

## FAMILY PASIPHAEIDAE

Dana, 1852 Comb shrimps

### Description

Members of the family Pasiphaeidae are primarily pelagic, although some have been captured in benthic traps. Their peculiar slender chelae, lined with minute teeth, give them the common name of "comb shrimp" in some publications. The rostrum is short or absent, in latter case, represented by postfrontal or gastric spine. The carapace bears carinae and may have a branchiostegal tooth. The eyes are of moderate size and are pigmented. The third maxilliped and all pereopods bear exopods, but only the third maxilliped may bear an epipod. Some are partly pigmented, others are colored red to carrot-red. Many reach large sizes. Two genera, *Pasiphaea* and *Parapasiphae*, are represented in British Columbia waters.

### Parapasiphae

*Parapasiphae sulcatifrons*

### Pasiphaea

*Pasiphaea pacifica*

*Pasiphaea tarda*

### References

**Butler, T.H. 1980.** Shrimps of the Pacific coast of Canada. Ottawa; Department of Fisheries and Oceans Canada.

**Wicksten, M.K. 2012.** Decapod Crustacea of the Californian and Oregonian Zoogeographic Provinces. Magnolia Press, Auckland, New Zealand.

---

## PARAPASIPHAE SULCATIFRONS

Smith, 1884 Grooveback shrimp

### Geographic Range

Pacific: Northern BC to Baja California; northern Chile

Atlantic and Indo-Pacific Oceans.

Type locality east coast of United States.

### Habitat

Pelagic, 500-1300 m.

### Morphology

**Exoskeleton** rather thin. **Rostrum**: shorter than eyestalk, slightly ascending, apex acute.

**Eye**: small, cornea and stalk depressed slightly, lightly pigmented, tubercle as extension of inner ridge. **Antennae**: stylocerite acute, longer than eye; base of thickened flagellum of antennule particularly broad; scaphocerite with lateral tooth exceeding blade. **Third maxilliped**: setose.

**Carapace**: with mid-dorsal carina not quite extending to posterior margin, with Y-shaped carina running along branchial region and carina running posterior and ventrally from orbital region.

**Pereopods**: P1-2 chelate, first setose, second with strong spines on carpus, merus and ischium; fingers of chela shorter than palm, crossing at tip. P3 thread-like, P4-5 short, with blade-shaped dactyls. **Abdomen**: only A4 with dorsal carina, extending into posterior tooth.

**Telson** with dorsal groove, rounded apex armed with 6-9 spines; shorter than uropods.

### Distinctions

Distinguished by laterally compressed body; carapace with median dorsal sulcus; rostrum arising from dorsal frontal margin; and anterolateral margin without spines.

### Size

Male total length 70 mm, female total to 93 mm.

### Coloration

Scarlet, eye amber to bronze.

### Synonyms

*Dantecia caudani* Caullery, 1896

*Orphanina tenuimana* Spence Bate, 1888

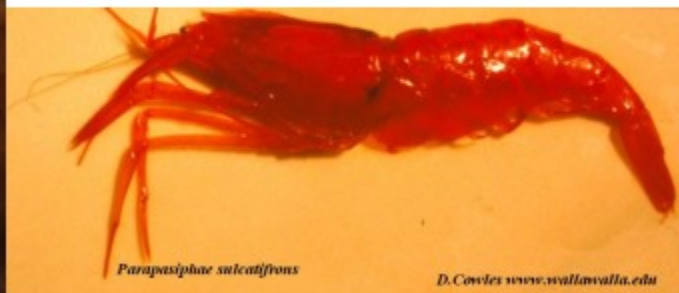
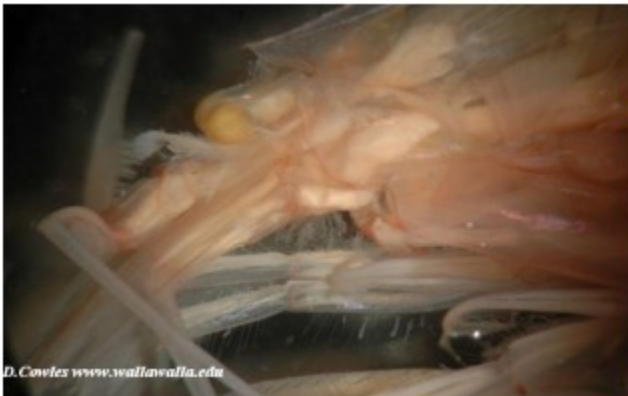
*Pasiphaea metriomma* Dohrn, 1908

