Animals

Most animals you are likely to encounter belong to three large groups, molluscs, arthropods and vertebrates but there are around 5500 animals in around 30 other phyla (the highest order grouping in animals) in Sweden.

Many of these are microscopic and or parasites, but nearly all animals large enough to be seen by the naked eye you are likely to encounter are treated in the following slides.

Only adult individuals are guaranteed to be identifiable based on the characters listed but in most cases juveniles are also identifiable.

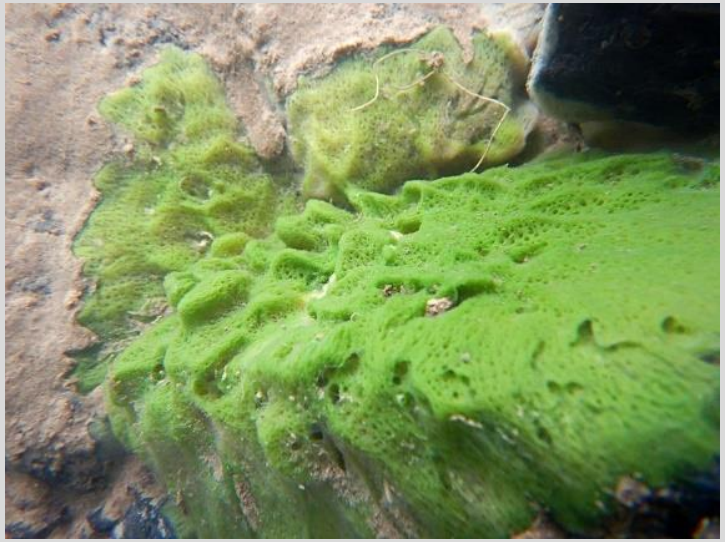
Groups not normally living in Swedish water and marine organisms very rarely seen in less than 30 meter depth may not always be identifiable and/or included in list.

Most of the groups from this presentation are only found in marine water but several are also found in freshwater and a few also in terrestrial habitats.

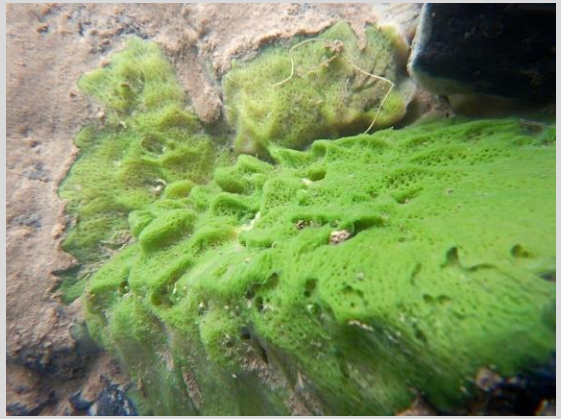
The animals are ordered by taxonomy with slides noting each new phylum.

Note that the listing is partly hierarchical so both a larger group and one or more taxa within it is discussed as separate taxa. This hierarchy is noted in the upper right corner when present.

Porifera: Sponges/Svampdjur



Porifera
Sponges/Svampdjur



Nr 2 belongs to this group

Identification

- Body supported by skeleton of lime carbonate or silicate.
- Some cup-shaped, some branched or compact, some resemble a compact mat .
- Either one central hole or multiple holes far apart through which water is expelled (water is drawn in through tiny holes all over body).

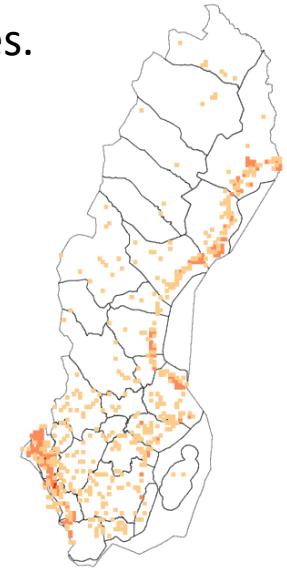
Potential misidentifications

- Some of the mat looking species may look somewhat like algae until you notice the large holes.

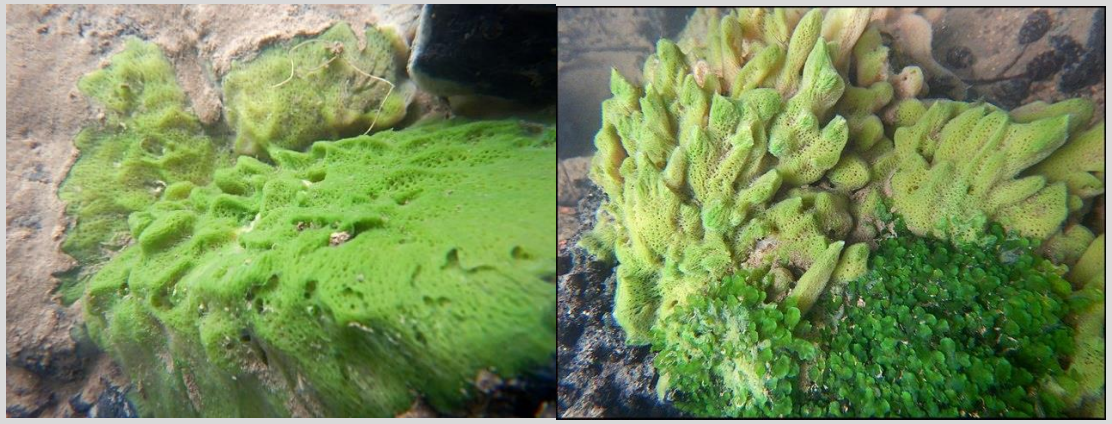
Habitat

- Freshwater, brackish or marine water.
- Attached to substrate.

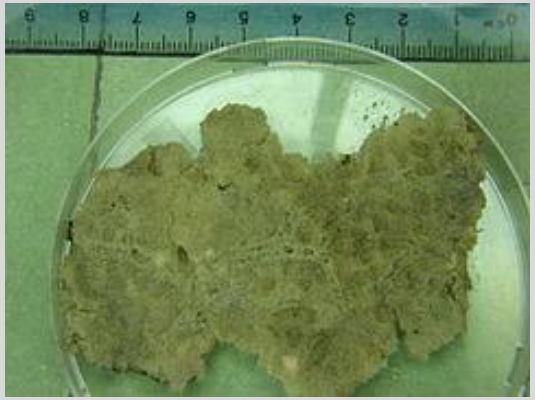
Size	**1 – 50 cm**



Spongillidae
Freshwater sponges/Sötvattenssvampar



Spongilla lacustris



Ephydatia sp.

Identification

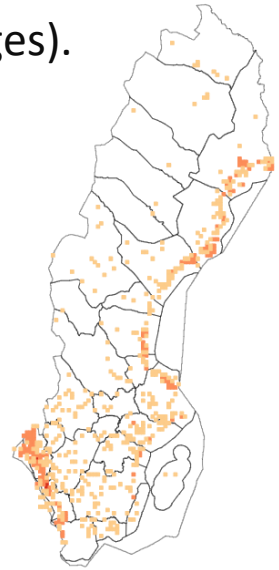
- Normally mat forming sponges in greenish of brown colors. Sometimes three-dimensional structures are formed

Potential misidentifications

- Only freshwater sponges and easily identifiable by habitat. Potentially mistaken for algae.

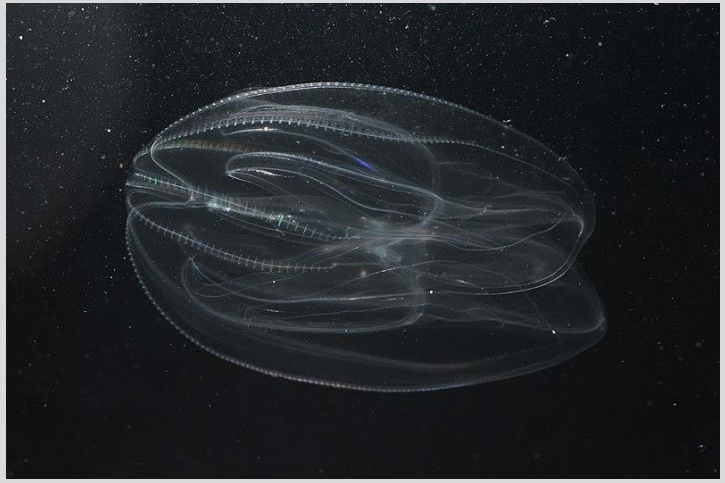
Habitat

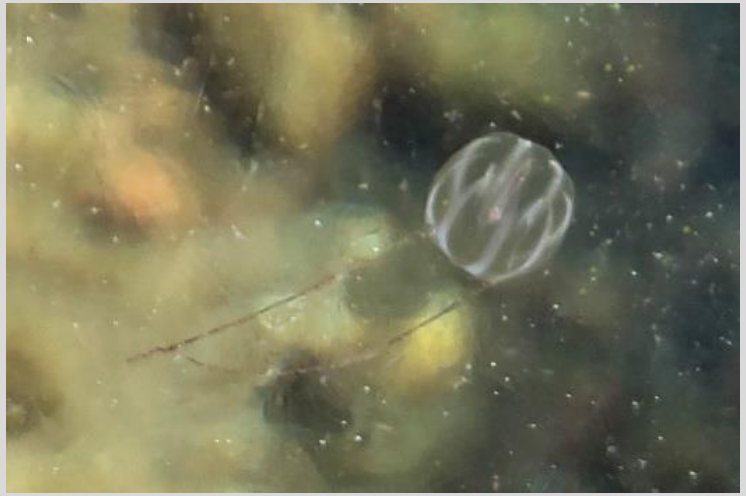
- Freshwater to low salinity brackish water. Also found in northern Baltic sea (as the only sponges).
- In both still and running water.
- Attached to substrate.

