Near-seafloor optical imagery surveys conducted in 2023 and 2024 across the St. Anns Bank Marine Protected Area, Nova Scotia, Canada: Image annotations of taxa and morphotypes for community composition

Laura L. Teed, Peter Lawton, F. Javier Murillo

St. Andrews Biological Station
Fisheries and Oceans Canada
125 Marine Science Drive
St. Andrews, NB, E5B 0E4

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Laura L. Teed[1], Peter Lawton[1], F. Javier Murillo[2]

[1]St. Andrews Biological Station
Fisheries and Oceans Canada
125 Marine Science Drive
St. Andrews, NB, E5B 0E4

[2]Bedford Institute of Oceanography
Fisheries and Oceans Canada
P.O. Box: 1006
Dartmouth, NS, B2Y 4A2

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABSTRACT

Teed, L.L., Lawton, P., and Murillo, F.J. 2025. Near-seafloor optical imagery surveys conducted in 2023 and 2024 across the St. Anns Bank Marine Protected Area, Nova Scotia, Canada: Image annotations of taxa and morphotypes for community composition. Can. Tech. Rep. Fish. Aquat. Sci. 3740: vii + 252 p. https://doi.org/10.60825/w0zx-g265

A total of 3381 still images of the seafloor were captured from 41 transects in a survey of the St. Anns Bank Marine Protected Area in August 2023 and 2024. A set of 639 images with a target of 50 m between images were reviewed for the presence of each type of visible taxa. Using the image annotation software BIIGLE, distinguishable organisms were identified to the lowest possible taxonomic level, with some given a morphotype label. Taxonomically, labels for arthropods, chordates, echinoderms, sponges, and other taxa across 14 phyla are provided. A total of 23392 annotations were applied by taxon and morphotype, with image examples for each type provided in an appendix. This report documents the context and use of taxon and morphotype annotations for reference in subsequent community assemblage analyses of occurrences in addition to the preparation for future annotations of abundances of important erect taxa such as crinoids.

RÉSUMÉ

Teed, L.L., Lawton, P., and Murillo, F.J. 2025. Near-seafloor optical imagery surveys conducted in 2023 and 2024 across the St. Anns Bank Marine Protected Area, Nova Scotia, Canada: Image annotations of taxa and morphotypes for community composition. Can. Tech. Rep. Fish. Aquat. Sci. 3740: vii + 252 p. https://doi.org/10.60825/w0zx-g265

Au total, 3 381 images fixes du fond marin ont été capturées dans 41 transects lors d'un relevé effectué dans la zone de protection marine du banc de Sainte-Anne en août 2023 et 2024. Un ensemble de 639 images, prises à une distance de 50 m les unes des autres, a été examiné pour déterminer la présence de chaque type de taxons visibles. À l'aide du logiciel d'annotation d'images BIIGLE, les organismes pouvant être distingués ont été associés au niveau taxonomique le plus bas possible, et certains ont reçu une étiquette indiquant leur morphotype. Sur le plan taxonomique, les annotations comprennent des étiquettes des arthropodes, des cordés, des échinodermes, des éponges et d'autres taxons sur 14 phylums. Un total de 23 392 annotations ont été classées selon leur taxon et leur morphotype, avec des exemples d'images pour chaque type fournis dans une annexe. Le présent rapport documente le contexte et l'utilisation des annotations de taxons et de morphotypes à titre de référence pour de futures analyses de la présence relatives aux assemblages de communautés, et contribuera à la préparation des prochaines annotations sur l'abondance des taxons érigés importants, comme les crinoïdes.

1 INTRODUCTION

A DFO Maritimes Region science project “Coastal seabed habitat inventory and biodiversity assessment in support of bioregional conservation network planning and development of Marine Protected Area monitoring programs”, funded under the DFO Science Marine Conservation Targets program from 2021 to 2025, has generated a renewed focus on using both SCUBA diving approaches and near-seafloor imaging tools to survey coastal and inner-shelf benthic habitats in support of the development of MPA ecological monitoring programs. In particular, this project supported the introduction (in 2022) of a new regional near-seafloor optical imaging system capable in its initial configuration of surveying to depths of 200 m. The camera system (hereafter referred to as the FOBIS system, for Fibre Optic-Based Imaging System) was co-developed by ocean technologists within DFO’s Ocean Engineering and Technology Section at the Bedford Institute of Oceanography, Dartmouth, Nova Scotia, and lead project scientist, Peter Lawton, at DFO’s Biological Station, Saint Andrews, New Brunswick.

To document the presence of fauna and flora and examine possible temporal changes in benthic community assemblages, a two-year near-seafloor optical imagery survey was conducted with the FOBIS camera system, collecting continuous video coverage of the seafloor and periodic digital still images (additional survey details provided in Teed *et al.* in press). Near-seafloor imagery surveys involved a total of 41 drift-transects in the St. Anns Bank Marine Protected Area (MPA) off the coast of Cape Breton, Nova Scotia, Canada in August 2023 and 2024 (Figure 1). Background information and details pertaining to transect locations and broader survey objectives are outlined in the complementary initial mission report (Teed *et al.* in press), while details on the image annotation approach used to classify observed benthic fauna and flora are presented here. Specifically, we describe the use of the image annotation software BIIGLE (BioImaging Indexing, Graphical Labelling and Exploration – Langenkamper *et al.* 2017) to apply labels (listed in Appendix 1) to note organism presence and classify the organisms identifiable within a digital still camera image view. Examples of image annotations are also provided to give visual context to assist our team as the project progresses with conducting community composition analyses (Appendix 2).

Image annotations are standardized labels applied to a feature of interest located in a specific area in an image (Nozères *et al.* 2024). Annotations, or labels, can also be applied to an entire image frame: for example, when recording dominant substrates or the presence of a single species of interest. The standardization arises from the application of a defined set of annotations, or label tree (often one or two label trees as the project progresses), in a BIIGLE project.

The primary objective of 2023 and 2024 field surveys was to report on the occurrences of all visible taxa in selected images for development of biodiversity metrics and so provide a foundation to later potentially evaluate temporal and spatial changes in benthic habitat assemblages when compared to prior benthic imaging surveys (Lacharité *et al.* 2018; Lacharité and Brown 2019; Kenchington and Lirette 2023 – with the latter not yet analyzed/no annotations provided for these images currently). Additionally, visible taxa from the 2023 and 2024 imagery surveys could be compared to information on benthic invertebrates and demersal fish documented as by-catch species from the DFO (Department of Fisheries and Oceans Canada) Maritimes Summer Ecosystem Research Vessel Surveys (RV Surveys – Murillo *et al*. 2018, 2024; Mancion and Jeffery 2025). The present report documents the status of annotations of observed marine fauna and flora as of October 2025, and is neither a formal identification guide, nor an analytical report concerning benthic community attributes.

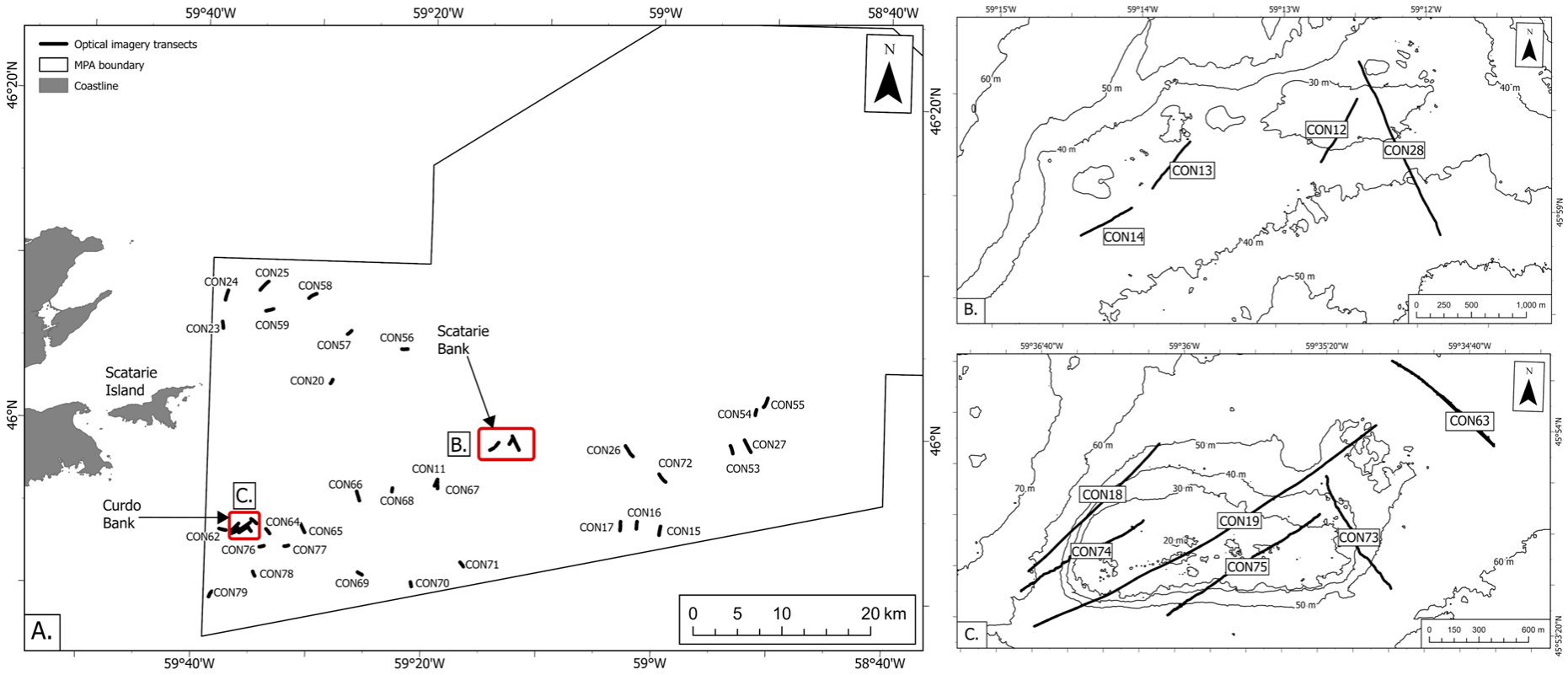

Figure 1 - Map of near-seafloor optical imagery transects (n=41) conducted in the St. Anns Bank Marine Protected Area in August 2023 and August 2024 (A) with insets of highly sampled Scatarie (B) and Curdo (C) Banks with underlying 10-m depth contours (Chart Datum).

2 MATERIALS AND METHODS

The FOBIS digital still camera (Nikon D850, Nikon, Mississauga, ON, Canada) was fitted with a wide-angle zoom lens, and was oriented to be downward-facing towards the seafloor. The Nikon D850 was under remote control from the surface vessel using Nikon Camera Control Pro 2 software, enabling adjustments to be made to the camera settings, dependent on general water conditions in different survey areas (i.e., deployment depth, type of substrate, water turbidity, planned altitude off bottom). Adjustments were typically made at the start of a survey program and were not continually adjusted during each transect deployment. In August 2023 transects (CON11-20 and CON23-28) after some initial adjustments, the focal length was set to 24 mm; focus was set to Auto; ISO speed to 800; shutter speed to 1/250 s, and the aperture to f13, starting with CON15. Based on assessment of camera performance in the 2023 survey, Nikon camera settings for the 2024 survey (CON53-59 and CON62-79) were changed somewhat to a focal length of 25 mm; Auto focus; 800 ISO speed (except 1000 for CON73); 1/200 s shutter speed; and f14 aperture. Such data for individual digital still images is contained in each file's exchangeable image file format (EXIF) metadata. Lighting for the Nikon camera was provided by a single electronic flash unit housed in a custom underwater housing oriented in an oblique position and ahead of the camera on the system frame. Further details on the FOBIS system, including the downward- and forward-facing video cameras are provided in Teed *et al.* (in press).

Digital still images of 45 MP (8256 x 5504 pixels) from the FOBIS near-seafloor drift camera system were obtained over a series of transects, with a target interval collection of one image captured every 30-s (Teed *et al.* in press). An altimeter attached to the camera system provided the height of the survey package off-bottom (one record approximately every second), and a pair of lasers spaced 10-cm apart allowed for the estimation of the field of view (FOV) in the digital still imagery (Rueden *et al.* 2017; Teed *et al.* 2024, in press). To reduce the number of still images to interpret for preliminary post-survey analysis of benthic organism occurrences, one image was selected approximately every 50 m along a transect using buffer tools in ArcGIS Pro v.2.8 (ESRI 2021). Still images were deemed unusable and removed from the dataset if there were insufficient light levels, too much turbidity, or if the altitude off-bottom exceeded 2.5 m.

The set of selected still images were randomized across all transects before being imported into the open-source image annotation software BIIGLE 2.0 (Langenkamper *et al.* 2017; Zuroweitz and Nattkenper 2021). Images were randomized to ensure rare organisms were captured and to account for a possible learning bias (i.e., discovering new/different organisms as annotation

procedures progressed), as well as annotator fatigue (Nephin *et al.* 2020). Image files were grouped in BIIGLE as projects by year with file volumes by transect.

Each selected image was analyzed for presences of visible types (by taxon or morphotype), including mobile and sessile organisms on the seafloor (Figure 2) using the method in BIIGLE where an image was zoomed in to the resolution of choice and 'Lawnmower mode' was activated (Zuroweitz and Nattkenper 2021). Once in Lawnmower mode, the bottom left image section becomes the first tile that is analyzed before forwarding to the next tile, ensuring no image area in a frame is missed or duplicated during the review. In each tile, annotations were applied to any type (taxon or morphotype) present using a rectangle to enclose the organism in view (Figure 2). For instances where an organism was larger than the tile being analyzed (e.g., a fish), annotations were not applied until all tiles were analyzed, and the image returned to full view. In some instances where an organism such as kelp or encrusting coralline algae occurred across the entire image, an annotation was applied via a point instead of a rectangle. Note that the annotations in BIIGLE ensured that a type, and its location in pixels were recorded by image. However, each separate occurrence of a type was not annotated; thus, the results are presences by image and not the sum of abundances or areas visible within an image.

Each annotation corresponded to a designated label of a type, i.e. a species or higher defined-taxonomic level, or a morphotype. Identifications were limited by the environment (lighting, water turbidity), the image (resolution, depth of field, focus, and blurriness, i.e., the speed of the camera system over the seafloor), and by whether or not a type could be identified solely from image-based criteria. As such, identification labels were applied to the lowest taxonomic classification level possible with reasonable confidence, as judged by the first author (with review and input from the third author) and including input by taxonomic specialists. For morphotypes, labels were based on the visual assessment of morphological traits, for example 'encrusting yellow dark sponge'. Considering no physical sediment samples were taken, occurrences are limited to organisms visible on the surface of the seafloor, leading to few reported burrowing (endobenthic) taxa. Uncertain identifications not at the species level were either labelled using higher classification levels (e.g., genus, family, order, class, phylum) or grouped as a specific morphotype (e.g., unidentified white rock crust). These morphotype group labels were necessary because of issues with either images or taxonomy. For images, identifications could be uncertain if not clear or with

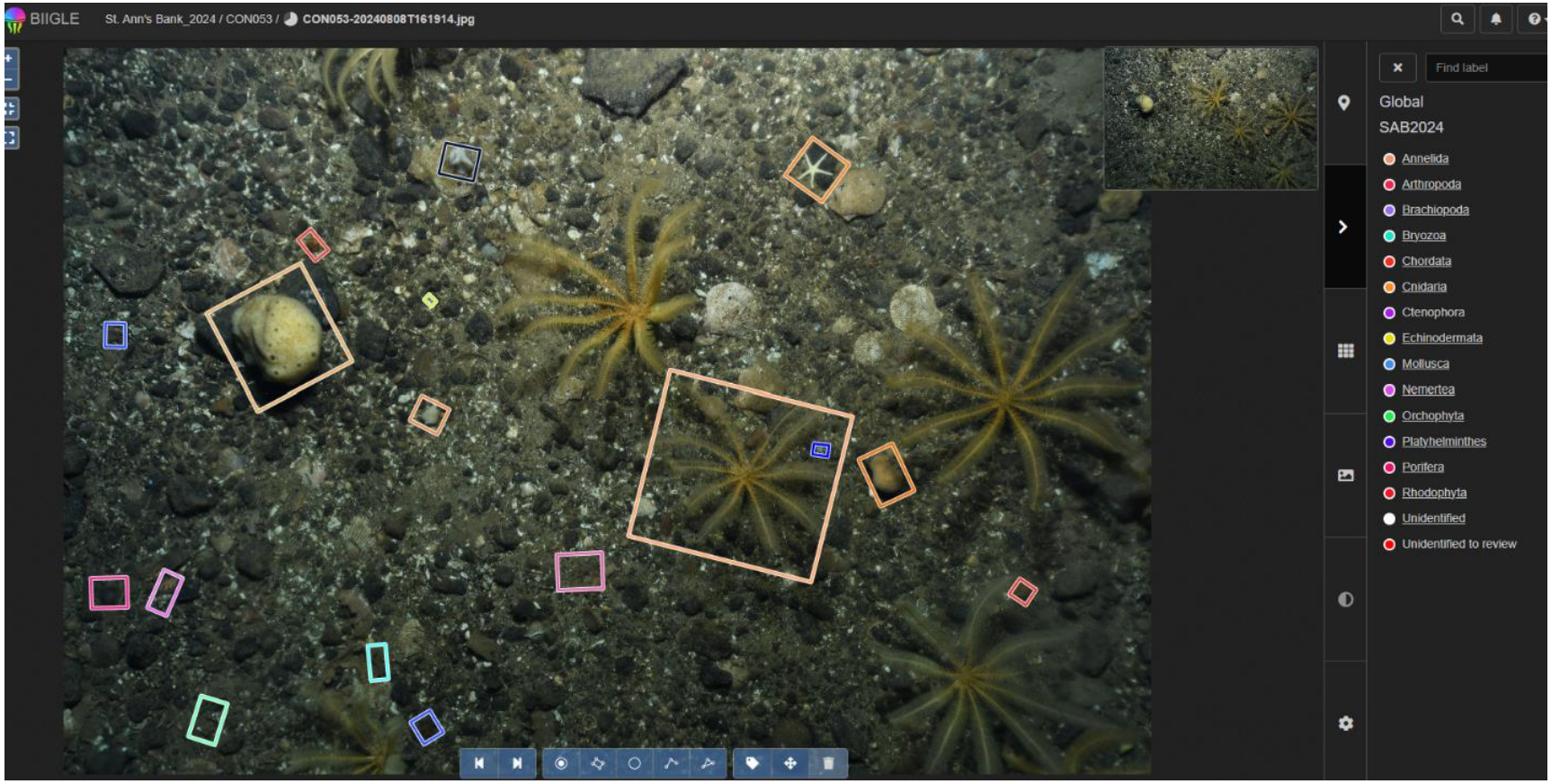

Figure 2 - Example of a still image annotated in BIIGLE using the SAB2024 project label tree (right of image), organized by phyla or Unidentified. Each viewed organism encountered is labelled using a box annotation. Example is from a crinoid (i.e., Echinodermata>Heliometra glacialis) field in transect CON053 (image: CON053-20240808T161914.jpg, depth of 98.6 m) in the southeast part of the MPA.

insufficient detail (resolution), often for smaller taxa. However, for large and morphologically distinctive species, even unclear images could result in positive identifications, such as for snow crab or Atlantic Cod. In other cases, the images may be insufficient to identify certain types, especially among sponges, bryozoans, and cnidarians. These require either microscopic examination or genetic analyses as several visually similar kinds (or unknown cryptic kinds) may be in view. Thus, these uncertain kinds were labelled by morphotypes or to general taxonomic levels, often with suggested taxa (Appendix 1). Taxonomic names were obtained from the World Register of Marine Species (WoRMS 2025).

The collection of annotations were organized as a label tree in BIIGLE, functioning as a hierarchical set of groupings of taxa and morphotypes to apply to organisms in each image (Figure 2). For the St. Anns Bank surveys, the SAB2023 label tree was a fork (branch, or version) of the Benthic organism label tree for the Hudson 2018 Eastern Shore Islands CAMPOD imagery (Paulin *et al.* 2025). The SAB2024 label tree then forked from SAB2023 before simplifying groups of labels based on morphotypes and taxa observed. Species names and more general taxa labels (where species was unknown or could not be determined) were added to a label tree as they were encountered. Tentative taxa names were applied to labels using public and internal working image guides and resources based on visual resemblance and known distributions (i.e., Nozères *et al.* 2010; Command *et al.* 2024; Nozères *et al.* 2024; iNaturalist 2025; Paulin *et al.* 2025; WoRMS 2025; Goodwin *pers. comm.*). As of this report, the project label trees (titled SAB2023/2024) are not yet finalized as taxa under higher groupings, or unknown taxa may later be confirmed by taxonomic experts, including examples posted on the community site, iNaturalist.org. Presently, the annotations are for species, suggested or likely genus or species (indicated by an asterisk), broader classifications (class, order, etc.) and morphological trait groupings. Selected example images of organisms were uploaded to iNaturalist (https://www.inaturalist.org/projects/st-anns-bank-mpa-imagery-surveys) to aid in verifying species and genus identifications. Feedback from community members resulted in some suggested changes to identifications, which were then applied as BIIGLE annotations.

Near-seafloor optical imagery survey data (both still imagery and continuous seafloor video) from both the 2023 and 2024 St. Anns Bank surveys are stored in an archive (duplicate versions of the imagery on two 50 TB desktop RAID devices) managed by P. Lawton, L.L. Teed, and the DFO Coastal Ecosystems Science Division data management team at the St. Andrews Biological Station, New Brunswick, Canada. As of October 2025, some FOBIS camera system imagery files have been loaded to open data portals; however the bulk of the imagery archive is still maintained

on local RAID drives. Survey summary data and image locations are currently published on Canada's open data portal (Lawton and Teed 2025), which will be updated when occurrence analysis is complete, and will subsequently be published online to the Ocean Biodiversity Information System (OBIS).

3 RESULTS

Forty-one drift-camera transects were completed across five days in August 2023 and an additional five days in August 2024 collecting a total of 3381 still images. A set of 639 images were selected at approximately 50 m apart and interpreted in preliminary survey data analysis. Each transect then had 5 to 44 annotated images (Table 1) with average field of views (FOV) ranging from 1.17-1.70 m^2 (Teed *et al.* in press), for a pixel density of 3.9-26.7 pixels mm^{-2}, resolving detail from about 2 to 5 mm. The 2023 survey had a label tree with 283 labels while the 2024 survey had 277 labels. All of the selected images had at least three annotations. In a single image, the number of annotations ranged from 3 to 164 annotations, with an average of 36 annotations per image (Table 1). The total number of annotations was 23392, with 20728 annotations classified to a morphotype or taxa (Figure 3), 2589 annotations could not be assigned to features of a unique phylum (listed under 'Unknown'), while the remaining 75 annotations did not contain any distinguishable features and thus were grouped as 'Unidentified to review' (Appendix Table 1). Confirmed annotations for 204 labels (to lowest taxonomic level possible) were applied across all 639 images, while tentative annotations (denoted with an asterisk '*' in Appendix Table 1) used 39 labels observed in 602 images. Some confirmed and tentative annotations were unable to be annotated to a lower taxonomic level and were assigned a morphotype, denoted in the label tree with 'Unid' (i.e., Unidentified); there was a total of 70 'Unid' taxa and morphotypes with annotations across all 639 images. The number of annotations and occurrences by label are listed in Appendix Table 1.

Table 1 - Annotations (total, minimum, maximum and average) according to transect in the 2023 and 2024 imagery surveys in the St. Anns Bank MPA. As duplicate annotations can occur, the total taxa and type occurrences (i.e., the observed richness) are also presented.

Transect	Number of images annotated	Total annotations	Minimum annotations per image	Maximum annotations per image	Average annotations per image	Total taxa and type occurrences
CON11	14	472	12	81	34	123
CON12	7	166	20	30	24	52
CON13	9	224	20	30	25	68
CON14	10	491	23	100	49	93
CON15	19	472	6	60	25	112
CON16	15	379	6	102	25	97
CON17	18	758	5	108	42	114
CON18	20	705	20	51	35	141
CON19	44	2932	21	136	67	207
CON20	10	859	53	164	86	140
CON23	15	309	10	34	21	68
CON24	19	568	14	43	30	110
CON25	16	464	17	44	29	98
CON26	26	1492	5	124	57	176
CON27	25	641	4	97	31	152
CON28	29	1546	22	96	53	162
CON53	15	430	11	46	29	93
CON54	12	340	16	39	28	89
CON55	21	875	27	65	42	129
CON56	11	387	21	50	35	88
CON57	11	466	30	58	42	95
CON58	17	682	21	61	40	106
CON59	15	345	11	34	23	74
CON62	14	512	23	53	37	114
CON63	14	443	21	42	32	83
CON64	12	242	3	29	20	66
CON65	19	648	12	52	34	106
CON66	19	656	18	52	35	128
CON67	14	479	9	62	34	93
CON68	5	129	22	29	26	51
CON69	12	149	6	24	12	38
CON70	10	334	22	63	33	75
CON71	11	305	10	42	28	86
CON72	21	847	22	71	40	110
CON73	14	476	22	52	34	104
CON74	15	410	9	51	27	102
CON75	18	417	11	45	23	82
CON76	10	319	27	57	39	89
CON77	9	408	29	56	45	91
CON78	11	491	20	59	45	101
CON79	13	124	6	21	10	29

According to phylum, cnidarians contained the most annotations, followed by bryozoans and echinoderms while ctenophores and platyhelminths were observed the least (Figure 3). The most common taxa and morphotypes included sea stars of the family Asteriidae, the brittle stars *Ophiopholis aculeata* and *Ophiacantha bidentata*, various hydrozoans and bryozoans, annelids (namely of the family Serpularidae), encrusting coralline algae (*Boreolithothamnion glaciale*), non-encrusting red algae, encrusting sponges and soft corals (Appendix Table 1). Rare taxa included ctenophores, skates, fish, amphipods, platyhelminths and certain sponges (including *Haliclona/Isodictya* spp. and Calcareous sponges).

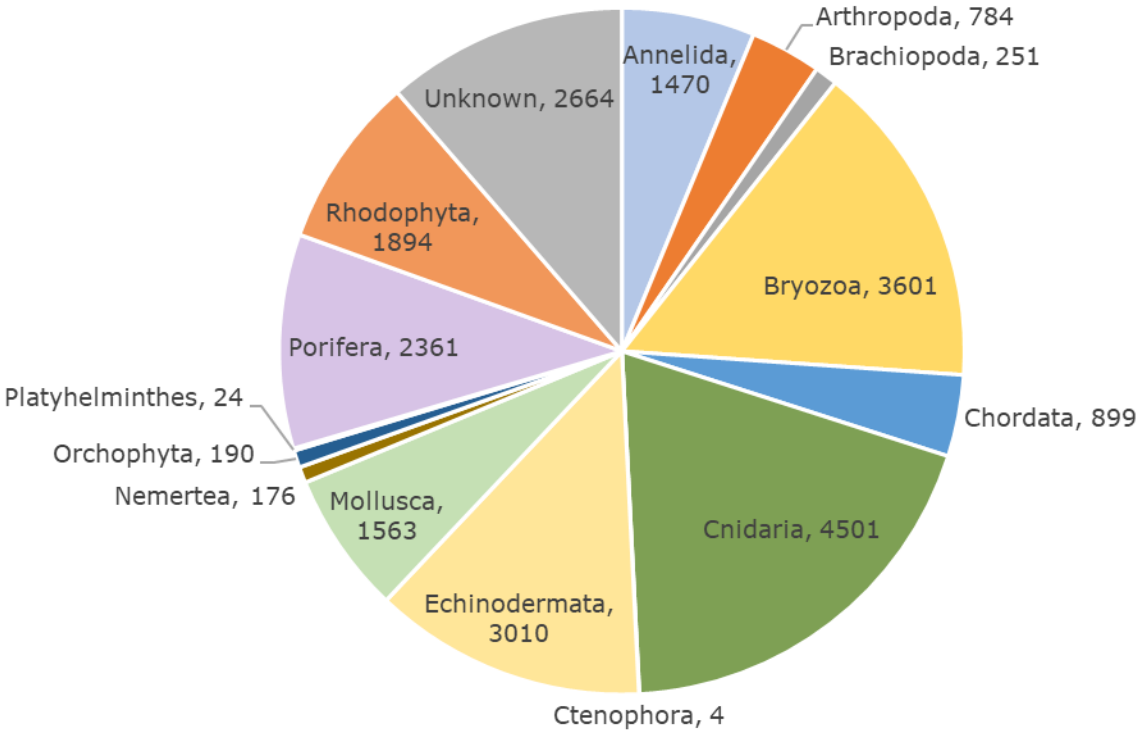

Figure 3 - Pie chart of the number of annotations applied to the selected 639 images taken in the St. Anns Bank MPA in 2023 and 2024 according to phylum.

The definition of the labels used here are subject to change, with the 2023-2024 surveys still under review, which may result in possible changes to confirmed species occurrences. As of October 2025, there are 243 confirmed labels in use for the SAB2023 and 2024 label trees, with additional hierarchical labels to better organize the levels (Appendix Table 1). All labels except for 'unknowns' (including 'Unidentified to review') were affiliated with a phylum and usually named at least to the class-level based on visible morphological characteristics. For example, several

encrusting and massive sponges could not be confidently identified beyond class level (Demospongiae), instead distinguished using morphological characteristics such as ‘yellow dark crust’ describing the colour, shape (e.g. tube, funnel, sphere, etc.), and apparent texture of the organism. Some labels were narrowed down to the order- or family-level based on morphological traits and known regional distributions, with genus and species unable to be resolved (e.g., Malacalcyonacea); suggested taxa are a mixture of genera and species known to the area. In contrast, there were several macrofauna and flora that were easily identifiable including several species of fish (i.e., fins and facial features were highly resolved), crabs, kelps and echinoderms.

The aim of the label tree was to have only one label per image of a morphotype or taxa when present. However, this was impeded by organisms that could not be identified to the lowest taxonomic level (and kept at a general level), and annotations changing following review. As such, duplicate labels may occur in a single image (as seen in Table 1 where the number of annotations can far exceed the actual occurrence of taxa and morphotypes). For example, groups such as shrimp were difficult to distinguish, where most likely all shrimps were pandalids or thoradids, and therefore combined into family-level groups.

In some shallow habitats (from 17 to 40 m depths; transects CON12, 13, 14, 18, 19, 23, 24, 25, 28, 59, 73, 74, and 75), a dense cover of kelp and red algae could obscure any sessile and benthic organisms from view, resulting in underestimated species occurrences in these habitats. Transects conducted on Scatarie Bank (CON12-14 and 28) had fewer taxa and morphotype occurrences compared to several deeper transects that did not contain kelp or red algae (Table 1); however, the average annotations per image was still within the overall survey average (25-50 annotations per image). Curdo Bank transects (CON18-19 and 73-75) captured up to 200 morphotype and taxa occurrences with similar average annotations per image as Scatarie Bank (Table 1). High occurrence of morphotypes and taxa in Curdo Bank is likely due to extensive sampling (i.e., sampling period >1 hour) in CON19 which began northeast of the Bank (in deeper waters) and drifted across the shallow bank and downslope to the southwest, sampling diverse bank features and surrounding slopes.

In deeper habitats (>60 m depths; transects CON11, 15, 16, 17, 26, 27, 53, 54, 55, 56, 62, 66, 67, 68, 69, 70, 71, 72, and 79), kelp and red algae did not occur, resulting in unobscured views of the seafloor. As such, image annotation analysis captured up to 176 morphotype and taxa occurrences per image (in CON26), however, average annotations per image across deeper transects was highly variable (from 10 to 57 annotations per image – Table 1). Moderate water depth transects (~40-60 m depths; transects CON20, 57, 58, 63, 64, 65, 76, 77 and 78) contained

various red algae, but no kelp, resulting in few obscured field of views of the seafloor. Taxa and morphotype occurrences reached up to 142 occurrences per image (in CON20), with a highly variable average number of annotations per image (20 to 86 annotations per image – Table 1).

