Sponges on Hard/Mixed Substrate or Compact Mud

Species composition: *L. pertusa*, Alcyoniina, Encrusting and Glass Sponges

Documented depth range: 1267–1755 m

Locations known: Anton Dohrn Seamount

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: Yes

Habitats Directive: Reefs

OSPAR: potential Coral gardens

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Images © JNCC, 2009

8.2. Mixed CWCs and Sponges on Hard/Mixed Substrate or Compact Mud

8.1.2. Large sponges and Isolated Scleractinian colonies on Hard/Mixed Substrate or compact Mud

Species composition: large Sponges (fam. Euplectellidae, fam. Rossellidae), Scleractinians, *Pheronema carpentieri*.

Documented depth range: 670–800 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

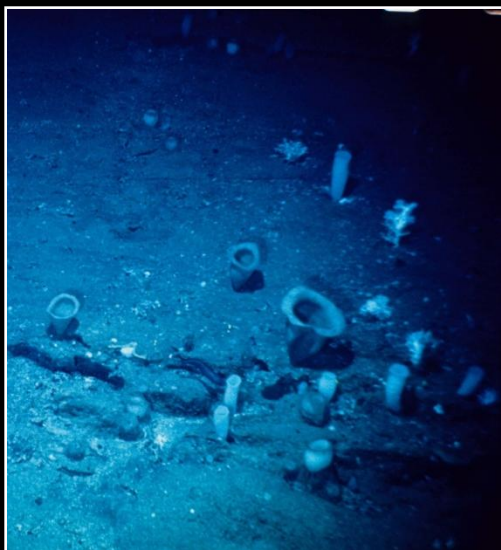
Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens or deep-sea sponge aggregations

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Images: Azores 1969/Station Marine d'Endoume

8. Mixed CWCs and Sponges on Hard/Mixed Substrate or Compact Mud

8.1.3. Stylasterids, Primnoids, Alcyoniina and large Sponges on Hard Substrate

Species composition: Stylasteridae, cf. *Calyptrophora trilepis*, *Narella* cf. *versluysi*, *Pheronema carpenteri*, Alcyoniina, other Hexactinellidae, Lithistid sponges

Depth range: 714–837 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens or deep-sea sponge aggregations

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Image: © IMAR/DOP-UAz/EMEPC, 2010

8. Mixed CWCs and Sponges on Hard/Mixed Substrate or Compact Mud

8.1.4. Antipatharians, Short Sponges and Sparse Large Sponges on Hard Substrate

Species composition: *Leiopathes* spp., *Antipathes* cf. *dichotoma*, lithistid sponges

Documented depth range: 438–714 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

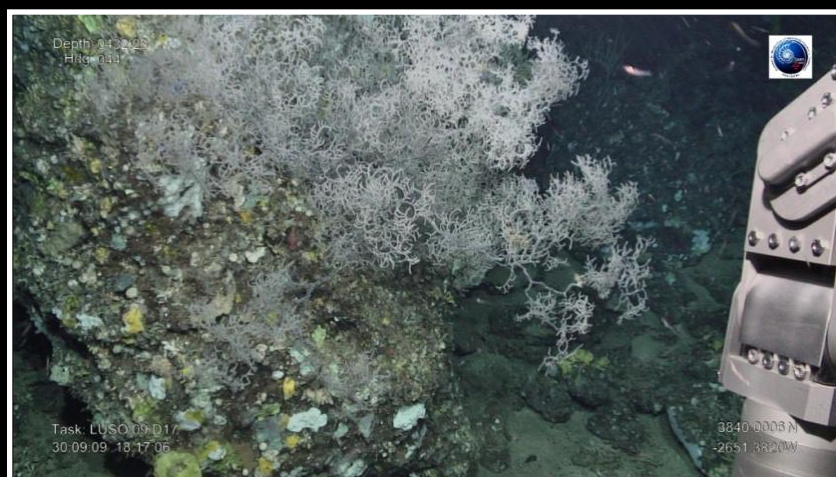
Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens; Deep-sea sponge aggregations

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



Images: © EMEPC; © Gavin Newman/Greenpeace

8. Mixed CWCs and Sponges on Hard/Mixed Substrate or Compact Mud

8.1.5. *Anthomastus* sp., white lamellate sponges and *Gorgonocephalus* on Hard Substrate

Species composition: *Anthomastus* sp., white lamellate Sponges, *Gorgonocephalus* sp., cf. *Narella versluysi*, various sponges (fam. Farreidae, fam. Rossellidae, short sponges)

Documented depth range: 804–829 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

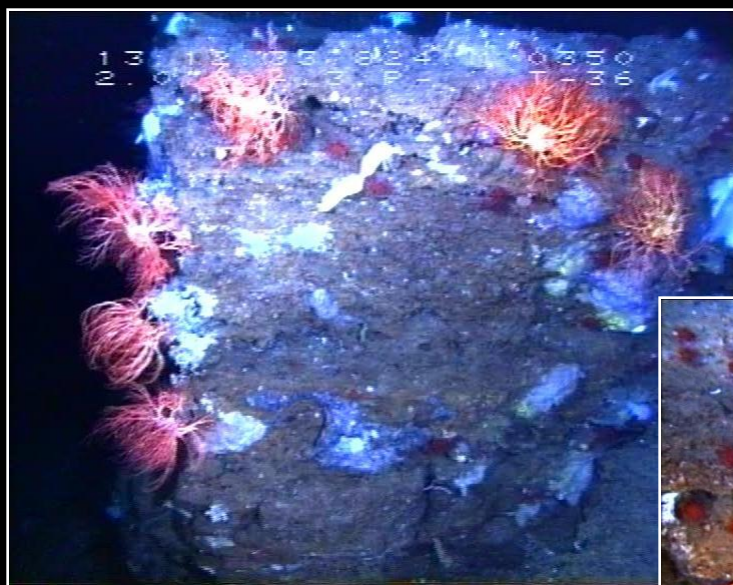
Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens; Deep-sea sponge aggregations