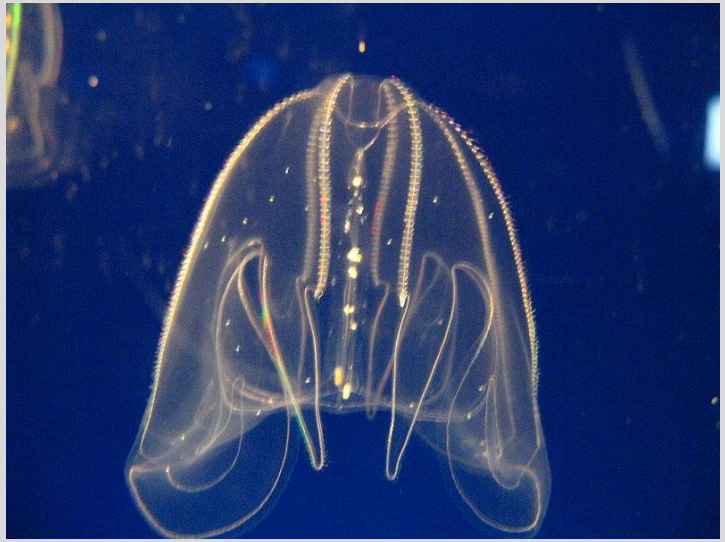


Diameter	**About 5 – 10 cm**

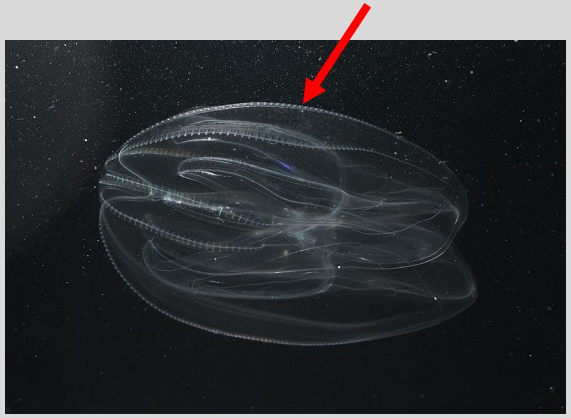
Ctenophora: Comb jellies/Kammaneter

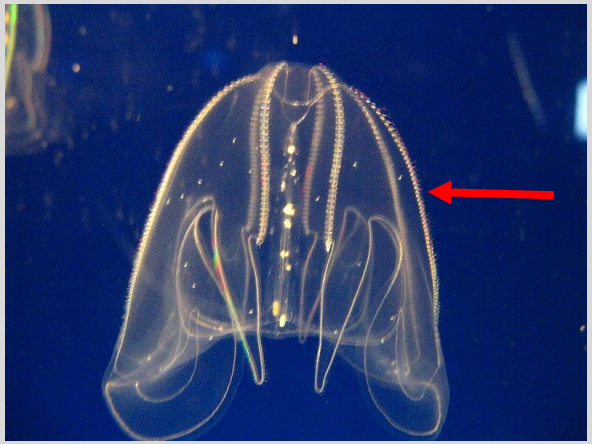






Ctenophora
Comb jellies/Kammaneter





Nr 4 – 5 belong to this group

Identification

- Eight comb rows with cilia (see arrows).
- Swims by moving cilia rather than visible muscular movement.
- Transparent.
- Gelatinous.
- Several species with two distinct tentacles (all tentacle less species covered in next two slides.

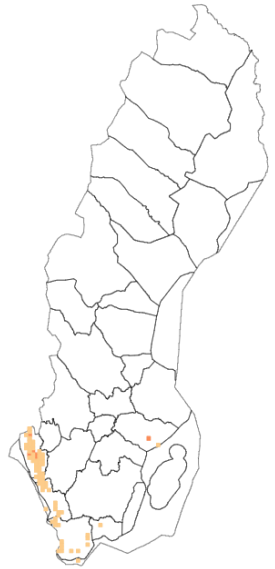
Potential misidentifications

- Initially look like jellyfish (Invertebrates 14) but readily identifiable by the comb rows.

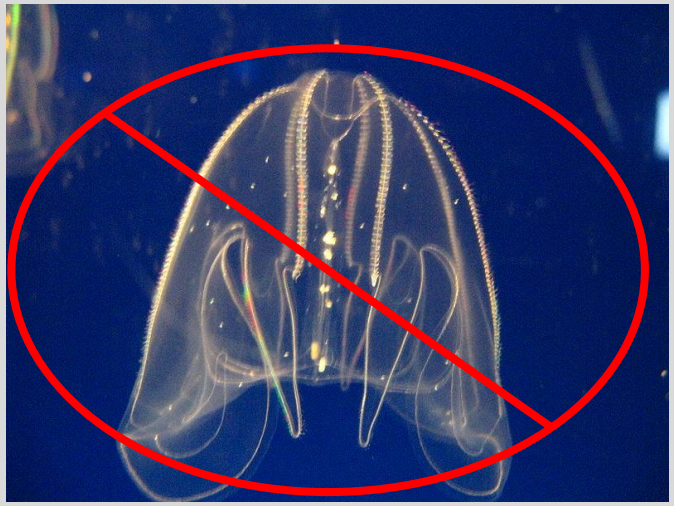
Habitat

- Marine or brackish water.
- Pelagic (living in free water masses).

Total length	**1.7 – 16 cm**



Beroe sp.
Cigar comb jellies/*Beroe*



Identification

- No tentacles.
- Generally bioluminescent and less transparent than other comb jellies.
- No distinct lobes near mouth (compare with picture of other comb jellies) .

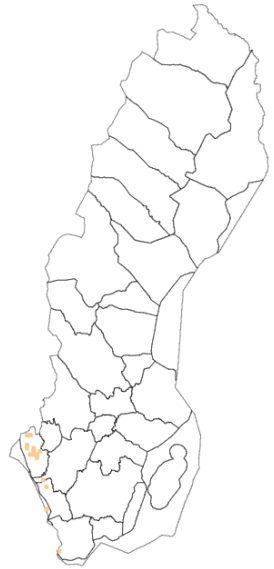
Potential misidentifications

- No similar species in Sweden.

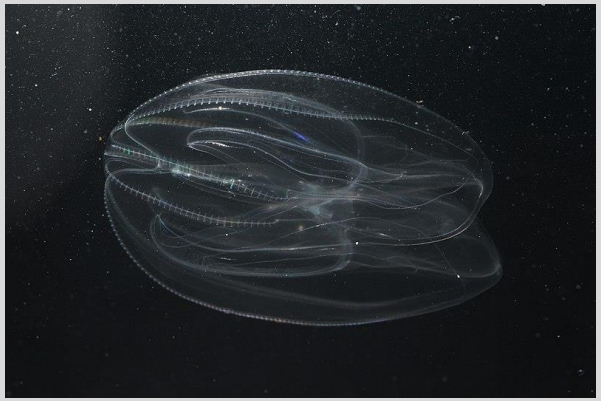
Habitat

- Marine.
- Pelagic.

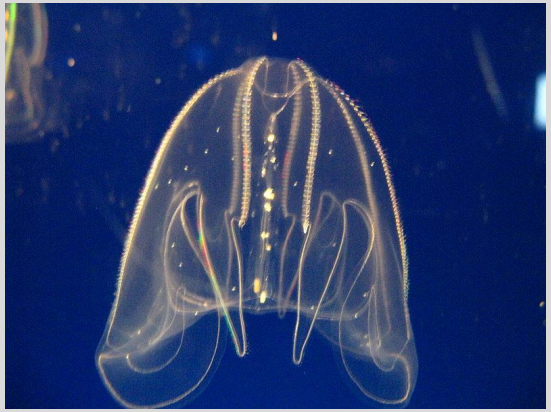
Total length	**Up to 16 cm**



Bolinopsidae
Bolinopsidae/Bolinopsidae



Mnemiopsis leidyi



Bolinopsis infundibulum

Identification

- Has two mouth lobes (compare with cigar comb jelly; Invertebrate nr 3).
- Lacks distinct tentacles.

Potential misidentifications

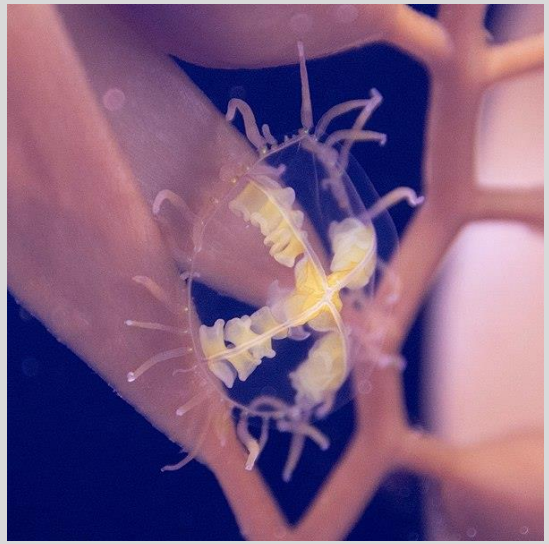
- No similar species in Sweden.

Habitat

- Marine or brackish.
- Pelagic.
- One of the two species is the invasive “jellyfish” you may have heard about in the media. The other is native.

Total length	**Up to 15 cm**

Cnidaria: Cnidarians/Nässeldjur



Cnidaria
Cnidarians/Nässeldjur

Nr 7 – 17 belong to this group

Identification

- Many species with two life stages, one attached to substrate (called polyp) and a pelagic one called medusa. If both are present, the medusa are the adult stage, Some groups have only one of these stages.
- Many polyps forms colonies.

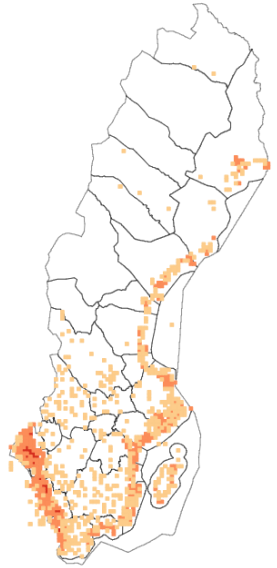
Potential misidentifications

- No similar species in Sweden.

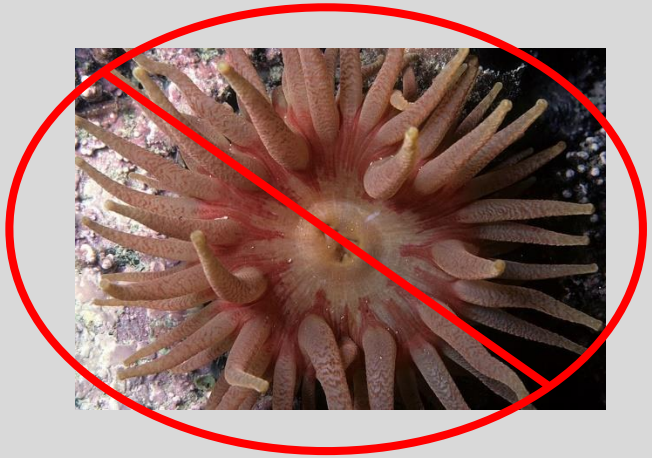
Habitat

- Marine of freshwater.
- Soft and hard bottoms.
- Marine species from intertidal zone to 2000 m depth.

Size	**Less than 1 mm to nearly 2 m**



Ceriantharia
Tube anemones/Cylinderrosor



Identification

- Solitary polyps living within a tube. No medusa.
- Tube burrowed in soft substrate.
- Two distinct type of tentacles one in inner whirl closest to mouth and one in outer whirl.

Potential misidentifications

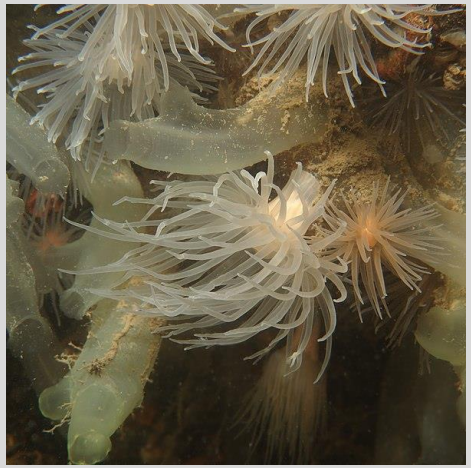
- Looks like sea anemones (Invertebrates nr. 7) but sea anemones are only rarely burrowing and they only have one type of tentacles.