4 DISCUSSION

A set of 639 still images were annotated to document occurrences of organisms for subsequent community composition analyses to be used to inform management priorities of the St. Anns Bank MPA. While the objective of this report was to assign a label to each observed organism in an image, due to difficulty in identification such as when morphological traits at the observed resolution of the images were insufficient to distinguish species, numerous organisms were labelled at a more general taxonomic level or to a morphological group type. Principally, annotations of taxa and morphotypes was successful with 204 confident labels and groupings (i.e., identified to lowest-taxonomic level possible) and 39 still subject to review mixed with 70 'Unid' labels. While confident labels may not confirm species occurrences (as they may be at higher taxonomic levels, or assigned a morphotype), they do mark the occurrence of taxa and morphotypes to the lowest possible taxonomic level based on image resolution. As such, not all taxa and morphotypes can be included in future community composition analyses, but do generate a list of taxa which could be confirmed with physical specimen samples. For example, several taxa that were uncertain included sponges which often require sampled specimens to review spicules under a microscope for taxonomic identification (Goodwin 2017; Dinn 2020). Additionally, several images contained organisms that were often too small or blurry within the image to confidently assign to type or morphotype (due to the height of the system off bottom, local turbidity, speed of movement, etc.) or were obscured in the shadow of coarse substrates. Such instances led to some presumptive identifications of certain taxa and morphotypes including small crustaceans and polychaetes based on related images where individuals could be clearly verified, or from known regional species distributions. In some cases, not enough consensus could be drawn to provide a confident grouping or phylum, and therefore several 'unknown' labels were created containing unknown biota that will likely be excluded from community assemblage analyses but could lead to additional labels following further consultation with experts.

Commonly occurring taxa and morphotypes included coralline algae, red algae, encrusting sponges and soft corals. Such frequent occurrences are likely due to the dominant sampling of transects on the shallow banks and in the surrounding areas (a main objective of the overall imagery survey – see Teed *et al.* in press), where red algae, sponges and soft corals are expected to be abundant. Previous studies have reported dominance of coralline algae throughout the

shallow and moderate-depth areas of the St. Anns Bank MPA (Ford and Serdynska 2013; Lacharité *et al.* 2018; DFO 2023). Encrusting sponges and soft corals are known to commonly occur throughout the MPA with high abundances at moderate depths (Cogswell *et al.* 2009; Ford and Serdynska 2013). Rare taxa included ctenophores, skates and fish along with amphipods, platyhelminths, and calcareous sponges. These taxa were likely rare in this study as they are highly mobile organisms (with the exception of calcareous sponges) that are not best captured by a downward-facing still camera. Fish in particular have low detectability in complex habitats and can show bias in camera surveys with some individuals showing interest in the camera system, while others can demonstrate avoidant behaviors (likely due to light influence) (Rooper *et al.* 2019). Here, many fish were observed swimming atop shallow banks from the forward-facing video, and ctenophores were often observed upon the camera's descent down the water column, demonstrating the inability to capture these taxa from still imagery alone. However, taxa such as amphipods, platyhelminths, and calcareous sponges may just be rare in the St. Anns Bank MPA, or in the case of amphipods, may be too small to resolve or detect from existing resolution digital still imagery.

Another limitation of near-seafloor drift camera surveys is the inability to move erect flora obstructing the view of substrates beneath. Shallow habitats contained dense kelp cover, and due to strong currents, kelp was often observed angled and pushed towards the substrate, obstructing the entire field of view in some cases. However, average taxa and morphotype occurrences per image sampled in these macroalgal-covered areas were similar to all other habitat types sampled (moderate water depths and deep habitats), likely due to extended shallow transects drifting across bank edges to diverse habitats with less kelp cover. Overall, taxa and morphotype occurrence was higher in shallow habitats (200) compared to moderate depth (142), and deeper habitats (176). This was expected (despite obstructed view from dense kelp cover), as shallow bank habitats with bedrock outcrops containing crevices and steep slopes surrounded by mixed substrates are known to house high biodiversity (Ford and Serdynska 2013; DFO 2023; Goodwin *et al.* 2025).

Considering the challenges with the camera imagery resolution, complementary methods could aid in species verifications. For example, captures from DFO ecosystem RV trawl surveys (Murillo *et al.* 2024) could help corroborate species presences, although these methods are much more invasive and may also be limited in the taxa sampled with bottom trawl gear designed for fishes and shrimp over soft bottoms (DFO 2024; McLaverty *et al.* 2023; Bradshaw *et al.* 2024). Other methods including benthic grab samplers (especially for endofauna), diving surveys (for shallow

water), and eDNA surveys (for some benthic and pelagic organisms) could also aid in confirming species identifications (Teed *et al.* 2024; Mancion and Jeffery 2025). The FOBIS near-seafloor optical imaging system deployed in the St. Anns Bank MPA surveys (Teed *et al.* in press) provided a non-destructive way to observe and monitor areas of the seafloor at depths up to 200 m, and generated an annotated image archive that can be revisited to extrapolate data on organismal counts, examine additional images, and to verify or update taxonomic identifications. As technology continues to advance, future imagery collected at a higher resolution could better distinguish organisms to lower taxonomic levels and possibly be used to update identifications of poorly resolved organisms viewed in the 2023-2024 projects.

Regardless of the value of underwater imagery, there was a significant workload to manually annotate the selected images. This survey was conducted to follow previous benthic imagery surveys in the MPA (that occurred prior to MPA designation) that analyzed a subset of digital still images for community assemblages (Lacharité and Brown 2019). Such a detailed analysis of manually annotating every visible taxa and morphotype occurrence requires significant time investment, especially when the annotator is new to analyzing benthic imagery from a specific study area. For example, to analyze just 16.5% of the 2023 imagery in the St. Anns Bank MPA for all taxa and morphotypes present (296 images, with over 12000 annotations) involved some extended periods of full daily work activity over 6.5 months, while the annotation of the 2024 imagery resulted in over 10000 annotations applied across 343 images, undertaken over a period of 4 months. While technical development work on the camera system and its annual service, development of field survey plans, including station allocation, preparation and installation of camera systems on survey vessels also required significant time investment over similar periods of months, the benthic imagery acquisition itself occurred over a total of 10 days in 2023 and 2024 within a total of 23 days on the survey mission overall. The present annotation work conducted on digital still imagery does not consider the addition of in-depth video analysis that would significantly increase analysis time yet would aid in distinguishing assemblages and the breadth of spatial distributions. Moreover, the distance between analyzed still images was set to 50 m, which may not provide full characterization of the benthic communities present on each transect. Future annotation exercises are expected to be more efficient, using the work experience from this project (especially as 2024 image annotations were completed more quickly than the 2023 dataset). Furthermore, automatic detection with machine learning may be expected to become more widely available, with the potential to reduce future workloads. However, machine learning still requires the manual review of training data sets with underwater imagery (Nozères *et al.* 2025). Large organisms might be automatically annotated when set against homogenous

substrates, but presently there may be insufficient training images with high resolution imagery available to annotate species like the benthos observed here in heterogenous habitats (Zuroweitz and Nattkemper 2021; Nozères *et al.* 2025).

Similar to other image annotation exercises completed in the Maritimes Region (Lawton 2022; Mireault *et al.* 2023, 2025; Nozères *et al.* 2024; Teed *et al.* 2024; Paulin *et al.* 2025), certain species or taxa of interest can be the primary focus of the image analysis, rather than aiming to document the presence of all species visible within individual images. Having annotated images will then save significant time when searching for select species, with the ability to analyze the still images (or video, if also annotated) by personnel over days of analysis instead of months when done incrementally, file by file (Nozères *et al*. 2025). Selected annotated images will be considered in the future, particularly for the monitoring of erect or structure-forming species such as crinoids (*Heliometra glacialis*), soft corals (i.e., *Gersemia, Drifa, Duva* spp.) and stalked tunicates (*Boltenia ovifera*) where information on their densities and distributions in the St. Anns Bank MPA will help to inform effective ecosystem management (Teed *et al.* in press).

4.1 CONCLUSIONS AND FUTURE RESEARCH

This report, in tandem with the detailed qualitative descriptions of each transect (Teed *et al.* in press), documents the organisms, as species or other groupings, observed in the St. Anns Bank MPA in a two-year optical imagery survey, while detailing the applied image annotation methodology. These examples represent image annotations completed as of October 2025 as image review may continue to be refined before proceeding to detailed assemblage analyses and producing other publications. Organism identifications will also continue to be verified and reclassified as results from more recent eDNA and DFO ecosystem RV trawl surveys become available. Additionally, a dive survey was conducted on the shallow banks in and outside of the St. Anns Bank MPA in June 2025 to collect high-resolution still images and video. This imagery will be analyzed and used to aid in distinguishing species, based on morphological characteristics, present on the shallow banks. Once completed, the confirmed species occurrences will be published to OBIS and used for community composition analyses to compare assemblages across the MPA (e.g., between shallow banks and deeper areas). Moreover, results from these recent imagery surveys could be compared to prior imagery surveys (e.g., Lacharité *et al.* 2018; Lacharité and Brown 2019; Kenchington and Lirette 2023) and to DFO ecosystem RV trawl surveys to aid in evaluation of potential temporal changes in community assemblages since the MPA designation in 2017.

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6 COMPETING INTERESTS STATEMENT

The authors declare there are no competing interests.

7 AUTHOR CONTRIBUTION STATEMENT

Conceptualization: LLT, FJP, PL; Data curation: LLT, FJP; Formal analysis: LLT, FJP; Funding acquisition: PL, FJP; Investigation: PL, LLT; Methodology: LLT, FJP, PL; Project administration: LLT, PL; Software: LLT, FJP, PL; Resources: PL, FJP; Supervision: PL, FJP; Validation: LLT, FJP; Visualization: LLT; Writing – original draft: LLT, PL; Writing – review and editing: LLT, PL, FJP.

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9 DATA AVAILABILITY STATEMENT

Transect and imagery metadata generated and analyzed during this study are available in the Lawton and Teed 2025 repository, https://open.canada.ca/data/en/dataset/2a55e2b4-cbb6-4fea-b17e-a16f5e99e68f. Still imagery and video files for this study are available from Lawton and Teed upon reasonable request. Current open data formats only permit the publication of files 2 GB in size; imagery files may be uploaded in batches to the open data link provided (Lawton and Teed 2025) at a later date. Furthermore, once taxa identifications are finalized, occurrence data will be added to the open data repository and will also be published on OBIS.

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APPENDIX 1 – ANNOTATION LIST EXPORTED FROM THE BIIGLE PROJECTS

Appendix Table 1 BIIGLE annotations applied in the St. Anns Bank image analysis projects for 2023 and 2024 in order of their hierarchy in the label trees (alphabetically by phylum). Labels shown here with an asterisk are tentative (i.e., suggested or likely) and awaiting confirmation, often with suggested taxa. Labels beginning with 'Unid' are unidentifiable, however are distinguishable/grouped by morphological characteristics. Total number of annotations per label and total occurrences (across annotated images – i.e., the observed richness) are also provided.

Phylum	Class	Label	Notes/Suggested taxa	Total annotations	Total images present
Annelida	Polychaeta	Polychaeta		7	7
Annelida	Polychaeta	Pectinariidae		37	36
Annelida	Polychaeta	Terebellidae		118	82
Annelida	Polychaeta	Sabellida		18	15
Annelida	Polchaeta	*Chone infundibuliformis*		108	63
Annelida	Polychaeta	*Myxicola* spp.*	emerging neotypes	138	103
Annelida	Polychaeta	*Pseudopotamilla reniformis*		66	55
Annelida	Polychaeta	Unid Sabellidae sp. 1		212	118
Annelida	Polychaeta	Unid Sabellidae sp. 2		130	89
Annelida	Polychaeta	Unid Sabellidae sp. 3		28	25
Annelida	Polychaeta	Spirorbini		44	41
Annelida	Polychaeta	Unid Serpulidae sp. 1		440	339
Annelida	Polychaeta	Unid Serpulidae sp. 2		109	95
Annelida	Polychaeta	Syllidae		6	6
Annelida	Polychaeta	Unid Polynoidae sp. 1		6	5
Annelida	Polychaeta	Unid Polynoidae sp. 2		4	4
Arthropoda	Thecostraca	Balanidae	*Balanus* or *Chirona*	187	139
Arthropoda	Malacostraca	Amphipoda		2	2
Arthropoda	Malacostraca	Caprellinae	*Caprella* or *Aeginina*	17	13
Arthropoda	Malacostraca	*Chionoecetes opilio*		10	10
Arthropoda	Malacostraca	*Hyas* spp.	*araneus, alutaceus*	17	8
Arthropoda	Malacostraca	*Pagurus* spp.	*acadianus, arcuatus, pubescens*	31	29

Phylum	Class	Label	Notes/Suggested taxa	Total annotations	Total images present
Arthropoda	Malacostraca	Crangonidae – type*	(uncertain)	6	4
Arthropoda	Malacostraca	Pandalidae*	(uncertain)	272	160
Arthropoda	Malacostraca	Thoridae*	(uncertain)	37	30
Arthropoda	Malacostraca	Unid Caridea sp. 1 – ghost shrimp*	(uncertain)	74	54
Arthropoda	Malacostraca	Unid Peracarida sp. 1 – red pine needle*	(uncertain)	22	20
Arthropoda	Malacostraca	Mysidae*	(uncertain)	62	45
Arthropoda	Pycnogonida	*Nymphon* spp.		47	42
Brachiopoda	Rhynchonellata	*Hemithiris psittacea*		12	11
Brachiopoda	Rhynchonellata	*Terebratulina septentrionalis*		239	44
Bryozoa		Bryozoa		58	51
Bryozoa	Gymnolaemata	Buguloidea – type*	or Hydrozoa	124	97
Bryozoa	Gymnolaemata	*Caberea ellisii*		366	234
Bryozoa	Gymnolaemata	*Celleporina* spp.		326	222
Bryozoa	Gymnolaemata	*Cystisella saccata*		346	207
Bryozoa	Gymnolaemata	*Dendrobeania* – type*	likely *D. murrayana*	206	169
Bryozoa	Gymnolaemata	*Flustra foliacea*		308	215
Bryozoa	Gymnolaemata	*Membranipora membranacea* - type*	(uncertain)	4	4
Bryozoa	Gymnolaemata	*Securiflustra securifrons*		279	181
Bryozoa	Gymnolaemata	Smittinoidea		68	59
Bryozoa	Stenolaemata	*Crisia* spp.		211	137
Bryozoa	Stenolaemata	*Exidmonea* spp.	likely *E. atlantica*	195	144
Bryozoa	Stenolaemata	*Hornera* spp.*	likely *H. lichenoides*	188	132
Bryozoa	Stenolaemata	*Infundibulipora lucernaria*		143	85
Bryozoa		Unid Bryozoa sp. 1 – erect plate		81	70
Bryozoa		Unid Bryozoa sp. 2 – pale folded*	Smittinoidea	70	58
Bryozoa		Unid Bryozoa sp. 3 – fine white/cream branches		252	207
Bryozoa		Unid Bryozoa sp. 4 – encrusting		376	261
Chordata	Teleostei	Teleostei		4	4

Phylum	Class	Label	Notes/Suggested taxa	Total annotations	Total images present
Chordata	Teleostei	*Gadus morhua*		8	8
Chordata	Teleostei	*Gadus* spp.*	juvenile*; morhua or macrocephalus*	6	4
Chordata	Teleostei	*Merluccius bilinearis*		1	1
Chordata	Teleostei	*Glyptocephalus cynoglossus*		13	13
Chordata	Teleostei	*Hippoglossoides platessoides*		12	12
Chordata	Teleostei	*Pholis gunnellus*		2	2
Chordata	Teleostei	*Anarhichas lupus*		1	1
Chordata	Teleostei	*Artediellus* spp.*	possibly *Icelus*	4	4
Chordata	Teleostei	*Icelus* spp.	*bicornis/spatula*	2	2
Chordata	Teleostei	*Myoxocephalus* spp.	*aenaeus/scorpius*	3	3
Chordata	Teleostei	*Triglops murrayi*		17	15
Chordata	Teleostei	Agonidae*	likely *Aspidophoroides*	8	8
Chordata	Teleostei	*Eumicrotremus terraenovae*		2	2
Chordata	Teleostei	*Lumpenus lampretaeformis*		2	2
Chordata	Teleostei	*Sebastes* spp.	*fasciatus/mentella*	8	8
Chordata	Teleostei	*Tautogolabrus adspersus*		10	10
Chordata	Elasmobranchii	*Amblyraja radiata*		1	1
Chordata	Ascidiacea	Ascidiacea		53	43
Chordata	Ascidiacea	*Apildium glabrum*		22	20
Chordata	Ascidiacea	*Aplidium pallidum*		69	62
Chordata	Ascidiacea	Didemnidae	*Didemnum albidum*	123	89
Chordata	Ascidiacea	*Ascidia callosa**	(uncertain)	116	99
Chordata	Ascidiacea	*Boltenia echinata*		6	6
Chordata	Ascidiacea	*Boltenia ovifera*		95	75
Chordata	Ascidiacea	*Botrylloides* spp.	*aureum/violaceus*	62	43
Chordata	Ascidiacea	*Cnemidocarpa finmarkiensis*		88	74
Chordata	Ascidiacea	*Molgula* – type*	(uncertain)	45	41
Chordata	Ascidiacea	Unid Ascidian sp. 1 – pale mushroom-like		13	12

Phylum	Class	Label	Notes/Suggested taxa	Total annotations	Total images present
Chordata	Ascidiacea	Unid Ascidian sp. 2 – long vase-like		15	14
Chordata	Ascidiacea	Unid Ascidian sp. 3 – orange centre		39	34
Chordata	Ascidiacea	Unid Ascidian sp. 4 – bulbous reddish/orange	*D. carnea/H. pyriformis*	49	43
Cnidaria	Staurozoa	*Lucernaria quadricornis*		11	11
Cnidaria		Anthozoa		7	7
Cnidaria	Hexacorallia	Actineria		32	22
Cnidaria	Hexacorallia	*Cribinopsis similis**	or *Urticina*	227	151
Cnidaria	Hexacorallia	*Cribrinopsis* red variant*	or *U. crassicornis*	109	91
Cnidaria	Hexacorallia	Edwardsiidae*	(uncertain)	14	12
Cnidaria	Hexacorallia	*Halcampa* spp.*	*duodecimcirrata*	5	5
Cnidaria	Hexacorallia	*Hormathia* spp.*	*nodosa/digitata*	52	34
Cnidaria	Hexacorallia	*Hormathia nodosa*		28	17
Cnidaria	Hexacorallia	*Metridium senile*		352	83
Cnidaria	Hexacorallia	*Ptychodactis patula*		8	8
Cnidaria	Hexacorallia	*Stomphia coccinea* – dotted orange variant		35	33
Cnidaria	Hexacorallia	*Stomphia coccinea* – undotted orange variant		97	76
Cnidaria	Hexacorallia	Unid Actinaria sp. 1 – white disc/tentacles	*Actinostola/Bolocera*	86	72
Cnidaria	Hexacorallia	Unid Actinaria sp. 2 – skinny tentacles, pale disc		15	9
Cnidaria	Hexacorallia	Unid Actinaria sp. 3 – orange/pink, featureless		177	146
Cnidaria	Hexacorallia	Unid Actinaria sp. 4 – translucent, orange rim	*Aulactinia*	19	17
Cnidaria	Hexacorallia	Unid Actinaria sp. 5 – dark purple/black		1	1
Cnidaria	Hexacorallia	Unid Ceriantharia sp. 1		18	17
Cnidaria	Octocorallia	Octocorallia		10	8
Cnidaria	Octocorallia	*Clavularia* spp.	*modesta*	138	85
Cnidaria	Octocorallia	Malacalcyonacea	*Gersemia/Drifa/Duva*	401	165
Cnidaria	Octocorallia	Unid Malacalcyonacea sp. 1		67	55
Cnidaria	Hydrozoa	Hydrozoa		63	59
Cnidaria	Hydrozoa	*Abietinaria* spp.	*abietina*	410	236

Phylum	Class	Label	Notes/Suggested taxa	Total annotations	Total images present
Cnidaria	Hydrozoa	Sertulariidae	*Hydrallmania/Thuiaria*	105	78
Cnidaria	Hydrozoa	Aglaophennidae		5	5
Cnidaria	Hydrozoa	*Obelia* spp.	*geniculate*	173	144
Cnidaria	Hydrozoa	*Thuiaria thuja*		66	57
Cnidaria	Hydrozoa	Leptothecata sp. 1		385	255
Cnidaria	Hydrozoa	Leptothecata sp. 2	Sertularellidae	748	364
Cnidaria	Hydrozoa	*Corymorpha pendula*		10	9
Cnidaria	Hydrozoa	Tubulariidae		19	18
Cnidaria	Hydrozoa	Unid Hydrozoa sp. 1 – green branches	*Lafoeina maxima*	110	87
Cnidaria	Hydrozoa	Unid Hydrozoa sp. 2 – orange polyps*	*Halecium*	46	42
Cnidaria	Hydrozoa	Unid Hydrozoa sp. 3	*Eudemdrium/Bougainvillia*	452	380
Ctenophora		Ctenophora		4	4
Echinodermata	Asteroidea	Asteroidea		14	11
Echinodermata	Asteroidea	*Asterias/Leptasterias* spp.*	*A. rubens, A. forbesi, L. groenlandica*	754	399
Echinodermata	Asteroidea	*Stephanasterias albula*		147	84
Echinodermata	Asteroidea	*Crossaster papposus*		54	49
Echinodermata	Asteroidea	*Solaster* spp.	*endeca/syrtensis*	19	19
Echinodermata	Asteroidea	*Henricia* spp.		264	207
Echinodermata	Asteroidea	*Leptasterias (Hexasterias) polaris*		66	66
Echinodermata	Asteroidea	*Pteraster* spp.	*militaris/pulvillus/obscurus*	15	12
Echinodermata	Crinoidea	*Heliometra glacialis*		211	72
Echinodermata	Echinoidea	*Echinarachius parma*		87	40
Echinodermata	Echinoidea	*Strongylocentrotus* spp.	*droebachiensis/pallidus*	53	42
Echinodermata	Holothuroidea	*Cucumaria frondosa*		51	51
Echinodermata	Holothuroidea	*Psolus phantapus*		71	56
Echinodermata	Ophiuroidea	Ophiuroidea		18	5
Echinodermata	Ophiuroidea	*Gorgonocephalus arcticus*		11	7
Echinodermata	Ophiuroidea	*Ophiacantha bidentata*		498	291

Phylum	Class	Label	Notes/Suggested taxa	Total annotations	Total images present
Echinodermata	Ophiuroidea	*Ophiopholis aculeata*		588	374
Echinodermata	Ophiuroidea	*Ophiura sarsii*		2	1
Echinodermata	Ophiuroidea	Unid Ophiuroidea sp. 1		60	48
Echinodermata	Ophiuroidea	Unid Ophiuroidea sp. 2		27	14
Mollusca	Bivalvia	Astartidae		18	18
Mollusca	Bivalvia	*Cyclocaridia borealis*		13	13
Mollusca	Bivalvia	*Chlamys islandica*		31	31
Mollusca	Bivalvia	*Crassostrea virginica* – type*	(uncertain)	2	2
Mollusca	Bivalvia	*Dosinia* spp. – type*	(uncertain)	16	16
Mollusca	Bivalvia	*Modiolus modiolus*		18	17
Mollusca	Bivalvia	*Nuculana* – type*	*tenuisulcata*	24	20
Mollusca	Bivalvia	Yoldiidae		18	15
Mollusca	Bivalvia	*Panomya norvegica*		44	40
Mollusca	Bivalvia	Unid Bivalve sp. 1 – black/white type	*Macoma*	93	63
Mollusca	Bivalvia	Unid Bivalve sp. 2 – yellow type		7	7
Mollusca	Gastropoda	Gastropoda		23	21
Mollusca	Gastropoda	*Arrhoges occidentalis*		36	30
Mollusca	Gastropoda	*Boreotrophon clathratus**	(uncertain)	32	30
Mollusca	Gastropoda	*Buccinum undatum*		42	38
Mollusca	Gastropoda	*Aulacofusus brevicauda*		10	9
Mollusca	Gastropoda	*Neptunea decemcostata*		5	5
Mollusca	Gastropoda	Mangeliidae		42	37
Mollusca	Gastropoda	Epitoniidae		18	18
Mollusca	Gastropoda	Turritellidae		60	55
Mollusca	Gastropoda	*Margarites* spp. type 1 – white*	*Margarites/Solariella*	84	74
Mollusca	Gastropoda	*Margarites* spp. type 2 – pink/orange*	*groenlandicus*	123	98
Mollusca	Gastropoda	*Testudinalia testudinalis*		88	71
Mollusca	Gastropoda	*Cadlina laevis*		10	9

Phylum	Class	Label	Notes/Suggested taxa	Total annotations	Total images present
Mollusca	Gastropoda	Coryphellidae		109	93
Mollusca	Gastropoda	*Dendronotus* spp.	*elegans*	54	49
Mollusca	Gastropoda	Nudibranch eggs		10	9
Mollusca	Gastropoda	Unid Gastropoda sp. 1	Mangelliidae	23	22
Mollusca	Gastropoda	Unid Gastropoda sp. 2 – Velutinidae type		124	97
Mollusca	Gastropoda	Unid Gastropoda sp. 3 – purple/white striped	*Margarites/Lacuna*	15	11
Mollusca	Polyplacophora	Polyplacophora		14	13
Mollusca	Polyplacophora	Tonicellinae	*Boreochiton/Tonicella*	322	184
Mollusca	Polyplacophora	Unid Chitonida sp. 1	*Stenosemus/Hanleya*	35	33
Nemertea		Nemertea		8	8
Nemertea		Unid Nemertea sp. 1	or leech	8	8
Nemertea		Unid Nemertea sp. 2		10	9
Nemertea		Unid Nemertea sp. 3		41	36
Nemertea		Unid Nemertea sp. 4		22	21
Nemertea		Unid Nemertea sp. 5	or Annelid	87	72
Orchophyta	Phaeophyceae	*Agarum clathratum*		114	92
Orchophyta	Phaeophyceae	*Alaria esculenta*		26	17
Orchophyta	Phaeophyceae	*Saccharina latissima*		3	3
Orchophyta	Phaeophyceae	*Laminaria* spp.		33	29
Orchophyta	Phaeophyceae	*Desmarestia* spp.	*viridis*	14	12
Platyhelminthes		Platyhelminthes		3	3
Platyhelminthes		Unid Platyhelminthes sp. 1 - black		10	10
Platyhelminthes		Unid Platyhelminthes sp. 2 - white		11	8
Porifera		Porifera		18	16
Porifera	Calcarea	Calcarea		20	19
Porifera	Calcarea	*Brattegardia nanseni**	or *Tentorium semisuberites*	201	124
Porifera	Calcarea	*Clathrina* spp.		10	10
Porifera	Calcarea	Unid Calcarea tube sp. 1		107	87

Phylum	Class	Label	Notes/Suggested taxa	Total annotations	Total images present
Porifera	Calcarea	Unid Calcarea tube sp. 2	*Sycon*	4	4
Porifera	Demospongiae	Demospongiae		3	3
Porifera	Demospongiae	*Craniella* spp.		17	15
Porifera	Demospongiae	*Aplysilla sulfurea*		51	19
Porifera	Demospongiae	*Halichondria (Halichondria) panicea* – type*	(uncertain)	18	18
Porifera	Demospongiae	*Halichondria sitiens*		14	14
Porifera	Demospongiae	*Stylocordyla borealis*		11	10
Porifera	Demospongiae	*Haliclona/Isodictya* spp.*	*H. oculata*	2	2
Porifera	Demospongiae	*Hymedesmia (Hymedesmia) jecusculum-canadensis*		102	77
Porifera	Demospongiae	Hymedesmiidae*	*Hymedesmia paupertas*	9	4
Porifera	Demospongiae	*Iophon* spp.		104	70
Porifera	Demospongiae	*Mycale (Mycale) lingua*		74	57
Porifera	Demospongiae	*Myxilla (Myxilla) fimbriata*		89	66
Porifera	Demospongiae	*Myxilla (Myxilla) incrustans**	(uncertain)	26	24
Porifera	Demospongiae	*Tedania (Tedania) suctoria*		109	52
Porifera	Demospongiae	Polymastiidae	*Polymastia uberrima/Sphaerotylus capitatus*	50	40
Porifera	Demospongiae	Unid Demospongiae sp. 1 – small sphere		15	11
Porifera	Demospongiae	Unid Demospongiae sp. 2	Polymastiidae	8	8
Porifera	Demospongiae	Unid Demospongiae funnel sp. 1	*Plicatellopsis bowerbanki*	17	16
Porifera	Demospongiae	Unid Encrusting sponge – blue/yellow thin film		122	97
Porifera	Demospongiae	Unid Encrusting sponge – brown/beige fluffy crust		59	48
Porifera	Demospongiae	Unid Encrusting sponge – orange: veined/oscula		301	201
Porifera	Demospongiae	Unid Encrusting sponge – pink		55	45
Porifera	Demospongiae	Unid Encrusting sponge – smooth white		58	51
Porifera	Demospongiae	Unid Encrusting sponge – white/yellow bumpy		320	50
Porifera	Demospongiae	Unid Encrusting sponge – yellow dark crust		68	64
Porifera	Demospongiae	Unid Encrusting sponge – yellow: veined/oscula		198	188

Phylum	Class	Label	Notes/Suggested taxa	Total annotations	Total images present
Porifera	Demospongiae	Unid Solid/Massive sponge		54	51
Porifera	Demospongiae	Unid Solid/Massive sponge: with protrusions		47	40
Rhodophyta	Florideophyceae	*Boreolithothamnion glaciale*		415	287
Rhodophyta	Florideophyceae	*Lithophyllum* spp.*	or Hapalidiaceae	328	241
Rhodophyta	Florideophyceae	*Peyssonnelia rosenvingei*		182	160
Rhodophyta	Florideophyceae	*Ceramothamnion coulteri* – type*	(uncertain)	8	8
Rhodophyta	Florideophyceae	*Phycodrys rubens*		116	93
Rhodophyta	Florideophyceae	*Ptilota serrata*		337	199
Rhodophyta	Florideophyceae	*Spermothamnion* – type*	(uncertain)	12	11
Rhodophyta	Florideophyceae	*Chondrus crispus/Mastocarpus stellatus* – type		257	169
Rhodophyta	Florideophyceae	*Cocctylus truncatus*		28	28
Rhodophyta	Florideophyceae	*Palmaria palmata*		211	155
Unknown		Unknown		75	70
Unknown		Unid sp. 1 long, thin, dark strand	Algae/*Zostera*	27	25
Unknown		Unid sp. 2 annelid or brittle star arms	Annelida/Ophiuroidea	114	97
Unknown		Unid sp. 3 red striped beetle/shrimp	Arthropoda	12	12
Unknown		Unid sp. 4 small red	Arthropoda	8	8
Unknown		Unid sp. 5 orange/yellow/green/brown crust		957	469
Unknown		Unid sp. 6 white rock crust		317	266
Unknown		Unid sp. 7 white crust – dead coralline?	*B. glaciale*	377	253
Unknown		Unid sp. 8 red rock crust		166	136
Unknown		Unid sp. 9 encrusting white spotted sponge/ascidian	Demospongiae/Ascidiacea	67	60
Unknown		Unid sp. 10 gelatinous glossy blob		220	173
Unknown		Unid sp. 11 small yellow sponge/ascidian	Demospongiae/Ascidiacea	61	57
Unknown		Unid sp. 12 thin yellow/pink bryozoan/ascidian	Bryozoa/Ascidiacea	181	117
Unknown		Unid sp. 13 vase sponge type	Demospongiae	7	7
Unidentified		Unidentified to review		75	73

APPENDIX 2 – EXAMPLE SCREENSHOTS OF ALL TAXA OBSERVED

Example screenshots of all taxa observed and assigned a label annotation in BIIGLE with detailed classification, descriptions of identifications and when possible, suggested genus and species names. Phyla are divided by dashed lines while individual taxa are separated by straight lines. For each example, the image filename is provided with image details outlined in our open data publication (Lawton and Teed 2025). Taxa image examples are presented as cropped views of the original still images to highlight the organism, with priority given to the best quality views. Each taxon is listed with links to the taxonomic authority WoRMS (2025) and to the citizen observation platform iNaturalist (inaturalist.org) for globally available image examples and summary information. A selection of 126 examples for 104 taxa were also uploaded to iNaturalist for display and community review: https://www.inaturalist.org/projects/st-anns-bank-mpa-imagery-surveys. As of October 2025, 84 observations have been community-confirmed at the species or genus level.

Table of Contents

Phylum Annelida

phylum	class	order	family	genus
Annelida	**Polychaeta**	**Terebellida**	**Pectinariidae**	

Pectinariidae

Trumpet Worms

AphiaID: 980; https://www.marinespecies.org/aphia.php?p=taxdetails&id=980.

iNaturalist: https://www.inaturalist.org/taxa/194009-Pectinariidae

Description: Annelid that builds tubes using grains of sand roughly resembling ice cream cones or trumpets (straight and rigid in shape). Can be up to 5cm long.