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



8. Mixed CWCs and Sponges on Hard/Mixed Substrate or Compact Mud

8.1.6. *Callogorgia verticillata*, *Asconema setubalense* and Demosponges on Hard Substrate

Species composition: *C. verticillata*, *A. setubalense* and Demosponges

Documented depth range: 340–350 m

Locations known: Gorringe Bank, off St Vincent Cape, Gulf of Cadiz

Physiographic provinces: Oceanic islands and seamounts

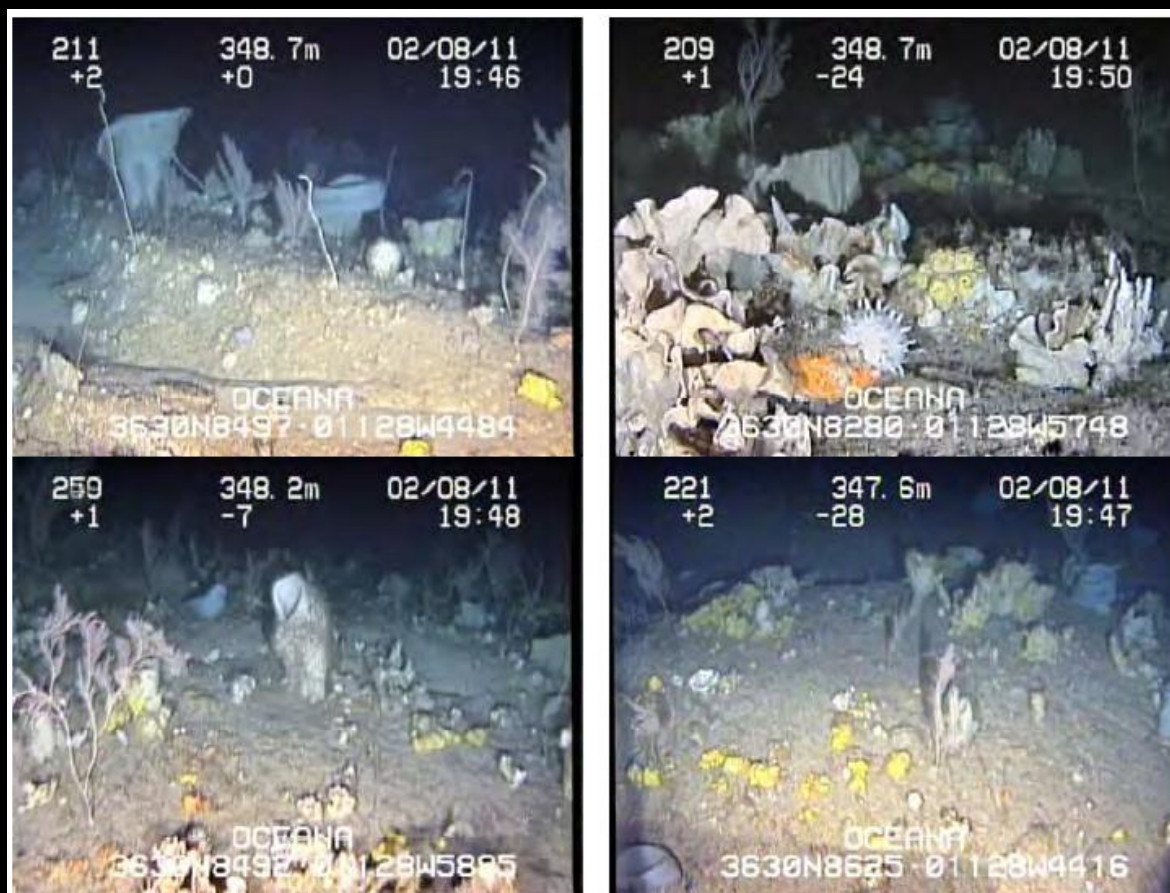
Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive: Reefs

OSPAR: potential Coral gardens; Deep-sea sponge aggregations

EUNIS: Deep-sea rock and artificial substrata/deep-sea bedrock



9. 1. CW Colonial Scleractinians on Soft Substrate

9.1.1. Isolated colonies of *Lophelia pertusa* and *Madrepora oculata* on Soft Substrate

Species composition: *L. pertusa*, *M. oculata*

Documented depth range: 450–1200 m

Locations known: Bay of Biscay, Mediterranean Sea (Santa Maria di Leuca)

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems, Mass-movement deposits

Statistical backup: No

Habitats Directive:

OSPAR:

EUNIS: Deep-sea muddy sand or Deep-sea mud

Santa Maria di Leuca, Mediterranean



Images: © MARUM

© CoNISMa

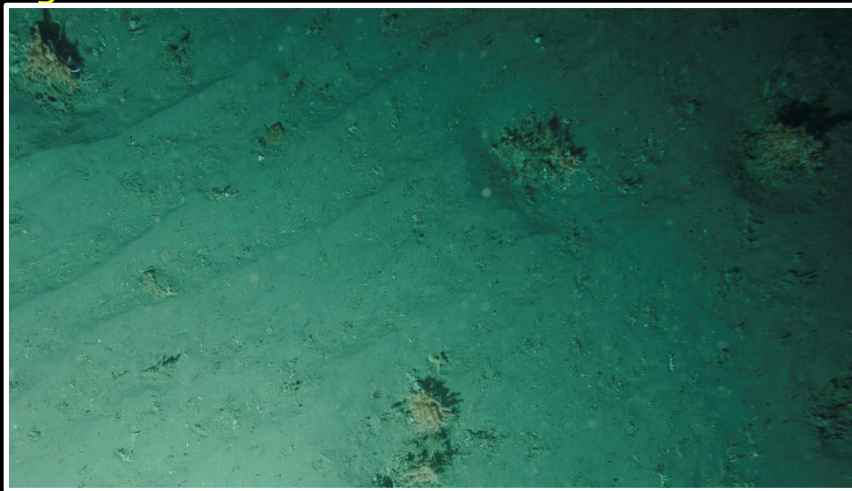


Image: © Ifremer,
Evhoe

10.1. CW Solitary Scleractinians on Soft Substrate

10.1.1. Solitary Caryophyllids and Xenophyophores on Soft Substrate

Species composition: *Caryophyllia ambrosia*, *C. cornuformis*, *Flabellum alabastrum*, cf. *Stereocidaris ingolfiana*, Xenophyophores (*Syringammina fragillissima*), Holothurians, Enteropneusts.

Documented depth range: 1000–2600 m

Locations known: East Rockall Bank (Bullimore et al. 2013), Bay of Biscay, Azores

Physiographic provinces: Continental rise, Oceanic islands and seamounts, Abyssal plains

Geomorphic units: Smooth and featurless slope regions

Statistical backup: Yes

Habitats Directive:

OSPAR: potential Coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Image: © Azores 1969/Station Marine d'Endoume

10.1. CW Solitary Scleractinians on Soft Substrate

10.1.2. Flabellids on Soft Substrate

Species composition: Flabellidae

Documented depth range: 800–900 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

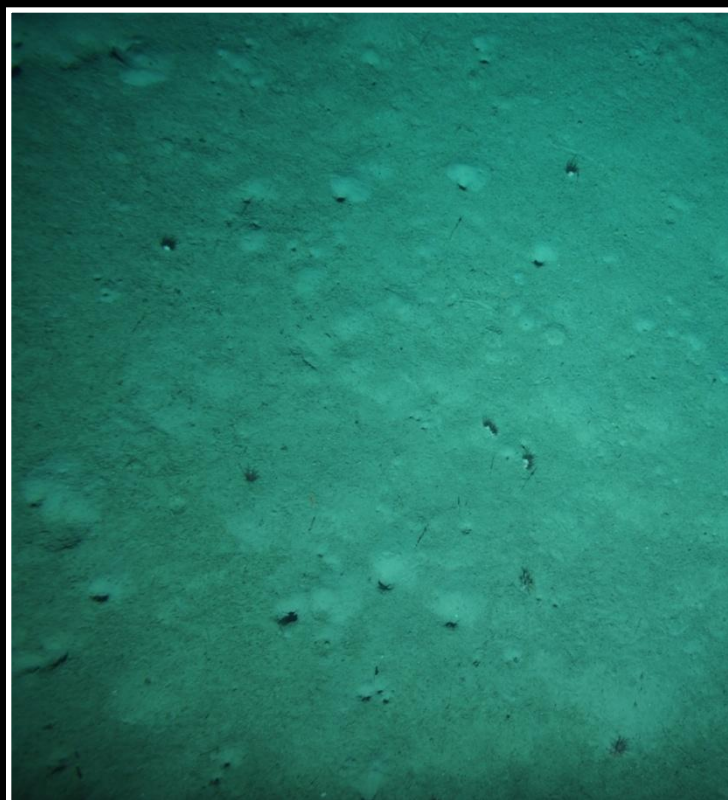
Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive:

OSPAR: potential Coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Images: © Ifremer, BOBGEO, BOBECO

1 1.1. CW Gorgonians on Soft Substrate

1 1.1.1. *Radicipes* sp. on Soft Substrate

Species composition: *Radicipes* sp.

Documented depth range: 700–900 m

Locations known: Norway

Physiographic provinces: Continental slope

Geomorphic units: Smooth and featureless slope regions

Statistical backup: No

Habitats Directive:

OSPAR: potential Coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud

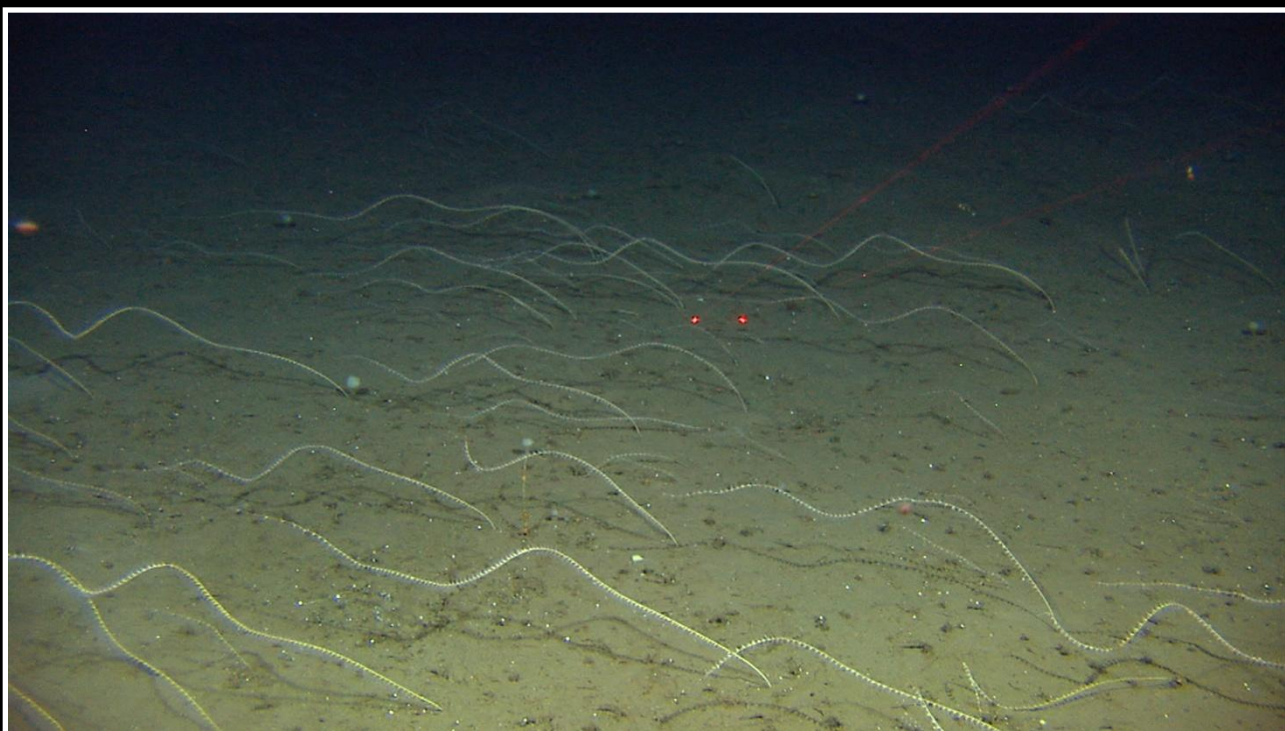


Image: © Mareano

11.1. CW Gorgonians on Soft Substrate

11.1.2. *Callogorgia verticillata* on Soft Substrate

Species composition: *Callogorgia verticillata*

Documented depth range: 150–400 m

Locations known: Josephine Seamount

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Smooth and featurless slope regions

Statistical backup: No

Habitats Directive:

OSPAR: potential Coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Image: © NOC

11.1. CW Gorgonians on Soft Substrate

11.1.3. *Acanella* sp. on Soft Substrate

Species composition: *Acanella* sp., *Ceriantharia* spp., cf. *Kophobelemnon* sp., *Flabellum* sp.

Documented depth range: 500–2400 m (most common under 1500 m)

Locations known: Iceland, Mid Atlantic Ridge, western Rockall Trough, Goban Spur, Ireland, Bay of Biscay, Azores

Physiographic provinces: Continental slope, Oceanic islands and seamounts

Geomorphic units: Canyon systems, Smooth and featureless slope regions

Statistical backup: Yes

Habitats Directive:

OSPAR: potential coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Image: © Marine and Freshwater Research Institute, Iceland



Image: © Ifremer, BobGeo

11.1. CW Gorgonians on Soft Substrate

11.1.4. *Acanella arbuscula* and *Lepidisis* sp. on Soft Substrate

Species composition: *Acanella arbuscula*, *Lepidisis* sp., *Hyalonema* spp.

Documented depth range: 900–2000 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope and continental rise

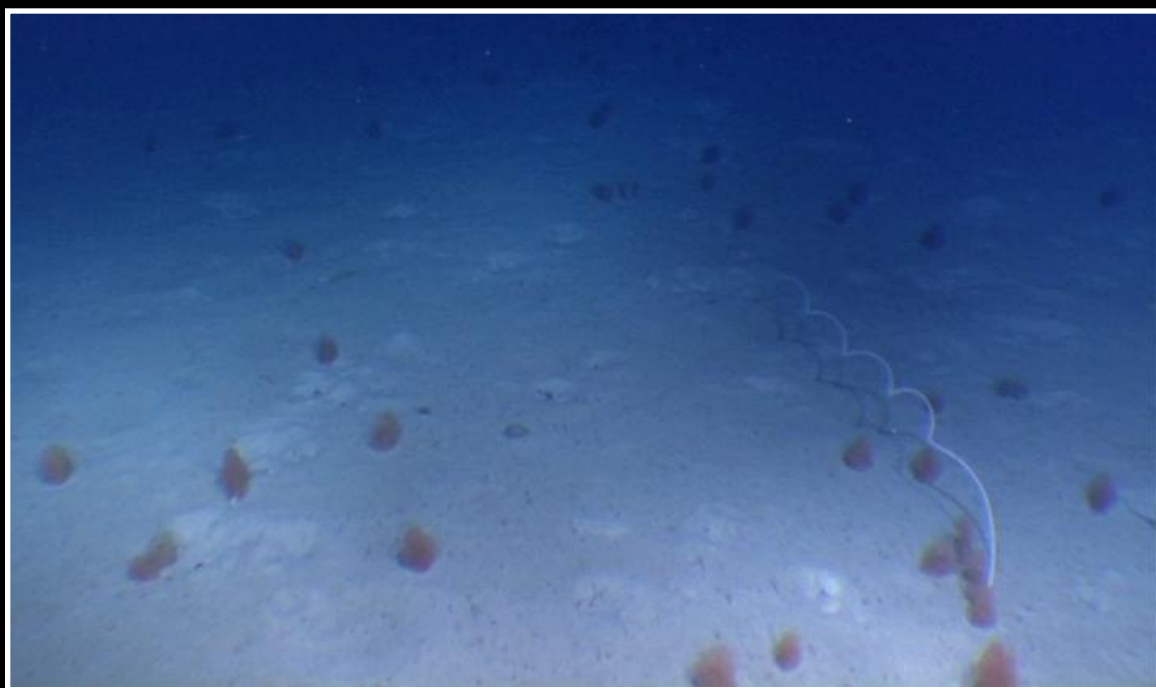
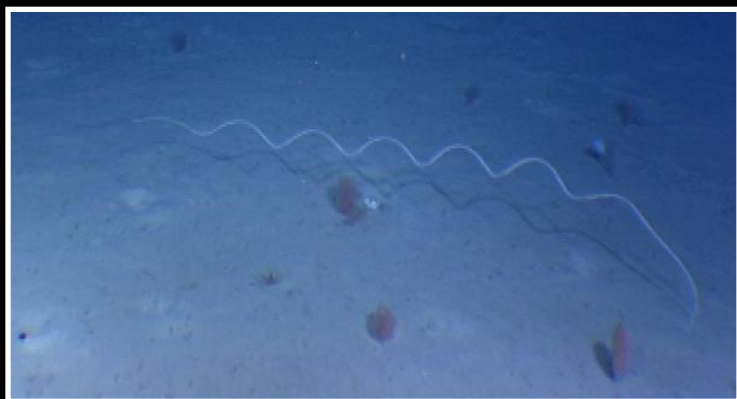
Geomorphic units: Canyon systems, Smooth and featureless slope regions