Habitat

- Marine.
- Soft bottom.
- Mainly in deeper water but sometimes in shallower parts as well.

Diamater	**Up to 30 cm**

Actiniaria
Sea anemones/Havsanemoner



Nr 9 belongs to this group

Identification

- Cylindrical polyp with mouth surrounded by tentacles. No medusa.
- Generally with entire body above ground.
- Only one type of tentacles.
- Some species colonial.

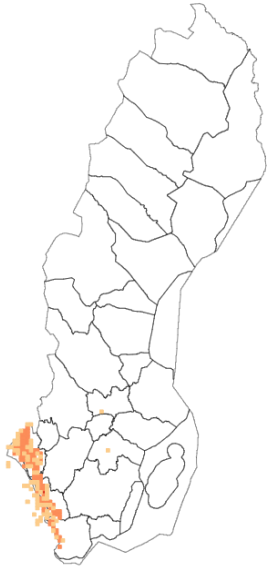
Potential misidentifications

- Looks like tube anemones (Invertebrates nr. 6) but sea anemones rarely borrow and only has one type of tentacles.

Habitat

- Marine.
- From intertidal zone to a few hundred meters depth.

Diamater	**1.5 – 30 cm**



Metridium senile
Frilled anemone/Havsnejlika

LC

Identification

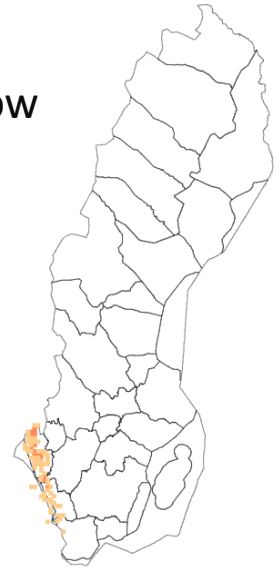
- Polyp with a large number of short, thin tentacles which gives a “fluffy” appearance.
- Colonial species (each whirl of tentacles is one individual).
- Orange to yellowish orange or white.

Potential misidentifications

- No similar species in Sweden.

Habitat

- Marine.
- Attached to hard surfaces from just below water mark to 100 m depth.



Height	**Up to 50 cm**

Scleractinia
Stony corals/Stenkoraller

Identification

- Polyp with hard exoskeleton of calcium carbonate, no medusa.
- Only cnidarian which creates a hard skeleton of calcium carbonate.
- One species solitary, the other can create small reefs.

Potential misidentifications

- No similar species in Sweden.

Habitat

- Marine.
- Sub littoral zone to 2000 m.

Individual diameter	**5 – 25 mm**

Alcyonium digitatum
Dead man’s fingers/Död mans hand

LC

Identification

- Colonial species forming large orange soft colony. No medusa.
- Colonies looks more or less like fingers.

Potential misidentifications

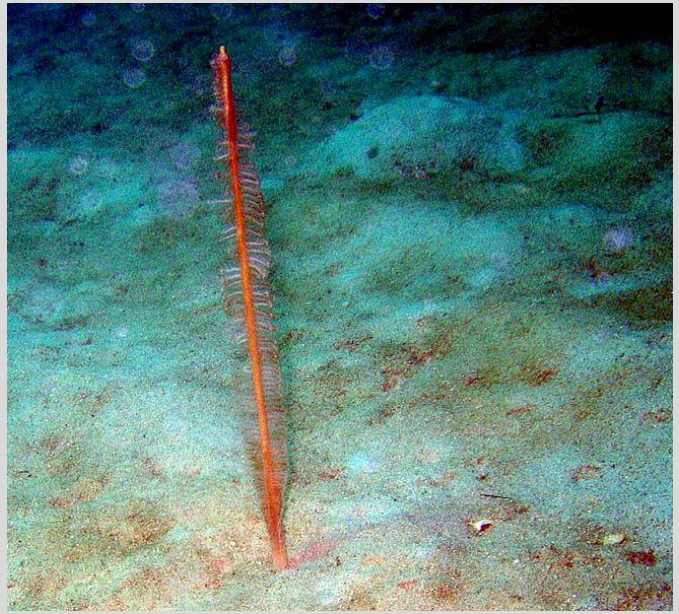
- No similar species in Sweden.

Habitat

- Marine.
- Usually in areas with good water exchange.
- From just below the tidal zone to 700 m depth.

Colony height	**Up to 20 cm**

Pennatulacea
Sea pens/Sjöpennor



Identification

- Polyp stage colonial with one very high non-feeding individual in center and multiple feeding individuals attached. No medusa.
- Some species have feeding individuals attached like two rows creating a quill like appearance. Others have feeding individuals al the way around the central individual.

Potential misidentifications

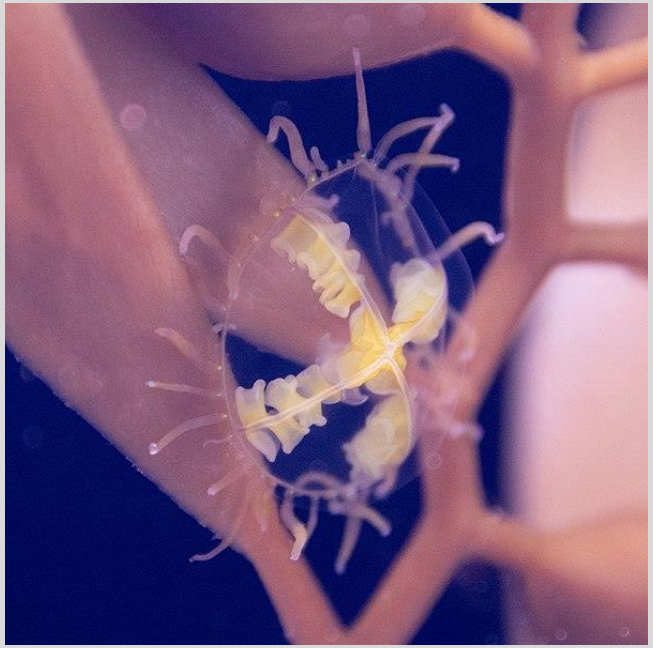
- No similar species in Sweden.

Habitat

- Marine.
- Soft bottoms.
- Mainly from 30-2000 m, rarely in shallower depth.

Colony height	**25 – 170 cm**

Gonionemus vertens
Clinging jellyfish/Klängmedusa



NE

Identification

- Adult state a medusa with a somewhat flat “bell”.
- 60-80 tentacles all with “attachment plates” near the end which enables the medusa to stick to eelgrass, algae or animals.
- Gut inside “bell” forming distinct cross.
- The medusa can sting and cause severe reactions.

Potential misidentifications

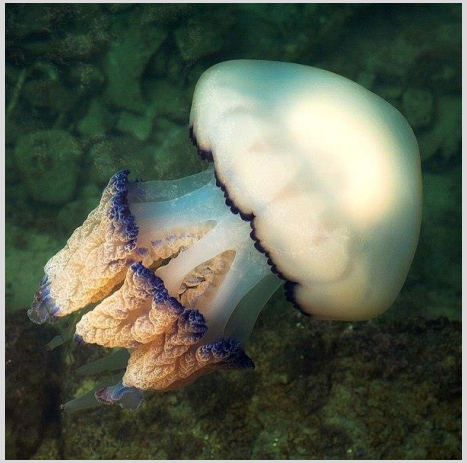
- Many other species has small medusa but the bell shape of climbing jellyfish is rather distinct and no other Swedish species has medusa which can attach itself to substrate.

Habitat

- Marine.

Diameter	**15 – 20 mm**

Scyphozoa
Jellyfish/Maneter



Nr 15 – 17 belong to this group

Identification

- Adults are medusas.
- They have gelatinous body and many tentacles.

Potential misidentifications

- Many other species (all within the class Hydrozoa which also contains the clinging jellyfish; invertebrate nr. 13) also has medusas but these only grow to a few cm. All jellyfish grow to much larger than this.

Habitat

- Marine or brackish water.

Diameter	**Up to 2.3 m**

Cyanea capillata
Lion's mane jellyfish/Röd brännmanet

NE

Identification

- Medusa with many long tentacles.
- Orange bell.
- Painful sting

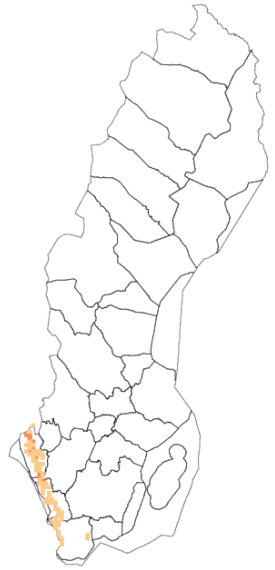
Potential misidentifications

- No similar species in Sweden.

Habitat

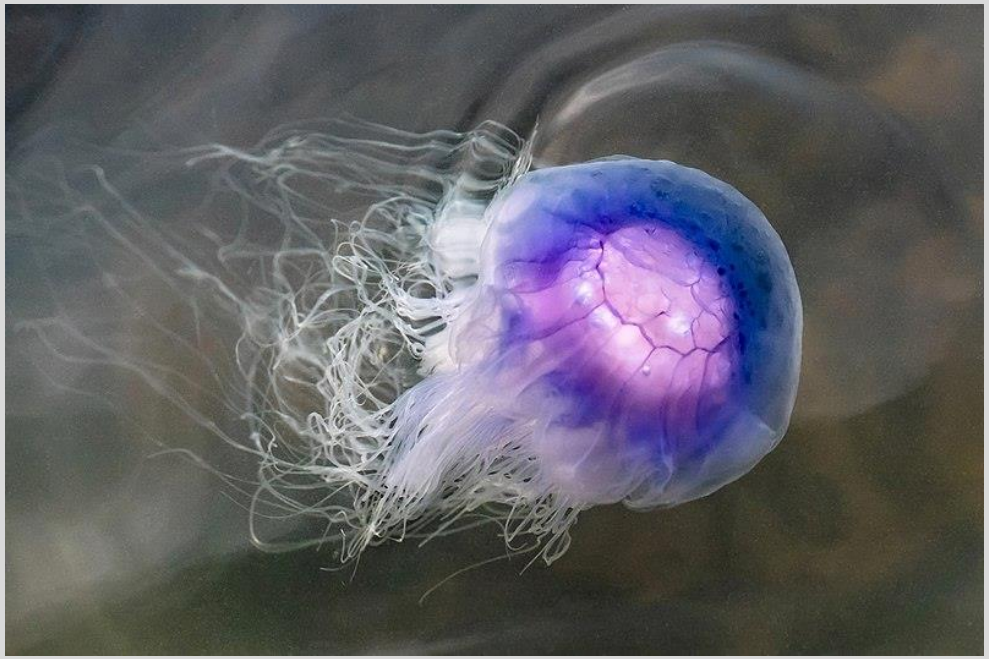
- Marine.