Key characteristics: Ice cream cone tubes.

Habitat type: Gravelly/sandy sediments.

Highest-quality images:

CON019-20230817T135943

CON055-20240808T190725

phylum	class	order	family	genus
Annelida	Polychaeta	Terebellida	Terebellidae	

Terebellidae

AphiaID: 982; https://www.marinespecies.org/aphia.php?p=taxdetails&id=982.

iNaturalist: https://www.inaturalist.org/taxa/47492-Terebellidae

Description: Live in burrows or crevices. Numerous long tentacles which radiate near mouth (tendrils that extend from one end). Plump anterior bodies and numerous segments in long, posterior bodies. Wide range in colours.

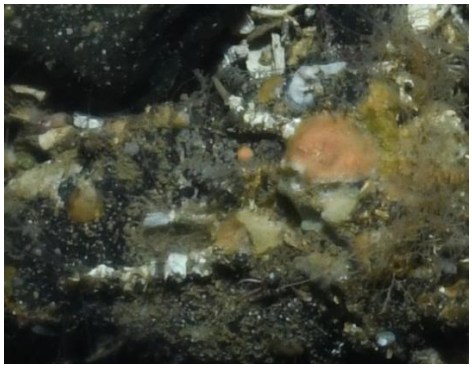
Key characteristics: Tentacles radiating from mouth.

Habitat type: Sandy/gravel/pebble sediments.

Highest-quality images:

CON027-20230823T165331

CON066-20240815T160442



phylum	class	order	family	genus
Annelida	Polychaeta	Sabellida	Sabellidae	*Chone*

Chone infundibuliformis

AphiaID: 130891; https://www.marinespecies.org/aphia.php?p=taxdetails&id=130891.

iNaturalist: https://www.inaturalist.org/taxa/950275-Chone-infundibuliformis

Description: Segmented feather duster worms. Branchial lobes are not exposed beyond the collar. Collar is supported by dense mass of cartilage (slightly translucent) with white tips.

Key characteristics: White tips.

Habitat type: Gravelly/sandy/pebble sediments.

Highest-quality images:

CON019-20230817T135315

CON063-20240815T130349

phylum	*class*	*order*	*family*	*genus*
Annelida	*Polychaeta*	*Sabellida*	*Sabellidae*	*Myxicola*

Myxicola* spp.

AphiaID: 129537; https://www.marinespecies.org/aphia.php?p=taxdetails&id=129537

iNaturalist: https://www.inaturalist.org/taxa/49534-Myxicola

Description: Cylindrical fan worm that lives in thick transparent mucilaginous tube that remains almost completely buried in soft . The head is surrounded by a crown of purple and brown tentacles that are interlaced forming a funnel with only the tips free. Not thought to be *M. infundibulum* which has distinct black tips; new neotypes currently undergoing designation/updating taxonomy.

Key characteristics: Gelatinous-looking fan worm.

Habitat type: Sandy/gravel sediments.

Highest-quality images:

CON027-20230823T165451

CON027-20230823T165717

phylum	class	order	family	genus
Annelida	Polychaeta	Sabellida	Sabellidae	*Pseudopotamilla*

Pseudopotamilla reniformis

Gregarious Fanworm

AphiaID: 130963; https://www.marinespecies.org/aphia.php?p=taxdetails&id=130963.

iNaturalist: https://www.inaturalist.org/taxa/552297-Pseudopotamilla-reniformis

Description: Head is translucent/brown. Body is often yellow/brown. Often seen forming colonies in shallow rocky habitats.

Key characteristics: Part of body exposed in rocky habitats where they form colonies.

Habitat type: Silty/muddy boulder sediments.

Highest-quality images:

CON054-20240808T182052

CON058-20240819T170910

phylum	class	order	family	genus
Annelida	Polychaeta	Sabellida	Sabellidae	

Unid Sabellidae sp. 1

AphiaID: 985; https://www.marinespecies.org/aphia.php?p=taxdetails&id=985

iNaturalist: https://www.inaturalist.org/taxa/49282-Sabellidae

Description: Ring of feathery feeding tentacles. Translucent feeding tentacles with what looks like white stripes along tentacles. White/orange/green rim.

Key characteristics: Translucent feeding tentacles with white stripes along tentacles.

Habitat type: Gravel/sandy sediments.

Highest-quality images :

CON027-20230823T170212

CON027-20230823T170950

phylum	class	order	family	genus
Annelida	Polychaeta	Sabellida	Sabellidae	

Unid Sabellidae sp. 2

AphiaID: 985; https://www.marinespecies.org/aphia.php?p=taxdetails&id=985

iNaturalist: https://www.inaturalist.org/taxa/49282-Sabellidae

Description: Ring of feathery feeding tentacles. Tentacles are red or deep orange in colour, lighter cream or white rim.

Key characteristics: Red/deep orange tentacles.

Habitat type: Gravel/pebble/cobble sediments.

Highest-quality images:

CON019-20230817T135147

CON018-20230817T123120

phylum	class	order	family	genus
Annelida	Polychaeta	Sabellida	Sabellidae	

Unid Sabellidae sp. 3

AphiaID: 985; https://www.marinespecies.org/aphia.php?p=taxdetails&id=985

iNaturalist: https://www.inaturalist.org/taxa/49282-Sabellidae

Description: Ring of feathery feeding tentacles. Tentacles are stark white (opaque) and appear striped.

Key characteristics: Tentacles are stark white and appear striped.

Habitat type: Sandy/gravel sediments.

Highest-quality images:

CON017-20230816T194859

CON071-20240816T150417

phylum	class	order	family	genus
Annelida	Polychaeta	Sabellida	Serpulidae	

Spirorbini

AphiaID: 719188; https://www.marinespecies.org/aphia.php?p=taxdetails&id=719188.

iNaturalist: https://www.inaturalist.org/taxa/1067583-Spirorbini

Description: Small, distinctively spirally coiled tribe of tube worms (rounded calcarean tube). White in colour. One or two species in the area, so report to tribe level (too small to distinguish).

Key characteristics: Tiny, coiled and white tube worm.

Habitat type: Sandy/gravel/rocky sediments.

Highest-quality images:

CON026-20230823T150118

CON056-20240819T143115

phylum	class	order	family	genus
Annelida	Polychaeta	Sabellida	Serpulidae	

Unid Serpulidae sp. 1

AphiaID: 988; https://www.marinespecies.org/aphia.php?p=taxdetails&id=988.

iNaturalist: https://www.inaturalist.org/taxa/49518-Serpulidae

Description: Tube-dwelling polychaetes that secrete calcium carbonate tubes that appear white. This species is small/thin tube compared to Unid Serpulidae sp. 2.

Key characteristics: Secrete calcium carbonate tubes that appear white. Smaller and thinner tube compared to sp. 2.

Habitat type: Rocky sediments often seen on coralline algal encrusted boulders.

Highest-quality images:

CON076-20240817T134227

CON053-20240808T162840

phylum	class	order	family	genus
Annelida	Polychaeta	Sabellida	Serpulidae	

Unid Serpulidae sp. 2

AphiaID: 988; https://www.marinespecies.org/aphia.php?p=taxdetails&id=988.

iNaturalist: https://www.inaturalist.org/taxa/49518-Serpulidae

Description: Tube-dwelling polychaetes that secrete calcium carbonate tubes that appear white. This species is wider/bigger tube compared to Unid Serpulidae sp. 1. Translucent tentacles.

Key characteristics: This sp. is wider/bigger tube compared to sp. 1 and has visible translucent tentacles.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON026-20230823T150536

CON072-20240816T180910

phylum	class	order	family	genus
Annelida	Polychaeta	Phyllodocida	Syllidae	

Syllidae

AphiaID: 948; https://www.marinespecies.org/aphia.php?p=taxdetails&id=948

iNaturalist: https://www.inaturalist.org/taxa/81787-Syllidae

Description: White in colour, flat shape. Obvious chaetae. Sometimes visible palp (i.e., notch on end).

Key characteristics: Obvious chaetae.

Habitat type: Gravelly/pebble sediments.

Highest-quality images:

CON027-20230823T170052

CON076-20240817T140043

phylum	class	order	family	genus
Annelida	Polychaeta	Phyllodocida	Polynoidea	

Unid Polynoidae sp. 1

AphiaID: 939; https://www.marinespecies.org/aphia.php?p=taxdetails&id=939

iNaturalist: https://www.inaturalist.org/taxa/53607-Polynoidae

Description: Scale worms due to ‘scale-like’ elytra on dorsal surface. Flattened body. Dark brown/black in colour.

Key characteristics: Scales on dorsal surface. Brown/black in colour.

Habitat type: Rocky sediments.

Highest-quality images:

CON019-20230817T135943

CON064-20240815T134501

phylum	class	order	family	genus
Annelida	Polychaeta	Phyllodocida	Polynoidea	

Unid Polynoidae sp. 2

AphiaID: 939; https://www.marinespecies.org/aphia.php?p=taxdetails&id=939

iNaturalist: https://www.inaturalist.org/taxa/53607-Polynoidae

Description: Red/copper in colour. Scale worms due to ‘scale-like’ elytra on dorsal surface. Flattened body. White line along scale margins.

Key characteristics: Red/copper colour. Scales on dorsal surface.

Habitat type: Rocky sediments.

Highest-quality images:

CON024-20230821T132110

CON064-20240815T134202

Phylum Arthropoda

phylum	class	order	family	genus
Arthropoda	Thecostraca	Balanomorpha	Balanidae	

Balanidae

Barnacles

AphiaID: 106057; https://www.marinespecies.org/aphia.php?p=taxdetails&id=106057

iNaturalist: https://www.inaturalist.org/taxa/49128-Balanidae

Description: Live attached to rocks. Conical carapace with circular base and irregular edges (can have larger diameter – few cm wide). Surface is ridged and white/pale brown in colour. Likely *Balanus balanus, Balanus crenatus* or *Chirona hameri*.

Key characteristics: Diamond-shaped operculum.

Habitat type: Attached to boulders/cobbles.

Highest-quality images:

CON19-20230817T130119

CON064-20240815T134015

phylum	class	order	family	genus
Arthropoda	Malacostraca	Amphipoda	Caprellidae	

Caprellinae

Skeleton shrimp

AphiaID: 430770; https://www.marinespecies.org/aphia.php?p=taxdetails&id=430770

iNaturalist: https://www.inaturalist.org/taxa/493938-Caprellinae

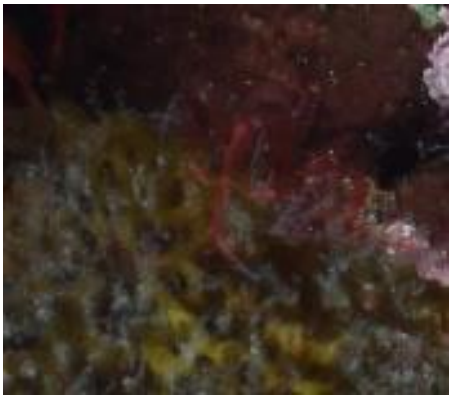
Description: Skeleton shrimp small in size. Brown/pale orange to red in colour. Long cylindrical body. Could be *Aeginina* or more likely *Caprella*, so left to subfamily level.

Key characteristics: Long slender shrimp-like body, red in colour.

Habitat type: Rocky sediments.

Highest-quality images:

CON028-20230823T200948



CON059-20240809T181602

phylum	class	order	family	genus
Arthropoda	Malacostraca	Decapoda	Oregoniidae	*Chionoecetes*

Chionoecetes opilio

Snow crab

AphiaID: 107315; https://www.marinespecies.org/aphia.php?p=taxdetails&id=107315

iNaturalist: https://www.inaturalist.org/taxa/361770-Chionoecetes-opilio

Description: Atlantic snow crab are spider-like in shape with flat, round carapace (wider than long), and long slender legs. Older individuals fade from red colour to a fuller olive shade.

Key characteristics: Round carapace (wider than long) with long, broader, flattened legs (*Hyas* crab legs are rounder).

Habitat type: Soft substrate (sand/mud).

Highest-quality images:

CON11-20230815T145105

CON079-20240817T170937

phylum	class	order	family	genus
Arthropoda	Malacostraca	Decapoda	Oreoniidae	*Hyas*

***Hyas* spp.**

Toad crabs

AphiaID: 106903; https://www.marinespecies.org/aphia.php?p=taxdetails&id=106903

iNaturalist: https://www.inaturalist.org/taxa/459589-Hyas

Description: Pair of claws and 4 pairs of walking legs. Narrow and triangular shell with toothed shell edge. Reddish to olive green in colour. Camouflage themselves with epiphytes (snow crab only has barnacles). Could be *H. araneus* or *H. alutaceus*.

Key characteristics: Smaller than snow crab with carapace longer than wider, toothed carapace edge.

Habitat type: Muddy/pebbly sediments.

Highest-quality images:

CON019-20230817T135800

CON064-20240815T135203

phylum	class	order	family	genus
Arthropoda	Malacostraca	Decapoda	Paguridae	*Pagurus*

***Pagurus* spp.**

Hermit crab

AphiaID: 106854; https://www.marinespecies.org/aphia.php?p=taxdetails&id=106854

iNaturalist: https://www.inaturalist.org/taxa/48173-Pagurus

Description: Abdomen is not calcified and they use snail shells as protection. Small in size. Likely a mixture of species in the area including *P. acadianus* (but no obvious blue eyes observed), *P. arcuatus* and *P. pubescens*.

Key characteristics: Protective shell.

Habitat type: Silty sandy/rocky sediments.

Highest-quality images:

CON056-20240809T141510

CON063-20240815T125357

phylum	class	order	family	genus
Arthropoda	Malacostraca	Decapoda	Crangonidae	

Crangonidae – type*

AphiaID: 106782; https://www.marinespecies.org/aphia.php?p=taxdetails&id=106782

iNaturalist: https://www.inaturalist.org/taxa/47290-Crangonidae

Description: Can appear speckled, brown/translucent in colour. Dark colour (light brown or gray) whereas other shrimps are red to yellow. Could be *Crangon septemspinosa* (slender, gray), *Argis dentata* (dark band), *Sabinea* spp. (brown), *Pontophilus norvegicus* (slender, brown), *Sclerocrangon boreas* (rocky areas, chunky body), but too small/dark or blurry to be sure, so left at family level.

Key characteristics: Speckled, dark colour.

Habitat type: Rocky or soft sediments.

Highest-quality images:

CON014-20230815T190728

CON067-20240815T183717

phylum	class	order	family	genus
Arthropoda	Malacostraca	Decapoda	Pandalidae	

Pandalidae*

Pandalid shrimp

AphiaID: 106789; https://www.marinespecies.org/aphia.php?p=taxdetails&id=106789

iNaturalist: https://www.inaturalist.org/taxa/47710-Pandalidae

Description: Lack chelae (claws) on first pereiopod. Pink/orange/red in colour, sometimes has striped legs, or translucent legs. Can appear to have a darker 'saddle'. Typical species in area is *Pandalus montagui*, but too small/blurry to be sure. Could also be *P. borealis* or *Dichelopandalus leptocerus*.

Key characteristics: Straighter rostrum than Thoridae. Red/pink in colour. Can appear to have 'saddle'.

Habitat type: Both hard and soft sediments (sandy rocky outcrops and coralline algae).

Highest-quality images:

CON028-20230823T202325

CON019-20230817T135800

phylum	class	order	family	genus
Arthropoda	Malacostraca	Decapoda	Thoridae	

Thoridae*

AphiaID: 883967; https://www.marinespecies.org/aphia.php?p=taxdetails&id=883967

iNaturalist: https://www.inaturalist.org/taxa/849029-Thoridae

Description: Can appear striped brown/reddish and slightly translucent in colour. Bent/curved or slightly rounded rostrum. Carpus of second pair of thoracic feet are smaller than the first. Can have striped legs.

Key characteristics: Curved rostrum/humpback.

Habitat type: Occurs on both hard and soft sediments.

Highest-quality images:

CON014-20230815T191759

CON055-20240808T191722

phylum	class	order	family	genus
Arthropoda	Malacostraca	Decapoda		

Unid Caridea sp. 1 Ghost shrimp*

AphiaID: 106674; https://www.marinespecies.org/aphia.php?p=taxdetails&id=106674

iNaturalist: https://www.inaturalist.org/taxa/342912-Caridea

Description: White/translucent with some pale pink or blue apparent. Translucent legs. Some have very faint pink lateral stripes. Relatively straight rostrum, but not always distinguishable, so left at Caridea. Could possibly be *Axius serratus* or *Pandalus*.

Key characteristics: Translucent/white body, relatively straight rostrum.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON015-20230816T165412

CON026-20230823T143502

phylum	class	order	family	genus
Arthropoda	Malacostraca			

Unid Peracarida sp. 1 Red pine needle*

AphiaID: 1090; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1090

iNaturalist: https://www.inaturalist.org/taxa/144114-Peracarida

Description: Rigid, segmented exoskeleton. Small red/pale translucent beetle-looking isopod. Possibly Politolana, Synidotea. Left at superorder level.

Key characteristics: Beetle-appearance with red/translucent colouring.

Habitat type: Sandy/silty sediments, sometimes on rocks.

Highest-quality images:

CON027-20230823T170950

CON066-20240815T155818

phylum	class	order	family	genus
Arthropoda	Malacostraca	Mysida	Mysidae	

Mysidae*

Opossum shrimps

AphiaID: 119822; https://www.marinespecies.org/aphia.php?p=taxdetails&id=119822

iNaturalist: https://www.inaturalist.org/taxa/85912-Mysidae

Description: Translucent pink/orange in colour. Small in size with stalked eyes and two pairs of antennae - two obvious eyes at the head. Should have a forked telson and a pouch under the carapace, but often obscured from view.

Key characteristics: Pair of stalked eyes and two pairs of antennae.

Habitat type: Sandy/muddy sediments.

Highest-quality images:

CON015-20230816T164956

CON026-20230823T144804

phylum	class	order	family	genus
Arthropoda	Pycnogonida	Pantopoda	Nymphonidae	*Nymphon*

***Nymphon* spp.**

Sea spiders

AphiaID: 134591; https://www.marinespecies.org/aphia.php?p=taxdetails&id=134591

iNaturalist: https://www.inaturalist.org/taxa/252726-Nymphon

Description: Long slender legs in comparison to small body size. Four pairs of walking legs (but some species can have 5 pairs). Pale yellow/orange/red in colour. Legs sometimes translucent.

Key characteristics: Spider shape, with 8 slender legs.

Habitat type: Rocky/sandy sediments, most common in shallow waters.

Highest-quality images:

CON015-20230816T170124

CON066-20240815T161923

Phylum Brachiopoda

phylum	class	order	family	genus
Brachiopoda	Rhynchonellata	Rhynchonellida	Hemithirididae	*Hemithiris*

Hemithiris psittacea

AphiaID: 104054; https://www.marinespecies.org/aphia.php?p=taxdetails&id=104054

iNaturalist: https://www.inaturalist.org/taxa/536723-Hemithiris-psittacea

Description: Brachiopod that is black or dark blue in colour.

Key characteristics: Black/blue brachiopod.

Habitat type: Sandy cobble/boulder fields.

Highest-quality images:

CON19-20230817T130933

CON067-20240815T183916

phylum	class	order	family	genus
Brachiopoda	Rhynchonellata	Terebratulida	Cancellothyrididae	*Terebratulina*

Terebratulina septentrionalis

Northern lampshell

AphiaID: 104056; https://www.marinespecies.org/aphia.php?p=taxdetails&id=104056

iNaturalist: https://www.inaturalist.org/taxa/192682-Terebratulina-septentrionalis

Description: White/cream/yellow in colour. Often see ciliary feeders eating particles.

Key characteristics: White/creamy coloured brachiopod.

Habitat type: Sandy/muddy sediments.

Highest-quality images:

CON17-20230816T194859

CON015-20230816T165704

Phylum Bryozoa

phylum	class	order	family	genus
Bryozoa	Gymnolaemata	Cheliostromatida		

Buguloidea – type*

AphiaID: 153582; https://www.marinespecies.org/aphia.php?p=taxdetails&id=153582

iNaturalist: https://www.inaturalist.org/taxa/840957-Buguloidea

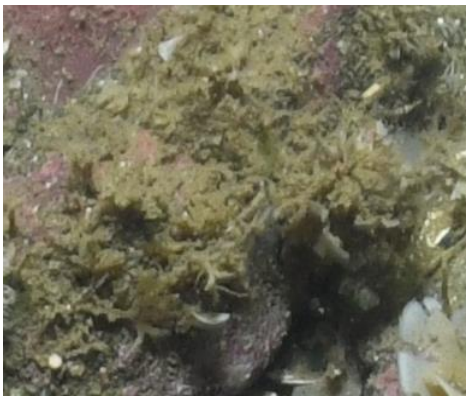
Description: Erect colonies and branches comprising two or more series of boat-shaped zooids (that are calcified). Brown in colour. Possibly confused with some hydrozoa.

Key characteristics: Thinner calcified branches compared to *Dendrobeania* – type, but similar colour.

Habitat type: Gravelly boulder fields.

Highest-quality images:

CON020-20230817T162533



CON070-20240816T141016

phylum	class	order	family	genus
Bryozoa	Gymnolaemata	Cheliostromatida	Candidae	*Caberea*

Caberea ellisii

AphiaID: 111230; https://www.marinespecies.org/aphia.php?p=taxdetails&id=111230

iNaturalist: https://www.inaturalist.org/taxa/568693-Caberea-ellisii

Description: Erect bryozoan. Colonies form free, stiff fan-shaped tufts composed of un-jointed branches. Yellowish-brown in colour. Root-like rhizoids separate and spread near base, anchoring to substrate.

Key characteristics: Fan-shaped tufts.

Habitat type: Rocky sediments.

Highest-quality images:

CON020-20230817T164428

CON057-20240809T161714

phylum	class	order	family	genus
Bryozoa	Gymnolaemata	Cheliostromatida	Celleporidae	*Celleporina*

***Celleporina* spp.**

AphiaID: 110875; https://www.marinespecies.org/aphia.php?p=taxdetails&id=110875

iNaturalist: https://www.inaturalist.org/taxa/485338-Celleporina

Description: Orange in colour. Bleached white when dead. Thick looking branches. Possibly *C. surcularis*.

Key characteristics: Thick orange branches.

Habitat type: Rocky/boulder sediments.

Highest-quality images:

CON020-20230817T162533

CON019-20230817T131222

phylum	class	order	family	genus
Bryozoa	Gymnolaemata	Cheliostromatida	Bryocryptellidae	Cystisella

Cystisella saccata

AphiaID: 111112; https://www.marinespecies.org/aphia.php?p=taxdetails&id=111112

iNaturalist: https://www.inaturalist.org/taxa/1471119-Cystisella-saccata

Description: Thin white branched erect bryozoan, sometimes appears green under low lighting. Long main branch with two short tufts at branch ends that are thicker (or one thick one).

Key characteristics: Thin white branches.

Habitat type: Sandy/muddy/rocky sediments.

Highest-quality images:

CON026-20230823T150536

CON017-20230816T194859

phylum	class	order	family	genus
Bryozoa	Gymnolaemata	Cheliostormatida	Bugulidae	*Dendrobeania*

Dendrobeania* – type

AphiaID: 110842; https://www.marinespecies.org/aphia.php?p=taxdetails&id=110842

iNaturalist: https://www.inaturalist.org/taxa/205169-Dendrobeania

Description: Sub-erect bryozoan composed of branching linear fronds. Forms entangled bushy tufts. Straw coloured fronds are broad and ribbon-shaped, truncated at the tip. Colonize stones, shells, hydroids etc. Likely *D. murrayana*.

Key characteristics: Bushy tufts with broad fronds, much broader than Buguloidea - type.

Habitat type: Silty boulder fields.

Highest-quality images:

CON020-20230817T162847

CON065-20240815T143938

phylum	class	order	family	genus
Bryozoa	Gymnolaemata	Cheliostormatida	Flustridae	Flustra

Flustra foliacea

AphiaID: 111367; https://www.marinespecies.org/aphia.php?p=taxdetails&id=111367

iNaturalist: https://www.inaturalist.org/taxa/516767-Flustra-foliacea

Description: Erect bryozoans. Zooids in pear shaped boxes, very broad (but thin) leaves.

Key characteristics: Very broad branch tips.

Habitat type: Rocky sediments.

Highest-quality images:

CON019-20230817T125905

CON020-20230817T164428

phylum	class	order	family	genus
Bryozoa	Gymnolaemata	Cheliostomatida	Membraniporidae	*Membranipora*

Membranipora membranacea* – type

AphiaID: 111411; https://www.marinespecies.org/aphia.php?p=taxdetails&id=111411

iNaturalist: https://www.inaturalist.org/taxa/51027-Membranipora-membranacea

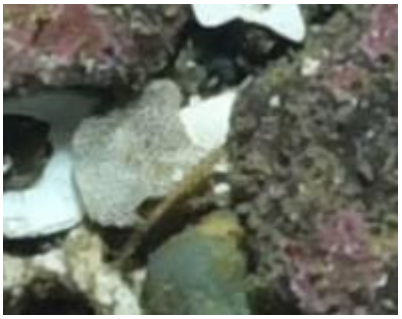
Description: Chitonous exoskeleton hardened by calcium carbonate. Brown/white in colour, referred to as 'coffin-box'. Often like a mat encrusting on rocks/algae. Only a few occurrences at low resolutions.

Key characteristics: Mat-like 'coffin-box'.

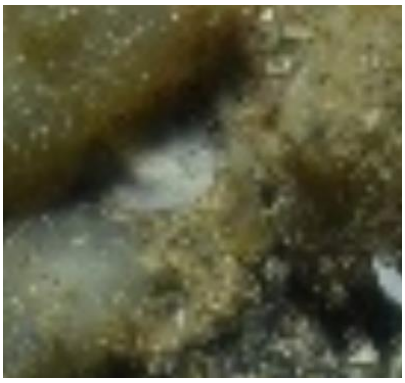
Habitat type: Rocky/algae sediments.

Highest-quality images:

CON020-20230817T161600



CON055-20240808T185824



phylum	class	order	family	genus
Bryozoa	Gymnolaemata	Cheliostomatida	Flustridae	*Securiflustra*

Securiflustra securifrons

AphiaID: 111374; https://www.marinespecies.org/aphia.php?p=taxdetails&id=111374

iNaturalist: https://www.inaturalist.org/taxa/542092-Securiflustra-securifrons

Description: Branching colonies that are tall. Branch tips do not widen (like *Flustra*). Zooid boxes are rectangular and much longer than they are wide. Brown/cream in colour, lighter tips.

Key characteristics: Long, large branching colonies.

Habitat type: Cobble/boulder sediments.

Highest-quality images:

CON020-20230817T163223

CON020-20230817T163456

phylum	class	order	family	genus
Bryozoa	Gymnolaemata	Cheliostomatida		

Smittinoidea

AphiaID: 153664; https://www.marinespecies.org/aphia.php?p=taxdetails&id=153664

iNaturalist: https://www.inaturalist.org/taxa/840970-Smittinoidea

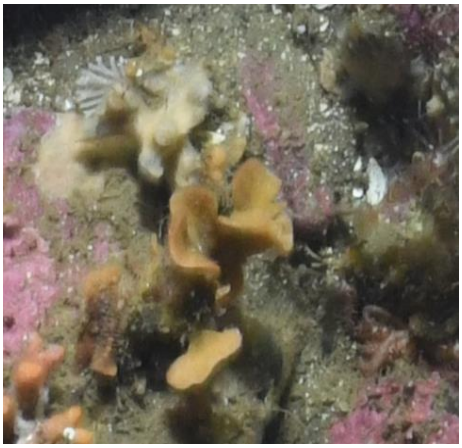
Description: Colonies encrust on shells and rocks as branches or sheets that can fold. Often orange/cream in colour.

Key characteristics: Folded sheets orange/cream in colour.

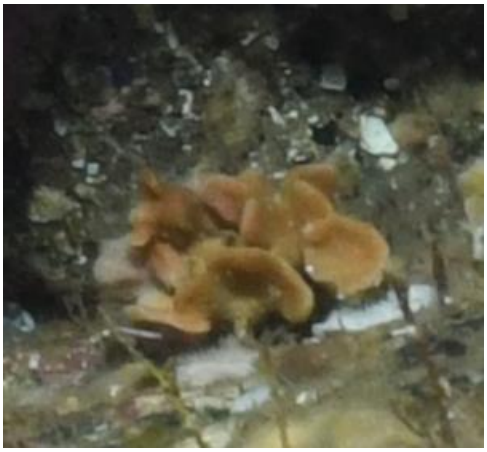
Habitat type: Gravelly/sandy sediments.

Highest-quality images:

CON019-20230817T130119



CON019-20230817T131222



phylum	class	order	family	genus
Bryozoa	Stenolaemata	Cyclostomatida	Crisiidae	*Crisia*

Crisia spp.

AphiaID: 111032; https://www.marinespecies.org/aphia.php?p=taxdetails&id=111032

iNaturalist: https://www.inaturalist.org/taxa/192680-Crisia

Description: White in colour, thinly branched. Looks like lace, often with red algae.

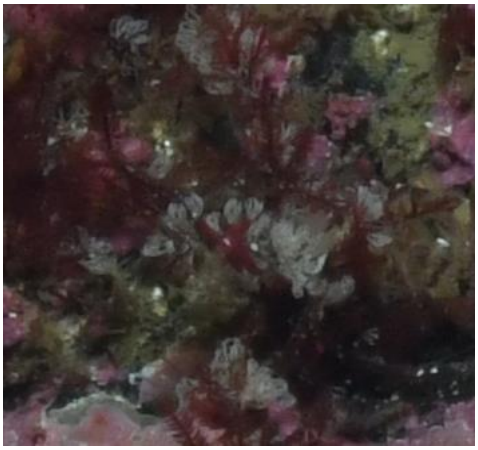
Key characteristics: White lattice.

Habitat type: Often seen interlaced with rhodophytes (in boulder fields).

Highest-quality images:

CON019-20230817T134705

CON019-20230817T132130



phylum	class	order	family	genus
Bryozoa	Stenolaemata	Cyclostomatida	Tubuliporidae	*Exidmonea*

***Exidmonea* spp.**

AphiaID: 173955; https://www.marinespecies.org/aphia.php?p=taxdetails&id=173955

iNaturalist: https://www.inaturalist.org/taxa/1148887-Exidmonea

Description: White in colour and look like small organ pipes. Zooid stretches out of small opening at end of short tube. Forms fan-shaped colonies with irregular forked branches. Likely *E. atlantica*, but cannot be sure of species.

Key characteristics: Irregular forked branches sometimes with visible 'teeth'.

Habitat type: Sandy/rocky/bedrock sediments.

Highest-quality images:

CON017-20230816T195558

CON066-20240815T160731

phylum	class	order	family	genus
Bryozoa	Stenolaemata	Cyclostomatida	Horneridae	Hornera

Hornera* spp.

AphiaID: 111041; https://www.marinespecies.org/aphia.php?p=taxdetails&id=111041

iNaturalist: https://www.inaturalist.org/taxa/502014-Hornera

Description: Branching erect bryozoan. Usually white in colour. Zooids are irregularly positioned in rounded opening along branches. Not 'spiny' like *E. atlantica*. Likely *H. lichenoides* but organisms often too small/blurry to be sure (need to see zooids up close).

Key characteristics: Similar to *C. saccata*, but thicker, irregularly positioned branches and like *Exidmonea* but no visible teeth, instead with rounded openings along branches.

Habitat type: Sandy-muddy sediments.

Highest-quality images:

CON017-20230816T195423

CON016-20230816T183418

phylum	class	order	family	genus
Bryozoa	Stenolaemata	Cyclostomatida	Cytididae	*Infundibulipora*

Infundibulipora lucernaria

AphiaID: 146824; https://www.marinespecies.org/aphia.php?p=taxdetails&id=146824

iNaturalist: N/A

Description: Funnel shaped calyz. Circular with very small branched arms.

Key characteristics: Small circle of ‘arms’.

Habitat type: Gravelly sediments.

Highest-quality images:

CON016-20230816T182100

CON066-20240815T160731

phylum	class	order	family	genus
Bryozoa				

Unid Bryozoa sp. 1 Erect plate

AphiaID: 146142; https://www.marinespecies.org/aphia.php?p=taxdetails&id=146142

iNaturalist: https://www.inaturalist.org/taxa/68104-Bryozoa

Description: White/cream branched bryozoan that at branched tip forms a thin, but wide plate. Possibly *Cystisella*.

