Common Trawl Fauna in the Chukchi and Beaufort seas

Echinodermata

Disclaimer: This is not a complete guide to the trawl fauna of the Pacific Arctic. There are many other species that are not presented in this guide. Most identifications of the depicted organisms have been verified by a variety of taxonomic experts but small taxonomic features may not be clearly visible in the images and could lead to confusion with similar taxa. As such, it is recommended that identification of new collections may be aided by this guide but that final identifications should be confirmed on vouchers by taxonomic experts.

Katrin Iken, College of Fisheries and Ocean Sciences, University of Alaska Fairbanks, USA (contact: kbiken@Alaska.edu)

Bodil Bluhm, UiT The Arctic University of Norway

Version: January 2021
Echinodermata: Asteroidea

Asterias amurensis

Ridged arms, mostly purple-orange color, sometimes all orange

Crossaster papposus
Ctenodiscus crispatus

Henricia sp

Small red species, possibly: Henricia tumida
**Leptasterias arctica** 5 arms

- Pronounced paxillae, rough and hard body
- Max size usually no more than 10 cm tip to tip

**Leptasterias groenlandica**

- 5 arms
- Less pronounced paxillae
- “Softer” body surface
- Can reach larger size than *L. arctica*

**Leptasterias polaris** 6 arms

- Arm insertion to central disc looks “swollen”
- Scattered pronounced paxillae
- Often mottled coloration
- Can reach large size
**Pteraster jordani**

- "slimy" surface

**Pteraster militaris**

- 5 arms

**Pteraster obscurus**

- >5 arms, mostly 6 arms
**Echinodermata: Asteroidea**

**Urasterias linckii**
- Long spines on oral side of arms

**Icasterias panopla**
- Arm connection to disc can look “swollen” (arrow)

**Solaster sp. ***
- Multi-arm large sea star, color variable

*Species occurring: S. dawsoni, S. endeca*
Echinodermata: Asteroidea

**Evasterias echinosoma**

**Lethasterias nanimensis**

Large size, hard exterior

**Poraniomorpha tumida** (*previously Rhegaster tumidus*)

**Lophaster furcifer**
**Echinodermata: Asteroidea**

**Bathybiaster vexillifer**

- Deep-water species
- No lateral spines, but ridges

**Pontaster tenuispinus**

- Lateral spines
- Often occurs across many size classes
- Often deep

**Hymenaster pellucidus**

- Transparent body
- Internal skeleton visible
Echinodermata: Crinoidea

Florometra or Heliometra sp
**Echinodermata: Ophiuroidea**

**Gorgonocephalus sp.**

- **Gorgonocephalus arcticus**
  - Sparse, non-uniform but large tubercles on radial ridges

- **Gorgonocephalus eucnemis**
  - Numerous uniform, small tubercles on and between radial ridges

[Images of Gorgonocephalus arcticus and Gorgonocephalus eucnemis]
**Echinodermata: Ophiuroidea**

**Ophiocent sericeum**

Disc with distinct honey-comb pattern, arms break off easily

**Ophiopholis aculeata**

Disc can have various colorations, arms with distinct spines

**Ophiopleura borealis**

Very hard body
Stiff legs
Deep-water species
**Echinodermata: Ophiuroidea**

**Ophiura sarsii**

Most abundant species in Chukchi

**Ophiura robusta**

Arm pattern can appear ‘striped’
**Ophiacantha bidentata**

- Soft ‘skin’ on disc
- Hairy legs

**Amphiodia craterodmeta**

- Distinctly visible “twin plates” at base of each arm
Echinodermata: Ophiuroidea

**Ophiuroidea**

*Ophiuroidea glacialis*
- Slimy disc
- Disintegrates easily
- Mostly in deep water

*Stegophiura nodosa*
- Small, pink species
- Hard short legs

*Amphiura sundevalli*
- Smooth, small disc
- Long slender arms
**Chiridota discolor**

Tentacles highly branched at end

**Myriotrochus rinkii**

Gelatinous, often destroyed in net tows
Ossicle ring visible around mouth
Sclerites visible as little dots

Often abundant where present

**Elpidia heckeri**

“Papery” feel of skin

**Kolga hyalina**

Gelatinous feel of skin
Echinodermata: Holothuroidea

**Ocnus glacialis**

Additional species occurring: *P. fabricii*
(occurs in Bering, unknown if also in Chukchi)

**Psolus peronii**

Body with very distinct sole

**Psolus phantapus**

Body with very distinct sole
**Echinodermata: Holothuroidea**

**Molpadia borealis**

![Image of Molpadia borealis]

- **Size:** 2 cm
- **Description:** Sand-covered body

**Euprygus scaber**

![Image of Euprygus scaber]

- **Size:** 0.5 cm
- **Description:** Sand-covered body

**Unknown species**

![Image of unknown species 1]

- **Size:** 1 cm

**Unknown species**

![Image of unknown species 2]

- **Size:** 1 cm
Echinodermata: Echinoidea

**Echinarachnius parma**

**Strongylocentrotus pallidus**