Diameter	**Up to 2.3 m**



Cyanea lamarckii
Blue jellyfish/Blå brännmanet

NE



Identification

- Medusa with many long tentacles.
- Blue bell.
- Painful sting.

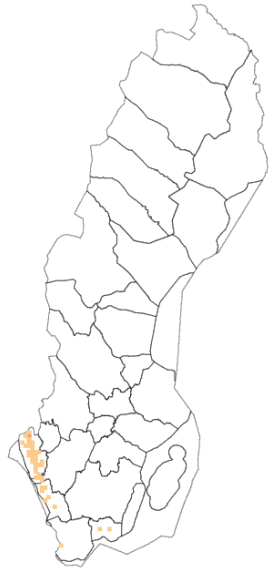
Potential misidentifications

- No similar species in Sweden.

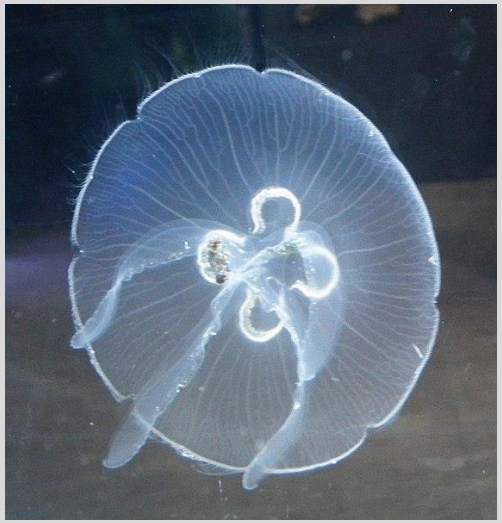
Habitat

- Mainly marine but somewhat tolerant to brackish water.

Diameter	**Up to 30 cm**



Aurelia aurita
Moon jellyfish/Öronmanet



NE

Identification

- Round, somewhat flattened and see-through “bell”.
- Normally with four (can be five or six) visible circle shaped gonads .
- Does not sting.

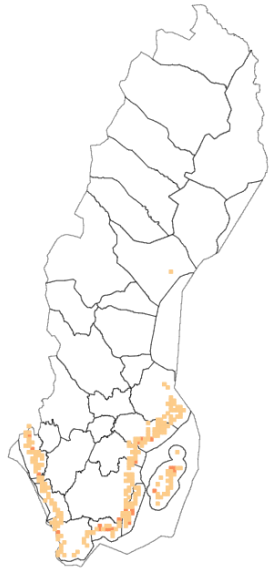
Potential misidentifications

- No similar species in Sweden.

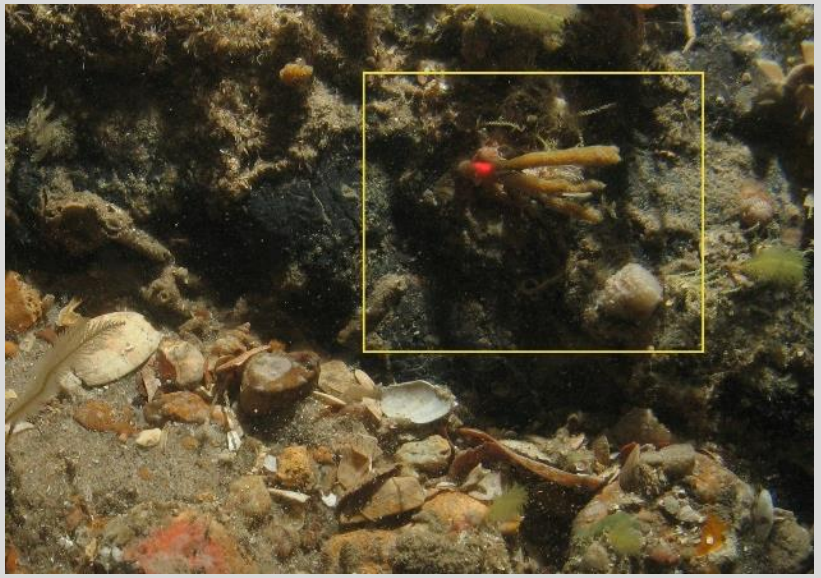
Habitat

- Marine or brackish water.

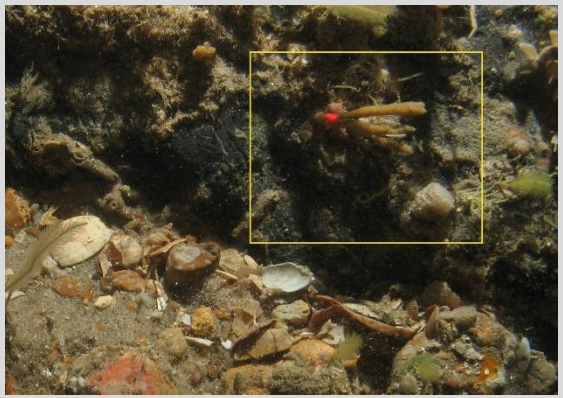
Diameter	**Up to 40 cm**



Bryozoa: Moss animals/Mossdjur



Bryozoa
Moss animals/Mossdjur



Identification

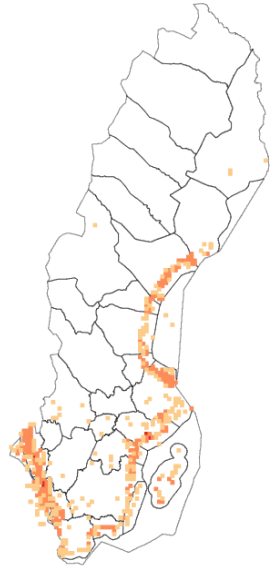
- Colony forming with individual animals “zooids” in regular pattern.
- Each zooid surrounded by a set of “walls”.
- Normally attached to substrates but some form three dimensional colonies.

Potential misidentifications

- Can be mistaken for some sponges or colonial cnidarians but can be identified by the very regular structure of “walls” surrounding individual zoids.

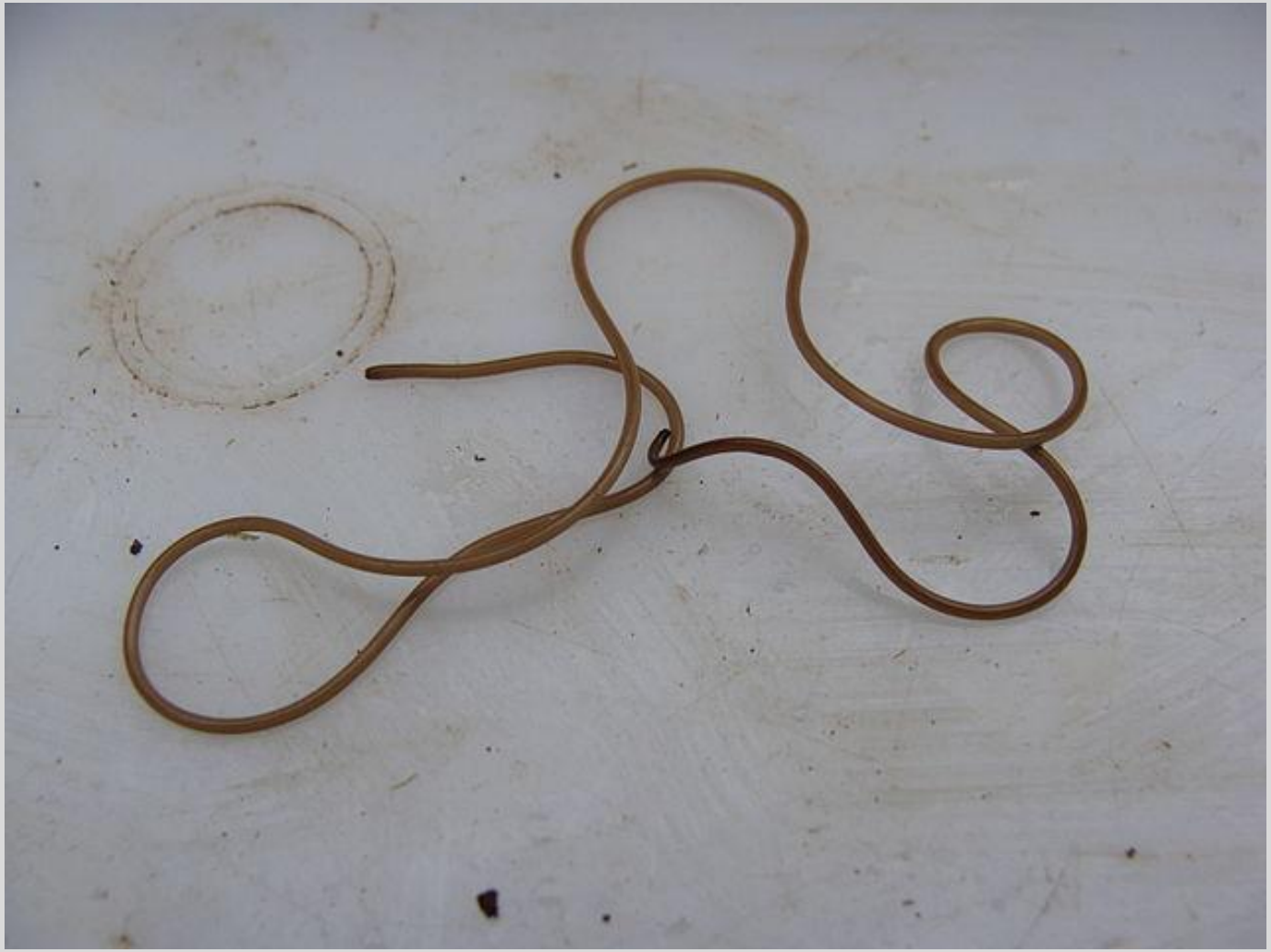
Habitat

- Most are marine, a few are brackish or freshwater living.



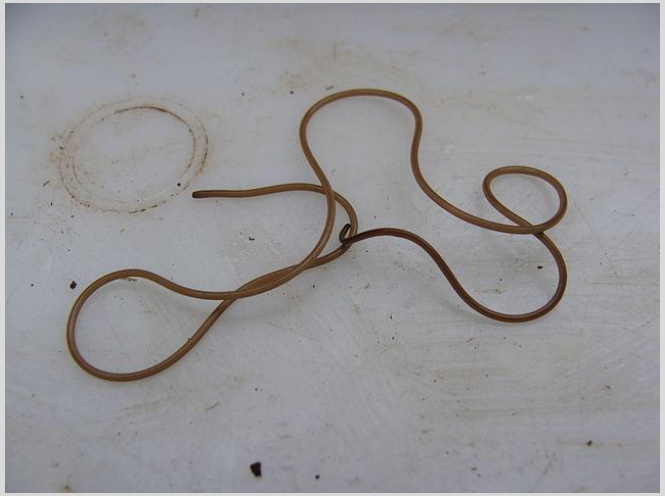
Zooid size	**0.5 – 1 mm**

Nematomorpha: Horsehair worms/Tagelmaskar



Gordioida
Horsehair worms/ Tagelmaskar

Nematomorph shown next to its host



Identification

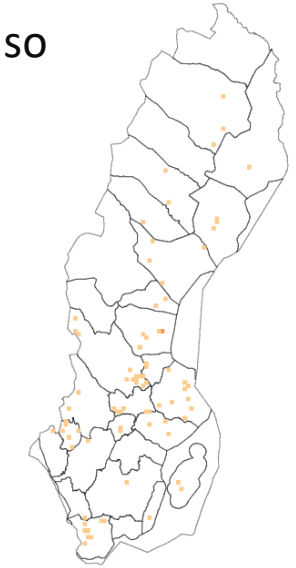
- As the English name suggest these extremely long and thin worms look almost like moving hair.