Key characteristics: Wide, thin branched bryozoan.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON020-20230817T164107

CON062-20240815T114156

phylum	class	order	family	genus
Bryozoa				

Unid Bryozoa sp. 2 Pale folded*

AphiaID: 146142; https://www.marinespecies.org/aphia.php?p=taxdetails&id=146142

iNaturalist: https://www.inaturalist.org/taxa/68104-Bryozoa

Description: Bryozoan branches are folded irregularly. Pale yellow in colour. Similar to Smittinoidea.

Key characteristics: Irregular folds, sometimes tightly folded.

Habitat type: Rocky sediments often on coralline encrusted rock.

Highest-quality images:

CON020-20230817T162028

CON067-20240815T182656

phylum	class	order	family	genus
Bryozoa				

Unid Bryozoa sp. 3 Fine white/cream branches

AphiaID: 146142; https://www.marinespecies.org/aphia.php?p=taxdetails&id=146142

iNaturalist: https://www.inaturalist.org/taxa/68104-Bryozoa

Description: Colonies are whiteish-cream in colour, highly branched, attaching to substrate by cluster of rhizoids. Branches arise at acute angles and all pairs in branch in one plane (appears in bushels).

Key characteristics: Thin white branches that fan out.

Habitat type: Sandy gravel/rocky sediments.

Highest-quality images:

CON015-20230816T171246

CON058-20240809T171423

phylum	class	order	family	genus
Bryozoa				

Unid Bryozoa sp. 4 Encrusting

AphiaID: 146142; https://www.marinespecies.org/aphia.php?p=taxdetails&id=146142

iNaturalist: https://www.inaturalist.org/taxa/68104-Bryozoa

Description: Encrusting bryozoan, thin-looking. Pale yellow or white in colour, sometimes with thin grey rim, can sometimes appear translucent.

Key characteristics: Encrusting white/yellow bryozoan. Sometimes with lichen resemblance.

Habitat type: Rocky sediments often seen with coralline algae.

Highest-quality images:

CON026-20230823T145245

CON019-20230817T130349

Phylum Chordata

phylum	class	order	family	genus
Chordata	Teleosti	Gadiformes	Gadidae	*Gadus*

Gadus morhua

Atlantic cod

AphiaID: 126436; https://www.marinespecies.org/aphia.php?p=taxdetails&id=126436

iNaturalist: https://www.inaturalist.org/taxa/63740-Gadus-morhua

Description: Adults are brown/green in colour with spots on their dorsal side, shading to silver ventrally. Lateral line clearly visible. Three dorsal fins.

Key characteristics: Pale lateral line, spotted body, chin barbel, projecting upper jaw.

Habitat type: Cobble/boulder fields (boulders often encrusted with coralline algae).

Highest-quality images:
CON11-20230815T150841

CON018-20230817T122303

phylum	class	order	family	genus
Chordata	Teleosti	Gadiformes	Gadidae	*Gadus*

Gadus* spp.

Juvenile cod

AphiaID: 125732; https://www.marinespecies.org/aphia.php?p=taxdetails&id=125732

iNaturalist: https://www.inaturalist.org/taxa/63743-Gadus

Description: Three dorsal fins. Juveniles, as they vary in colour, so cannot be sure of species. Spotted body. Likely *G. morhua* or *G. macrocephalus*.

Key characteristics: Spotted body, chin barbel, projecting upper jaw.

Habitat type: Cobble/boulder fields (boulders often encrusted with coralline algae).

Highest-quality images:
CON14-20230815T190728

CON018-20230817T122429

phylum	class	order	family	genus
Chordata	Telostei	Gadiformes	Merlucciidae	*Merluccius*

Merluccius bilinearis

Silver Hake

AphiaID: 158962; https://www.marinespecies.org/aphia.php?p=taxdetails&id=158962

iNaturalist: https://www.inaturalist.org/taxa/224886-Merluccius-bilinearis

Description: Long, thin species with a protruding lower jaw and two dorsal fins. Silvery/light brown in colour while darker dorsally with some darker brown spots.

Key characteristics: Brown spots down body and two dorsal fins.

Habitat type: Sandy/muddy sediments.

Highest-quality images:
CON026-20230823T145532

phylum	class	order	family	genus
Chordata	Telostei	Pleuronectiformes	Pleuronectidae	*Glyptocephalus*

Glyptocephalus cynoglossus

Witch Flounder

AphiaID: 127136; https://www.marinespecies.org/aphia.php?p=taxdetails&id=127136

iNaturalist: https://www.inaturalist.org/taxa/220480-Glyptocephalus-cynoglossus

Description: Right-eyed flatfish with a small mouth which reaches to forward edge of lower eye. Body is very dorsally compressed and oval in shape. Lateral line is relatively straight and runs length of body. There is a short sharp spine pointing forward in front of the anal fin. Pectoral fin is shorter than the head and blackish towards the tip. Body is brownish grey in colour with black spots.

Key characteristics: Small mouth, slightly tipped convex caudal fin, body often with spots, small black pectoral fin.

Habitat type: Sandy/muddy sediments.

Highest-quality images:

CON017-20230816T200050

CON015-20230816T170853

phylum	class	order	family	genus
Chordata	Telostei	Pleuronectiformes	Pleuronectidae	*Hippoglossoides*

Hippoglossoides platessoides

American Plaice

AphiaID: 127137; https://www.marinespecies.org/aphia.php?p=taxdetails&id=127137

iNaturalist: https://www.inaturalist.org/taxa/221382-Hippoglossoides-platessoides

Description: Right-eyed flatfish with rounded tail fin. Dorsally flattened and oval in shape. Underside of the fish is white and upper side is reddish-brown. Large mouth with jawbone extending below the mouth. Could possibly be Winter Flounder (*Pseudopleuronectes americanus*), but body shape and fins of all observed organisms point towards plaice.

Key characteristics: Larger mouth, rounded caudal fin.

Habitat type: Sandy/muddy sediments.

Highest-quality images:

CON011-20230815T144755

CON026-20230823T150243

phylum	class	order	family	genus
Chordata	Teleostei	Perciformes	Pholidae	*Pholis*

Pholis gunnellus

AphiaID: 126996; https://www.marinespecies.org/aphia.php?p=taxdetails&id=126996

iNaturalist: https://www.inaturalist.org/taxa/152974-Pholis-gunnellus

Description: Ray-finned fishes. Long-slender, eel-like body with long, extended dorsal often with black spots. Brown body with paler white/cream stripes.

Key characteristics: Elongated eel-like body dark in colour with lighter stripes.

Habitat type: Mixed sediments, often with coralline algal covered rocks.

Highest-quality images:

CON024-20230821T132844

CON020-20230817T161600

phylum	class	order	family	genus
Chordata	Teleostei	Perciformes	Anarhichadidae	Anarhichas

Anarhichas lupus

Atlantic Wolffish

AphiaID: 126758; https://www.marinespecies.org/aphia.php?p=taxdetails&id=126758

iNaturalist: https://www.inaturalist.org/taxa/213519-Anarhichas-lupus

Description: Ray-finned fishes. Long-slender, eel-like body with long, extended dorsal that extends all down back, and wider head. Pale yellow/green in colour (can also be blueish gray) body with dark brown stripes. Large 'canine' teeth, not visible here.

Key characteristics: Elongated eel-like body with extended dorsal fin and dark stripes.

Habitat type: Mixed sediments.

Highest-quality images: only 1 occurrence
CON062-20240815T115300

phylum	class	order	family	genus
Chordata	Telostei	Perciformes	Cottidae	*Artediellus*

Artediellus* spp.

AphiaID: 126147; https://www.marinespecies.org/aphia.php?p=taxdetails&id=126147

iNaturalist: https://www.inaturalist.org/taxa/86649-Artediellus

Description: Genus of ray-finned fishes (sculpins). Wide heads with 2 spines on the pre-operculum. Upper spine is the largest and is hooked upwards with no supplementary spines. Skin is smooth and naked. First spiny dorsal is short and not incised. Could be mixed with *Icelus* spp.

Key characteristics: Large upper spine that is hooked upwards.

Habitat type: Sandy/muddy boulder fields.

Highest-quality images:

CON026-20230823T145245

CON017-20230816T195015

phylum	class	order	family	genus
Chordata	Telostei	Perciformes	Cottidae	*Icelus*

***Icelus* spp.**

AphiaID: 126150; https://www.marinespecies.org/aphia.php?p=taxdetails&id=126150

iNaturalist: https://www.inaturalist.org/taxa/89054-Icelus

Description: Scaled sculpins (ray-finned fishes). Have a single row of large, spiny plate-like scales under dorsal fins and spinous tube-like scales on lateral line. They have a spine or bump on the nuchal bone. Pale brown in colour with darker stripes. Rounder/wider head. Likely *I. bicornis* or *I. spatula*.

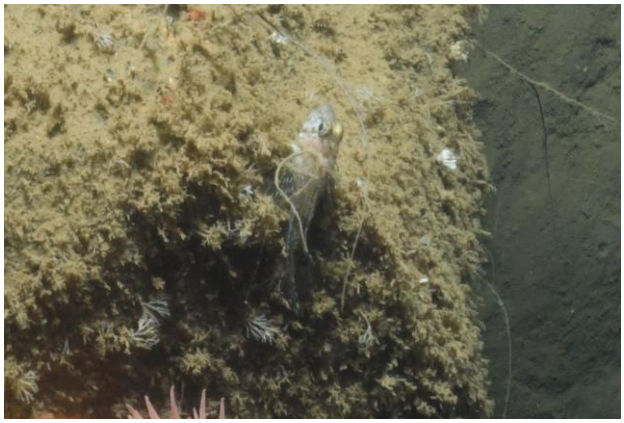
Key characteristics: Spine or bump on nuchal bone.

Habitat type: Sandy/muddy boulder fields.

Highest-quality images:

CON015-20230816T171147

CON026-20230823T143502



phylum	class	order	family	genus
Chordata	Telostei	Perciformes	Cottidae	*Myoxocephalus*

***Myoxocephalus* spp.**

Shorthorn Sculpin

AphiaID: 126152; https://www.marinespecies.org/aphia.php?p=taxdetails&id=126152

iNaturalist: https://www.inaturalist.org/taxa/47646-Myoxocephalus

Description: Large spiny head with a tapering body. Mottled grey-brown in colour but can be darker and appear red or black. It has a large mouth and spiny gill covers. Likely *M. aenaeus* or *M. scorpius*.

Key characteristics: Large head and mouth. With spiny gill covers.

Habitat type: Rocky/sandy sediments.

Highest-quality images:

CON028-20230823T200724

CON074-20240817T114727

phylum	class	order	family	genus
Chrodata	Telostei	Pericformes	Cottidae	*Triglops*

Triglops murrayi

Mustache Sculpin

AphiaID: 127205; https://www.marinespecies.org/aphia.php?p=taxdetails&id=127205

iNaturalist: https://www.inaturalist.org/taxa/232945-Triglops-murrayi

Description: Ray-finned sculpin that is brown on the back and pale brown to cream on the lower body with four blackish-brown saddle-like blotches on the back (can be vague in some fishes). Have a series of dark brown blotches underneath the lateral line that connect to create streaks. Base of caudal fin has dark spots both dorsally and ventrally and the rays of the fin are crossed by between 3-6 thin bands. Upper jaw protrudes slightly. Caudal fin may be truncate or slightly rounded.

Key characteristics: Four brown saddle-like blotches on back.

Habitat type: Gravel/pebble/sandy sediments.

Highest-quality images:

CON019-20230817T135943

CON076-20240817T134925

phylum	class	order	family	genus
Chordata	Telostei	Perciformes	Agonidae	

Agonidae*

AphiaID: 159459; https://www.marinespecies.org/aphia.php?p=taxdetails&id=159459

iNaturalist: https://www.inaturalist.org/taxa/85563-Agonidae

Description: Adults are dark to light brown and have an elongated, slender body with reduced pelvic fins. Fan-like caudal fins. Often too dark/blurry to be sure, so kept to family level, but likely *Aspidophoroides* spp.

Key characteristics: Elongated, slender body with one dorsal fin, wide caudal fins.

Habitat type: Sandy/muddy cobble fields.

Highest-quality images:

CON015-20230816T170253

CON026-20230823T144409

phylum	class	order	family	genus
Chordata	Telostei	Perciformes	Cyclopteridae	*Eumicrotremus*

Eumicrotremus terraenovae

Newfoundland Spiny Lumpsucker

AphiaID: 159521; https://www.marinespecies.org/aphia.php?p=taxdetails&id=159521

iNaturalist: https://www.inaturalist.org/taxa/459183-Eumicrotremus-terraenovae

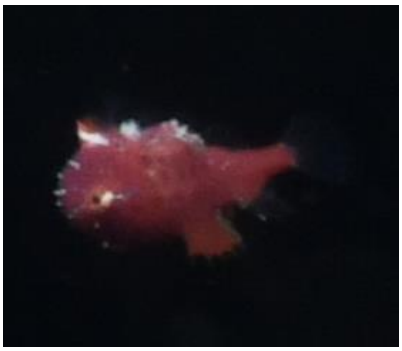
Description: Species of lumpfish native to the Northwest Atlantic. Bulbous body, juveniles are pink/red in colour with translucent caudal fin.

Key characteristics: Bulbous juveniles with translucent fins.

Habitat type: Rocky sediments, shallow waters.

Highest-quality images:

CON028-20230823T200057



CON026-20230823T150647

phylum	class	order	family	genus
Chordata	Telostei	Perciformes	Lumpenidae	*Lumpenus*

Lumpenus lampretaeformis

Snakeblenny

AphiaID: 154675; https://www.marinespecies.org/aphia.php?p=taxdetails&id=154675

iNaturalist: https://www.inaturalist.org/taxa/224163-Lumpenus-lampretaeformis

Description: Elongated eel-like fish with pointed caudal fin. A single dorsal fin extends almost the entire length of the body. Anal fin covers about two-thirds of the total length. Pale brown in colour dorsally, but blueish on the sides, greenish-yellow ventrally.

Key characteristics: Elongated and eel-like and pale blue/green in colour.

Habitat type: Sandy/muddy sediments.

Highest-quality images: Only 1 occurrence
CON016-20230816T183135

phylum	class	order	family	genus
Chordata	Telostei	Perciformes	Sebastidae	*Sebastes*

***Sebastes* spp.**

AphiaID: 126175; https://www.marinespecies.org/aphia.php?p=taxdetails&id=126175

iNaturalist: https://www.inaturalist.org/taxa/47762-Sebastes

Description: Ray-finned rockfishes/redfishes. Moderately to highly compressed body with a comparatively large head. Some have spines on head (up to 8). The single dorsal fin is typically strongly incised at the posterior of the spiny portion which has robust spines. Anal fin has spines and soft rays. Pectoral fins are large and may be rounded or pointed in shape with more rays. Caudal fin is straight to slightly concave. Likely a mixture of *S. fasciatus* or *S. mentella*.

Key characteristics: Redfish with compressed body compared to larger head. Large ones more deep red, smaller ones can be silvery-gray.

Habitat type: Rocky/boulder sediments.

Highest-quality images:

CON026-20230823T145659

CON015-20230816T171147

phylum	class	order	family	genus
Chordata	Actinopterygii	Labriformes	Labridae	*Tautogolabrus*

Tautogolabrus adspersus

Cunner

AphiaID: 159785; https://www.marinespecies.org/aphia.php?p=taxdetails&id=159785

iNaturalist: https://www.inaturalist.org/taxa/51390-Tautogolabrus-adspersus

Description: Oblong body with a pointed head. Terminal mouth with thick lips. Colour is variable, from mottled with brown, reddish, to blue, dull olive green and a bluish/whitish belly.

Key characteristics: Pointed head, dorsal fin.

Habitat type: Boulder fields often encrusted in coralline algae and red foliose algae. Shallow waters.

Highest-quality images:
CON19-20230817T133503

CON074-20240817T114131

phylum	class	order	family	genus
Chordata	Elasmobranchii	Rajiformes	Rajidae	*Amblyraja*

Amblyraja radiata

Thorny skate

AphiaID: 105865; https://www.marinespecies.org/aphia.php?p=taxdetails&id=105865

iNaturalist: https://www.inaturalist.org/taxa/48402-Amblyraja-radiata

Description: Smooth underside with rough upper side, covered in many small thorns all over and 13-17 larger one in line from the back of the head to the end of the tail. Upper side is brown with possible black spots. Triangular snout and tail is shorter than body.

Key characteristics: Line of thorns from the back of the head to end of tail.

Habitat type: Sandy/muddy sediments.

Highest-quality images: Only 1 occurrence
CON16-20230816T183555

phylum	class	order	family	genus
Chordata	Ascidiacea	Aplousobranchia	Polyclinidae	*Aplidium*

Aplidium glabrum

AphiaID: 103647; https://www.marinespecies.org/aphia.php?p=taxdetails&id=103647

iNaturalist: https://www.inaturalist.org/taxa/332871-Aplidium-glabrum

Description: Colony forming ascidian with spongy appearance. Colonies are shaped as crusty lumps that are somewhat transparent and can be grey/yellow or orange in colour. Translucent tunic with veiny-looking colony underneath.

Key characteristics: Glossy ascidian with visible zooids yellow/orange in colour under tunic.

Habitat type: Rocky sediments.

Highest-quality images:

CON027-20230823T165937

CON074-20240817T114925

phylum	class	order	family	genus
Chordata	Ascidiacea	Aplousobranchia	Polyclinidae	*Aplidium*

Aplidium pallidum

AphiaID: 103658; https://www.marinespecies.org/aphia.php?p=taxdetails&id=103658

iNaturalist: https://www.inaturalist.org/taxa/484401-Aplidium-pallidum

Description: Semitransparent colonial ascidian with small zooids and usually a single osculum-like cloacal opening that is visible. Looks like a drop of jelly. Colonies are usually unpigmented apart from some brown staining around the cloacal opening. Zooids are scattered throughout the colony at random forming no organized pattern.

Key characteristics: Jelly-drop looking with obvious cloacal opening.

Habitat type: Rocky and sandy/silty sediments.

Highest-quality images:

CON019-20230817T135800

CON055-20240808T185944

phylum	class	order	family	genus
Chordata	Ascidiacea	Aplousobranchia	Didemnidae	

Didemnidae

AphiaID: 103439; https://www.marinespecies.org/aphia.php?p=taxdetails&id=103439

iNaturalist: https://www.inaturalist.org/taxa/54931-Didemnidae

Description: White/beige/light orange in colour. Colonial tunicate with small obvious zooids that looks spotty. Likely *D. albidum*.

Key characteristics: Small obvious zooids.

Habitat type: Colonizing cobble/boulder sediments. Often in shallower waters.

Highest-quality images:

CON028-20230823T202828

CON055-20240808T184819

phylum	class	order	family	genus
Chordata	Ascidiacea	Phlebobranchia	Ascidiidae	*Ascidia*

Ascidia callosa*

AphiaID: 103700; https://www.marinespecies.org/aphia.php?p=taxdetails&id=103700

iNaturalist: https://www.inaturalist.org/taxa/566446-Ascidia-callosa

Description: Solitary tunicates translucent in colour and bulbous with two obvious siphons.

Key characteristics: Solitary translucent bulb with two obvious siphons.

Habitat type: Gravel/pebble sediments.

Highest-quality images:

CON019-20230817T135943

CON055-20240808T185944

phylum	class	order	family	genus
Chordata	Ascidiiacea	Stolidobranchia	Pyuridae	*Boltenia*

Boltenia echinata

Cactus sea squirt

AphiaID: 103814; https://www.marinespecies.org/aphia.php?p=taxdetails&id=103814

iNaturalist: https://www.inaturalist.org/taxa/355526-Boltenia-echinata

Description: Solitary inconspicuous ascidian that is spherical in shape and covered with branched hairs. Brown/beige/orange in colour and usually covered with silt, which is trapped by hairs. Short siphons, usually marked with red.

Key characteristics: Branched hairs, short siphons that are commonly red.

Habitat type: Rocky sediments, often with coralline algae.

Highest-quality images:

CON019-20230817T134556

CON074-20240817T114727

phylum	class	order	family	genus
Chordata	Ascidiiae	Stolidobranchia	Pyuridae	*Boltenia*

Boltenia ovifera

Stalked tunicate - sea potato

AphiaID: 103815; https://www.marinespecies.org/aphia.php?p=taxdetails&id=103815

iNaturalist: https://www.inaturalist.org/taxa/549533-Boltenia-ovifera

Description: Pearly white or red in colour. Long beige/yellowish stalk. Opaque bulbous tunic with two siphons, one more angled and other on top. Solitary stalked ascidian.

Key characteristics: Stalk, pearly white colour.

Habitat type: Rocky/boulder sediments.

Highest-quality images:

CON019-20230817T130011

CON028-20230823T201940

phylum	class	order	family	genus
Chordata	Ascidiacea	Stolidobranchia	Styelidae	*Botrylloides*

***Botrylloides* spp.**

AphiaID: 103528; https://www.marinespecies.org/aphia.php?p=taxdetails&id=103528

iNaturalist: https://www.inaturalist.org/taxa/68097-Botrylloides

Description: Colonial tunicate with individuals arranged in twisting rows. Zooids embedded in transparent tunic and connected by network of vessels. Colony colour appears orange/red to dull purple in colour. Likely *B. aureum* or *B. violaceus*.

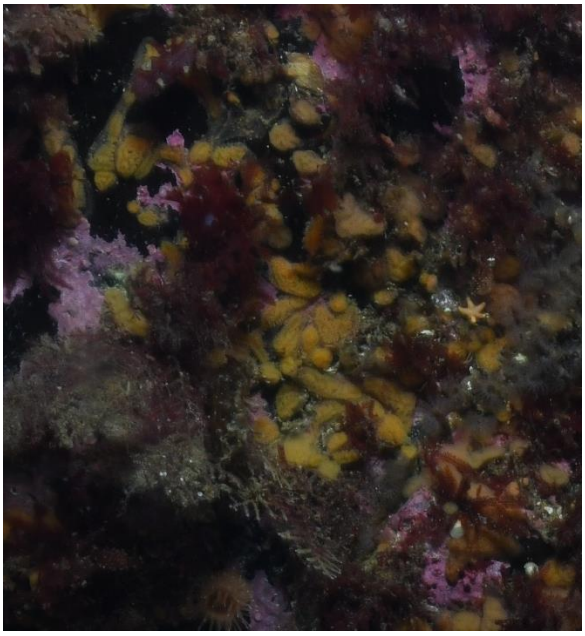
Key characteristics: Translucent tunic with obvious zooids appearing orange or purple in colour.

Habitat type: Rocky sediments.

Highest-quality images:

CON018-20230817T123000

CON065-20240815T145626



phylum	class	order	family	genus
Chordata	Ascidicea	Stolidobranchia	Styelidae	*Cnemidocarpa*

Cnemidocarpa finmarkiensis

Shiny Red Sea Squirt

AphiaID: 103870; https://www.marinespecies.org/aphia.php?p=taxdetails&id=103870

iNaturalist: https://www.inaturalist.org/taxa/47807-Cnemidocarpa-finmarkiensis

Description: Solitary ascidian with a broad base that is orange or red and shiny. Has no stalk but adheres to substrate and appears hemispherical. Two siphons are far apart and conspicuous when expanded, smaller when contracted. Pearly, opaque.

Key characteristics: Shiny pearly red colour.

Habitat type: Rocky/boulder sediments.

Highest-quality images:

CON020-20230817T162847

CON020-20230817T162533

phylum	class	order	family	genus
Chordata	Ascidiacea	Stolidobranchia	Molgulidae	*Molgula*

Molgula* spp.

Sea grapes

AphiaID: 103509; https://www.marinespecies.org/aphia.php?p=taxdetails&id=103509

iNaturalist: https://www.inaturalist.org/taxa/81775-Molgula

Description: Globular solitary tunicates, roughly the size of grapes. Translucent with two protruding siphons. Base attached to hard sediments.

Key characteristics: Globular translucent shape with two obvious siphons.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON026-20230823T150536

CON063-20240815T124641

phylum	class	order	family	genus
Chordata	Ascidiacea			

Unid Ascidian sp. 1 Pale mushroom-like

AphiaID: 1839; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1839

iNaturalist: https://www.inaturalist.org/taxa/47811-Ascidiacea

Description: Solitary tunicate with translucent tunic with thick-looking stem and bulbous head sometimes with obvious siphons. Could be juveniles of stalked species, or *M. griffithsii*.

Key characteristics: Thick translucent stem, bulbous head. Not thinly stalked like *B. ovifera.*

Habitat type: Rocky sediments.

Highest-quality images:

CON027-20230823T170950

CON017-20230816T195558

phylum	class	order	family	genus
Chordata	Ascidiacea			

Unid Ascidian sp. 2 Long vase-like

AphiaID: 1839; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1839

iNaturalist: https://www.inaturalist.org/taxa/47811-Ascidiacea

Description: Solitary tunicate with translucent tunic. Siphons separated, vase-like. Resembles *Ciona intestinalis* but too hidden/small to be sure.

Key characteristics: Separated siphons, translucent tunic.

Habitat type: Rocky sediments.

Highest-quality images:

CON016-20230816T183418

CON015-20230816T165542

phylum	class	order	family	genus
Chordata	Ascidiacea			

Unid Ascidian sp. 3 Orange centre

AphiaID: 1839; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1839

iNaturalist: https://www.inaturalist.org/taxa/47811-Ascidiacea

Description: Small, blob-like with translucent creamy tunic and underlying orange/yellow centre.

Key characteristics: Drop-like with orange/yellow centre.

Habitat type: Silty or coralline algal encrusted rocky sediments.

Highest-quality images:

CON019-20230817T130349

CON027-20230823T165331

phylum	class	order	family	genus
Chordata	Ascidiacea			

Unid Ascidian sp. 4 Bulbous reddish orange

AphiaID: 1839; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1839

iNaturalist: https://www.inaturalist.org/taxa/47811-Ascidiacea

Description: Solitary ascidian with a broad base. Reddish orange in colour that is semi-translucent/opaque and often covered in silt. Bulbous, with siphons pretty close together, could be *Dendrodoa carnea* or *Halocynthis pyriformis*.

Key characteristics: Red/orange bulbous tunicate often covered in silt, not shiny.

Habitat type: Rocky sediments.

Highest-quality images:

CON020-20230817T162847

CON064-20240815T134501

Phylum Cnidaria

phylum	class	order	family	genus
Cnidaria	Staurozoa	Stauromedusae	Lucernariidae	*Lucernaria*

Lucernaria quadricornis

AphiaID: 135328; https://www.marinespecies.org/aphia.php?p=taxdetails&id=135328

iNaturalist: https://www.inaturalist.org/taxa/559261-Lucernaria-quadricornis

Description: Translucent ‘stalk’ with yellow/orange near top of ‘arms’. Goblet shaped. Can move by moving stalk. Eight arms that are organized in pairs.

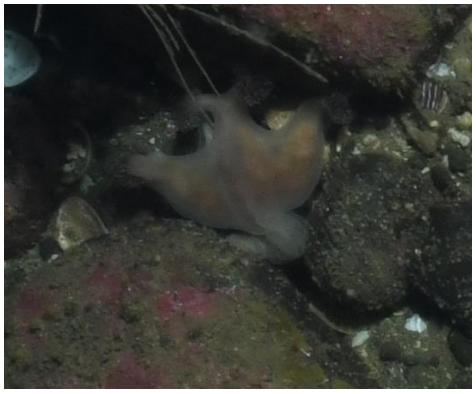
Key characteristics: Goblet shaped with translucent stalk.

Habitat type: Rocky sediments, usually attached to algae or rocks.

Highest-quality images:

CON011-20230815T150841

CON057-20240809T161515



phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria	Actiniidae	*Cribrinopsis*

Cribrinopsis similis*

AphiaID: 100824; https://www.marinespecies.org/aphia.php?p=taxdetails&id=100824

iNaturalist: https://www.inaturalist.org/taxa/558724-Cribrinopsis-similis

Description: Rose/pink mouth with light pink tentacles and wide diameter. Column is light pink with darker pink splotches. When column not visible to see splotches, could possibly be *Urticina crassicornis* or *Urticina eques* (same with red variant below), could be left to order level.

Key characteristics: Rose pink mouth. Splotches on columns.

Habitat type: Silty rocky sediments, often with coralline algae.

Highest-quality images:

CON026-20230823T143926

CON026-20230823T143502

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria	Actiniidae	*Cribrinopsis*

Cribrinopsis* red variant

AphiaID: 100702; https://www.marinespecies.org/aphia.php?p=taxdetails&id=100702

iNaturalist: https://www.inaturalist.org/taxa/558724-Cribrinopsis-similis

Description: Dark/deep red column with slightly lighter or pink tentacles. Mouth is deep red or pink. Could also be *Urticina crassicornis* (which has white verrucae).

Key characteristics: Dark red column.

Habitat type: Rocky sediments.

Highest-quality images:

CON023-20230821T122909

CON019-20230817T132515

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actinaria	Edwardsiidae	

Edwardsiidae*

AphiaID: 100665; https://www.marinespecies.org/aphia.php?p=taxdetails&id=100665

iNaturalist: https://www.inaturalist.org/taxa/85749-Edwardsiidae

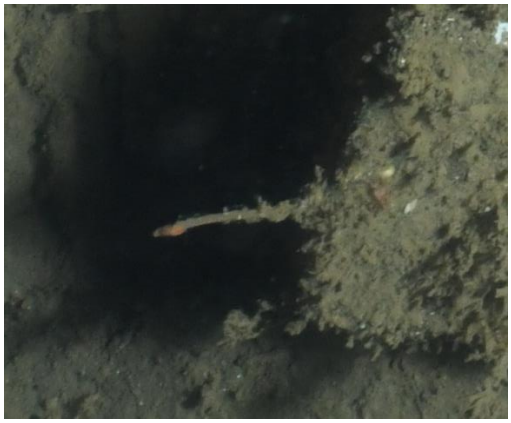
Description: Long thin bodies and live buried in or in holes/crevices in rocks. Thin translucent tentacles. Orange or white mouth.

Key characteristics: Long, slender body, thin tentacles.

Habitat type: Mixed sediments, buried in sand or in rock crevices.

Highest-quality images:

CON026-20230823T144932



CON016-20230816T182216

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria	Halcampidae	*Halcampa*

Halcampa* spp.

AphiaID: 100740; https://www.marinespecies.org/aphia.php?p=taxdetails&id=100740

iNaturalist: https://www.inaturalist.org/taxa/124509-Halcampa

Description: Burrowing anemones with part of their column buried in soft substrate. Dark and/or striped thick tentacles, clear elongated column. Likely *H. duodecimcirrata*.

Key characteristics: Thick brown striped tentacles, column burrowed in sediment.

Habitat type: Sandy/muddy gravel sediments.

Highest-quality images:

CON019-20230817T135943

CON011-20230815T150659

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria	Hormathiidae	*Hormathia*

Hormathia* spp.

AphiaID: 100757; https://www.marinespecies.org/aphia.php?p=taxdetails&id=100757

iNaturalist: https://www.inaturalist.org/taxa/460075-Hormathia

Description: Column has clearly visible tubercles. Approximately 100 tentacles arranged in multiples of 6. Colour is usually pale pink/orange or white. Mouth opening has more saturated shade of pink or orange. When on rocks, likely *H. nodosa*, if with gastropods, *H. digitata*, could left at family level.

Key characteristics: Visible tubercles on column.

Habitat type: Rocky/gravel sediments.

Highest-quality images:

CON019-20230817T135012

CON072-20240816T181042

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria	Hormathiidae	*Hormathia*

Hormathia nodosa

Rugose Anemone

AphiaID: 100954; https://www.marinespecies.org/aphia.php?p=taxdetails&id=100954

iNaturalist: https://www.inaturalist.org/taxa/460074-Hormathia-nodosa

Description: Very thick column that is rugose/has large bumps. Column is orange/beige in colour with pink or white tentacles.

Key characteristics: Rugged/bumpy column.

Habitat type: Silty boulders.

Highest-quality images:

CON026-20230823T143502

CON015-20230816T165249

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria	Metridiidae	*Metridium*

Metridium senile

Plumose Anemone

AphiaID: 100982; https://www.marinespecies.org/aphia.php?p=taxdetails&id=100982

iNaturalist: https://www.inaturalist.org/taxa/49071-Metridium-senile

Description: Frilled anemone that has a wide base. Cylinder and tentacles can be shades of white, yellow, orange and brown. May have thousands of tentacles.

