Common Trawl Fauna in the Chukchi and Beaufort seas

Crustacea

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.

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**Balanus cretanus**

On rocks or epizoic on shells

**Balanus nubilis**

Large size, often overgrown by sponges or bryozoans

**Gooseneck barnacles**
Juveniles of the two species can be easily confused. Juvenile *Chionoecetes* have straighter legs than juvenile *Hyas*.
Telmessus cheiragonus

Paralithodes platypus  Blue king crab

Decapoda: Brachyura

Decapoda: Anomura

Juvenile
**Pagurus capillatus**

- **Left claw symmetrical**, oval-shaped

**Pagurus trigonocheirius**

- **Left claw asymmetrical**
  - Ridge on left claw
  - Hair-like setae on cheliped

**Pagurus rathbuni**

- Bundle of setae in special round depression on carpus of right claw (arrow)
- End of dactylus and propodus of left claw long and bent downward.

**Labidochirus splendescens**

- Entire dorsal surface of carapace calcified (arrow)
- Iridescent, body often too large for shell, and long arms and legs.
- Typically in very small snail shells
Pagurus “hairy” - possibly also *P. trigonocheirus*?
**Decapoda: Crangonidae**

**Argis sp.**
- Base of eyes covered by group of robust spines (look “hooded”)
- Eye stalks set close together and “sticking up”
- Short rostrum

**Sabinea septemcarinata**
- Carapace with 7 denticulate ridges
- Pereopod 2 lacking chela
- Tip of rostrum blunt

- Position of 4 ridges, remaining 3 on other side
**Decapoda: Crangonidae**

**Crangon dalli**

*One* spine on middorsal line of carapace, *two* abdominal keels

**Crangon septemspinosa**

*One* spine on middorsal line of carapace, *no* abdominal keels

Lateral, distal spine on antennal scale is longer than distal scale width

**Crangon communis**

*Two* spines on middorsal line of carapace

1 cm

1 cm
Decapoda: Crangonidae

Sclerocrangon ferox

2 sharp spines on lower edge of 2\textsuperscript{nd} and 3\textsuperscript{rd} pleurons
2 hepatic spines on each side.

Sclerocrangon boreas

1 small tooth on bottom edge of 2\textsuperscript{nd} and 3\textsuperscript{rd} pleurons (arrows)
1 hepatic spine on each side
Genus *Eualus*: No supraorbital spine on each side of rostrum (genus); third maxilliped with exopodite
Genus *Lebbeus*: **One supraorbital spine** on each side of rostrum

*Lebbeus groenlandicus*

Pleurons on first three abdominal segments rounded, without spines

Body speckled with red and gold flecks

Can be confused at first sight with *Eualus* sp. (but note that *Lebbeus* has one supraorbital spine, while *Eualus* has none). Color pattern in *Lebbeus polaris* is more in the form of spots and less like lines, often with yellow-golden star patterns interspersed.

*L. polaris* males can have straight rostrum and no rostral teeth
**Genus Spirontocaris**

**Spirontocaris phippsii**
- Short rostrum
- Dorsal teeth on carapace and rostrum uniform in size

**Spirontocaris intermedia**

**Spirontocaris spinus**

*Two supraorbital spines* on each side of rostrum

Many species in this genus, difficult to identify
**Bythocaris biruli**

Eye stalks cone-shaped, dark eyes,
Eye balls wider than stalk
Deep-water species

**Bythocaris irene**

Eye stalks straight or wider at base,
white eyes, eye balls smaller than stalk
Deep-water species

*Both are deep-water species*
Decapoda: Pandalidae

First pair of pereopods is lacking chela
Long, thin rostrum (may be broken off)
Large eyes

**Pandalopsis dispar**

Genus *Pandalus*: rostrum longer than carapace

Upper edge of rostrum with spines along entire length

**Pandalus borealis eous**

Small lobe on dorsal side of 3rd abdominal segment; distal 1/3 of upper edge of rostrum without spines

**Pandalus goniurus**
Ampeliscidae

**Ampelisca erythrorhabdota**

Two pairs of **red** eyes,
Red markings in distinct lines towards the end of each segment

**Ampelisca macrocephala**

Two pairs of **red** eyes, dorsal red markings can be more scattered than in *A. erythrorhabdota*

**Byblis gaimardi**

Two pairs of **black** eyes

**Haploops laevis**

7th leg distinct
**Anonyx sp.**

Distinct black “keyhole” shaped eyes
Sturdy body, yellowish-tan coloring
Head lightly pointed

**Socarnes bidenticulatus**

Similar shape as *Anonyx*
Head more rounded
Keyhole eye not as dark
Red or red mottled body color

**Eurythenes gryllus**

Very large, bright red
Yellow, crescent-shaped eyes
Deep-water species
Crustacea: Amphipoda