Potential misidentifications

- Some parasitic nematodes can look similar but none of them has a free-living stage.

Habitat

- Juveniles are endoparasites in insects.
- Adults free-living (although not eating) in freshwater.
- Worms manipulate host to enter water so worm can exit.



Normal length	**~30 cm**

Platyhelminthes: Flat worms/Plattmaskar

Platyhelminthes
Flat worms/ Plattmaskar

Identification

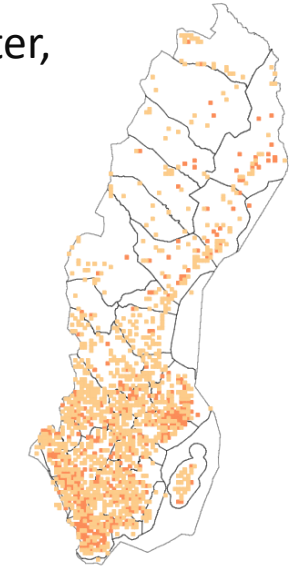
- Soft, unsegmented bodies.
- Very flat (particularly noticeably in larger species).
- Head, sometimes with eyes, sometimes with tentacles.

Potential misidentifications

- Some larger marine species can be mistaken for sea slugs but are noticeably flatter.

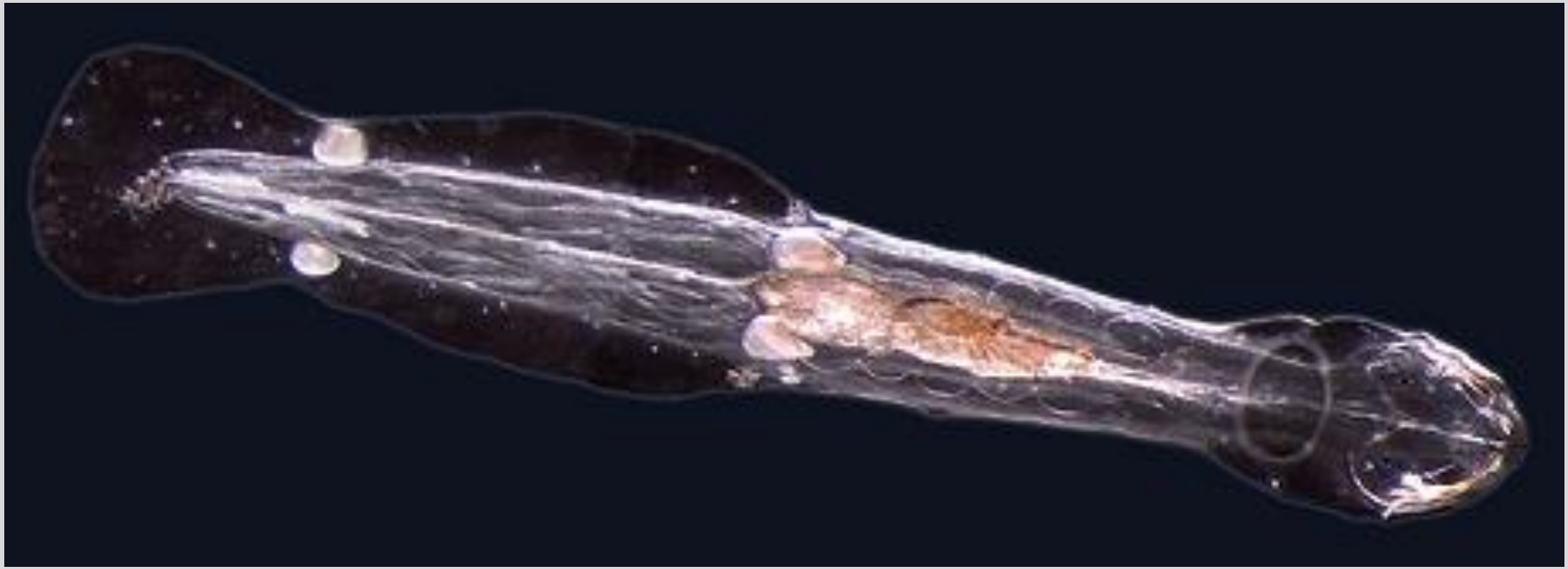
Habitat

- Different species in terrestrial, freshwater, brackish and marine environments.

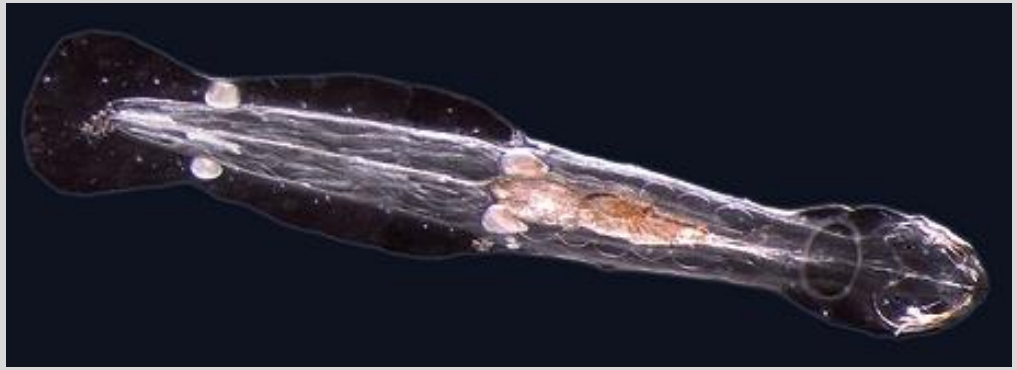


Length	**Up to 5 cm**

Chaetognatha: Arrow worms/Pilmaskar



Sagittoidea
Arrow worms/Pilmaskar



Identification

- See through and worm-like.
- No distinct segments.
- Distinct head, trunk and tail.
- Hooked grasping spines on each side of head.

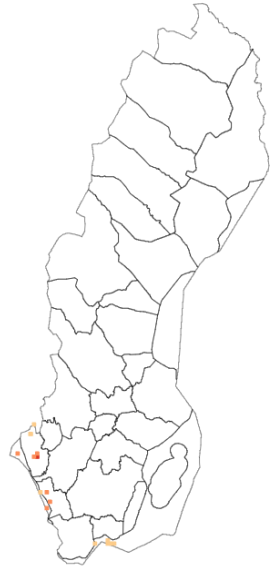
Potential misidentifications

- No similar species in Sweden.

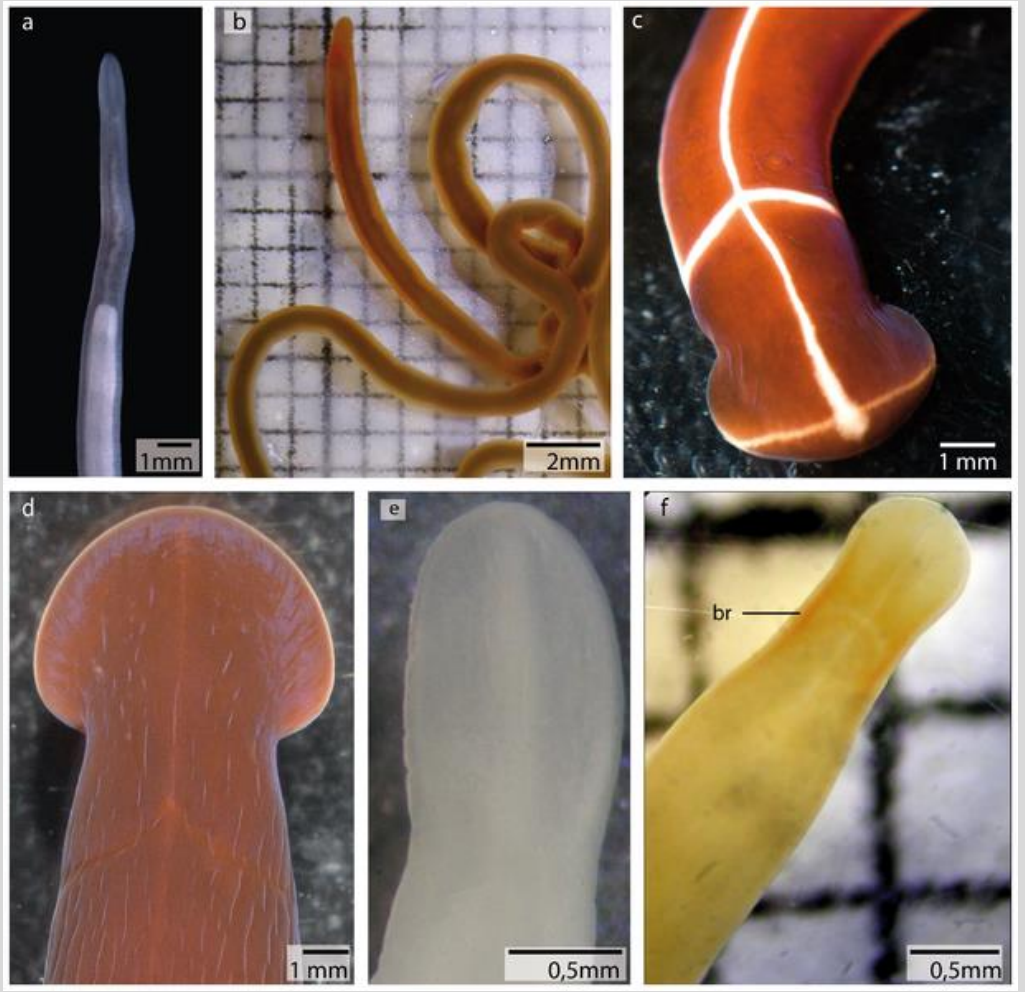
Habitat

- Marine.
- Pelagic.