Statistical backup: No

Habitats Directive:

OSPAR: potential Coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Images: © Ifremer, VITAL

11.1. CW Gorgonians on Soft Substrate

11.1.5. *Acanella arbuscula* and Unidentified branched Coral on Soft Substrate

Species composition: *A. arbuscula*, Unidentified Coral

Documented depth range: 1800–1900 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive:

OSPAR: potential Coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Image: © Ifremer, BOBECO

12.1. Mixed CWC on Soft Substrates

12.1.1. *Thouarella* sp. and Seapens on Soft Substrate

Species composition: *Thouarella* sp. and Seapens

Documented depth range: 1500 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive:

OSPAR: potential coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Image: © Ifremer, BOBECO

13.1. Mixed CWC and Sponges on Soft Substrates

13.1.1. *Acanella arbuscula* and *Hyalonema* spp. on Soft Substrate

Species composition: *A. arbuscula*, *Hyalonema* spp.

Documented depth range: 900–2000 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope, Continental rise

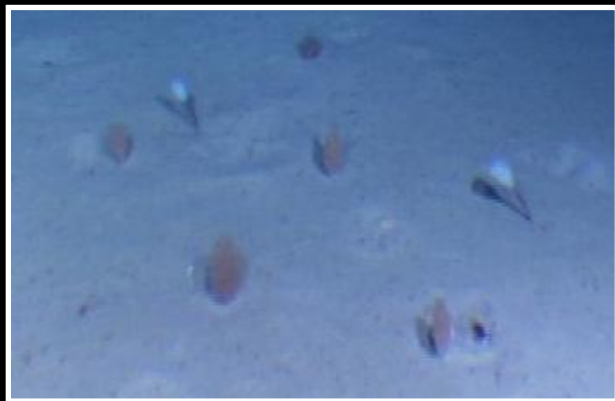
Geomorphic units: Canyon systems, Smooth and featureless slope regions

Statistical backup: No

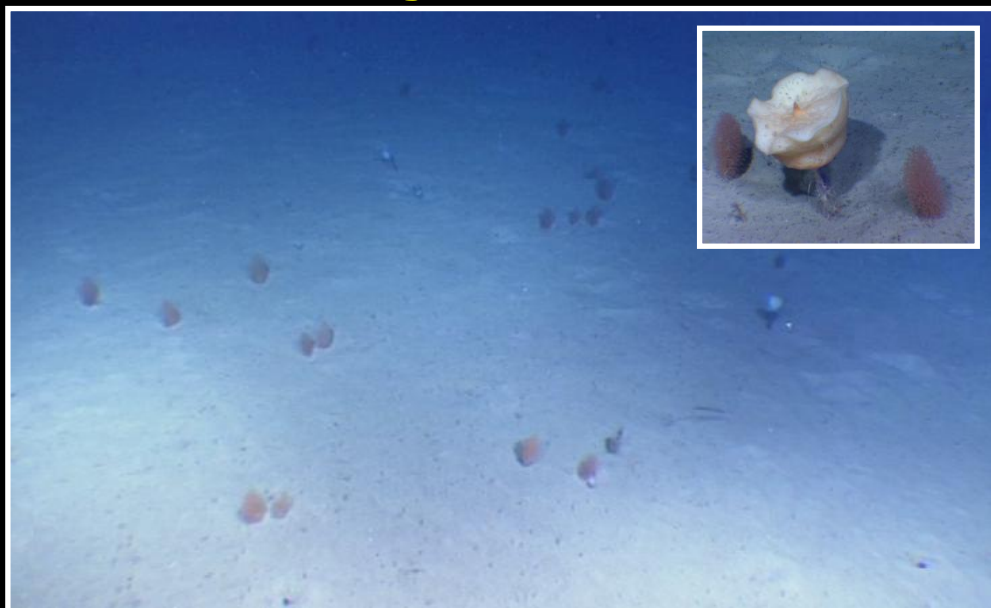
Habitats Directive:

OSPAR: potential Coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Images: © Ifremer, Evhoe



Images: © Ifremer, VITAL

14.1. CW Seapens on Soft Substrate

14.1.1. *Funiculina quadrangularis* and Burrowing Megafauna on Soft Substrate

Species composition: *F. quadrangularis*, *Nephrops norvegicus*

Documented depth range: 250–270 m

Locations known: Ireland, Bay of Biscay, Sicily Channel (Freiwald et al. 2009)