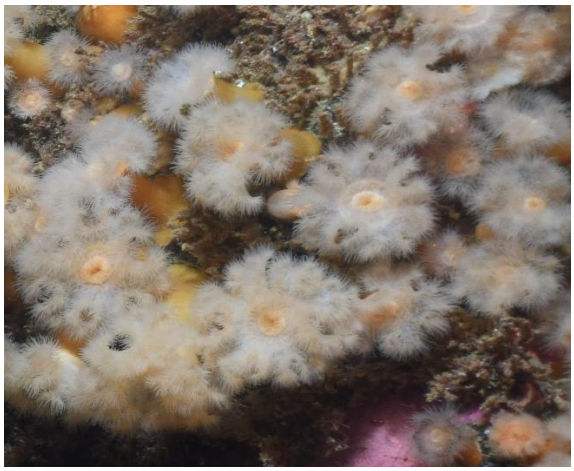
Key characteristics: Frilled tentacles.

Habitat type: Rocky/boulder/bedrock sediments.

Highest-quality images:

CON019-20230817T133219

CON074-20240817T114526



phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria	Ptychodactinidae	*Ptychodactis*

Ptychodactis patula

AphiaID: 101020; https://www.marinespecies.org/aphia.php?p=taxdetails&id=101020

iNaturalist: https://www.inaturalist.org/taxa/1039352-Ptychodactis-patula

Description: White/cream in colour with large-spread out column that looks like chiffon dress attached to substrate. White tentacles.

Key characteristics: Chiffon-textured column.

Habitat type: Sandy/muddy sediments.

Highest-quality images:

CON016-20230816T182906

CON072-20240816T183743

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria	Actinostolidae	Stomphia

Stomphia coccinea

Swimming anemone

AphiaID: 100854; https://www.marinespecies.org/aphia.php?p=taxdetails&id=100854

iNaturalist: https://www.inaturalist.org/taxa/459981-Stomphia-coccinea

Description: Reddish/orange/pink sea anemone with red/orange stripes on column and sometimes on tentacles. Sometimes has spots around mouth/collar (separated in BIIGLE based on dots). Ends of tentacles are lighter/translucent in colour.

Key characteristics: Stripes on column. Ends of tentacles are lighter/translucent in colour. Sometimes dotted rim.

Habitat type: Rocky sediments, often with coralline algae.

Highest-quality images:

CON018-20230817T121555

CON019-20230817T130349

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria		

Unid Actinaria sp. 1 White disc, white mouth, white tentacles

AphiaID: 1360; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1360

iNaturalist: https://www.inaturalist.org/taxa/47797-Actiniaria

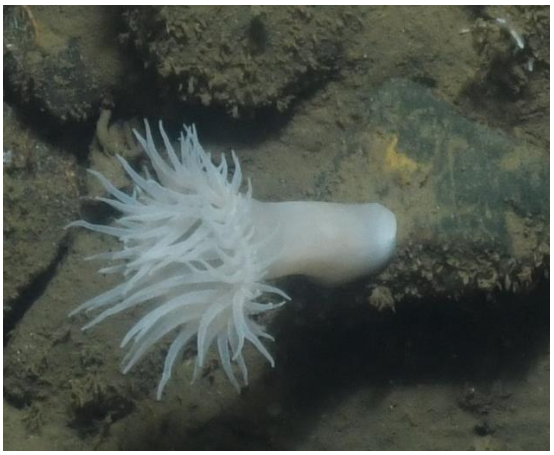
Description: Stark white column and tentacles (sometimes tentacles appear translucent). Also has a white disc/mouth. Likely *Actinostola callosa* or *Bolocera tuediae* so kept at order level.

Key characteristics: White column and tentacles, sometimes column is burrowing.

Habitat type: Silty rocky sediments, sometimes seen with mud or coralline algae.

Highest-quality images:

CON026-20230823T144638



CON067-20240815T184117

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria		

Unid Actinaria sp. 2 Skinny tentacles, small pale/green disc

AphiaID: 1360; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1360

iNaturalist: https://www.inaturalist.org/taxa/47797-Actiniaria

Description: Pale green/orange disc/mouth and skinny translucent tentacles. Appears burrowing.

Key characteristics: Skinny/slim translucent tentacles.

Habitat type: Muddy gravelly sediments.

Highest-quality images:
CON015-20230816T171246

CON072-20240816T181042

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria		

Unid Actinaria sp. 3 Orange/pink, featureless

AphiaID: 1360; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1360

iNaturalist: https://www.inaturalist.org/taxa/47797-Actiniaria

Description: Narrow to wide column. Orange/pale pink in colour with no obvious features. Pink or translucent tentacles with matte-looking disc. Possibly a mixture of *Actinauge cristata, Actinostola callosa,* or Hormathiidae, so left to order level.

Key characteristics: Matte-looking disc. Otherwise featureless.

Habitat type: Rocky, silty, muddy sediments.

Highest-quality images:

CON017-20230816T195130

CON076-20240817T140252

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria		

Unid Actinaria sp. 4 Translucent tentacles, deep orange rim

AphiaID: 1360; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1360

iNaturalist: https://www.inaturalist.org/taxa/47797-Actiniaria

Description: Translucent tentacles, deep orange/brown rim/disc. Likely *Aulactinia* spp. (green tentacles) but too blurry to be sure.

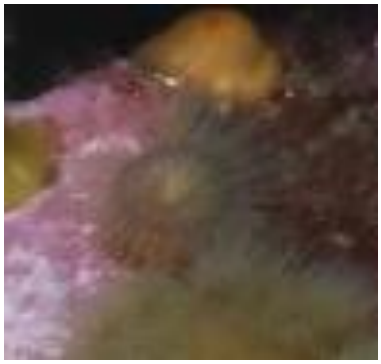
Key characteristics: Deep orange/brown disc.

Habitat type: Rocky sediments with coralline algae.

Highest-quality images:

CON023-20230821T123452

CON023-20230821T123452



phylum	class	order	family	genus
Cnidaria	Hexacorallia	Actiniaria		

Unid Actinaria sp. 5 Dark purple/black

AphiaID: 1360; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1360

iNaturalist: https://www.inaturalist.org/taxa/47797-Actiniaria

Description: Deep purple/black in colour. Lighter mouth. Really thick, dark tentacles.

Key characteristics: Dark colour and thick tentacles.

Habitat type: Silty muddy sediments.

Highest-quality images: Only 1 occurrence
CON015-20230816T165542

phylum	class	order	family	genus
Cnidaria	Hexacorallia	Ceriantharia		

Unid Ceriantharia sp. 1

Burrowing anemones

AphiaID: 1361; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1361

iNaturalist: https://www.inaturalist.org/taxa/47705-Ceriantharia

Description: Burrowing anemone with just disc and tentacles visible. Translucent tentacles with dark or white disc.

Key characteristics: Burrowing species, no visible column.

Habitat type: Silty rocky sediments often with coralline algae.

Highest-quality images:

CON019-20230817T135629

CON063-20280415T125357

phylum	class	order	family	genus
Cnidaria	Octocorallia	Malacalcyonacea	Clavulariidae	*Clavularia*

***Clavularia* spp.**

AphiaID: 125286; https://www.marinespecies.org/aphia.php?p=taxdetails&id=125286

iNaturalist: https://www.inaturalist.org/taxa/363888-Clavularia

Description: Thin, transparent column and tentacles with only a few pairs. Possibly *Clavularia modesta*.

Key characteristics: Transparent, small column.

Habitat type: Silty/muddy sediments.

Highest-quality images:

CON017-20230816T194629

CON066-20240815T155937

phylum	class	order	family	genus
Cnidaria	Octocorallia	Malacalcyonacea		

Malacalcyonacea

AphiaID: 1609357; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1609357

iNaturalist: https://www.inaturalist.org/taxa/1435134-Malacalcyonacea

Description: Florettes grow erectly from one main stem. Polyps are most numerous at branch tips and are unable to retract into calcyes. Often brightly coloured (like the sea strawberry *G. rubiformes*) or pale/cream in colour. Could be *Gersemia* spp. (*G. rubiformis* or *G. fruticosa*) or *Duva florida* or *Drifa glomerata*, but often too blurry or organism too small or polyps not retracted enough to be sure, so combined and left at order level.

Key characteristics: Red/pink/white branches with obvious polys. Can look like cauliflower.

Habitat type: Silty or coralline algae covered rocky sediments.

Highest-quality images:
CON019-20230817T130349

CON019-20230817T134844

CON026-20230823T144237

phylum	class	order	family	genus
Cnidaria	Octocorallia	Malacalcyonacea		

Unid. Malacalcyonacea sp. 1

AphiaID: 1609357; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1609357

iNaturalist: https://www.inaturalist.org/taxa/1435134-Malacalcyonacea

Description: Brown or white/translucent column appearance with branching polyps outwards from stalk that are translucent in colour. Can appear grouped or singular.

Key characteristics: Stalk and branching polyps.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON027-20230823T171224

CON027-20230823T165126

phylum	class	order	family	genus
Cnidaria	Hydrozoa	Leptothecata	Sertulariidae	*Abietinaria*

***Abietinaria* spp.**

Coarse sea fir hydroids

AphiaID: 117225; https://www.marinespecies.org/aphia.php?p=taxdetails&id=117225

iNaturalist: https://www.inaturalist.org/taxa/55322-Abietinaria

Description: Colony is erect with alternate side branching and occasionally secondary branching. The main stem is unbranched with regularly spaced, alternate side branches. Subalternate hydrothecae are bulbous at base and become narrower towards the circular rim. Likely *Abietinaria abietina*.

Key characteristics: Subalternate arrangement of hydrothecae. Single order branching in flattened pinnate colony.

Habitat type: Boulder/cobble sediments.

Highest-quality images:

CON028-20230823T202929

CON073-20240816T221019

phylum	class	order	family	genus
Cnidaria	Hydrozoa	Leptothecata	Sertulariidae	

Sertulariidae

AphiaID: 1614; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1614

iNaturalist: https://www.inaturalist.org/taxa/48926-Sertulariidae

Description: Colonial with characteristic spirally twisted stem supporting branches. Each hydrocladium is divided into internodes which are tubular. Often clustered. May be a mix of *Hydrallmania falcata* or *Thuiaria* spp.

Key characteristics: Spiral stem.

Habitat type: Rocky or soft sediments.

Highest-quality images:

CON019-20230817T135315

CON066-20240815T155818

phylum	class	order	family	genus
Cnidaria	Hydrozoa	Leptothecata	Aglaopheniidae	

Aglaopheniidae

AphiaID: 1605; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1605

iNaturalist: https://www.inaturalist.org/taxa/51219-Aglaopheniidae

Description: Orange/yellow stem with translucent branches and polyps. Often parallel on both sides of stem and can appear stiff or feathery.

Key characteristics: Stiff or feathery, translucent polyps, parallel branches.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON019-20230817T135456

CON072-20240816T183205

phylum	class	order	family	genus
Cnidaria	Hydrozoa	Leptothecata	Campanulariidae	*Obelia*

***Obelia* spp.**

Wine-glass hydroids/ Sea fur

AphiaID: 117034; https://www.marinespecies.org/aphia.php?p=taxdetails&id=117034

iNaturalist: https://www.inaturalist.org/taxa/49536-Obelia

Description: Small branched polyps attached to substrates/organisms (often kelp), translucent. Potentially *Obelia geniculate*.

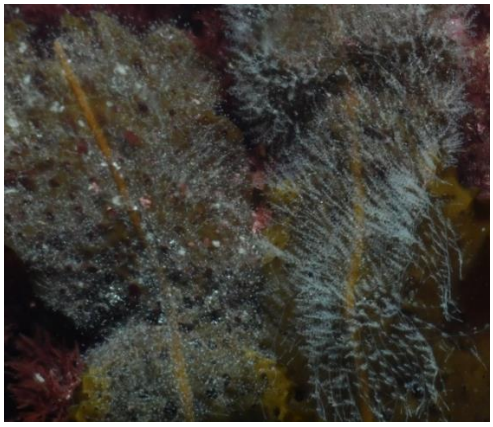
Key characteristics: Small, translucent, attached to kelp.

Habitat type: Rocky sediments often seen on kelp.

Highest-quality images:

CON028-20230823T200821

CON059-20240809T181602



phylum	class	order	family	genus
Cnidaria	Hydrozoa	Leptothecata	Sertilariidae	*Thuiaria*

Thuiaria thuja

AphiaID: 117940; https://www.marinespecies.org/aphia.php?p=taxdetails&id=117940

iNaturalist: https://www.inaturalist.org/taxa/873882-Thuiaria-thuja

Description: Narrow cylindrical body with lower part of stem without branches and upper part is bushy. Alternating branches.

Key characteristics: Bushy top of stem, little to no branches on lower part of the stem.

Habitat type: Rocky substrates.

Highest-quality images:

CON057-20240809T161323

CON077-20240817T143629

phylum	class	order	family	genus
Cnidaria	Hydrozoa	Leptothecata		

Leptothecata sp. 1

AphiaID: 13552; https://www.marinespecies.org/aphia.php?p=taxdetails&id=13552

iNaturalist: https://www.inaturalist.org/taxa/48925-Leptothecata

Description: Thin branched colonial hydrozoan that form large colonies. Orange-brownish stem with translucent branch polyps.

Key characteristics: Branches can appear bunched, large colonies, thin branches.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON015-20230816T170725

CON066-20240815T155937

phylum	class	order	family	genus
Cnidaria	Hydrozoa	Leptothecata		

Leptothecata sp. 2

AphiaID: 13552; https://www.marinespecies.org/aphia.php?p=taxdetails&id=13552

iNaturalist: https://www.inaturalist.org/taxa/48925-Leptothecata

Description: Long stems, often orange/yellow/cream in colour. Branches are irregular/sporadic/alternating and spaced out, but thin and translucent. Sometimes bushy-looking branches. Likely Sertularellidae.

Key characteristics: long stems, orange/yellow in colour, or translucent when smaller/shorter in size. Branches are alternating and spaced out.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON018-20230817T121931

CON068-20240815T194603

phylum	class	order	family	genus
Cnidaria	Hydrozoa	Anthoathecata	Corymorphidae	

Corymorpha pendula

AphiaID: 157927; https://www.marinespecies.org/aphia.php?p=taxdetails&id=157927

iNaturalist: https://www.inaturalist.org/taxa/63654-Corymorpha-pendula

Description: Long thin bodies and live on rocks; appear stalked. Thin translucent tentacles with a red/pink tip of stalk.

Key characteristics: Long, slender body, thin tentacles.

Habitat type: Mixed sediments, buried in sand or in rock crevices.

Highest-quality images:

CON072-20240816T183743

CON055-20240808T185448

phylum	class	order	family	genus
Cnidaria	Hydrozoa	Anthoathecata	Tubulariidae	

Tubulariidae

AphiaID: 1603; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1603

iNaturalist: https://www.inaturalist.org/taxa/48920-Tubulariidae

Description: Long, thin bodies with stalks. Thin translucent tentacles when present.

Key characteristics: Long, stalked body, thin tentacles.

Habitat type: Mixed sediments, buried in sand or in rock crevices.

Highest-quality images:

CON055-20240808T192127

CON055-20240808T185448

phylum	class	order	family	genus
Cnidaria	Hydrozoa			

Unid Hydrozoa sp. 1 Green branches

AphiaID: 1337; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1337

iNaturalist: https://www.inaturalist.org/taxa/48921-Hydrozoa

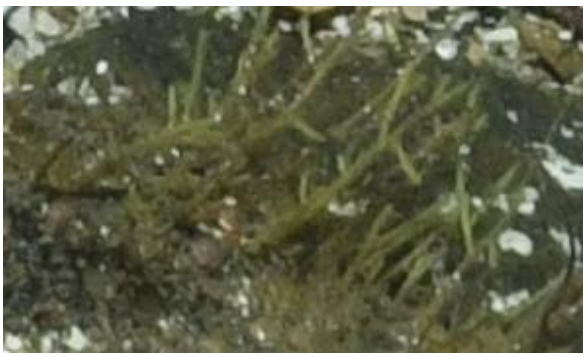
Description: Thin green branches that are spaced out and appear to emerge from alternate nodes. Possibly *Lafoeina maxima*.

Key characteristics: Green colour.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON018-20230817T122603



CON073-20240816T221203

phylum	class	order	family	genus
Cnidaria	Hydrozoa			

Unid Hydrozoa sp. 2 Orange polyps (*Halecium* type)*

AphiaID: 1337; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1337

iNaturalist: https://www.inaturalist.org/taxa/48921-Hydrozoa

Description: Pale orange stalk with translucent branches with bulbous orange polyps on branch tips. Possibly *Halecium halecium*.

Key characteristics: Bulbous orange polyps on branch tips.

Habitat type: Rocky sediments often with coralline and red algae.

Highest-quality images:

CON025-20230821T143718

CON073-20240816T221602

phylum	class	order	family	genus
Cnidaria	Hydrozoa			

Unid Hydrozoa sp. 3

AphiaID: 1337; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1337

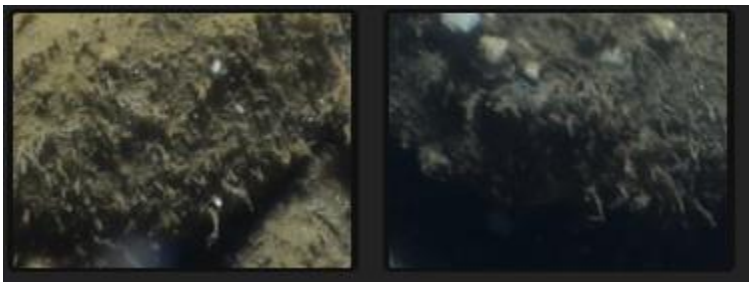
iNaturalist: https://www.inaturalist.org/taxa/48921-Hydrozoa

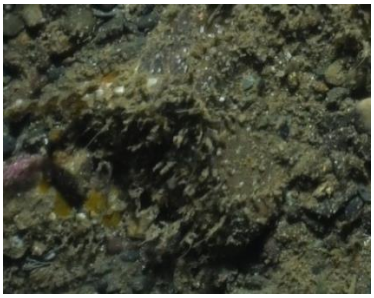
Description: Slender colonies that are stiff, sparsely branched and protrude from substrate. Largely monosiphonic, irregular branching, typically clustered, forming little bushels. Could be *Eudendrium* or *Bougainvillia* spp., but too small to see details, so left at class level.

Key characteristics: Small, numerous branches.

Habitat type: Rocky sediments.

Highest-quality images:
CON026-20230823T145532 CON017-20230816T1948559 CON063-20240815T124641





Phylum Ctenophora

phylum	class	order	family	genus
Ctenophora				

Ctenophora

AphiaID: 1248; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1248

iNaturalist: https://www.inaturalist.org/taxa/51508-Ctenophora

Description: Comb jellies. Bodies are jelly with an internal cavity. Can be egg-shaped or flat with large mouths.

Key characteristics: Groups of cilia used for swimming.

Habitat type: Pelagic, mixed sediments.

Highest-quality images:

CON011-20230815T151425

CON016-20230816T184000

Phylum Echinodermata

phylum	class	order	family	genus
Echinodermata	Asteroidea	Forcipulatida	Asteriidae	

Asterias/Leptasteria spp.*

AphiaID: 123121; https://www.marinespecies.org/aphia.php?p=taxdetails&id=123121

iNaturalist: https://www.inaturalist.org/taxa/48903-Asterias

Description: Common sea stars with five or six arms. Purple/orange/beige/white in colour with dorsal spines. Likely mixture of *Asterias rubens, Asterias forbesi, Leptasterias groenlandica*. Organisms often too small to be sure of genus (but smaller ones could likely all be *Leptasterias*).

Key characteristics: Dorsal plates bearing only a single spine in centre.

Habitat type: Rocky sediments, often with coralline algae.

Highest-quality images:
CON019-20230817T134206 CON019-20230817T133219 CON067-20240815T183524



phylum	class	order	family	genus
Echinodermata	Asteroidea	Forcipulatida	Asteriidae	*Stephanasterias*

Stephanasterias albula

Odd-rayed Star

AphiaID: 123808; https://www.marinespecies.org/aphia.php?p=taxdetails&id=123808

iNaturalist: https://www.inaturalist.org/taxa/596488-Stephanasterias-albula

Description: Sea stars that usually has 6-8 arms and is white/pale yellow with a rough upper surface. Arms often different lengths from regeneration.

Key characteristics: Irregular shaped arms of varying lengths, up to 8.

Habitat type: Sandy rocky sediments.

Highest-quality images:

CON027-20230823T164756

CON027-20230823T170439

phylum	class	order	family	genus
Echinodermata	Asteroidea	Valvatida	Solasteridae	*Crossaster*

Crossaster papposus

Rose Sun Star

AphiaID: 124154; https://www.marinespecies.org/aphia.php?p=taxdetails&id=124154

iNaturalist: https://www.inaturalist.org/taxa/192687-Crossaster-papposus

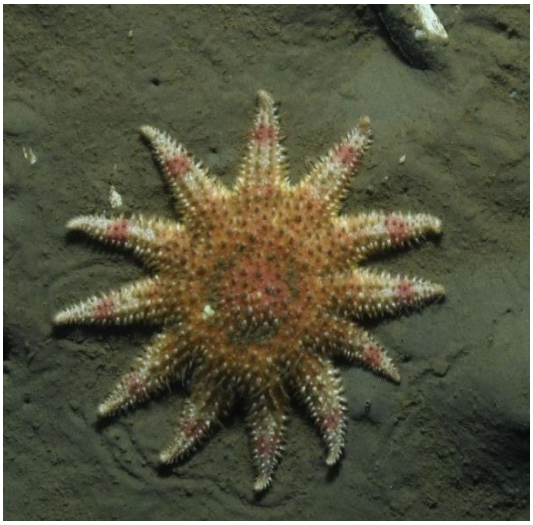
Description: Reddish on top with concentric bands of white, pink, yellow or dark red and is white on underside. Covered on top with brushlike spines and slightly larger marginal spines. Thick central disc is large and has netlike pattern of raised ridges. Relatively short arms (usually 8-14). Spines often less visible on smaller organisms.

Key characteristics: Thick central disc with 8-14 arms.

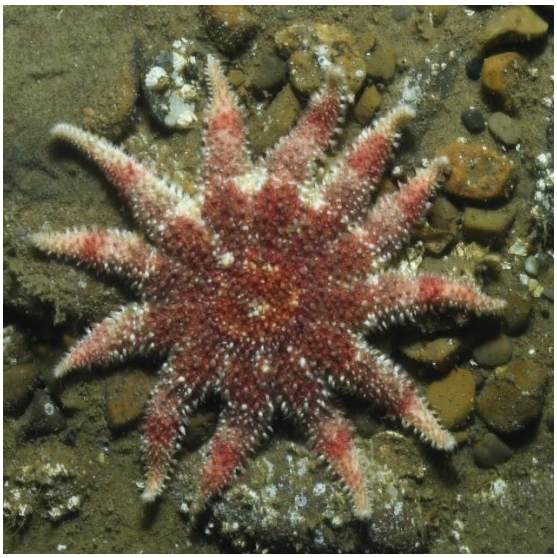
Habitat type: Rocky sediments, coarse sand and gravel.

Highest-quality images:

CON079-20240817T170642



CON064-20240815T134015



phylum	class	order	family	genus
Echinodermata	Asteroidea	Valvatida	Solasteridae	*Solaster*

***Solaster* spp.**

Smooth Sun Star

AphiaID: 123338; https://www.marinespecies.org/aphia.php?p=taxdetails&id=123338

iNaturalist: https://www.inaturalist.org/taxa/117699-Solaster

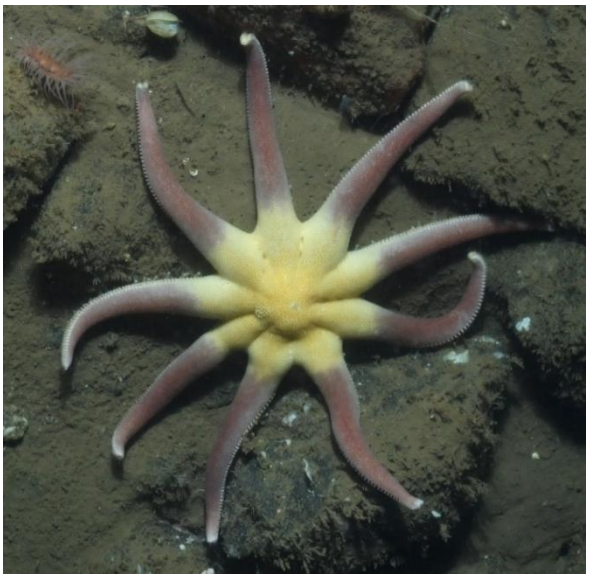
Description: Can grow to about 40cm with 9-10 arms (occasionally up to 13) set around a large disc. Upper surface is formed of calcareous plates densely covered with paxillae, peg-like projections covered in tiny spinelets. Can be greyish-cream to pinkish-purple in colour. Arms are often turned up at the tips, showing pale oral surface. Could be *S. endeca* or *S. syrtensis*, but unsure, so left at genus.

Key characteristics: Purple colour, up to 13 arms.

Habitat type: Muddy/sandy/silty gravel or rocky sediments.

Highest-quality images:

CON017-20230816T195423



CON026-20230823T145939

phylum	class	order	family	genus
Echinodermata	Asteroidea	Spinulosida	Echinasteridae	*Henricia*

***Henricia* spp.**

AphiaID: 123276; https://www.marinespecies.org/aphia.php?p=taxdetails&id=123276

iNaturalist: https://www.inaturalist.org/taxa/47665-Henricia

Description: Blood stars. Orange/purple in colour. Five arms with pale arm tips. Smooth surface in appearance (no obvious spines). Smaller in size.

Key characteristics: Smooth surface.

Habitat type: Rocky sediments/boulders/cobbles.

Highest-quality images:

CON028-20230823T201715

CON055-20240808T184819

phylum	class	order	family	genus
Echinodermata	Asteroidea	Forcipulatida	Asteriidae	*Leptasterias*

Leptasterias (Hexasterias) polaris

Polar Six-rayed Star

AphiaID: 125154; https://www.marinespecies.org/aphia.php?p=taxdetails&id=125154

iNaturalist: https://www.inaturalist.org/taxa/564345-Leptasterias-polaris

Description: Slow-growing compact sea star with six arms. The upper aboral surface has a covering of blunt spiny plates that are brown/grey in colour. Arms are purple/pink in colour.

Key characteristics: Six arms, purple/pink colour.

Habitat type: Rocky sediments, often with coralline algae.

Highest-quality images:

CON014-20230815T191259

CON067-20240815T183156

phylum	class	order	family	genus
Echinodermata	Asteroidea	Velatida	Pterasteridae	Pteraster

***Pteraster* spp.**

Wrinkled Star

AphiaID: 123335; https://www.marinespecies.org/aphia.php?p=taxdetails&id=123335

iNaturalist: https://www.inaturalist.org/taxa/194705-Pteraster

Description: Wide disc sea star with a large central pore and five short, stubby, wrinkled triangular arms. Upper aboral surface is dotted with papulae, each topped with four short spines giving an inflated bulky appearance. Usually orange, pale yellow or white, sometimes with coloured tips on ends of arms. Not all arm tips are coloured, so left at genus level. Likely a mixture of 3 species: *P. militaris, P. pulvillus,* and *P. obscurus*.

Key characteristics: Chubby appearance and large central pore and often with orange arm tips.

Habitat type: Rocky/silty sediments.

Highest-quality images:

CON015-20230816T170725

CON056-20240809T141707

phylum	class	order	family	genus
Echinodermata	Crinoidea	Cornatulida	Antedonidae	*Heliometra*

Heliometra glacialis

AphiaID: 124223; https://www.marinespecies.org/aphia.php?p=taxdetails&id=124223

iNaturalist: https://www.inaturalist.org/taxa/865977-Heliometra-glacialis

Description: Crinoids with no stalk. Often 10 arms radiating from central disc, observed attached to substrate using cirri.

Key characteristics: Feathery-appearing arms.

Habitat type: Gravel or bedrock sediments.

Highest-quality images:

CON027-20230823T164409

CON054-20240808T182052

phylum	class	order	family	genus
Echinodermata	Echinoidea	Echinolampadacea	Echinarachniidae	*Echinarachius*

Echinarachius parma

Common Sand Dollar

AphiaID: 158062; https://www.marinespecies.org/aphia.php?p=taxdetails&id=124223

iNaturalist: https://www.inaturalist.org/taxa/192690-Echinarachnius-parma

Description: Round, flat, disc-like. Entire shell is covered in maroon-coloured moveable spines. Purpleish-brown in colour becoming bleached white when ashore.

Key characteristics: Round, flat disc.

Habitat type: Sandy sediments.

Highest-quality images:

CON011-20230815T145724

CON069-20240816T123950

phylum	class	order	family	genus
Echinodermata	Echinoidea	Camarodonta	Strongylocentrotidae	*Strongylocentrotus*

***Strongylocentrotus* spp.**

Sea urchin

AphiaID: 123390; https://www.marinespecies.org/aphia.php?p=taxdetails&id=123390

iNaturalist: https://www.inaturalist.org/taxa/48036-Strongylocentrotus

Description: Green/purple/white sea urchin, slightly flattened globe shape. Likely *S. droebachiensis* or *S. pallidus*.

Key characteristics: Green/white colour with matching spines.

Habitat type: Rocky boulder/bedrock habitats.

Highest-quality images:

CON063-20240815T130023

CON056-20240819T143357

phylum	class	order	family	genus
Echinodermata	Holothuroidea	Dendrochirotida	Cucumariidae	*Cucumaria*

Cucumaria frondosa

AphiaID: 124612; https://www.marinespecies.org/aphia.php?p=taxdetails&id=124612

iNaturalist: https://www.inaturalist.org/taxa/192693-Cucumaria-frondosa

Description: Soft cylindrical football-shaped body usually 1-20cm thick. Usually dull grey, purpleish, dark in colour. Often warty and resembling a cucumber. Fronds sometimes only visible part (body hidden behind/under rocks).

Key characteristics: Football-shaped body, purple colour.

Habitat type: Rocky sediments, boulders.

Highest-quality images:

CON018-20230817T122151

CON058-20240809T172421

phylum	class	order	family	genus
Echinodermata	Holothuroidea	Dendrochirotida	Psolidae	*Psolus*

Psolus phantapus

AphiaID: 124710; https://www.marinespecies.org/aphia.php?p=taxdetails&id=124710

iNaturalist: https://www.inaturalist.org/taxa/447325-Psolus-phantapus

Description: Soft cylindrical football-shaped body. Orange/cream/yellow in colour, with white fronds. Small in size, epifaunal, often attached.

Key characteristics: Small football-shaped body, creamy/orange colour, white fronds.

Habitat type: Rocky sediments, boulders, often hiding in rock crevices with sometimes only fronds visible.

Highest-quality images:

CON063-20240815T125720

CON071-20240816T150946

phylum	class	order	family	genus
Echinodermata	Ophiuroidea	Euryalida	Gorgonocephalinae	*Gorgonocephalus*

Gorgonocephalus arcticus

Northern basket star

AphiaID: 124966; https://www.marinespecies.org/aphia.php?p=taxdetails&id=124966

iNaturalist: https://www.inaturalist.org/taxa/851432-Gorgonocephalus-arcticus

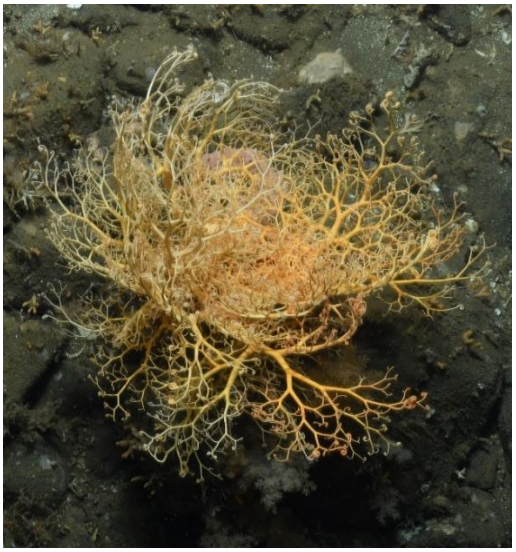
Description: Basket star with five arms extending from a central disc with arms that then branch off into small and small subdivisions. Usually yellowish in colour. Largest ophiuroids observed measuring up to 50cm inches in arm length.

Key characteristics: Branching of arms, large size.

Habitat type: On cobbles/boulders surrounded by muddy mixed sediments often found with high densities of soft corals.