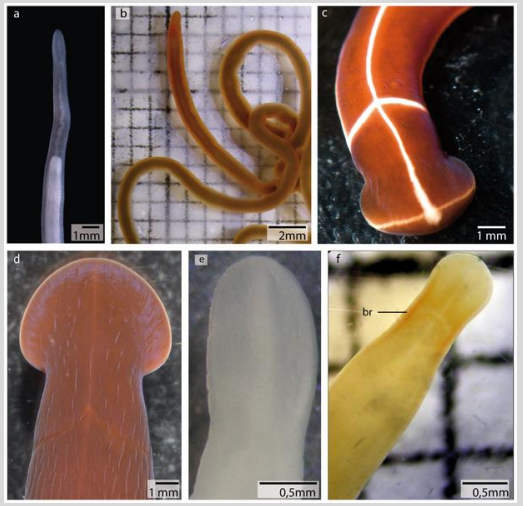
Length	**25 – 45 mm**

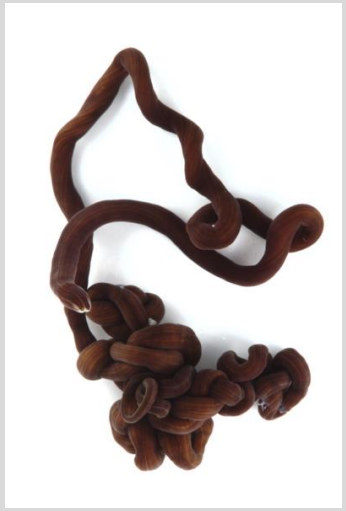


Nemertea: Ribbon worms/Slemmaskar



Nemertea
Ribbon worms/ Slemmaskar





Identification

- Unsegmented potentially very long worms.
- Generally very curled up.
- Very elastic body (this makes size measurements somewhat silly).
- Smooth body surface covered in slime, often poisonous.
- Internal, trunk-like structure (proboscis) that can be projected to capture prey.

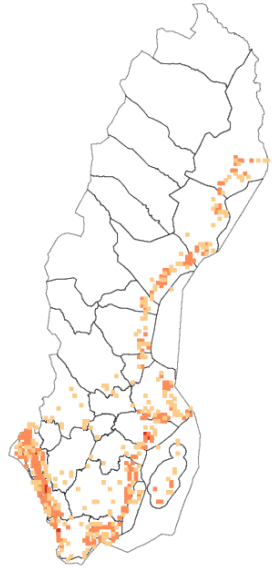
Potential misidentifications

- No similar species in Sweden.

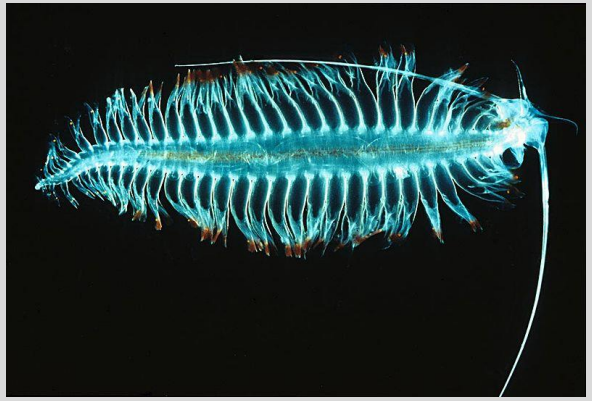
Habitat

- Freshwater, brackish and marine water.
- Hard and soft bottoms.
- Shoreline to 150 meters depth.

Length	**Up to 50 m**



Annelida: Ringed worms/Ringmaskar



Annelida
Ringed worms/Ringmaskar

Nr 24 – 29 belongs to this group

Identification

- Elongated segmented worm (leeches, Invertebrates nr 30, has lost segmentation).
- Often distinct head with eyes and/or bristles.
- Most have bristles at each segment and many has outgrowths (called parapodia) on each segment.

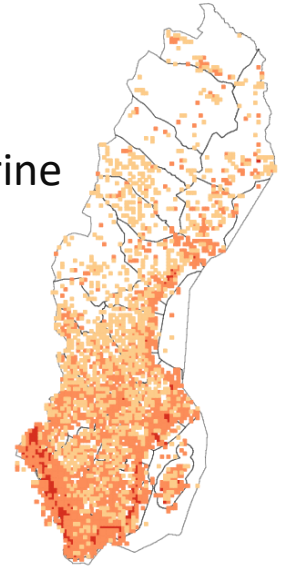
Potential misidentifications

- Some non-marine species can be mistaken for maggots (fly larvae) but maggots are short and fat while annelids are much more elongated.

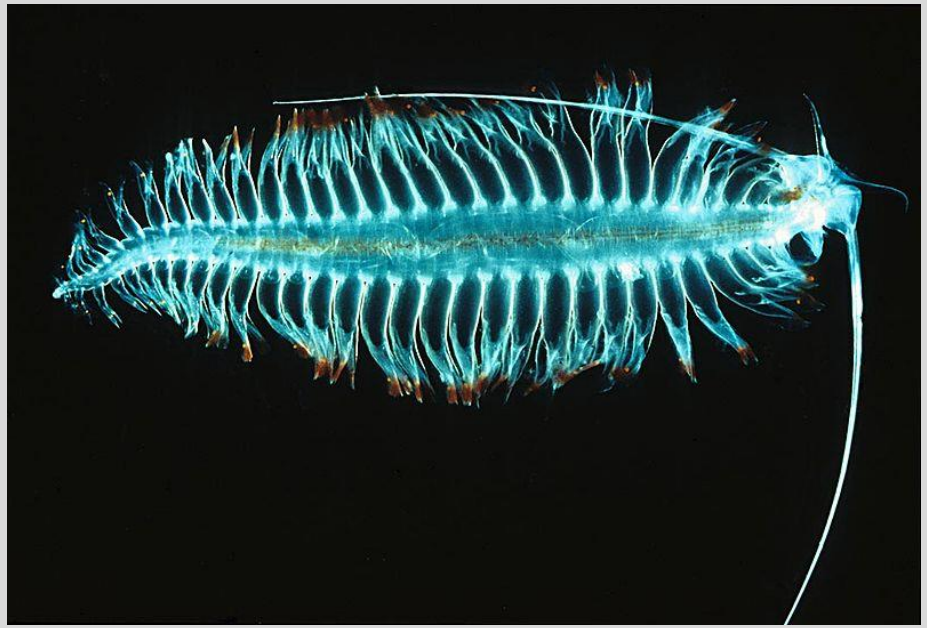
Habitat

- Terrestrial, freshwater, brackish and marine environments.
- Marine species in hard bottoms, soft bottoms or pelagic.

Length	**0.35 – 900 mm**



Tomopteridae
Tomopteridae/Glasmaskar



Identification

- See through, gelatinous body.
- T-shaped head and long antennae.

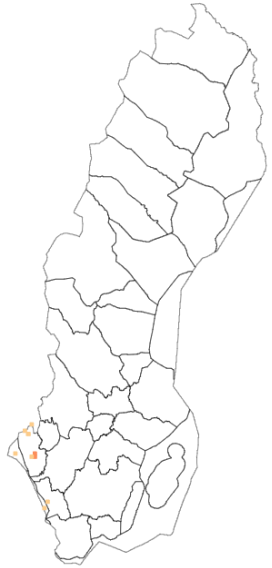
Potential misidentifications

- No similar groups in Sweden.

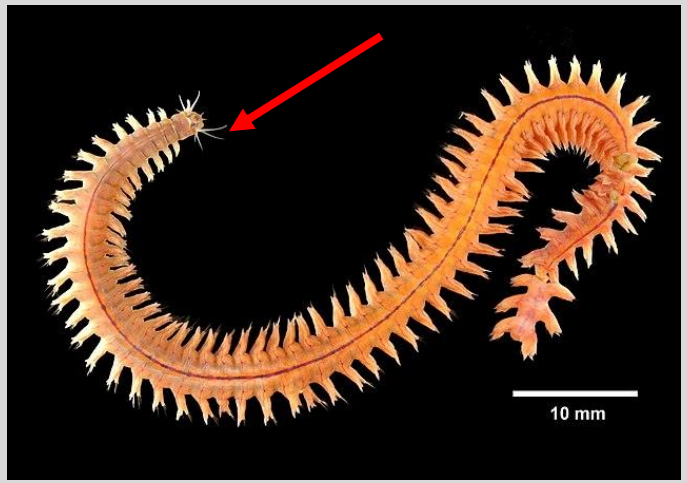
Habitat

- Marine.
- Pelagic.

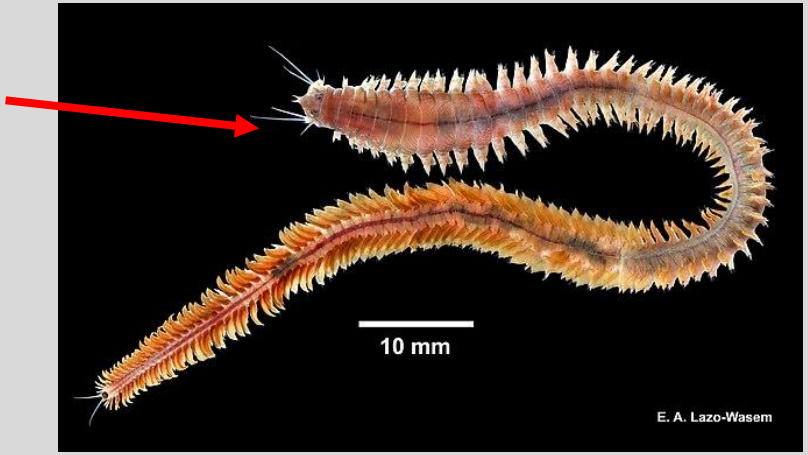
Length	**2 – 60 mm**



Nereididae
Clam worms/Rovmaskar



Hediste diversicolor



Alitta virens

Identification

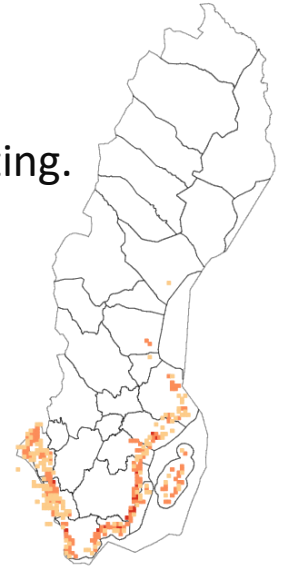
- Generally red, brown or green colors.
- Distinct parapodia on each segment.
- Four pairs of sensory cirri in head region (see arrow).

Potential misidentifications

- Several other annelids may have similar well-developed parapodia but the four pairs of cirri enables safe identification.