Physiographic provinces: Continental slope

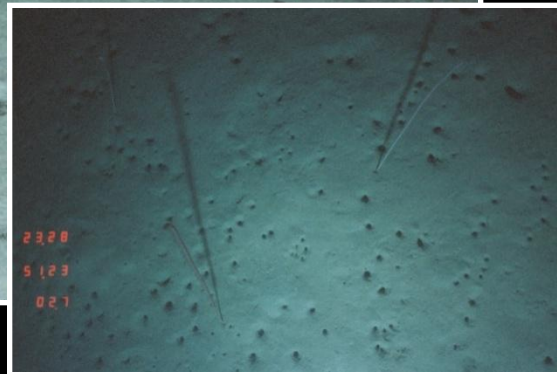
Geomorphic units: Canyon systems, Smooth and featureless slope regions

Statistical backup: No

Habitats Directive:

OSPAR: Seapens and burrowing megafauna communities

EUNIS: Deep-sea mud/Facies of soft mud with *Funiculina quadrangularis* and *Apporhais serressianus*



Images: Ifremer, EVHOE

14.1. CW Seapens on Soft Substrate

14.1.2. cf. *Halipteris* sp. on Soft Substrate

Species composition: cf. *Halipteris*, holothurians (Synallactidae, *Benthodytes* cf. *janthina*), *Astrodia tenuispina*, sea-stars, sponges (fam. Euplectellidae)

Documented depth range: 2400–2800 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts, Abyssal plains

Geomorphic units: Smooth and featureless slope regions

Statistical backup: No

Habitats Directive:

OSPAR: potential coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Image: © Azores 1969/Station Marine d'Endoume

14.1. CW Seapens on Soft Substrate

14.1.3. *Kophobelemnion stelliferum* on Soft Substrate

Species composition: *Kophobelemnion stelliferum*, *Protoptilum* sp., *Pennatula* spp.

Documented depth range: 500–1500 m

Locations known: Bay of Biscay, Iceland, Mediterranean Sea [Santa Maria di Leuca (Mastrototaro et al. 2013, Alboran Sea (Wienberg et al. 2009)] Celtic Sea (Davies et al. 2014).

Physiographic provinces: Continental slope

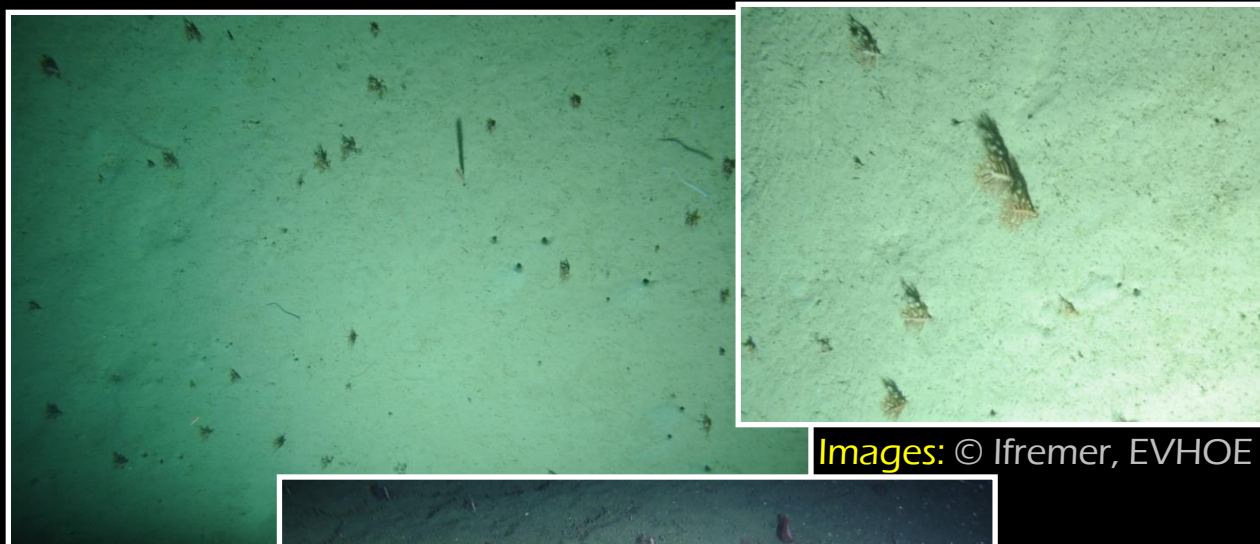
Geomorphic units: Canyon systems, smooth and featureless slope regions

Statistical backup: Yes

Habitats Directive:

OSPAR: Seapen and burrowing megafauna communities/potential Coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Images: © Ifremer, EVHOE



Image: © Marine and Freshwater Research Institute, Iceland

14.1. CW Seapens on Soft Substrate

14.1.4. *Pennatula* spp. on Soft Substrate

Species composition: *Pennatula* spp.

Locations known: Norway, Bay of Biscay, Celtic Sea (Davies et al. 2014)

Documented depth range: 500–900 m

Locations known: Iceland, Bay of Biscay

Physiographic provinces: Continental slope

Geomorphological setting: Canyon systems, Smooth and featureless slope regions

Statistical backup: Yes

Habitats Directive:

OSPAR: Sea pen and burrowing megafauna/ potential coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud

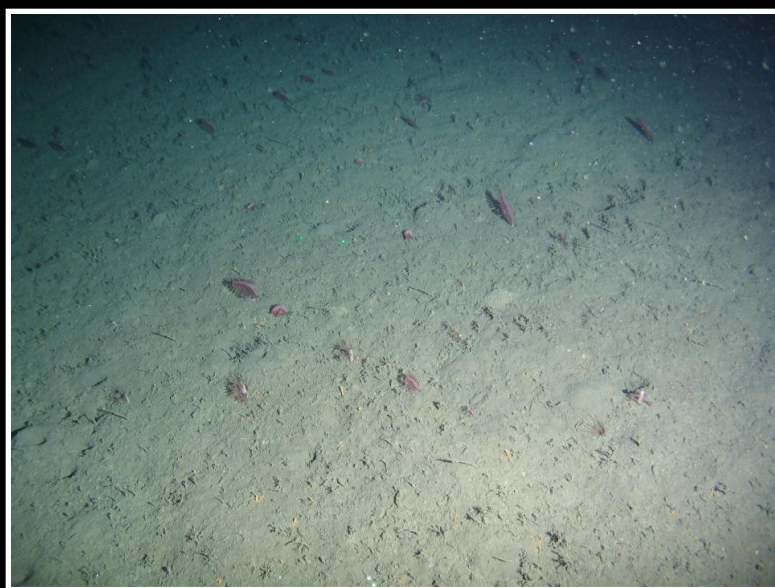
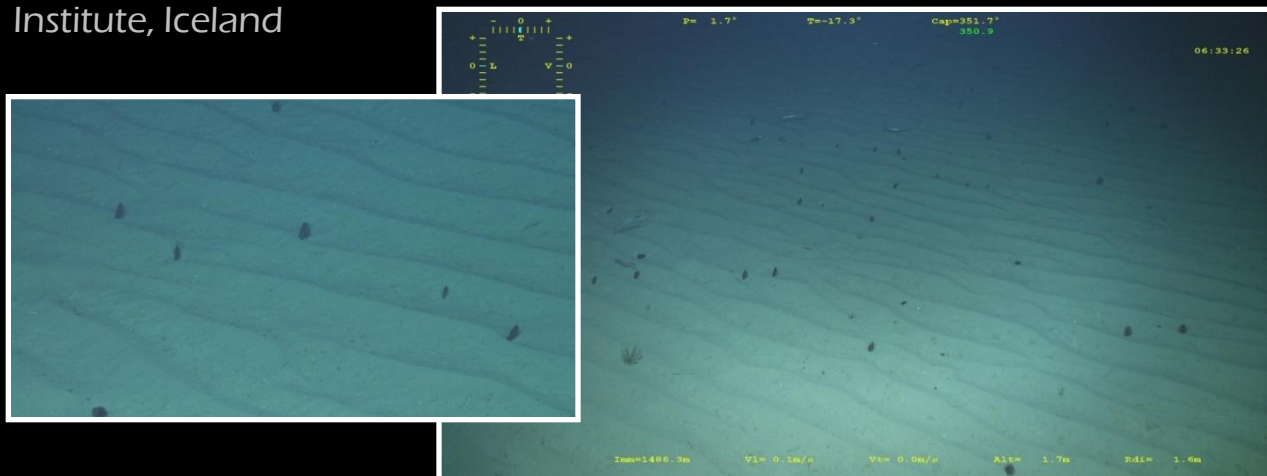


Image: © Marine and Freshwater Research Institute, Iceland



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14.1. CW Seapens on Soft Substrate

14.1.5. *Distichoptilum gracile* on Soft Substrate

Species composition: *Distichoptilum gracile*

Locations known: Bay of Biscay

Documented depth range: 2000–3000 m

Locations known: Bay of Biscay

Physiographic provinces: Continental slope, Continental rise

Geomorphic units: Canyon systems

Statistical backup: No

Habitats Directive:

OSPAR: potential coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud

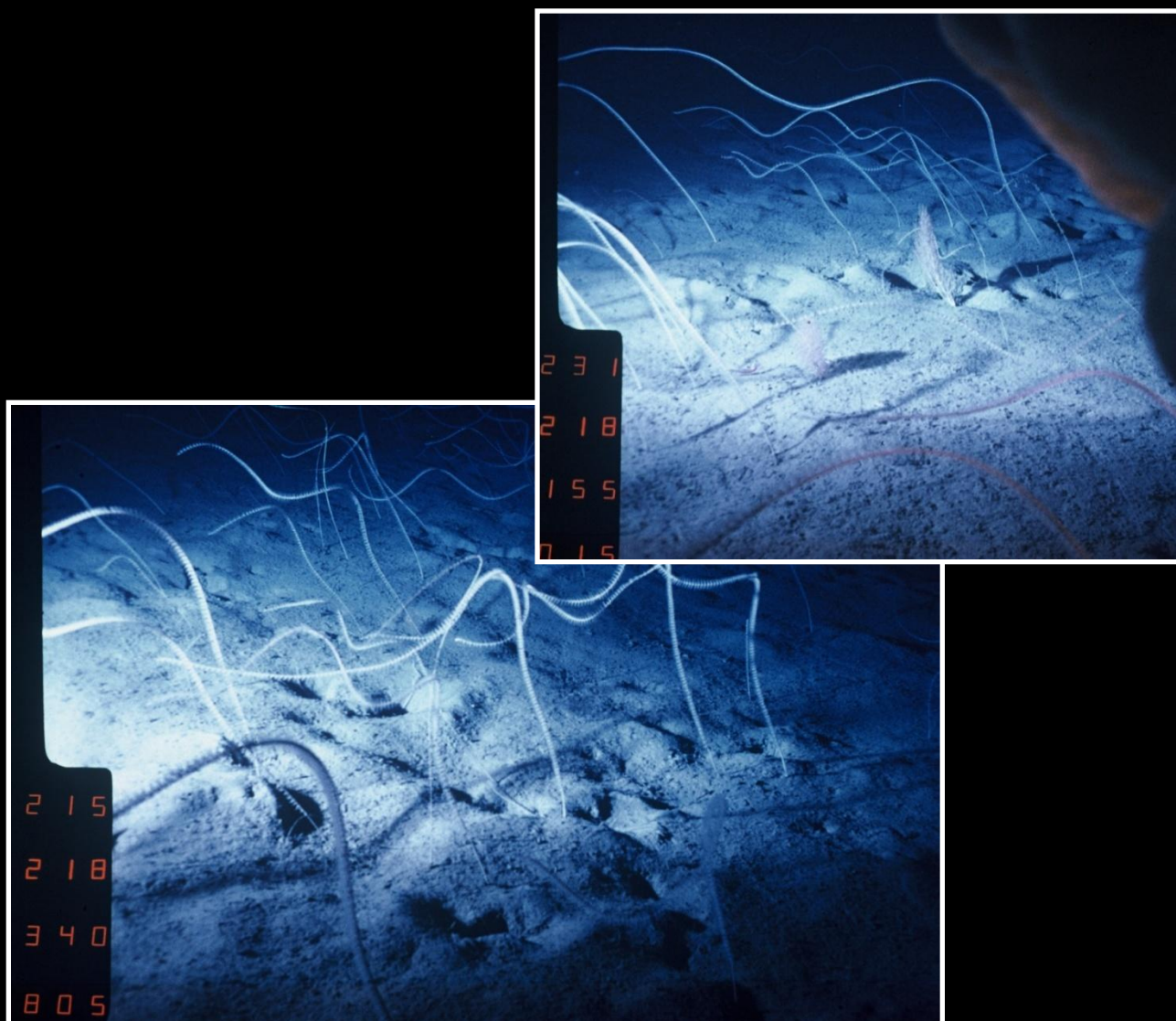


Image: © Ifremer, CYMOR2

15.1. CW Hydrarians on Hard/Mixed Substrate or Compact Mud

15.1.1. Hydrarians (cf. fam. Sertulariidae) on Hard Substrate

Species composition: Hydrozoa (cf. fam. Sertularidae)

Documented depth range: 1018 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Bedrock and escarpments

Statistical backup: No

Habitats Directive:

OSPAR: potential coral gardens

EUNIS: : Deep-sea rock and artificial substrata/deep-sea bedrock

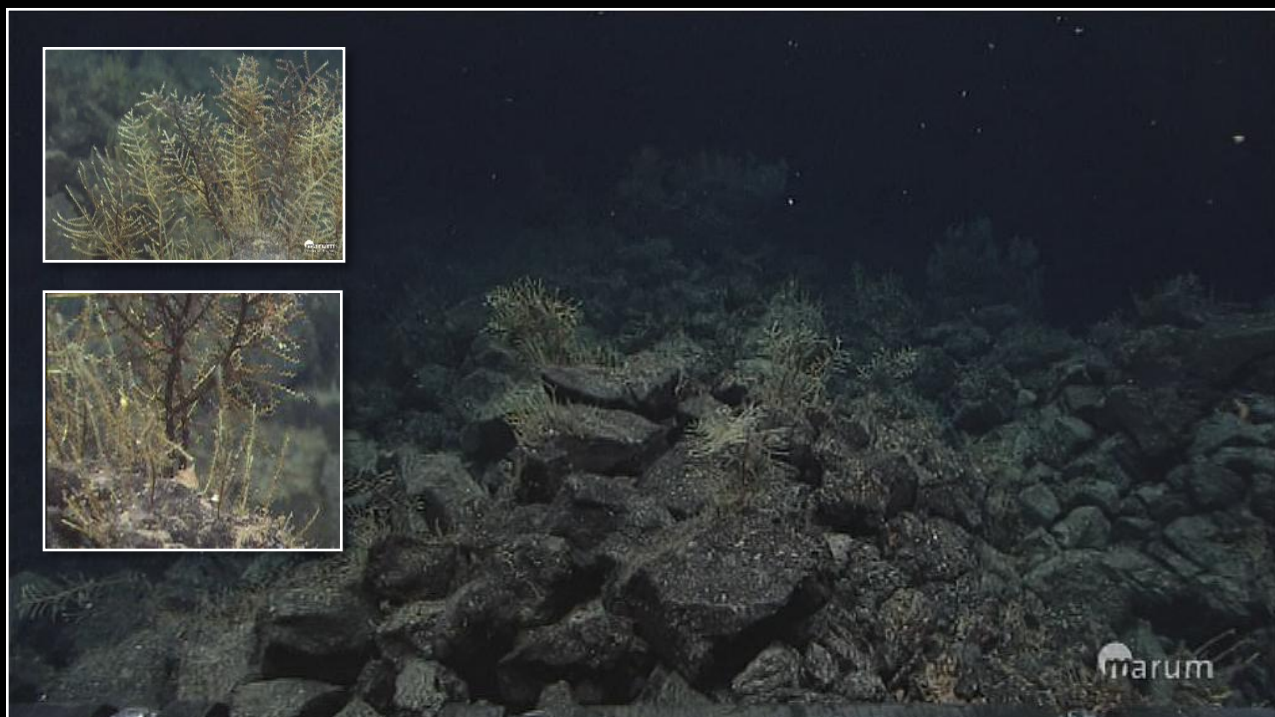


Image: ©MARUM, MenezMar, 2010

16.1. CW Hydrarians on Soft Substrate

16.1.1. *Lytocarpia myriophyllum* on Soft substrate

Species composition: *Lytocarpia myriophyllum*

Depth range: 199–470 m

Locations known: Azores

Physiographic provinces: Oceanic islands and seamounts

Geomorphic units: Smooth and featureless slope regions

Statistical backup: No

Habitats Directive:

OSPAR: potential coral gardens

EUNIS: Deep-sea muddy sand or Deep-sea mud



Image: © Gavin Newman/Greenpeace

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