**Onisimus litoralis**

- Red very round eyes
- Deep notch on uropod 2

**Onisimus c.f. derjugini**
Hippomedon propinquus

Paratryphosites abyssi

Halirages quadrodentatus
**Eusirus holmii**

- **Crustacea: Amphipoda**

**Eusirus cuspidatus**

- Red-pink “fluorescent” eyes
- Variable red coloration (sometimes “zebra” stripes)
- Dorsal spines
Rhachotropis aculeata

- Distinct with long legs and antennae
- Mostly mottled red-tan pattern but can also have distinct stripes or bands
- Distinct rows of spines on back

Rhachotropis occulata

- Distinct eye shape
- Red spots or more solid red
- Eyes dark or light

Rhachotropis helleri
**Acanthostepheia beringiensis**

Grey mottled color, antennae can be red
Long legs and antennae
Distinct extended rostrum, spiny back
Can occur in large numbers

**Arrhis phyllonyx**

Antenna 1 peduncle long, >2x head length
No apparent eye (difficult to identify distinct “head”)

**Arrhis luthkei**
**Paroediceros lynceus**

- Pink, cyclops-like eye
- Gray body color

**Melita dentata**

- With small teeth next to dorsal spine
- Legs more lobed/curved in the back than in *M. formosa* (arrow)
- Coloration is not a distinguishing feature

**Melita formosa**

- Legs fairly straight
- 1 dorsal spine

**Melita quadrispinosa**

- Can be pinkish, no bands (but: color highly variable)
- Similar to *M. formosa* but eye not as well developed, eyes white
Stegocephalidae

Species, even genus, identification difficult (Stegocephalidae)

Epimeria loricata

Pleustes panoplus
**Pleustes cataphractus**

1 cm

**Neoleustes pulchellus var. euacanthus**

1 cm

**Tmetonyx cicada**

1 cm

Crustacea: Amphipoda
**Ischyrocerus sp.**

- White dorsal stripe,
- Overall brown color
- Long thin legs

**Unciola leucopis**

- Dorsoventrally compressed body, resembles isopod
- Can have red-striped legs

**Amathilopsis spinigera**

- Lateral and dorsal rows of spines
- Red antennae and front legs
- Long rostrum

**Arctolembos arcticus**

- White dorsal stripe, overall brown color
- Long thin legs
Protomedeia sp.

Tmetonyx similis

Weyprechtia heuglini

Crustacea: Amphipoda

pink/red large eye
brownish-grey
lateral spine (arrow)
Acanthonotozoma sp.

Acanthonotozoma inflatum

Acanthonotozoma rusanovae
**Atylus carinatus**

Brown body

**Atylus smitti**

Brown body

**Atylus bruggeni**

Speckled body
**Crustacea: Amphipoda**

**Maera prionochira**

*Can have bright red or light pink eyes*

**Pontoporeia femorata**

*Can have bright red or light pink eyes*

**Paramphithoe polyacantha**

**Paramphithoe cuspidata**
**Bathymedon** sp.
- White body
- Light pink
- Round eyes
- Small rostrum

**Caprellidae**

**Lepidepecreum eoum**
**Erichthonius sp.**

- Typically found on hydroids.

**Rozinante fragilis**

- Live in clumps of muddy tubes.

**Metopa spitzbergensis**

- Faint but distinct red inter-segmental lines.
- Typically found on hydroids.

**Ceradocus cf torelli**
**Pardalisca sp.**

**Gammarus loricatus**

- Spines on back
- Rostrum long

**Neohela monstrosa**
Anisogammarus (Barrowgammarus) macginitiei

Halirages nilssoni
**Diastylis alaskensis**
- Smooth (no setae)
- Carapace with ridges (arrow)
- Brownish color, small size
- Red thorax segments

**Diastylis spinulosa**
- Spiky carapace
- Other Diastylis: D. glabra/rathkei complex
- More elongated body

**Diastylis scorpioides**
- Smooth (no setae)
- Carapace with ridges (arrow)
- Brownish color, small size

**Diastylis goodsiri**
- “Hairy” with setae
- Gray color
- Large size
Saduria entomon

Body broad
Eyes present (arrow)

Saduria sabini

Eyes absent
Body narrower than in S. entomon

Saduria sibirica

1 cm
Synidotea bicuspida

May have red-tipped antennae, at least some red markings on body

Synidotea sp.
Crustacea: Isopoda

Gnathia arctica

Munnospsurus giganteus

Munnopsis typica
Eurycope cf. inermis

Crustacea: Isopoda

Tecticeps sp

Roll up into a pillbug-shape

Crustacea: Tanaidacea

Tanaidacea
Colossendeis proboscidea

Very large size
Often red-yellow color
**Arthropoda: Pycnogonidae**

**Boreonymphon robustum**

Robust appendages

**Nymphon helleri**

Large, but smaller than *Colossendeis*

**Nymphon hirtipes**
**Arthropoda: Pycnogonidae**

**Nymphon longitarse**

![Image of Nymphon longitarse](image1)

**Nymphon brevirostre**

![Image of Nymphon brevirostre](image2)

**Achelia echinata**

![Image of Achelia echinata](image3)