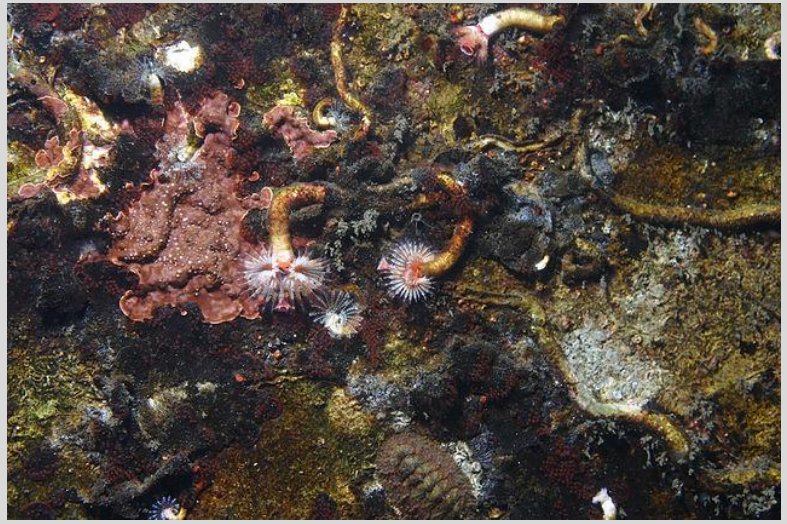
Habitat

- Marine and brackish water.
- Spends most of time borrowing in soft sediment but may be swimming for mating.



Length	**Up to 30 cm**
Rare giants	**Up to 90 cm**

Serpulidae
Serpulidae/Kalkrörsmaskar



Identification

- Forms white, calcareous tubes.
- 30-40 tentacle-like appendages sticking out of tube opening.
- Most have a part of body that called operculum that can close the tube opening.
- Some species form colonies other are solitary.

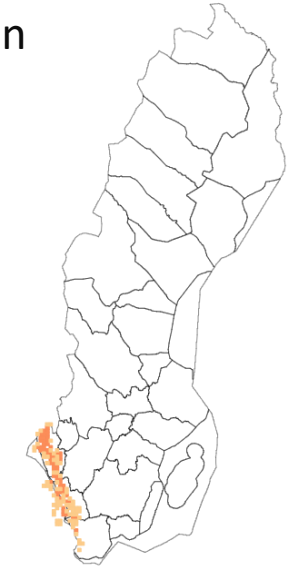
Potential misidentifications

- Several other families may have similar tentacle like appendages but they lack operculum and their tube are made of sand and mucus rather than calcium carbonate.

Habitat

- Marine in both soft and hard bottoms.
- Sub-tidally to below 1000 m depth.

Length	**Normally few mm**



Arenicola sp.
Lugworms/Sandmaskar

Identification

- Leaves a characteristic pile of casts on seafloor.
- Cylindrical body.
- Few bristles.
- Distinct gills in intermediate segments.
- Reddish to pink in colour.

Potential misidentifications

- No similar species in Sweden.

Habitat

- Marine.
- Lives in sand and in muddy sand.
- Intertidally down to 20 m depth.

Length	**Up to 35 cm**

Lumbricidae
Earthworms/Daggmaskar

Identification

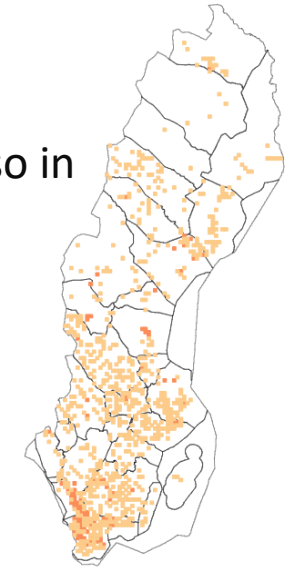
- Large and fat red to brown worms.
- Lacks distinct bristles.
- Has a distinct part of body called clitellum used for mating (see arrow).

Potential misidentifications

- There are a number of other annelids particular in freshwater also without distinct bristles but these are effectively always substantially smaller and thinner than earthworms.

Habitat

- Most species terrestrial, one species also in freshwater.



Length	**Up to 30 cm**

Hirudinida
Leeches/Iglar

Haemopis sanguisuga

Hirudo medicinalis

Identification

- Lacks distinct bristles.
- Lacks external segmentation.
- Leech-like walking with suction cub in front and back.
- Width of body super variable while moving.

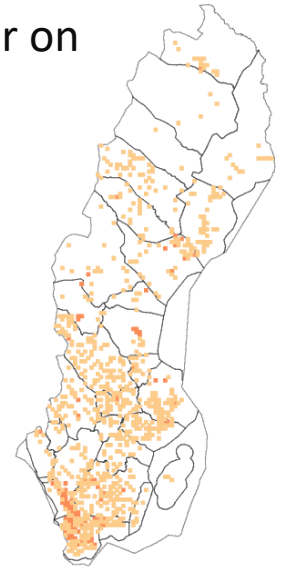
Potential misidentifications

- No similar species in Sweden.

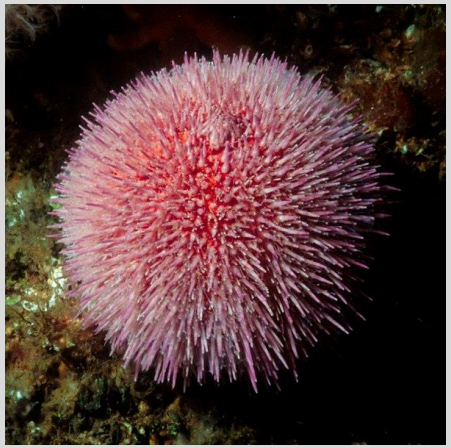
Habitat

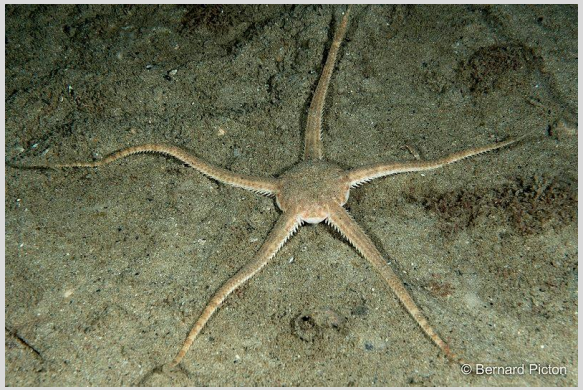
- Mainly freshwater or marine water, rarer on land.
- Some species bloodsuckers, some carnivores.

Length	**10 – 200 mm**



Echinodermata: Echinoderms/Tagghudingar





Crinoidea
Sea liles/Liljestjärnor

Identification

- Long, feather-like arms.
- A number of claw like “cirri” used to attach to substate.

Potential misidentifications

- No similar species in Sweden.

Habitat

- Marine.
- From 20 m down to thousands of meters.

Arm length	**Up to 13 cm**

Holothuroidea
Sea cucumbers/Sjögurkor

Identification

- Elongated, sausage-shaped, often soft body.
- Mouth (situated at the end of the body) surrounded by tentacles, sometimes large and branched.
- Many can eject part of their gut from anus (opposite end from mouth) if distressed.

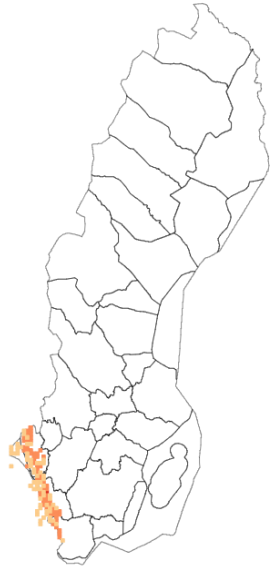
Potential misidentifications

- No similar species in Sweden.

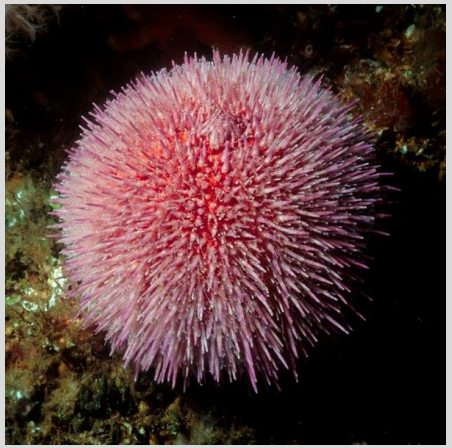
Habitat

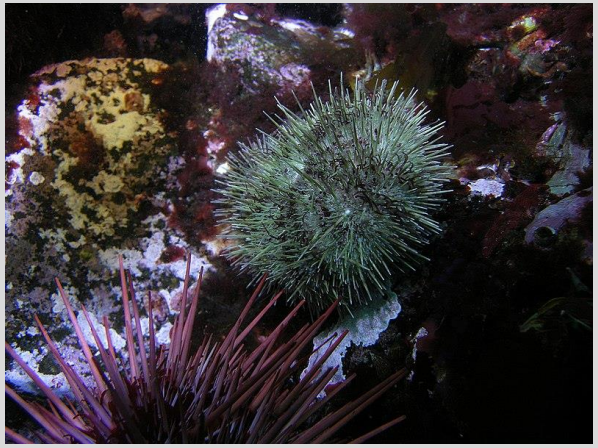
- Marine.
- Soft bottoms, 2-2000 m depth.
- Many bury in sediment with only tentacles visible.

Length	**Up to 50 cm**



Echinacea
Regular seaurchins/Reguljära sjöborrar





Identification

- More or less spherical body.
- Covered in movable spines.

Potential misidentifications

- No similar species in Sweden.

Habitat

- Marine.
- Sandy, rocky or hard bottoms.
- Intertidal zone to 1200 m depth.
- Moves around on substrate.

Diameter	**Up to 20 cm**

Irregularia
Irregular seaurchins/Irreguljära sjöborrar

Identification

- More or less oval, almost heart-shaped and flattened body.
- Covered in movable spines.

Potential misidentifications

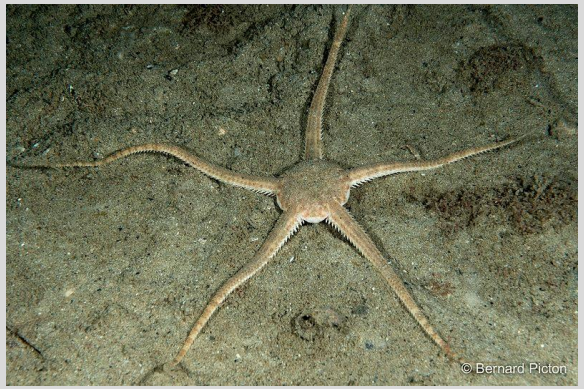
- No similar species in Sweden.

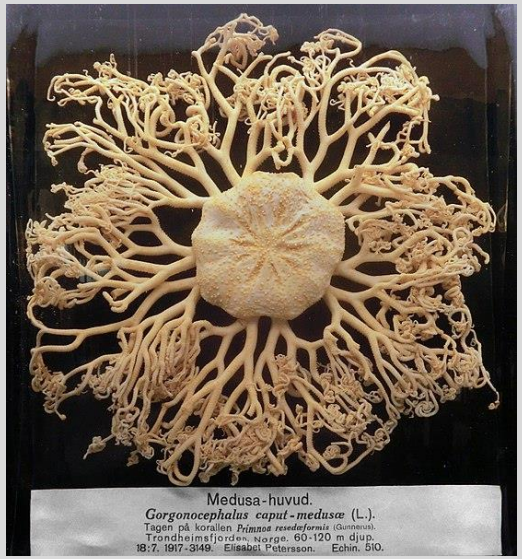
Habitat

- Marine.
- 1-1000 m depth.
- Burrowing in soft bottoms.