Highest-quality images:

CON067-20240815T182332



CON079-20240817T170809

phylum	class	order	family	genus
Echinodermata	Ophiuroidea	Ophiacanthida	Ophiacanthidae	*Ophiacantha*

Ophiacantha bidentata

AphiaID: 124978; https://www.marinespecies.org/aphia.php?p=taxdetails&id=124978

iNaturalist: https://www.inaturalist.org/taxa/795102-Ophiacantha-bidentata

Description: Striped brittle star, orange/brown in colour with darker stripes. Very prickly-looking spines covering arms.

Key characteristics: Brown stripes and spines covering arms.

Habitat type: Sandy/gravel sediments.

Highest-quality images:

CON027-20230823T164906

CON062-20240815T115605

phylum	class	order	family	genus
Echinodermata	Ophiuroidea	Amphilepidida	Ophiopholidae	*Ophiopholis*

Ophiopholis aculeata

Daisy brittle star

AphiaID: 125125; https://www.marinespecies.org/aphia.php?p=taxdetails&id=125125

iNaturalist: https://www.inaturalist.org/taxa/56685-Ophiopholis-aculeata

Description: Five arms which are four times as long as the disc is wide. Reddish/purpleish in colour that can look like leopard-print.

Key characteristics: Red/purple colour.

Habitat type: Rocky sediments, often under rocks so that only arms visible. Often with coralline algae.

Highest-quality images:

CON019-20230817T130119

CON078-20240817T160346

phylum	class	order	family	genus
Echinodermata	Ophiuroidea	Amphilepidida	Ophiopholidae	*Ophiura*

Ophiura sarsii

Notched Brittle Star

AphiaID: 124934; https://www.marinespecies.org/aphia.php?p=taxdetails&id=124934

iNaturalist: https://www.inaturalist.org/taxa/202051-Ophiura-sarsii

Description: Black colour, obvious notches along arms. No obvious spines protruding from arms.

Key characteristics: Black colour, obvious notches along arms. No obvious spines protruding from arms.

Habitat type: Rocky/sandy sediments.

Highest-quality images: only 1 occurrence
CON055-20240808T185824

phylum	class	order	family	genus
Echinodermata	Ophiuroidea	Amphilepidida	Ophiopholidae	

Unid Ophiuroidea sp. 1

AphiaID: 123084; https://www.marinespecies.org/aphia.php?p=taxdetails&id=123084

iNaturalist: https://www.inaturalist.org/taxa/48836-Ophiuroidea

Description: Dark/copper centre with striped arms white and brown in colour. No prickly arms (or very fine). Dark brown/deep red body and no visible spines on arms (or very fine). Possible faint dark stripes on beige/red arms.

Key characteristics: Brown and white stripes, no obvious spines.

Habitat type: Rocky sediments.

Highest-quality images:
CON027-20230823T170212

CON019-20230817T135800

phylum	class	order	family	genus
Echinodermata	Ophiuroidea	Amphilepidida	Ophiopholidae	

Unid Ophiuroidea sp. 2

AphiaID: 123084; https://www.marinespecies.org/aphia.php?p=taxdetails&id=123084

iNaturalist: https://www.inaturalist.org/taxa/48836-Ophiuroidea

Description: Light brown/black or cream coloured body and arms, small visible spines. No obvious stripes on arms. Possibly some *O. sarsii*, but organisms too small.

Key characteristics: Light/white colour or black, small spines (if visible) an no stripes.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON014-20230815T190728

CON071-20240816T150611

Phylum Mollusca

phylum	class	order	family	genus
Mollusca	Bivalvia	Carditida	Astartidae	

Astartidae

AphiaID: 228; https://www.marinespecies.org/aphia.php?p=taxdetails&id=228

iNaturalist: https://www.inaturalist.org/taxa/183029-Astartidae

Description: Trigonal shell shape whose length is greater than the height. Varies from shiny to silky to dull. Generally yellow to black to reddish-brown in colour and can appear ‘striped’.

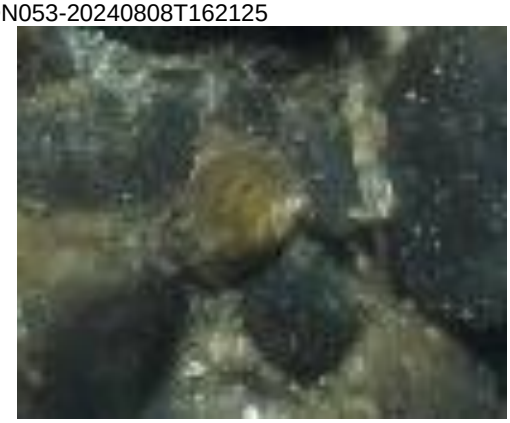
Key characteristics: Trigonal shape shell that is yellow-black.

Habitat type: Rocky sediments.

Highest-quality images:

CON018-20230817T122834

CON053-20240808T162125



phylum	class	order	family	genus
Mollusca	Bivalvia	Carditida	Carditidae	*Cyclocardia*

Cyclocardia borealis

Northern Cardita

AphiaID: 156832; https://www.marinespecies.org/aphia.php?p=taxdetails&id=156832

iNaturalist: https://www.inaturalist.org/taxa/474253-Cyclocardia-borealis

Description: Slightly inequilateral with beak just in front of midline. Vertical lines down shell. Reddish-brown, black to creamy-white in colour.

Key characteristics: Beak just in front of midline (off-centre).

Habitat type: Cobble/pebble sediments.

Highest-quality images:

CON018-20230817T123254

CON063-20240815T125720

phylum	class	order	family	genus
Mollusca	Bivalvia	Pectinida	Pectinidae	*Chlamys*

Chlamys islandica

Icelandic Scallop

AphiaID: 140692; https://www.marinespecies.org/aphia.php?p=taxdetails&id=140692

iNaturalist: https://www.inaturalist.org/taxa/458935-Chlamys-islandica

Description: Scallop with varying colour of beige/white/black/purple with extended hinge on just one side. Can reach 14cm in size.

Key characteristics: Scallop with extended hinge on just one side.

Habitat type: Rocky boulder/cobble sediments.

Highest-quality images:

CON063-20240815T130220

CON076-20240817T134709

phylum	class	order	family	genus
Mollusca	Bivalvia	Ostreida	Ortreidae	*Crassostrea*

Crassostrea virginica* – type

America oyster

AphiaID: 140657; https://www.marinespecies.org/aphia.php?p=taxdetails&id=140657

iNaturalist: https://www.inaturalist.org/taxa/47585-Crassostrea-virginica

Description: White calcite oyster shells that look rough in texture with odd ovular shape.

Key characteristics: Oyster with odd shell shape with rough texture.

Habitat type: Rocky sediments.

Highest-quality images:

CON028-20230823T200447

CON076-20240817T134709

phylum	class	order	family	genus
Mollusca	Bivalvia	Venerida	Veneridae	*Dosinia*

Dosinia spp.* – type

AphiaID: 138636; https://www.marinespecies.org/aphia.php?p=taxdetails&id=138636

iNaturalist: https://www.inaturalist.org/taxa/172077-Dosinia

Description: Small in size. Off-white, yellow, golden, brown in colour. Roughly circular in shape or broadly oval-shaped.

Key characteristics: Tiny circle-shaped shell, often on boulders.

Habitat type: Boulder/cobble/bedrock sediments.

Highest-quality images:

CON014-20230815T191259

CON064-20240815T134336

phylum	class	order	family	genus
Mollusca	Bivalvia	Mytilida	Modiolidae	*Modiolus*

Modiolus modiolus

Horse mussels

AphiaID: 140467; https://www.marinespecies.org/aphia.php?p=taxdetails&id=138636

iNaturalist: https://www.inaturalist.org/taxa/123772-Modiolus-modiolus

Description: Brown/black near outer edge of shell, yellowish-brown/cream at inner shell edge. Valves are oblong and rounded near anterior end. Body is orange and mantle is un-frilled. Often attached to rocks via byssal threads, or can form 'turf'.

Key characteristics: Yellow-brown shell near inner edge.

Habitat type: Gravelly/pebble/cobble/boulder sediments.

Highest-quality images:

CON028-20230823T202401

CON075-20240817T123743

phylum	class	order	family	genus
Mollusca	Bivalvia	Nuculanida	Nuculanidae	*Nuculana*

Nuculana* – type

AphiaID: 138259; https://www.marinespecies.org/aphia.php?p=taxdetails&id=138259

iNaturalist: https://www.inaturalist.org/taxa/193938-Nuculana

Description: White/cream shell elongated on one side and slanted. Likely *N. tenuisulcata*, but most instances have shell in sediment, so left to genus level.

Key characteristics: Elongated on one side.

Habitat type: Silty muddy or rocky sediments.

Highest-quality images:

CON015-20230816T165412

CON017-20230816T195558

phylum	class	order	family	genus
Mollusca	Bivalvia	Nuculanida	Yoldiidae	

Yoldiidae

AphiaID: 2097; https://www.marinespecies.org/aphia.php?p=taxdetails&id=2097

iNaturalist: https://www.inaturalist.org/taxa/184935-Yoldiidae

Description: Shells are equivalve, thin-walled and elongated oval in shape. The posterior end is extended and shell usually gapes at both ends. Shell appears glossy and smooth, often cream/yellowish-brown in colour.

Key characteristics: Equivalve shape, glossy shell.

Habitat type: Rocky/cobble/pebble sediments.

Highest-quality images:

CON019-20230817T125905

CON065-20240815T143938

phylum	class	order	family	genus
Mollusca	Bivalvia	Adapedonta	Hiatellidae	*Panomya*

Panomya norvegica

Arctic Roughmya

AphiaID: 140105; https://www.marinespecies.org/aphia.php?p=taxdetails&id=140105

iNaturalist: https://www.inaturalist.org/taxa/483140-Panomya-norvegica

Description: Only siphons visible with dark rim and light blue inside.

Key characteristics: Odd shape and fused siphons with pale blue interior.

Habitat type: Silty soft and rocky sediments.

Highest-quality images:

CON066-20240815T155504

CON063-20240815T125835

phylum	class	order	family	genus
Mollusca	Bivalvia			

Unid Bivalve sp. 1 black/white type

AphiaID: 105; https://www.marinespecies.org/aphia.php?p=taxdetails&id=105

iNaturalist: https://www.inaturalist.org/taxa/47584-Bivalvia

Description: Rounded or slightly oblong black/white shell. Likely *Macoma* spp., but most images are blurry so left to class level.

Key characteristics: Elongated/rounded black/white shell.

Habitat type: Silty muddy or rocky sediments.

Highest-quality images:

CON019-20230817T130349

CON056-20240819T141707

phylum	class	order	family	genus
Mollusca	Bivalvia			

Unid Bivalve sp. 2 yellow type

AphiaID: 105; https://www.marinespecies.org/aphia.php?p=taxdetails&id=105

iNaturalist: https://www.inaturalist.org/taxa/47584-Bivalvia

Description: Same as above, but yellow/dusted copper in colour.

Key characteristics: Yellow shell colour.

Habitat type: Rocky sediments.

Highest-quality images:

CON028-20230823T202828

CON054-20240808T180946

phylum	class	order	family	genus
Mollusca	Gastropoda	Littorinimorpha	Aporrhaidae	*Arrhoges*

Arrhoges occidentalis

American Pelicanfoot

AphiaID: 531617; https://www.marinespecies.org/aphia.php?p=taxdetails&id=531617

iNaturalist: https://www.inaturalist.org/taxa/854910-Arrhoges-occidentalis

Description: Grey or white shell with a high, pointed spire. Shell has 8-10 well-rounded whorls with strong curved axial ribs, The body whorl contains 20-25 folds. Aperture is long and narrow. Thick, shiny white outer lip that has triangular, winglike expansion. The small operculum is horny and claw-shaped, narrow and has smooth edges.

Key characteristics: Outer triangular lip with winglike expansion.

Habitat type: Sandy/muddy sediments.

Highest-quality images:

CON026-20230823T145359

CON072-20240816T182926

phylum	class	order	family	genus
Mollusca	Gastropoda	Neogastropoda	Muricidae	*Boreotrophon*

Boreotrophon clathratus*

Clathrate Trophon

AphiaID: 146732; https://www.marinespecies.org/aphia.php?p=taxdetails&id=146732

iNaturalist: https://www.inaturalist.org/taxa/638334-Boreotrophon-clathratus

Description: Fusiform shell has 14 ribs or more that look sharp. Whorls have numerous sharp, laminated varices. The canal is open and turned to the left. Could also contain *Scabrotrophon fabricii*.

Key characteristics: Fusiform shell with 14 ribs, thin-no lip.

Habitat type: Sandy/muddy sediments.

Highest-quality images:

CON019-20230817T135456

CON064-20240815T135203

phylum	class	order	family	genus
Mollusca	Gastropoda	Neogastropoda	Buccinidae	*Buccinum*

Buccinum undatum

Common Whelk

AphiaID: 138878; https://www.marinespecies.org/aphia.php?p=taxdetails&id=138878

iNaturalist: https://www.inaturalist.org/taxa/130213-Buccinum-undatum

Description: Solid ovate-conical, ventricose shell is very pale, white, yellowish or reddish in colour. Spire contains seven or eight whorls. Whorls are convex and crossed by oblique folds, thick and waved. Wavy folds are crossed by numerous incised, very prominent spiral lines, some of which are paired. Outer lip is arched. White aperture of shell is broadly oval and tapers to deeply notched siphonal canal.

Key characteristics: Large, round whorls, arched outer lip.

Habitat type: Boulder/cobble/pebble sediments.

Highest-quality images:

CON020-20230817T161600

CON020-20230817T162533

phylum	class	order	family	genus
Mollusca	Gastropoda	Neogastropoda	Colidae	*Aulacofusus*

Aulacofusus brevicauda

AphiaID: 490735; https://www.marinespecies.org/aphia.php?p=taxdetails&id=490735

iNaturalist: https://www.inaturalist.org/taxa/978416-Aulacofusus-brevicauda

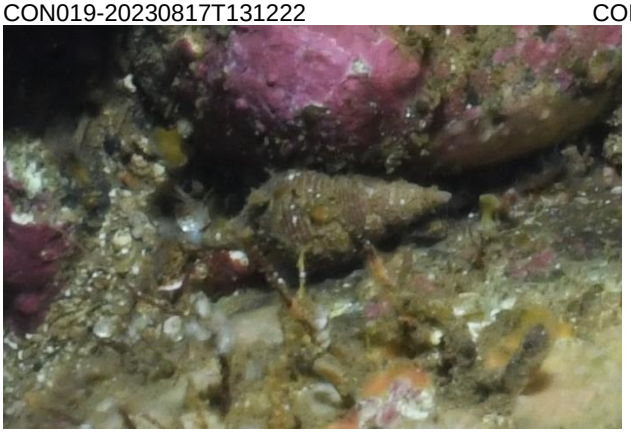
Description: Brown/purple/pink in colour. Five whorls that are relatively smooth, with horizontal folds and curved lip.

Key characteristics: Five whorls.

Habitat type: Rocky sediments.

Highest-quality images:

CON019-20230817T131222



CON056-20240809T143736

phylum	class	order	family	genus
Mollusca	Gastropoda	Neogastropoda	Buccinidae	*Neptunea*

Neptunea decemcostata

Ten-ridged whelk

AphiaID: 137710; https://www.marinespecies.org/aphia.php?p=taxdetails&id=137710

iNaturalist: https://www.inaturalist.org/taxa/193927-Neptunea-decemcostata

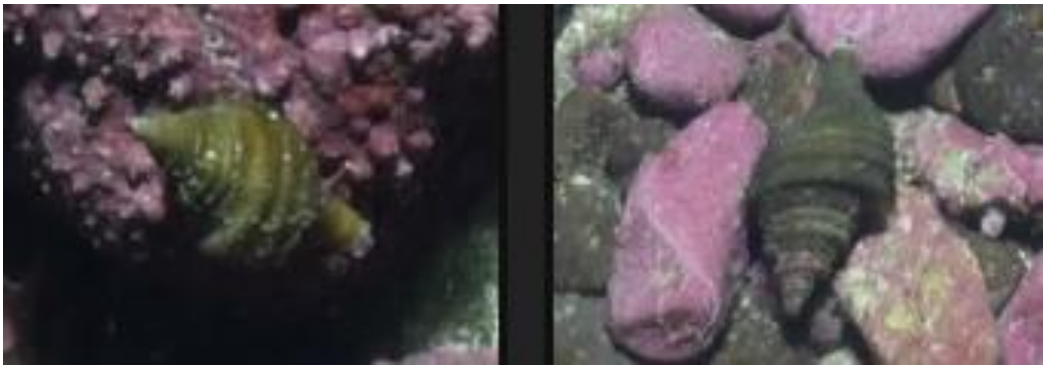
Description: Common-looking whelk with numerous whorls/ridges, pointed spire, brown, dark orange or dark purple in colour. Relatively larger in size.

Key characteristics: Numerous whorls/ridges with pointed spire.

Habitat type: Rocky sediments, often with coralline algae.

Highest-quality images:

CON024-20230821T133227 CON024-20230821T132844



phylum	class	order	family	genus
Mollusca	Gastropoda	Neogastropoda	Mangelliidae	

Mangeliidae

AphiaID: 153853; https://www.marinespecies.org/aphia.php?p=taxdetails&id=153853

iNaturalist: https://www.inaturalist.org/taxa/246167-Mangeliidae

Description: Small and rounded with a pointed spire and a short, straight siphonal canal, lack operculum. Body whorl is usually around ¾ of total shell length. Shell surface is smooth with angled whorls. Orange, yellow, brown, black or banded in colour. Occasionally can appear green, blue or pink.

Key characteristics: Very small rounded with pointed spire, no operculum, angled whorls.

Habitat type: Boulder/bedrock/cobble sediments. Sometimes with sand.

Highest-quality images:

CON019-20230817T135800

CON079-20240817T170937

phylum	class	order	family	genus
Mollusca	Gastropoda	Caenogastropoda	Epitoniidae	

Epitoniidae

AphiaID: 132; https://www.marinespecies.org/aphia.php?p=taxdetails&id=132

iNaturalist: https://www.inaturalist.org/taxa/122558-Epitoniidae

Description: Often white with porcelain-like appearance. Form turret-shaped shell consisting of tightly-wound convex whorls that create a high, conical spiral. Inner lip is often reduced in size.

Key characteristics: Turret shell creating conical spiral. Reduced inner lip.

Habitat type: Sandy/gravel/pebble sediments.

Highest-quality images:

CON026-20230823T150118

CON063-20240815T130701

phylum	class	order	family	genus
Mollusca	Gastropoda	Caenogastropoda	Turritellidae	

Turritellidae

AphiaID: 127; https://www.marinespecies.org/aphia.php?p=taxdetails&id=127

iNaturalist: https://www.inaturalist.org/taxa/245568-Turritellidae

Description: Tower snails with whorls that are more convex and apertures more circular than auger shells. High-spired. Columella is curved and thin operculum has many horns.

Key characteristics: Tall and thin whorls, small body.

Habitat type: Boulder/bedrock/cobble/sandy sediments.

Highest-quality images:

CON014-20230815T190728

CON067-20240815T183156

phylum	class	order	family	genus
Mollusca	Gastropoda	Trochida	Magaritidae	*Margarites*

Margarites* spp. type 1 - white

Globe snails

AphiaID: 138592; https://www.marinespecies.org/aphia.php?p=taxdetails&id=138592

iNaturalist: https://www.inaturalist.org/taxa/129934-Margarites

Description: Globe shape (large rounded whorls – 2-3). Turbiniform shape with convex whorls and a typical iridescent lustre. White/cream in colour. Likely *Margarites costalis* or *Solariella* spp.

Key characteristics: Globular shape, white colour.

Habitat type: Silty rocky or muddy sediments. Often seen with coralline algae.

Highest-quality images:

CON079-20240817T170022

CON055-20240808T190900

phylum	class	order	family	genus
Mollusca	Gastropoda	Trochida	Margaritidae	*Margarites*

Margarites* spp. type 2 - pink/orange

Globe snails

AphiaID: 138592; https://www.marinespecies.org/aphia.php?p=taxdetails&id=138592

iNaturalist: https://www.inaturalist.org/taxa/129934-Margarites

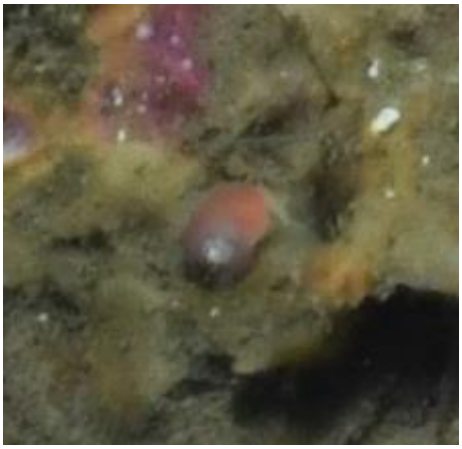
Description: Globe shape (large rounded whorls). Turbiniform shape with convex whorls and a typical iridescent lustre. Pink/orange in colour – likely *Margarites groenlandicus*.

Key characteristics: Globular shape, pink/orange colour.

Habitat type: Silty rocky or muddy sediments. Often seen with coralline algae.

Highest-quality images:

CON019-20230817T130233



CON058-20240809T171018

phylum	class	order	family	genus
Mollusca	Gastropoda		Lottiidae	*Testudinalia*

Testudinalia testudinalis

Tortoiseshell Limpet

AphiaID: 234208; https://www.marinespecies.org/aphia.php?p=taxdetails&id=234208

iNaturalist: https://www.inaturalist.org/taxa/415169-Testudinalia-testudinalis

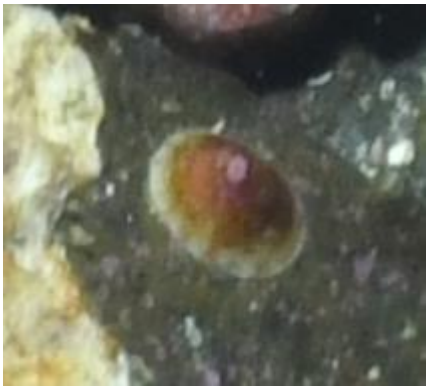
Description: Limpet attached to rocks. Yellowish-brown in colour. Sometimes with slight pink hue. Dark banding around the base.

Key characteristics: Wide, attached to rocks. Dark banding at base.

Habitat type: Boulder/bedrock/cobble sediments.

Highest-quality images:

CON028-20230823T200057



CON019-20230817T133057

phylum	class	order	family	genus
Mollusca	Gastropoda	Nudibranchia	Cadlinidae	*Cadlina*

Cadlina laevis

White Atlantic Cadlina

AphiaID: 139134; https://www.marinespecies.org/aphia.php?p=taxdetails&id=139134

iNaturalist: https://www.inaturalist.org/taxa/492412-Cadlina-laevis

Description: Flattened-white semitransparent nudibranch with oval mantle. Appear to have bright yellow spots near thin yellow margin on back, or are milky white and lack spots. Short tentacles are comb-like, and short fills can retract.

Key characteristics: Flattened oval mantle, often with spots lining margin.

Habitat type: Rocky/bedrock sediments.

Highest-quality images:

CON019-20230817T130755

CON059-20240809T182356

phylum	class	order	family	genus
Mollusca	Gastropoda	Nudibranchia	Coryphellidae	

Coryphellidae

AphiaID: 153374; https://www.marinespecies.org/aphia.php?p=taxdetails&id=153374

iNaturalist: https://www.inaturalist.org/taxa/870989-Coryphellidae

Description: Brightly coloured nudibranchs with long coloured tentacles (orange/red/pink/white etc.) with white tips. Four larger antennae/tentacles near 'head'. Potentially *Coryphella* spp. or *Fjordia* spp.

Key characteristics: Long, coloured tentacles with white tips.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON026-20230823T150536

CON026-20230823T150243

phylum	class	order	family	genus
Mollusca	Gastropoda	Nudibranchia	Dendronotidae	*Dendronotus*

***Dendronotus* spp.**

AphiaID: 137885; https://www.marinespecies.org/aphia.php?p=taxdetails&id=137885

iNaturalist: https://www.inaturalist.org/taxa/47707-Dendronotus

Description: Nudibranch that has an elongated broad body, 4-8 pairs of branched cerata on notum. Obvious oral veil with 2-5 extensions (which may be branched). Smaller unbranched extensions are found near mouth. Often cream, white, translucent. Some likely are *D. elegans*.

Key characteristics: Obvious oral veil with extensions.

Habitat type: Sandy/silty rocky sediments.

Highest-quality images:

CON058-20240809T172529

CON053-20240808T161012

phylum	class	order	family	genus
Mollusca	Gastropoda	Nudibranchia		

Nudibranch eggs

AphiaID: 1762; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1762

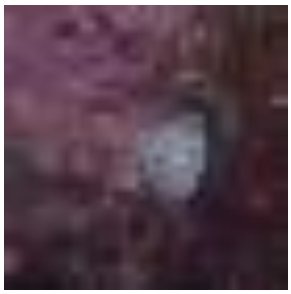
iNaturalist: https://www.inaturalist.org/taxa/47113-Nudibranchia

Description: White sworls bundled together.

Key characteristics: White sworl bundles.

Habitat type: Rocky sediments, often seen with coralline algae.

Highest-quality images:
CON028-20230823T202514



CON059-20240809T180727

phylum	class	order	family	genus
Mollusca	Gastropoda			

Unid Gastropod sp. 1

AphiaID: 101; https://www.marinespecies.org/aphia.php?p=taxdetails&id=101

iNaturalist: https://www.inaturalist.org/taxa/47114-Gastropoda

Description: Small white gastropod with wider base. Only 4-5 visible whorls. Possibly Mangeliidae.

Key characteristics: Small, white, 4-5 whorls.

Habitat type: Silty muddy/gravelly sediments.

Highest-quality images:

CON027-20230823T170212

CON057-20240809T161515

phylum	class	order	family	genus
Mollusca	Gastropoda			

Unid Gastropod sp. 2 – Velutinidae type

AphiaID: 101; https://www.marinespecies.org/aphia.php?p=taxdetails&id=101

iNaturalist: https://www.inaturalist.org/taxa/47114-Gastropoda

Description: Small cream/yellow gastropod, sometimes with visible antennae. Thin shell, lateral spire, rounded aperture. One large whorl, and 2-3 small ones. Large oblong foot, sometimes visible.

Key characteristics: Cream/yellow colour, large oblong foot.

Habitat type: Silty muddy or rocky sediments.

Highest-quality images:

CON011-20230815T145251

CON079-20240817T171619

phylum	class	order	family	genus
Mollusca	Gastropoda			

Unid Gastropod sp. 3 - purple/white striped

AphiaID: 101; https://www.marinespecies.org/aphia.php?p=taxdetails&id=101

iNaturalist: https://www.inaturalist.org/taxa/47114-Gastropoda

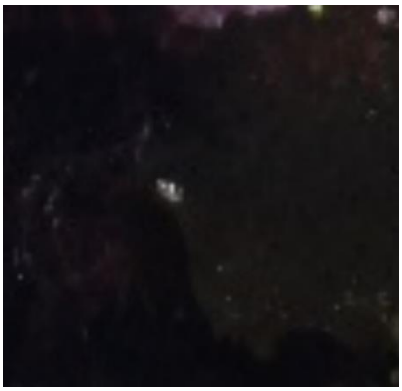
Description: Thin whorls with obvious purple stripes on white shell. Small in size. Likely *Margarites helicinus* or *Lacuna vincta*.

Key characteristics: Purple and white stripes.

Habitat type: Rocky sediments, entangled in algae and kelp.

Highest-quality images:

CON028-20230823T200821



CON028-20230823T200948

phylum	class	order	family	genus
Mollusca	Polyplacophora	Chitonida	Tonicellidae	

Tonicellinae

AphiaID: 385537; https://www.marinespecies.org/aphia.php?p=taxdetails&id=385537

iNaturalist: https://www.inaturalist.org/taxa/533539-Tonicellidae

Description: Oblong to oval in shape, elevated and acutely angular valve. Coloured light tan to pink to dark red (or red specs). Valves are smooth but can look granulated. Lateral areas not distinctly outlined. Leathery girdle without scales or bristles. Likely *Boreochiton ruber* or *Tonicella marmorea*.

Key characteristics: Elevated pink/red/brown valves.

Habitat type: Boulder/bedrock/cobble sediments often with algae.

Highest-quality images:

CON024-20230821T133937

CON014-20230815T191007

phylum	class	order	family	genus
Mollusca	Polyplacophora	Chitonida		

Unid Chitonida sp. 1

AphiaID: 382003; https://www.marinespecies.org/aphia.php?p=taxdetails&id=382003

iNaturalist: https://www.inaturalist.org/taxa/533431-Chitonida

Description: Slightly elongated chiton with relatively narrow girdle (shell making up 80% of the width). Off white or cream in colour but may have black deposits. Typically unbanded girdle covered with very large oval scales. Either *Stenosemus albus* or *Hanleya hanleyi*, but unsure, so left to order.

Key characteristics: White/cream valves.

Habitat type: Boulder/bedrock sediments.

Highest-quality images:

CON020-20230817T162847

CON055-20240808T185305

Phylum Nemertea

phylum	class	order	family	genus
Nemertea				

Unid Nemertea sp. 1

AphiaID: 152391; https://www.marinespecies.org/aphia.php?p=taxdetails&id=152391

iNaturalist: https://www.inaturalist.org/taxa/51280-Nemertea

Description: Red ribbon worm. Could possibly be a leech as end is quite bulbous on some individuals.

Key characteristics: Red/orange in colour, wider body.

Habitat type: Sandy gravel.

Highest-quality images:

CON027-20230823T164906

CON027-20230823T170332

phylum	class	order	family	genus
Nemertea				

Unid Nemertea sp. 2

AphiaID: 152391; https://www.marinespecies.org/aphia.php?p=taxdetails&id=152391

iNaturalist: https://www.inaturalist.org/taxa/51280-Nemertea

Description: Beige/orange ribbon worm with white edge.

Key characteristics: Pale beige/orange in colour, wider body.

Habitat type: Sandy/muddy sediments.

Highest-quality images:

CON026-20230823T144409

CON026-20230823T144409

phylum	class	order	family	genus
Nemertea				

Unid Nemertea sp. 3

AphiaID: 152391; https://www.marinespecies.org/aphia.php?p=taxdetails&id=152391

iNaturalist: https://www.inaturalist.org/taxa/51280-Nemertea

Description: Stark white/gray opaque ribbon worm.

Key characteristics: White colour.

Habitat type: Cobble/pebble/boulder sediments.

Highest-quality images:

CON027-20230823T170825

CON053-20240808T160809

phylum	class	order	family	genus
Nemertea				

Unid Nemertea sp. 4

AphiaID: 152391; https://www.marinespecies.org/aphia.php?p=taxdetails&id=152391

iNaturalist: https://www.inaturalist.org/taxa/51280-Nemertea

Description: Greenish, grey or black ribbon worm with lighter outline.

Key characteristics: Dark green/black/brown colour.

Habitat type: Cobble/pebble/gravel sediments covered in silt or coralline algae.

Highest-quality images:

CON024-20230821T132844

CON055-20240808T191221

phylum	class	order	family	genus
Nemertea				

Unid Nemertea sp. 5

AphiaID: 152391; https://www.marinespecies.org/aphia.php?p=taxdetails&id=152391

iNaturalist: https://www.inaturalist.org/taxa/51280-Nemertea

Description: Light red/orange long ribbon worm. Most common Nemertea observed.

Key characteristics: Thin, pale red.

Habitat type: Boulder/cobble/pebble sediments.

Highest-quality images:

CON072-20240816T182307

CON053-20240808T162125

Phylum Ochrophyta

phylum	class	order	family	genus
Ochrophyta	Phaeophyceae	Laminariales	Agaraceae	*Agarum*

Agarum clathratum

Sieve kelp

AphiaID: 157207; https://www.marinespecies.org/aphia.php?p=taxdetails&id=157207

iNaturalist: https://www.inaturalist.org/taxa/182956-Agarum-clathratum

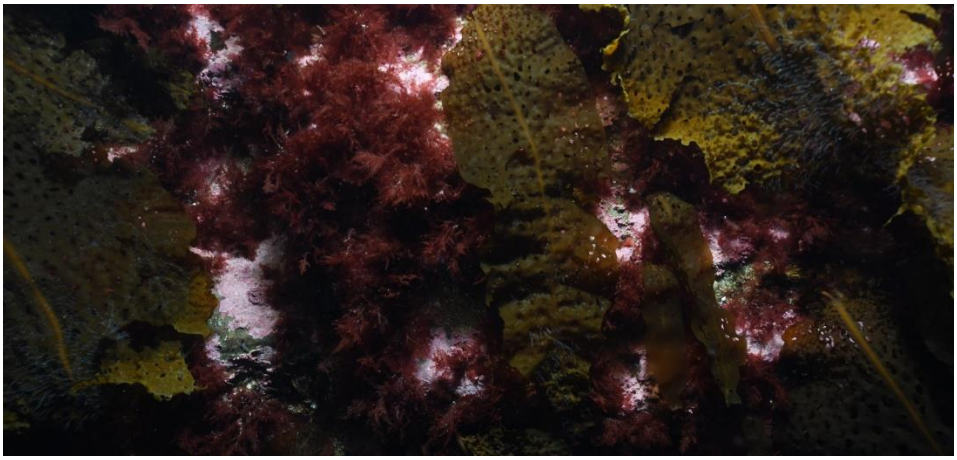
Description: Brown kelp with porous holes resembling a sieve. Large blades with comparatively shorter stalks/holdfasts.

Key characteristics: Holey, large blades.

Habitat type: Rocky/boulder sediments. Often seen drifting. High exposure. Shallow areas.

Highest-quality images:
CON019-20230817T134556

CON023-20230821T122344



phylum	class	order	family	genus
Ochrophyta	Phaeophyceae	Laminariales	Alariaceae	*Alaria*

Alaria esculenta

Dabberlocks

AphiaID: 145716; https://www.marinespecies.org/aphia.php?p=taxdetails&id=145716

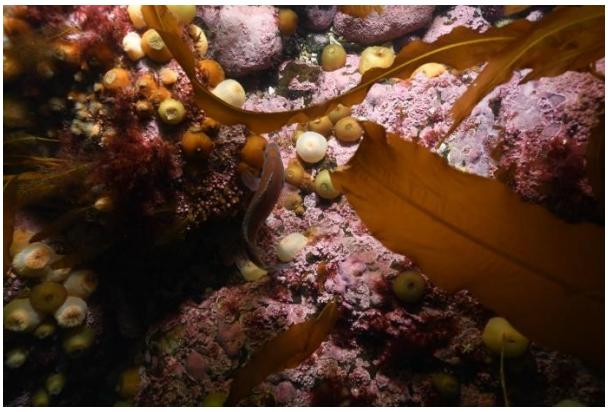
iNaturalist: https://www.inaturalist.org/taxa/430355-Alaria-esculenta

Description: Short cylindrical stipe continuing as a midrib throughout length of narrow, ribbon-like blade. Attaches to substrate by claw-like holdfast. Yellow/olive-green or rich brown in colour, very flexible.

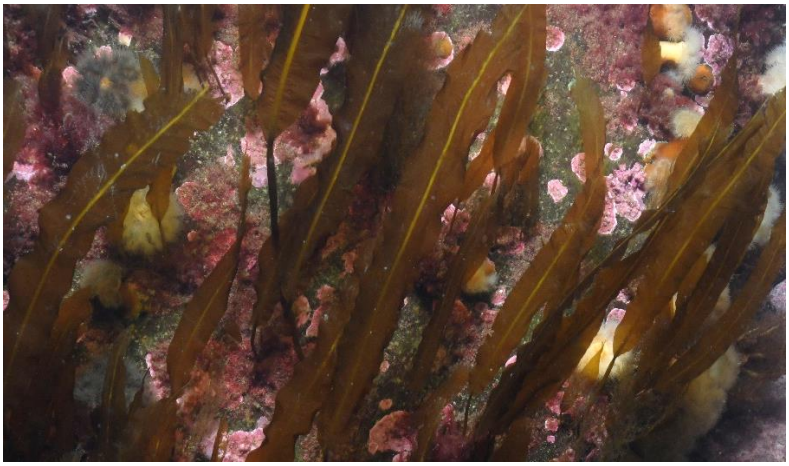
Key characteristics: Claw-like holdfast, no side-veins in blades. Distinct midrib.

Habitat type: Rocky sediments, often with coralline algae.

Highest-quality images:
CON019-20230817T133503



CON074-20240817T113532



phylum	class	order	family	genus
Ochrophyta	Phaeophyceae	Laminariales	Laminariaceae	*Saccharina*

Saccharina latissima

Sugar kelp

AphiaID: 234483; https://www.marinespecies.org/aphia.php?p=taxdetails&id=234483

iNaturalist: https://www.inaturalist.org/taxa/130231-Saccharina-latissima

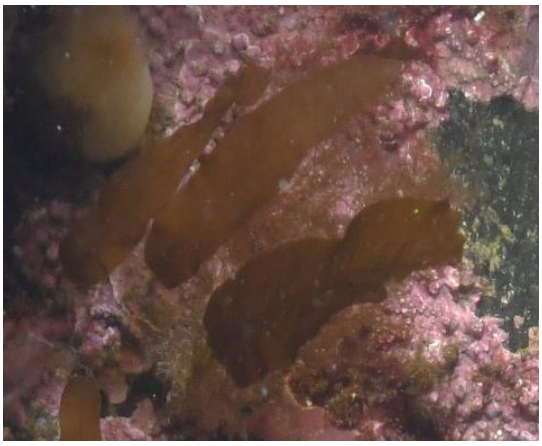
Description: Large brown kelp which has a long undivided frond, no midrib and a short stipe. Frond has a distinctive frilly undulating margin.

Key characteristics: No midrib, wrinkled frond with wavy margins.

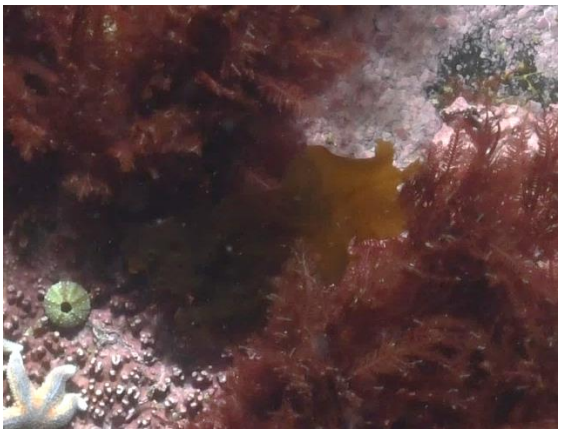
Habitat type: Rocky sediments, often with coralline algae.

Highest-quality images:

CON019-20230817T133348



CON019-20230817T134206



phylum	class	order	family	genus
Ochrophyta	Phaeophyceae	Laminariales	Laminariaceae	*Laminaria*

***Laminaria* spp.**

AphiaID: 144199; https://www.marinespecies.org/aphia.php?p=taxdetails&id=144199

iNaturalist: https://www.inaturalist.org/taxa/67424-Laminaria

Description: Brown kelp genus with 31 species. Long, leathery laminae and relatively large in size.

Key characteristics: Wavy margins. Leather-texture, no midrib.

Habitat type: Rocky sediments, often with coralline algae.

Highest-quality images:

CON023-20230821T122152

CON023-20230821T123025

phylum	class	order	family	genus
Ochrophyta	Phaeophyceae	Desmarestiales	Desmarestiaceae	*Desmarestia*

***Desmarestia* spp.**

AphiaID: 144061; https://www.marinespecies.org/aphia.php?p=taxdetails&id=144061

iNaturalist: https://www.inaturalist.org/taxa/153316-Desmarestia

Description: Very thin olive green/brown branched strands, often seen with kelp and/or coralline algae. Sometimes clumped together to look like a green/brown puff ball. Likely *D. viridis*.

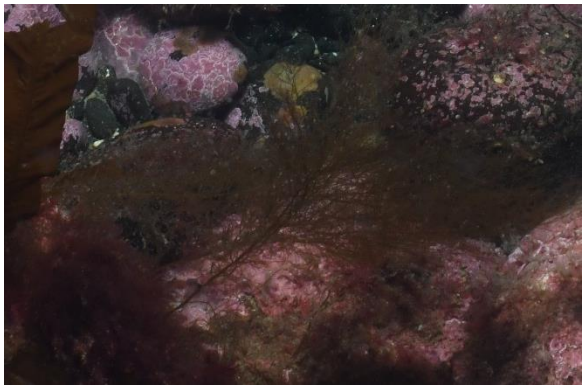
Key characteristics: Very thin olive green/brown strands

Habitat type: Rocky sediments algal dominated.

Highest-quality images:

CON019-20230817T134030

CON074-20240817T113713



Phylum Platyhelminthes

phylum	class	order	family	genus
Platyhelminthes				

Unid Platyhelminthes sp. 1 black

AphiaID: 793; https://www.marinespecies.org/aphia.php?p=taxdetails&id=793

iNaturalist: https://www.inaturalist.org/taxa/52319-Platyhelminthes

Description: Flatworms. Unsegmented, soft-bodied. Wide body, black/greenish in colour.

Key characteristics: Flat body, black colour.

Habitat type: Rocky sediments.

Highest-quality images:
CON026-20230823T143342

CON053-20240808T160455

phylum	class	order	family	genus
Platyhelminthes				

Unid Platyhelminthes sp. 2 white

AphiaID: 793; https://www.marinespecies.org/aphia.php?p=taxdetails&id=793

iNaturalist: https://www.inaturalist.org/taxa/52319-Platyhelminthes

Description: Flatworms. Unsegmented, soft-bodied. Wide body, white/cream in colour.

Key characteristics: Flat body, white colour.

Habitat type: Silty muddy/gravelly sediments.

Highest-quality images:

CON016-20230816T183019

CON058-20240809T172151

Phylum Porifera

phylum	class	order	family	genus
Porifera	Calcarea	Clathrinida	Clathrinidae	*Brattegardia*

Brattegardia nanseni*

AphiaID: 742257; https://www.marinespecies.org/aphia.php?p=taxdetails&id=742257

iNaturalist: https://www.inaturalist.org/taxa/1137864-Brattegardia-nanseni

Description: Calcareous sponge with anastomosed tubes covered by a thin membranous layer. Massive/globular with or without stalk. Looks porous. (Could also possibly be *Tentorium semisuberites*).

Key characteristics: Globular calcareous sponge.

Habitat type: Silty rocky sediments sometimes with coralline algae.

Highest-quality images:
CON017-20230816T195423

CON020-20230817T162533

phylum	class	order	family	genus
Porifera	Calcarea	Clathrinida	Clathrinidae	*Clathrina*

***Clathrina* spp.**

AphiaID: 131729; https://www.marinespecies.org/aphia.php?p=taxdetails&id=131729

iNaturalist: https://www.inaturalist.org/taxa/122021-Clathrina

Description: Mass of thin white to cream tubes. No external layer covering cormus tubes. Water collecting tubes converge towards centre of the sponge ending in apical oscula. Look web-like.

Key characteristics: Thin white tubes looking like lattice/webs.

Habitat type: Silty rocky sediments/mixed sediments.

Highest-quality images:
CON026-20230823T145810,

CON055-20240808T185141

phylum	class	order	family	genus
Porifera	Calcarea	Leucosolenida	Amphoriscidae	

Unid Calcarea tube sp. 1

AphiaID: 131613; https://www.marinespecies.org/aphia.php?p=taxdetails&id=131613

iNaturalist: https://www.inaturalist.org/taxa/60583-Calcarea

Description: Cream/white in colour. Long tube shaped with body wider than pore.

Key characteristics: Cream tube with wide pore.

Habitat type: Gravel/pebble/sandy sediments.

Highest-quality images:

CON019-20230817T135456

CON078-20240817T160140

phylum	class	order	family	genus
Porifera	Calcarea			

Unid Calcarea tube sp. 2

AphiaID: 559; https://www.marinespecies.org/aphia.php?p=taxdetails&id=559

iNaturalist: https://www.inaturalist.org/taxa/60583-Calcarea

Description: Silty, burrowed tube sponge with obvious oscula (white rim). Brown or pale-yellow in colour. Possibly *Sycon* spp.

Key characteristics: Silty, burrowed tube with obvious oscula.

Habitat type: Silty gravel sediments.

Highest-quality images:

CON019-20230817T135012

CON078-20240817T154331

phylum	class	order	family	genus
Porifera	Demospongiae	Tetractinellida	Tetillidae	*Craniella*

***Craniella* spp.**

AphiaID: 132093; https://www.marinespecies.org/aphia.php?p=taxdetails&id=559

iNaturalist: https://www.inaturalist.org/taxa/246870-Craniella

Description: Spherical or hemispherical sponge. White, cream in colour. Even sponge surface with a rough, hairy-looking texture. Usually a few obvious oscules together on top of sponge.

Key characteristics: Hemispherical shape with few oscula together at top of sponge.

Habitat type: Silty rocky sediments.

Highest-quality images:

CON016-20230816T183418

CON027-20230823T165937

phylum	class	order	family	genus
Porifera	Demospongiae	Dendroceratida	Darwinellidae	*Aplysilla*

Aplysilla sulfurea

AphiaID: 236120; https://www.marinespecies.org/aphia.php?p=taxdetails&id=236120

iNaturalist: https://www.inaturalist.org/taxa/196370-Aplysilla-sulfurea

Description: Bright yellow thinly encrusting sponge with many conules. Spongin fibres project, causing the surface conules.

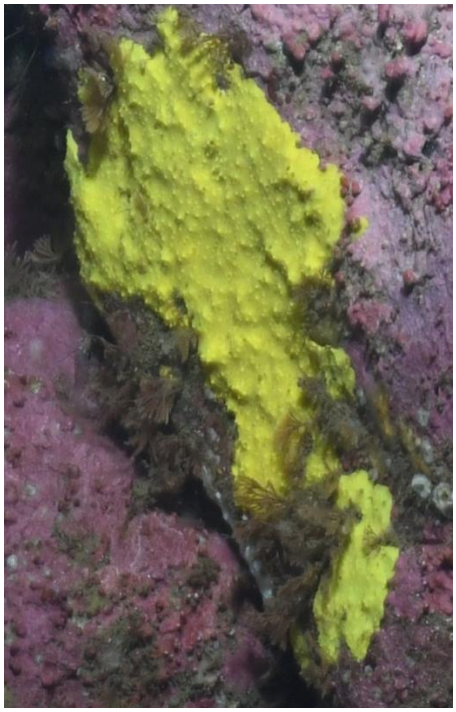
Key characteristics: Obvious surface conules, bright yellow colour.

Habitat type: Boulder/cobble sediments, often with coralline algae.

Highest-quality images:

CON019-20230817T130755

CON019-20230817T130755



phylum	class	order	family	genus
Porifera	Demospongiae	Suberitida	Halichondriidae	*Halichondria*

Halichondria (Halichondria) panicea* – type

AphiaID: 165853; https://www.marinespecies.org/aphia.php?p=taxdetails&id=165853

iNaturalist: https://www.inaturalist.org/taxa/186854-Halichondria-panicea

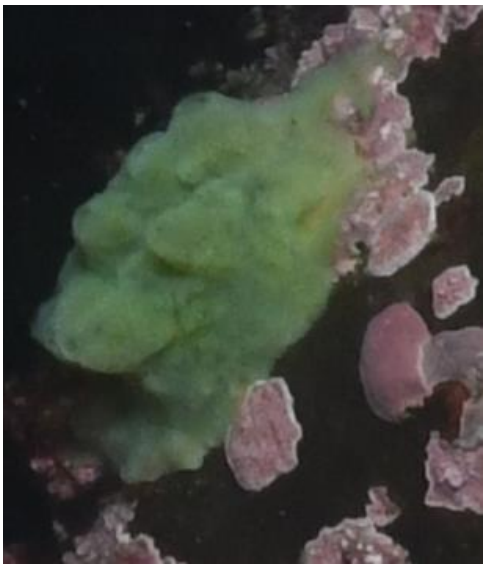
Description: Form varies from thick crust to massive with lobes. Massive specimens have low lobes which usually bear terminal oscules. Encrusting specimens have large oscules irregularly scattered over their surface. These tend to be raised on low mounds. The colour in life is dull yellow to green. Placeholder name, could be a complex of several species.

Key characteristics: Large oscules on raised low mounds.

Habitat type: Boulder habitat.

Highest-quality images:

CON019-20230817T133623



CON073-20240816T221405

phylum	class	order	family	genus
Porifera	Demospongiae	Suberitida	Halichondriidae	*Halichondria*

Halichondria sitiens

AphiaID: 165789; https://www.marinespecies.org/aphia.php?p=taxdetails&id=165789

iNaturalist: https://www.inaturalist.org/taxa/459775-Halichondria-sitiens

Description: Similar to above, difficult to distinguish, lobes appear through sand/silt.

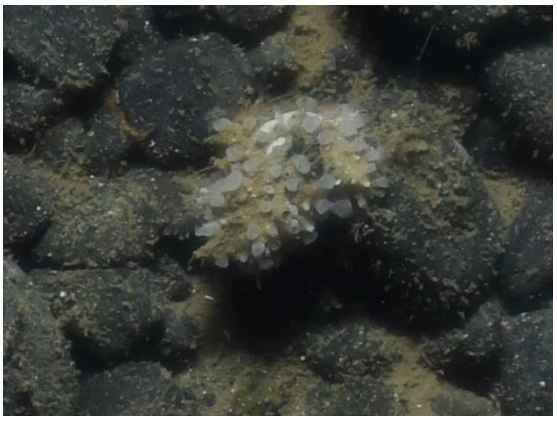
Key characteristics: Long lobes protruding from sand/silt.

Habitat type: Silty mud with gravel sediments.

Highest-quality images:

CON017-20230816T194859

CON072-20240816T182307



phylum	class	order	family	genus
Porifera	Demospongiae	Suberitida	Stylocordylidae	*Stylocordyla*

Stylocordyla borealis

AphiaID: 134240; https://www.marinespecies.org/aphia.php?p=taxdetails&id=134240

iNaturalist: https://www.inaturalist.org/taxa/459844-Stylocordyla-borealis

Description: Club-shaped on a long, thin, unbranched stalk with a root-like support system. Sponge body is oval in shape, somewhat flattened at the top and smooth in appearance. White/grey/brown in colour.

Key characteristics: Club-shape.

Habitat type: Muddy/sparse gravel habitats.

Highest-quality images:

CON028-20230823T202514

CON072-20240816T183743

phylum	class	order	family	genus
Porifera	Demospongiae	Haplosclerida	Chalinidae	*Haliclona*

Haliclona/ Isodictya* spp.

AphiaID: 131834; https://www.marinespecies.org/aphia.php?p=taxdetails&id=131834

iNaturalist: https://www.inaturalist.org/taxa/129864-Haliclona

Description: Possibly *H. oculata* (mermaid's glove) or *Isodictya* spp. Finger-like lobes with visible oscula along them. Branch/lobe sizes vary. Pale brown/orange in colour, large size, erect.

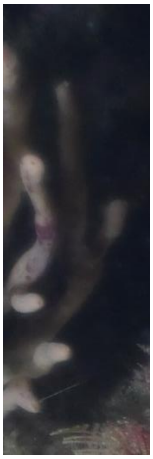
Key characteristics: Finger-like lobes, orange/brown in colour.

Habitat type: Silty rocky sediments, often on boulders.

Highest-quality images:

CON078-20240817T155613

CON073-20240816T221602



phylum	class	order	family	genus
Porifera	Demospongiae	Poecilosclerida	Hymedesmiidae	Hymedesmia

Hymedesmia (Hymedesmia) jecusculum-canadensis

AphiaID: 133587; https://www.marinespecies.org/aphia.php?p=taxdetails&id=133587

iNaturalist: https://www.inaturalist.org/taxa/1413785-Hymedesmia-jecusculum

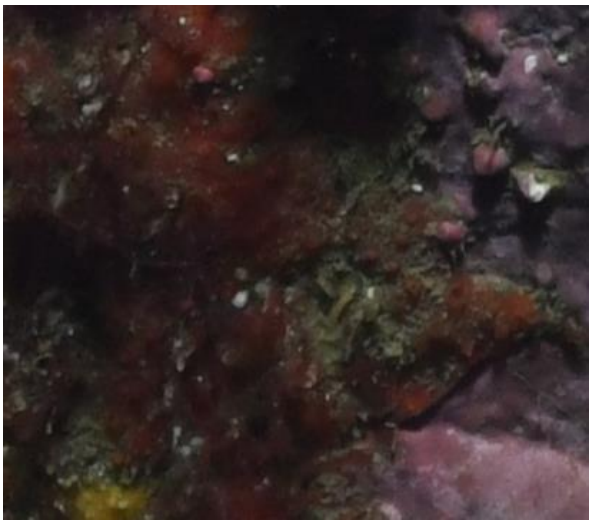
Description: Extremely thin (1-2mm) encrusting sponge sometimes with projections or depressions/holes. Prominent pore sieves cover the surface. Sometimes a vein-like pattern can be seen. Appears slimy. Bright orange/deep reddish in colour.

Key characteristics: Slimy deep orange/reddish colour with obvious pores.

Habitat type: Gravelly/rocky sediments, often with coralline algae.

Highest-quality images:

CON019-20230817T131834



CON067-20240815T183001

phylum	class	order	family	genus
Porifera	Demospongiae	Poecilosclerida	Hymedesmiidae	*Hymedesmia*

Hymedesmiidae*

AphiaID: 131655; https://www.marinespecies.org/aphia.php?p=taxdetails&id=131655

iNaturalist: https://www.inaturalist.org/taxa/118728-Hymedesmiidae

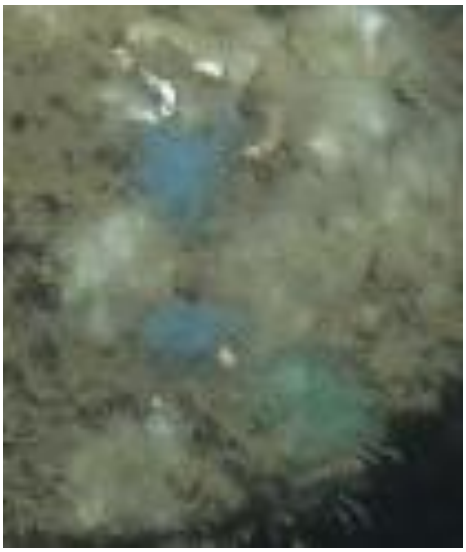
Description: Extremely thin encrusting sponge sometimes with projections or depressions/holes. Sometimes a vein-like pattern can be seen. Appears slimy. Bright blue/green in colour. Characteristic pore sieves not obvious here (which would indicate *H. paupertas*), so left at family level.

Key characteristics: Blue/green colour

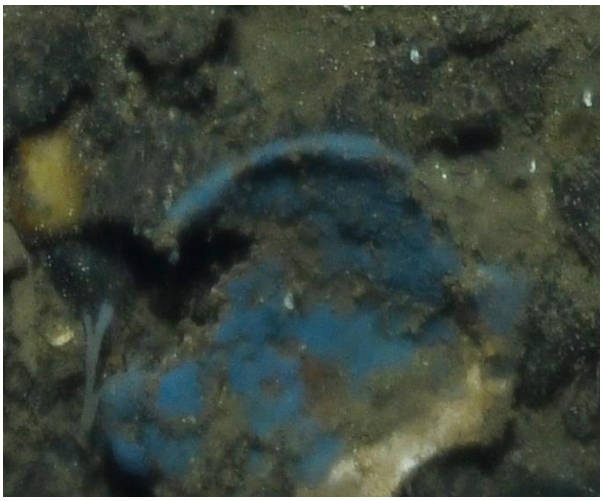
Habitat type: Silty gravelly/rocky sediments.

Highest-quality images:

CON015-20230816T170725



CON053-20240808T162840



phylum	class	order	family	genus
Porifera	Demospongiae	Poecilosclerida	Acarnidae	*Iophon*

***Iophon* spp.**

AphiaID: 131863; https://www.marinespecies.org/aphia.php?p=taxdetails&id=131863

iNaturalist: https://www.inaturalist.org/taxa/196359-Iophon

Description: Thin white encrusting sponge with obvious oscula and/or veins visible on sponge surface. Stark white to pale white with slight yellowish tinge in colour. Can be massive, branching or encrusting in form.

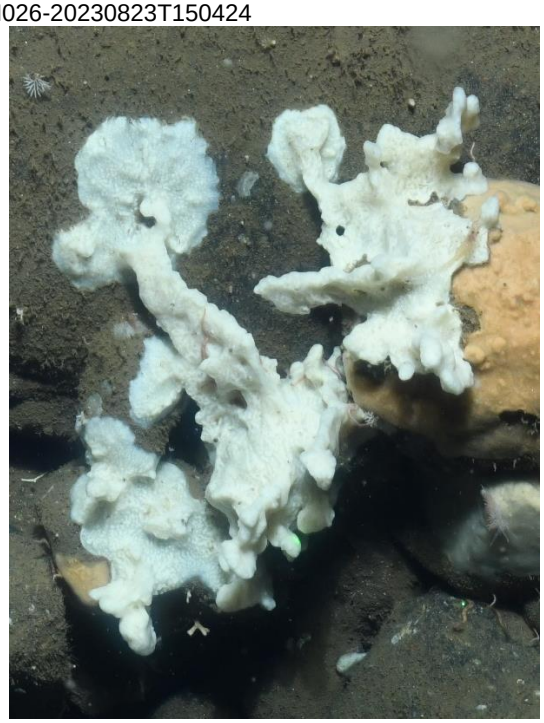
Key characteristics: Stark white/cream with very obvious oscula or veins.

Habitat type: Hard sediments, often see with silty covered rock or coralline algae.

Highest-quality images:

CON017-20230816T194513

CON026-20230823T150424



phylum	class	order	family	genus
Porifera	Demospongiae	Poecolisclerida	Mycalidae	*Mycale*

Mycale (Mycale) lingua

AphiaID: 168640; https://www.marinespecies.org/aphia.php?p=taxdetails&id=168640

iNaturalist: https://www.inaturalist.org/taxa/459819-Mycale-lingua

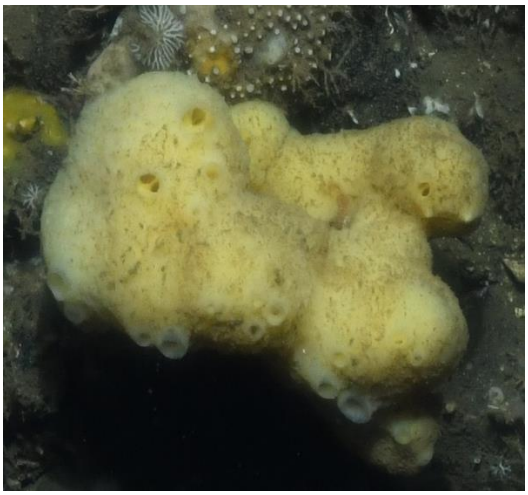
Description: Large ocsula (sometimes look like they are on tip of lobes). Massive sponge usually found on rock walls, with what looks like silt covering veins. Yellow or grey in colour forming bulky lumps, occasionally erecting from surface with a narrow base. Furrowed surface dominated by a few large openings.

Key characteristics: Few, large oscula, bulky form.

Habitat type: Rocky sediments, rock walls.

Highest-quality images:

CON026-20230823T150118



CON024-20230821T132616

phylum	class	order	family	genus
Porifera	Demospongiae	Poecilosclerida	Myxillidae	*Myxilla*

Myxilla (Myxilla) fimbriata

AphiaID: 169461; https://www.marinespecies.org/aphia.php?p=taxdetails&id=169461

iNaturalist: https://www.inaturalist.org/taxa/459825-Myxilla-fimbriata

Description: Bright orange sponge forming low, thick cushions or mounds. Large oscules are sparsely scattered across the surface and sub-surface spaces are visible, giving the sponge a punctate appearance.

Key characteristics: Bright orange mounds with large oscules.

Habitat type: Boulder/bedrock/cobbles, often with coralline algae.

Highest-quality images:

CON019-20230817T131054

CON077-20240817T144350

phylum	class	order	family	genus
Porifera	Demospongiae	Poecilosclerida	Myxillidae	*Myxilla*

Myxilla (Myxilla) incrustans*

AphiaID: 169466; https://www.marinespecies.org/aphia.php?p=taxdetails&id=169466

iNaturalist: https://www.inaturalist.org/taxa/256019-Myxilla-incrustans

Description: Encrusting sponge in patches. Usually some yellow shade, but can be orange, pink or white. Bubbly-looking with internal channels visible through surface and large, raised oscules. Soft and elastic consistency but surface is crisp because of spicule bundles supporting it. Would need physical sample to confirm.

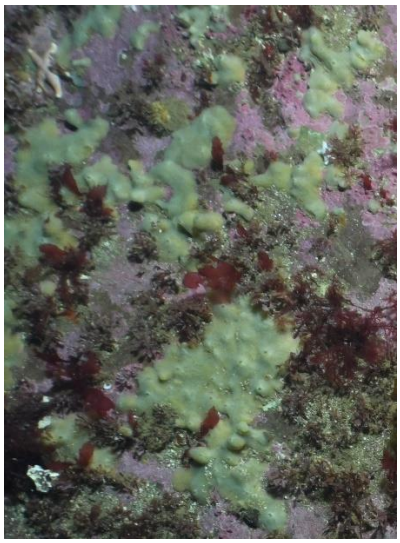
Key characteristics: Visible internal channels interspersed with large raised oscula.

Habitat type: Boulder/bedrock/rock wall sediments.

Highest-quality images:

CON067-20240815T182357

CON024-20230821T132422



phylum	class	order	family	genus
Porifera	Demospongiae	Poecilosclerida	Tedaniidae	*Tedania*

Tedania (Tedania) suctoria

AphiaID: 169587; https://www.marinespecies.org/aphia.php?p=taxdetails&id=169466

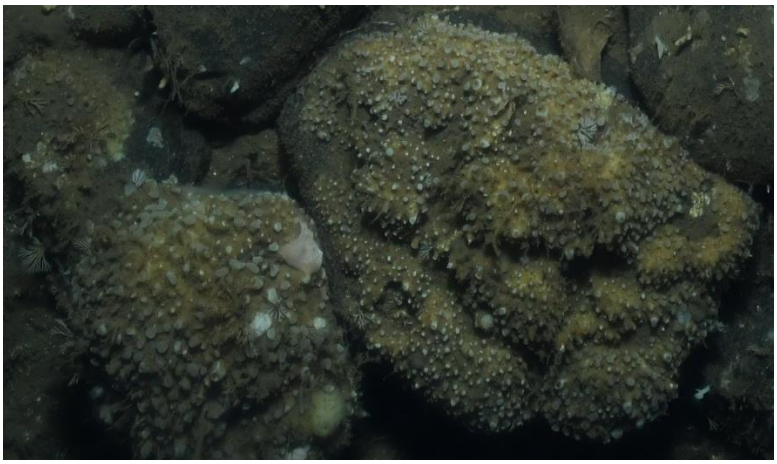
iNaturalist: https://www.inaturalist.org/taxa/459768-Tedania-suctoria

Description: Look like group of tubes emerging from the mud with large open oscules at the top of each tube. Translucent cream in colour and some tubes can appear wrinkled.

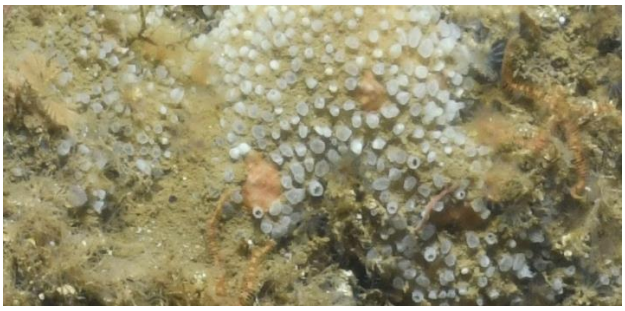
Key characteristics: Tubes emerging from mud/boulders.

Habitat type: Muddy sediments with dispersed boulders.

Highest-quality images:
CON026-20230823T150118



CON078-20240817T154636



phylum	class	order	family	genus
Porifera	Demospongiae	Polymastiida	Polymastiidae	

Polymastiidae

AphiaID: 131673; https://www.marinespecies.org/aphia.php?p=taxdetails&id=131673

iNaturalist: https://www.inaturalist.org/taxa/117720-Polymastiidae

Description: Smooth, custard yellow cushion sponge with many conical papillae (nipple-like projections). Brown, margin collar around edge of sponge. Left at family level, as likely a mixture of *Polymastia uberrima* and *Sphaerotylus capitatus*.

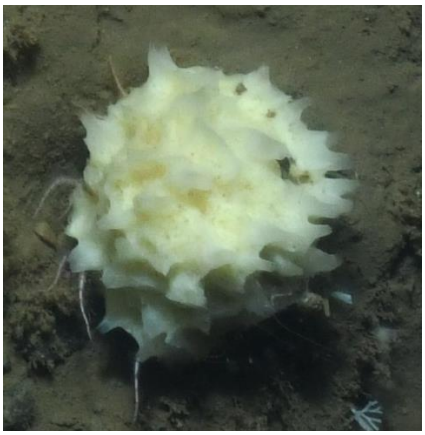
Key characteristics: Custard yellow colour with many papillae.