Length	**1.5 – 7 cm**

Ophiuroidea
Brittle stars/Ormstjärnor





Identification

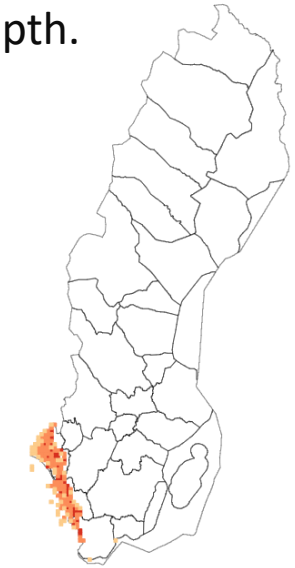
- Flat central distinct disc and arms which are very distinct from it.
- Most have five arms a few rare deep-water species may have 10 highly branched arms.

Potential misidentifications

- No similar species in Sweden.

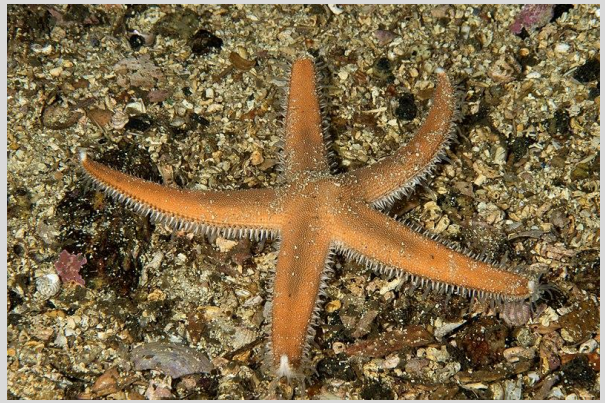
Habitat

- Marine.
- Intertidal to several hundred meters depth.
- Hard and soft bottoms.



Central disc diameter	**Up to 35 mm**

Asteroidea
Starfish/Sjöstjärnor



Nr 36 – 38 belongs to this group

Identification

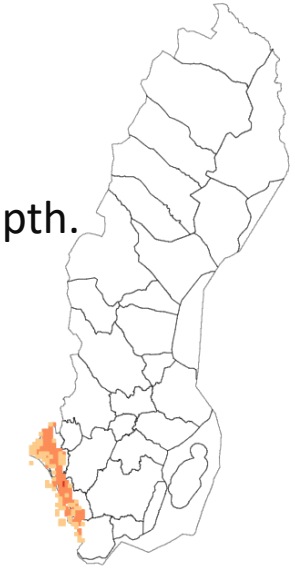
- Star shaped body with a central with central disc in the middle and several thick arms without distinct separation between disc and arms.
- Mouth on the underside.
- Usually with spines of varying shape and size on the dorsal side.

Potential misidentifications

- No similar species in Sweden.

Habitat

- Marine.
- Soft or hard bottoms.
- Intertidal to several hundred meters depth.



Diameter	**Up to 80 cm**

Marthasterias glacilis
Spiny starfish/Taggsjöstjärna

LC

Identification

- Five flexible arms (rarely six to eight arms).
- Small disc in relation to the large arms.
- Grey-blue body covered by three rows of short, thick white spines.

Potential misidentifications

- Small juveniles may have less distinct spine and can be mistaken for other starfish but larger individuals can be safely identified.
- Other starfish can have scattered spines but not the three rows of large ones seen in this species.

Habitat

- Marine
- Hard and soft bottoms
- Intertidal to a few hundred meters depth.

Diameter	**Up to 30 cm**
Rare giants	**Up to 70 cm**

Astropecten irregularis
Sand sea star/Kamsjöstjärna

LC

Identification

- Medium sized very flat star fish with large spikes on the sides of the arms.
- Color somewhat brownish with reddish/ violet tones.

Potential misidentifications

- No other Swedish species have the large spikes on the sides of the arms.

Habitat

- Marine, mainly soft bottom.
- Mainly 10-900 meters but seen as low as 4 meters.

Diameter	**Up to 12 cm**

Solasteridae
Sun sea stars/Solsjöstjärnor

Identification

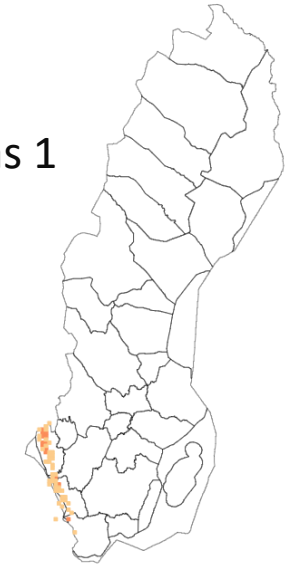
- Star fish with 7-16 arms.
- Relatively short arms, length of arms less than four times the diameter at the basis.

Potential misidentifications

- Individuals with 8 or more arms cannot be mistaken for other species. One other species of star fish (*Luidia ciliaris*) has seven arms, but it has very long thin arms.

Habitat

- Marine, in either soft or hard bottom.
- Mainly 10-90 meters but rarely as low as 1 meter.

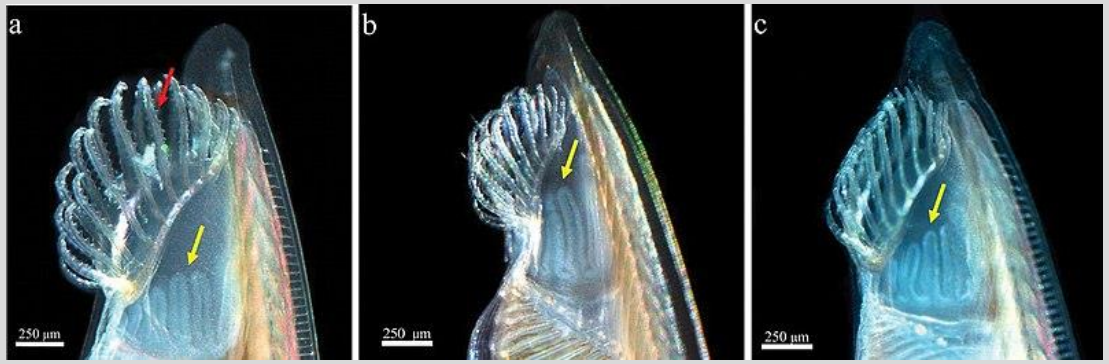


Diameter	**Up to 40 cm**

Chordata: Invertebrate chordates/Ryggradslösa ryggsträngsdjur

Branchiostoma lanceolatum
Lancelet/Lansettfisk

NE



Identification

- Elongated somewhat see-through body.
- Body flattened from the sides.
- Downwards facing mouth surrounded by sensory "cirri".

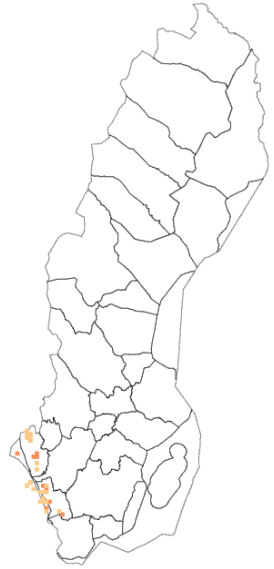
Potential misidentifications

- Looks somewhat like a fish but lacks jaws or distinct head.
- Larvae of lampreys look similar but live in freshwater.

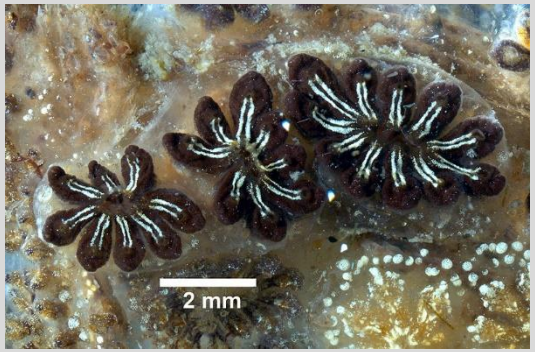
Habitat

- Marine.
- Soft bottoms.
- Burrows into sediment with head above sand.
- 5-30 m depth.

Length	**Up to 6 cm**



Tunicata
Tunicates/Manteldjur



Nr 41 – 42 belongs to this group

Identification

- Covered by a tunic, a sac-like structure that contains cellulose.
- Two tubular openings (siphons) for drawing in and expelling water.
- Many species colonial.
- Larvaceans (Invetebrate 42) is a subgroups that looks very different and is discussed separately.

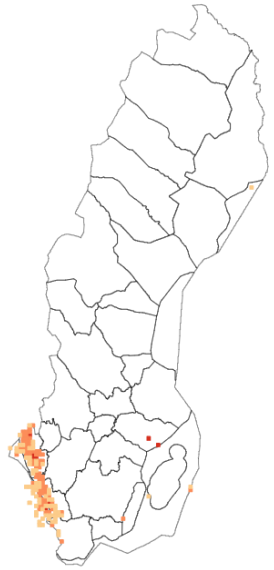
Potential misidentifications

- No similar species in Sweden.

Habitat

- Marine.
- Soft or hard bottom.

Height	**Up to 30 cm**



Ciona intestinalis
Vase tunicate/Tarmsjöpung

LC

Identification

- Long, almost cylindrical.
- Tunic is very soft and somewhat transparent.
- Wide, round siphon openings.
- Body will withdraw if touched.
- Non-colonial, but a very large amount often lives next to each other.

Potential misidentifications

- No similar species in Sweden.

Habitat

- Marine.
- Often in large aggregations on hard bottoms.
- Usually down to 30 m depth but has been observed at 500 m.

Height	**Up to 15 cm**

Appendicularia
Larvaceans/Svanssjöpungar

Identification

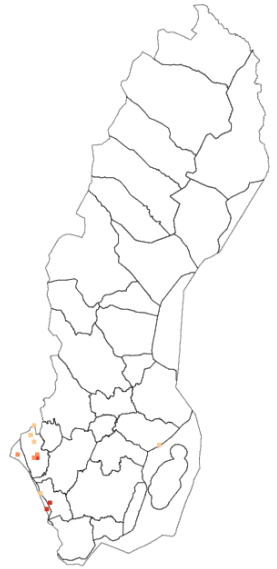
- Planktonic.
- Very small see-through body surrounding by a gelatinous house and with a tail.
- Looks most similar to see-through marine tadpoles.
- Some are bioluminescent.

Potential misidentifications

- No similar species in Sweden.

Habitat

- Marine.
- Planktonic.
- Very fast generation time.
- Occasionally in very large densities.



House length	**Up to 8 mm**
Tail length	**Up to 10 mm**

Sources

Species selected and text written by Christina Jönander and Søren Faurby.

Distributional maps for all taxa are taken from artfakta.se

All pictures are from wikipedia commons.