Habitat type: Silty rocky sediments.

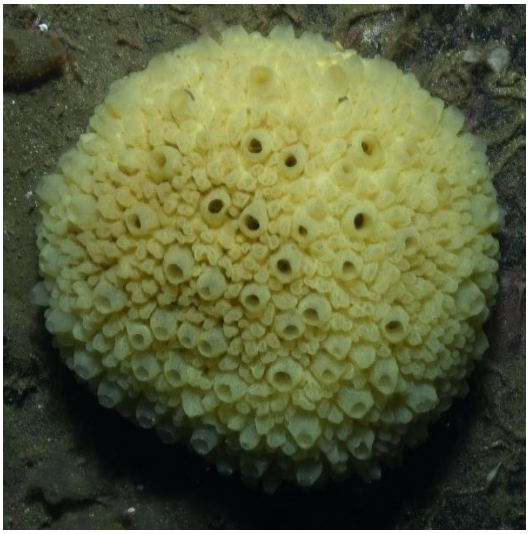
Highest-quality images:

CON027-20230823T164301

CON017-20230816T195130



CON055-20240808T185448



phylum	class	order	family	genus
Porifera	Demospongiae			

Unid Demospongiae sp. 1 small sphere

AphiaID: 164811; https://www.marinespecies.org/aphia.php?p=taxdetails&id=164811

iNaturalist: https://www.inaturalist.org/taxa/57736-Demospongiae

Description: Rounded solid/massive sponge with oscula visible in centre. Can appear to have veins on sponge surface. White to pale yellow/orange in colour.

Key characteristics: Obvious oscula in centre of small sphere.

Habitat type: Hard sediments, often seen with silt covered rock or coralline algae.

Highest-quality images:

CON016-20230816T182100

CON026-20230823T150118

phylum	class	order	family	genus
Porifera	Demospongiae			

Unid Demospongiae sp. 2

AphiaID: 164811; https://www.marinespecies.org/aphia.php?p=taxdetails&id=164811

iNaturalist: https://www.inaturalist.org/taxa/57736-Demospongiae

Description: Cream/yellow body with translucent projections similar to polymastiidae.

Key characteristics: Yellow body, translucent projections.

Habitat type: Boulder/bedrock seen with coralline algae and red algae.

Highest-quality images:

CON018-20230817T121707

CON072-20240816T182440

phylum	class	order	family	genus
Porifera	Demospongiae			

Unid Demospongiae funnel sp. 1

AphiaID: 164811; https://www.marinespecies.org/aphia.php?p=taxdetails&id=164811

iNaturalist: https://www.inaturalist.org/taxa/57736-Demospongiae

Description: Possibly a cup sponge. White/off-white in colour with curved grooves. Could be *Plicatellopsis bowerbanki*.

Key characteristics: Curved grooves along sponge edge.

Habitat type: Muddy sediments.

Highest-quality images:

CON016-20230816T183418

CON055-20240808T191917

Phylum Porifera - Morphologies

Encrusting

phylum	class	order	family	genus
Porifera				

Encrusting - blue/yellow thin film

AphiaID: 558; https://www.marinespecies.org/aphia.php?p=taxdetails&id=558

iNaturalist: https://www.inaturalist.org/taxa/48824-Porifera

Description: Thin blue or yellow film encrusting sponge. Looks gelatinous.

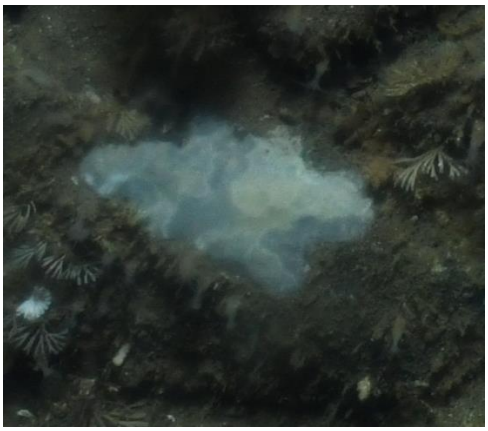
Key characteristics: Blue/yellow colour.

Habitat type: Hard sediments with silt cover.

Highest-quality images:

CON027-20230823T165834

CON072-20240816T183457



phylum	class	order	family	genus
Porifera				

Encrusting – brown/beige fluffy crust

AphiaID: 558; https://www.marinespecies.org/aphia.php?p=taxdetails&id=558

iNaturalist: https://www.inaturalist.org/taxa/48824-Porifera

Description: Brown (with yellowish/orange tint) encrusting sponge, fluffy or soft-looking texture.

Key characteristics: Silty/fluffy texture.

Habitat type: Hard sediments, often seen with coralline algae.

Highest-quality images:

CON020-20230817T162533

CON078-20240817T160140

phylum	class	order	family	genus
Porifera				

Encrusting - orange: veined/oscula

AphiaID: 558; https://www.marinespecies.org/aphia.php?p=taxdetails&id=558

iNaturalist: https://www.inaturalist.org/taxa/48824-Porifera

Description: Orange (dark to pale in colour) encrusting sponge, sometimes with slight bumpy texture with obvious oscula or veins seen on sponge surface. Often looks gelatinous.

Key characteristics: Obvious oscula, veins, creating bumpy sponge surface.

Habitat type: Hard sediments, often seen with coralline algae.

Highest-quality images:
CON026-20230823T145359

CON058-20240809T171600

phylum	class	order	family	genus
Porifera				

Encrusting - pink

AphiaID: 558; https://www.marinespecies.org/aphia.php?p=taxdetails&id=558

iNaturalist: https://www.inaturalist.org/taxa/48824-Porifera

Description: Pale pink encrusting sponge that is slightly thicker-looking than other encrusting sponges. Oscula and/or veins often visible on sponge surface.

Key characteristics: Pale pink colour.

Habitat type: Hard sediments, often seen with coralline algae.

Highest-quality images:

CON027-20230823T170706

CON026-20230823T150536

phylum	class	order	family	genus
Porifera				

Encrusting - smooth white

AphiaID: 558; https://www.marinespecies.org/aphia.php?p=taxdetails&id=558

iNaturalist: https://www.inaturalist.org/taxa/48824-Porifera

Description: Thicker-looking bright white gelatinous sponge that looks smooth (no obvious bumps, oscula, protrusions, etc.).

Key characteristics: Smooth white, yet thick crust.

Habitat type: Hard sediments, often seen with silty covered rock.

Highest-quality images:
CON016-20230816T182906

CON026-20230823T145532

phylum	class	order	family	genus
Porifera				

Encrusting – white/yellow bumpy

AphiaID: 558; https://www.marinespecies.org/aphia.php?p=taxdetails&id=558

iNaturalist: https://www.inaturalist.org/taxa/48824-Porifera

Description: Thin, bright white or dull yellow encrusting sponge with obvious bumps on sponge surface.

Key characteristics: Numerous small yet obvious bumps on sponge surface.

Habitat type: Hard sediments, often seen with coralline algae.

Highest-quality images:

CON016-20230816T183710

CON072-20240816T180910

phylum	class	order	family	genus
Porifera				

Encrusting – yellow dark crust

AphiaID: 558; https://www.marinespecies.org/aphia.php?p=taxdetails&id=558

iNaturalist: https://www.inaturalist.org/taxa/48824-Porifera

Description: Thin dark yellow encrusting sponge with no obvious oscula or veins visible.

Key characteristics: Thin dark yellow crust.

Habitat type: Hard sediments, often seen with silty covered rock or coralline algae.

Highest-quality images:

CON027-20230823T170706

CON072-20240816T180910

phylum	class	order	family	genus
Porifera				

Encrusting – yellow: veined/oscula

AphiaID: 558; https://www.marinespecies.org/aphia.php?p=taxdetails&id=558

iNaturalist: https://www.inaturalist.org/taxa/48824-Porifera

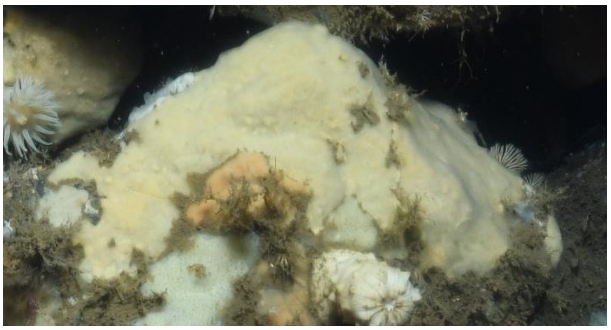
Description: Thin yellow encrusting sponge (dark yellow or pale yellow in colour) with obvious oscula and/or veins visible on sponge surface.

Key characteristics: Yellow with obvious oscula or veins.

Habitat type: Hard sediments, often seen with silty covered rock or coralline algae.

Highest-quality images:

CON026-20230823T145359



CON028-20230823T200821

phylum	class	order	family	genus
Porifera				

Solid/Massive

AphiaID: 558; https://www.marinespecies.org/aphia.php?p=taxdetails&id=558

iNaturalist: https://www.inaturalist.org/taxa/48824-Porifera

Description: Rounded solid/massive sponge with oscula visible in centre. Can appear to have bumpy surface. White to pale yellow in colour.

Key characteristics: Round solid sponges with visible spread-out oscula.

Habitat type: Hard sediments, often seen with silt covered rock or coralline algae.

Highest-quality images:

CON015-20230816T164723

CON027-20230823T170825

phylum	class	order	family	genus
Porifera				

Solid/Massive: with protrusions

AphiaID: 558; https://www.marinespecies.org/aphia.php?p=taxdetails&id=558

iNaturalist: https://www.inaturalist.org/taxa/48824-Porifera

Description: Bright orange/cream sponge. Form varied from thickly encrusting sheet to finger-like projections and rounded lobes. All specimens had irregularly scattered large oscules and the tissue in between these was punctate. Rounded solid/massive sponge with oscula visible in centre or one obvious protrusion. Can appear to have veins on sponge surface. White to pale yellow/orange in colour.

Key characteristics: Large irregularly scattered oscules.

Habitat type: Hard sediments, often seen with silty covered rock or coralline algae.

Highest-quality images:

CON028-20230823T202248

CON066-20240815T161530

Phylum Rhodophyta

phylum	class	order	family	genus
Rhodophyta	Florideophyceae	Corallinales	Hapalidiaceae	*Boreolithothamnion*

Boreolithothamnion glaciale

AphiaID: 1736213; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1736213

iNaturalist: https://www.inaturalist.org/taxa/1557568-Boreolithothamnion-glaciale

Description: Grows as an encrusting, chalky thallus, deep reddish/pink in colour. Develops simple cylindrical branches growing to 15mm long and 4mm in diameter. If branches break off, can form rhodoliths. Loose-lying nodules may form dense beds of algal gravel. Bleached white when dead. Previously named *Lithothamnion glaciale* (now unaccepted), renamed in 2023.

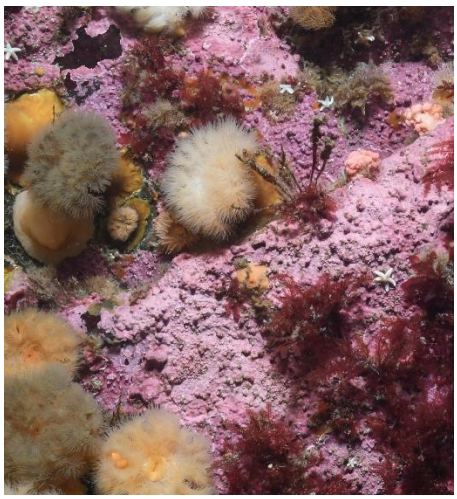
Key characteristics: Nodules along crustose surface.

Habitat type: Rocky/boulder/bedrock sediments.

Highest-quality images:

CON28-20230823T202401

CON19-20230817T131834



phylum	class	order	family	genus
Rhodophyta	Florideophyceae	Corallinales	Lithophyllacea	*Lithophyllum*

Lithophyllum* spp.

AphiaID: 144016; https://www.marinespecies.org/aphia.php?p=taxdetails&id=144016

iNaturalist: https://www.inaturalist.org/taxa/180609-Lithophyllum

Description: Monomerous crustose thlli composed of single system of filaments which grow close to underlying surface (look like flat sheet). Dark pink in colour, when dead, bleached white. Can have white rim. Can have some small nodules. Could also be Hapalidiaceae.

Key characteristics: Flat sheet of dark pink coralline algae.

Habitat type: Boulder/bedrock sediments.

Highest-quality images:

CON19-20230817T135147

CON057-20240809T163032

phylum	class	order	family	genus
Rhodophyta	Florideophyceae	Peyssonneliales	Peyssonneliaceae	*Peyssonnelia*

Peyssonnelia rosenvingei

AphiaID: 374814; https://www.marinespecies.org/aphia.php?p=taxdetails&id=374814

iNaturalist: https://www.inaturalist.org/taxa/564936-Peyssonnelia-rosenvingei

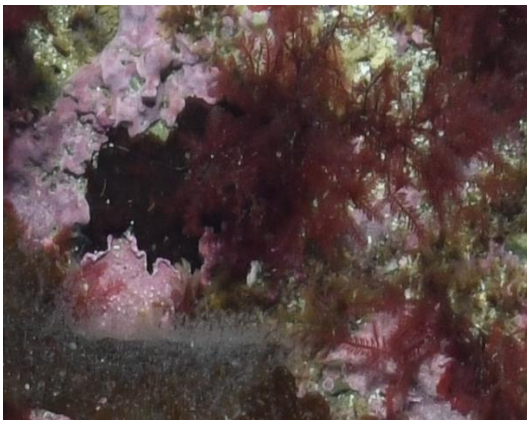
Description: Deep, dark red crust often with other coralline algae on rocky surfaces.

Key characteristics: Deep red colour.

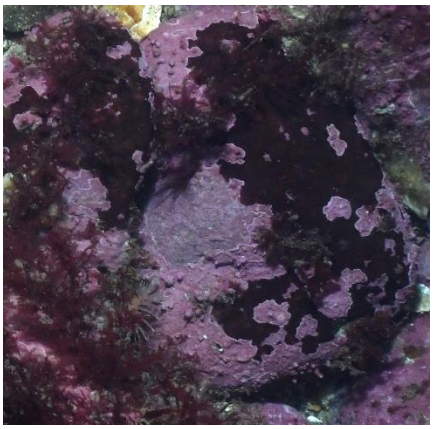
Habitat type: Rocky sediments often with other coralline algae.

Highest-quality images:

CON25-20230821T143718



CON075-20240817T124657



phylum	class	order	family	genus
Rhodophyta	Florideophyceae	Ceramiales	Ceramiaceae	*Ceramothamnion*

Ceramothamnion coulteri* – type

Delicate sea lace

AphiaID: 1739125; https://www.marinespecies.org/aphia.php?p=taxdetails&id=1739125

iNaturalist: https://www.inaturalist.org/taxa/1557015-Ceramothamnion-coulteri

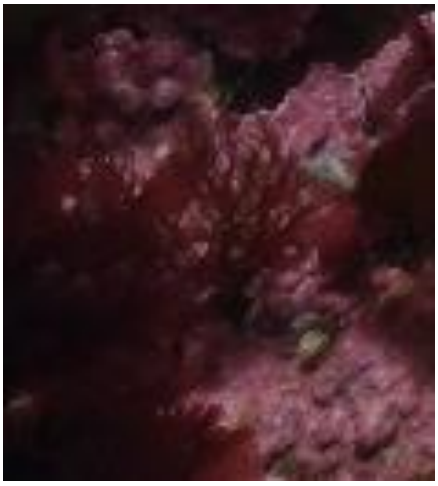
Description: Thicker stipe with thin branches that branch off in a series of other thinner branches.

Key characteristics: Branches of thinner branches.

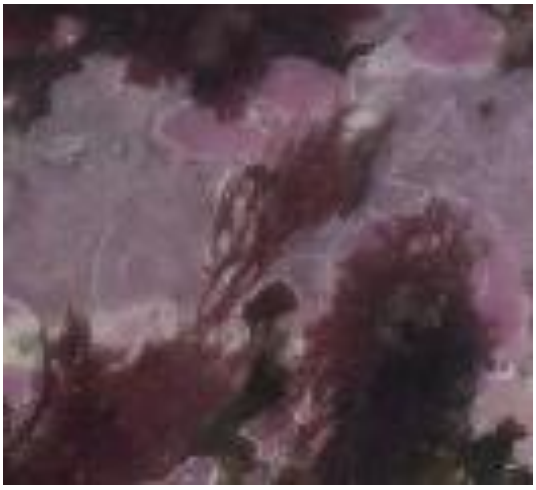
Habitat type: Mixed/rocky sediments often with various other red and coralline algae.

Highest-quality images:

CON074-20240817T113713



CON074-20240817T113909



phylum	class	order	family	genus
Rhodophyta	Florideophyceae	Ceramiales	Delesseriaceae	*Phycodrys*

Phycodrys rubens

AphiaID: 144773; https://www.marinespecies.org/aphia.php?p=taxdetails&id=144773

iNaturalist: https://www.inaturalist.org/taxa/183112-Phycodrys-rubens

Description: Has a prominent midrib and paired lateral veins that maybe branched further. Frond margin is fringed that gives an oak leaf-like appearance. Dark red in colour.

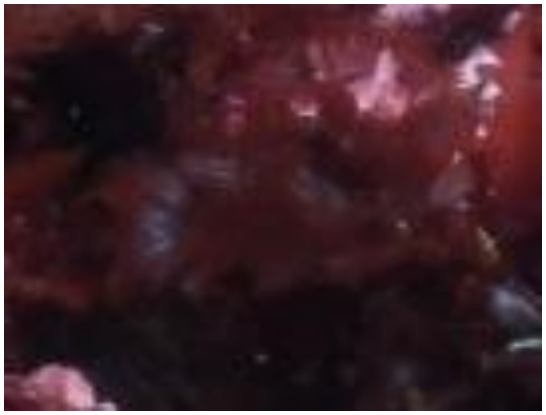
Key characteristics: Visible frond margins that almost give a waxy-like appearance.

Habitat type: Rocky sediments often with coralline algae.

Highest-quality images:

CON014-20230815T191759

CON075-20240817T122901



phylum	class	order	family	genus
Rhodophyta	Florideophyceae	Ceramiales	Wrangeliaceae	*Ptilota*

Ptilota serrata

Northern sea fern

AphiaID: 144687; https://www.marinespecies.org/aphia.php?p=taxdetails&id=144687

iNaturalist: https://www.inaturalist.org/taxa/473839-Ptilota-serrata

Description: Red/brown in colour, many fronds (looks like a red fern).

Key characteristics: Red fern.

Habitat type: Rocky/sandy sediments often with coralline algae.

Highest-quality images:

CON018-20230817T123120

CON065-20240815T143551

phylum	class	order	family	genus
Rhodophyta	Florideophyceae	Ceramiales	Wrangeliaceae	*Spermothamnion*

Spermothamnion* – type

Red puff ball

AphiaID: 143864; https://www.marinespecies.org/aphia.php?p=taxdetails&id=143864

iNaturalist: https://www.inaturalist.org/taxa/183087-Spermothamnion

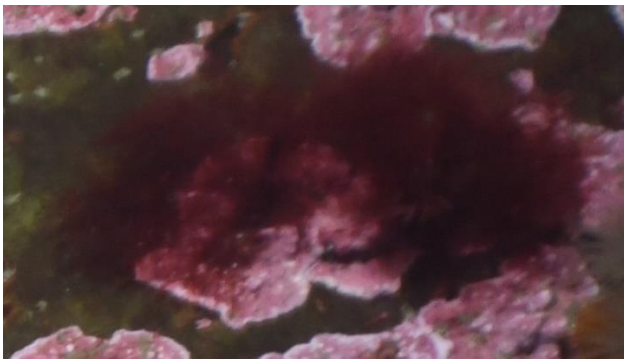
Description: Looks like a red/reddish-brown puff ball. No holdfast, just drifts in currents.

Key characteristics: Red puff-ball.

Habitat type: Sandy/rocky sediments.

Highest-quality images:

CON19-20230817T133737



CON075-20240817T123533

phylum	class	order	family	genus
Rhodophyta	Florideophyceae	Gigartinales		

***Chondrus crispus/Mastocarpus stellatus* - type**

Irish/false irish moss

AphiaID: 145625/144163; https://www.marinespecies.org/aphia.php?p=taxdetails&id=145625

iNaturalist: https://www.inaturalist.org/taxa/130176-Chondrus-crispus

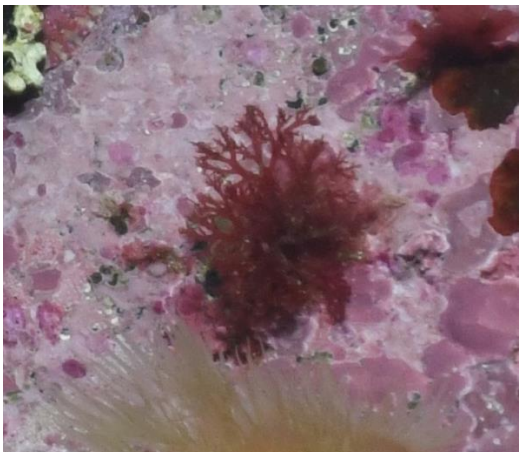
Description: Varies in colour from red to a dark purple/brown. Relatively small sea alga. Grows from discoid holdfast and branches four or five times in fan-like manner. *C. crispis* can be distinguished from *M. stellatus* by its strongly channeled and somewhat twisted thalli – but can't distinguish in our images (too bunched together).

Key characteristics: Flat or channeled fronds, thin branch tips.

Habitat type: Rocky/boulder sediments often with coralline algae.

Highest-quality images:

CON19-20230817T132803



CON28-20230823T200057

phylum	class	order	family	genus
Rhodophyta	Florideophyceae	Gigartinales	Phyllophoraceae	*Coccotylus*

Coccotylus truncatus

AphiaID: 145654; https://www.marinespecies.org/aphia.php?p=taxdetails&id=145654

iNaturalist: https://www.inaturalist.org/taxa/430336-Coccotylus-truncatus

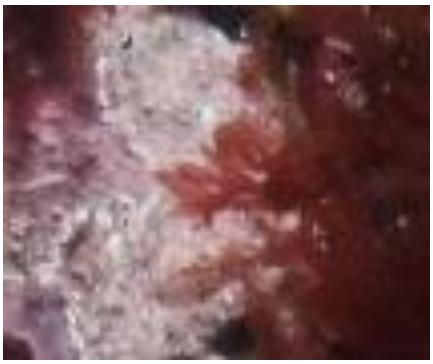
Description: Fleshy, dark red, flattened fronds, often with pointed tips. New fronds grow from upper margin of existing ones.

Key characteristics: Fleshy red flat fronds.

Habitat type: Rocky/boulder sediments often with coralline algae.

Highest-quality images:

CON028-20230823T201200



CON073-20240816T222427

phylum	class	order	family	genus
Rhodophyta	Florideophyceae	Palmariales	Palmariaceae	*Palmaria*

Palmaria palmata

Dulse

AphiaID: 145771; https://www.marinespecies.org/aphia.php?p=taxdetails&id=145771

iNaturalist: https://www.inaturalist.org/taxa/182991-Palmaria-palmata

Description: Erect frond grows attached by discoid holdfast and a short inconspicuous stipe. Fronds are variable in shape and colour from deep rose to reddish purple and are leathery in texture. Flat foliose blades expand and divide into broad segments and can bear flat wedge-shaped proliferations from the edge.

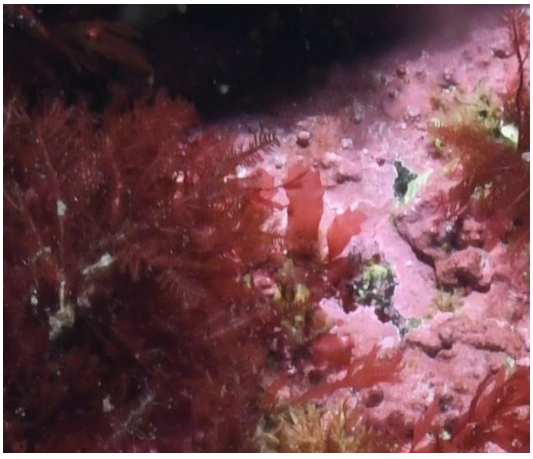
Key characteristics: Flat blades with wedge-shaped proliferations.

Habitat type: Rocky/boulder sediments often with coralline algae.

Highest-quality images:

CON24-20230821T133332

CON28-20230823T200057



Phylum Unidentified

Unid sp. 1 Long, thin, dark strand

Description: Long, thin, dark strand, dark green or black in colour. Possibly green algae. Only one strand seen at a time.

Key characteristics: Long, thin shape, dark colour.

Habitat type: Rocky or muddy sediments.

Highest-quality images:

CON015-20230816T165826

CON069-20240816T123950

Unid sp. 2 Annelid or brittle star arms

Description: Segmented body or arm, almost looking like brown and white stripes.

Key characteristics: Stripes or segments.

Habitat type: Rocky sediments, often seen with coralline algae.

Highest-quality images:

CON020-20230817T162533

CON025-20230821T143509

Unid sp. 3 Red striped beetle/shrimp

Description: Arthropod-looking. Pale red/orange or stark red in colour, with pale white or yellow stripes on thorax/body. Wider head than body. Sometimes appendages seen protruding outward below head.

Key characteristics: Pale red/range colour, stripes on body.

Habitat type: Rocky sediments, often silt or coralline algae covered.

Highest-quality images:

CON019-20230817T130233

CON026-20230823T145939

Unid sp. 4 Small red

Description: Small red shrimp-looking. Often entangled in red algae or kelp. Oval body, possible antennae visible from slightly pointed head.

Key characteristics: Small and red, oval body.

Habitat type: Rocky sediments that are algal/kelp dominated.

Highest-quality images:

CON028-20230823T201200

CON028-20230823T200447

Unid sp. 5 Orange/yellow/green/brown crust

Description: Small, often circular splotch that is deep green, orange, brown, or yellow in colour. Encrusting on rocks. Could be a sponge or bryozoan.

Key characteristics: Deep, dark colour, crust.

Habitat type: Rocky sediments, often see with coralline algae.

Highest-quality images:

CON023-20230821T123140

CON055-20240808T191722

Unid sp. 6 White rock crust

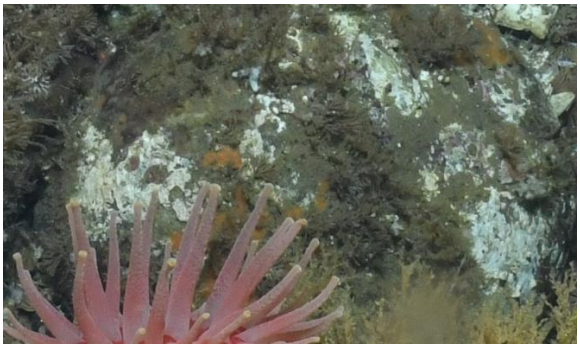
Description: Thin, stark white crust, splotchy consistency on rocks. Could be a sponge, bryozoan or bleached coralline algae.

Key characteristics: Thin, stark white crust.

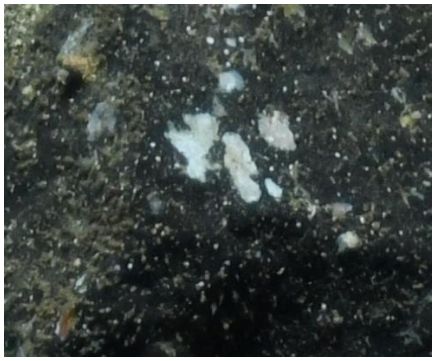
Habitat type: Rocky sediments, often seen with coralline algae.

Highest-quality images:

CON018-20230817T122429



CON055-20240808T191722



Unid sp. 7 White crust – dead coralline

Description: Stark thin white crust on rocks. Slight evidence of nodules, likely dead/bleached *B. glaciale*, as it is often interspersed with it. Slight pink tint sometimes.

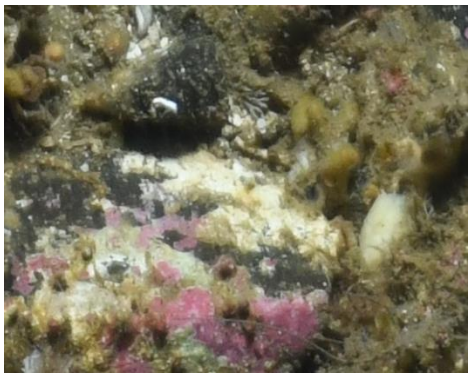
Key characteristics: Thin, white crust with nodules or slight pink tint.

Habitat type: Rocky sediments interspersed with *B. glaciale*.

Highest-quality images:

CON024-20230821T133111

CON066-20240815T160731



Unid sp. 8 Red rock crust

Description: Deep red or reddish/orange thin crust on rocks.

Key characteristics: Deep red or coppery colour, thin crust.

Habitat type: Rocky sediments. Deeper orange crust always seen with coralline algae.

Highest-quality images:

CON025-20230821T142901

CON076-20240817T134227

Unid sp. 9 Encrusting white spotted sponge/ascidian

Description: Bright white encrusting sponge or colonial ascidian. Possible zooids or oscula visible on surface.

Key characteristics: Bright white gelatinous crust with possible zooids or oscula visible.

Habitat type: Silty rocky sediments.

Highest-quality images:
CON027-20230823T165451,

CON055-20240808T185448

Unid sp. 10 Gelatinous glossy blob

Description: Small gelatinous glossy blob with no distinguishing features.

Key characteristics: Small gelatinous glossy, colourless blob.

Habitat type: Sandy muddy or rocky sediments.

Highest-quality images:

CON015-20230816T170554

CON074-20240817T115551

Unid sp. 11 Small yellow sponge/ascidian

Description: Small bumpy, encrusting sponge/ascidian-type that is bright yellow in colour. Often found attached to hydroids or red algae.

Key characteristics: Small, bumpy, bright yellow.

Habitat type: Rocky sediments with hydroids and often coralline and red algae.

Highest-quality images:

CON019-20230817T131536

CON024-20230821T133111

Unid sp. 12 Thin yellow bryozoan or ascidian

Description: Thin yellow (with slight pink tint) folding crust-looking bryozoan or ascidian. No obvious zooids or branches.

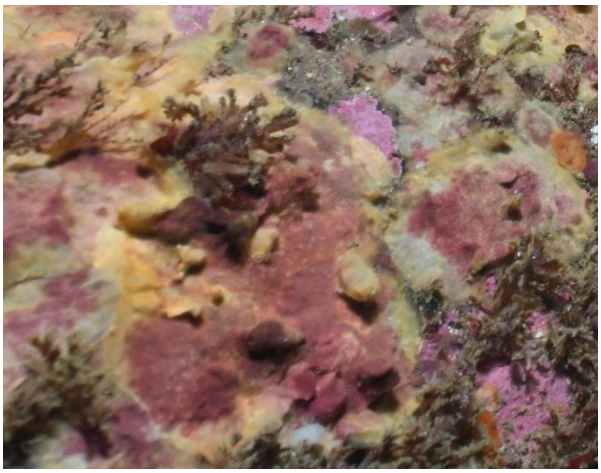
Key characteristics: Yellow and pink folding crust.

Habitat type: Rocky sediments, often with coralline algae.

Highest-quality images:

CON020-20230817T162240

CON075-20240817T124657



Unidentified sp. 13 vase sponge type

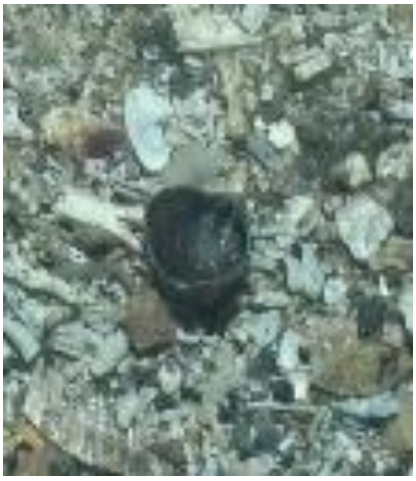
Description: Wide open, vase-looking. Glossy surface that is white or black in colour. Ridged edges.

Key characteristics: Vase opening, glossy surface.

Habitat type: Rocky, shell hash sediments.

Highest-quality images:

CON027-20230823T170439



CON073-20240816T220528