### References

**original description:** Smith, S.I., 1884. Report on the decapod Crustacea of the Albatross dredgings off the East coast of the United States in 1883. Reports of the United States Fisheries Commission 10: 345-426, Plates 1-10

**Butler, T.H. 1980.** Shrimps of the Pacific coast of Canada. Ottawa; Department of Fisheries and Oceans Canada.

**Wicksten, M.K. 2012.** Decapod Crustacea of the Californian and Oregonian Zoogeographic Provinces. Magnolia Press, Auckland, New Zealand.



## PASIPHAEA PACIFICA

Rathbun, 1902 Pacific Glass Shrimp

### Geographic Range

Siberia; Alaska to Gulf of California; Australia; South Africa. Type locality off Point Sur, California.

### Habitat

Epipelagic, 0-1076 m but usually between 75-500 m,

### Morphology

**Body** moderately deep. strongly compressed. **Shell** thin, smooth. **Rostrum**: thin; postfrontal tooth directed anteriorly; acute. **Eye**: moderately large, cornea well developed. **Antennae**: stylocerite longer than eye; scaphocerite with lateral tooth exceeding blade; flagella of both pair antennae very long when intact. **Third maxilliped**: setose, shorter than P1. **Carapace**: with dorsal carina extending nearly to posterior margin; with strong branchiostegal tooth and supporting carina; lateral carina extending posteriorly from antennal region. **Pereopods**: P1-2 chelate, chelae slender, fingers of chela of P1 crossing; P2 with spine on carpus, row of spinules on merus; P3 slender, thread-like; P4 short, with flat dactyl; P5 longer than 4, with flat, setose dactyl. **Abdomen**: A2-6 with dorsal carina, pleura rounded to blunt. **Telson**: with dorsal groove, deep posterior notch, shorter than uropods.

### Distinctions

Distinguished by the strongly compressed body, mainly transparent when alive; presence of thorn-like epigastric spine; position of branchiostegal spine somewhat behind frontal margin, and above branchiostegal sinus of carapace.

### Size

Male: total length 81 mm; female: total length 73 mm

### Coloration

Translucent, with scattered red chromatophores, especially on gastric region, dorsal midline of abdominal somites 3-6 and telson and uropods(Butler Plate 3B)

### References

**original description**: Rathbun, M.J., 1902a. Descriptions of new decapod crustaceans from the west coast of North America. Proceedings of the United States National Museum 24: 885-905.

**Butler, T.H. 1980.** Shrimps of the Pacific coast of Canada. Ottawa; Department of Fisheries and Oceans Canada.

**Wicksten, M.K. 2012.** Decapod Crustacea of the Californian and Oregonian Zoogeographic Provinces. Magnolia Press, Auckland, New Zealand.



## PASIPHAEA TARDA

Krøyer, 1845 Crimson Pasiphaeid

### Geographic Range

Pacific: Unalaska to Ecuador; Atlantic: Type locality off Greenland.

### Habitat

Pelagic, 0-2400 m, usually at 200-2000 m.

### Morphology

**Exoskeleton** thin. **Rostrum:** postfrontal tooth extending forward as blade-like extension of carapace.

**Antennae:** stylocerite longer than eye; scaphocerite with lateral tooth exceeding blade. **Eye:** small, cornea well developed. **Third maxilliped:** long, moderately stout; long exopod. **Carpace:** with middorsal carina extending along entire dorsal mid-line; with small branchiostegal tooth supported by short carina; Y-shaped carina along branchial region but not reaching posterior margin; slight carina dorsal to Y-shaped carina. **Pereopods:** P1-2 particularly stout and heavy, both with spinules on merus. **Abdomen:** all abdominal somites with distinct dorsal carina.

**Telson:** with dorsal groove; V-shaped posterior notch; not as long as uropods

### Distinctions

Distinguished by strongly compressed body, normally crimson over most of surface when freshly caught; presence of knife-like postfrontal or epigastric spine; position of branchiostegal spine near or on frontal margin of carapace; 2-7 spines on, basis of P2.

### Size

Male: total length 152 mm; female: total length 215 mm.

### Coloration

Crimson

### Synonyms

*Pasiphaea principalis* Sund, 1913

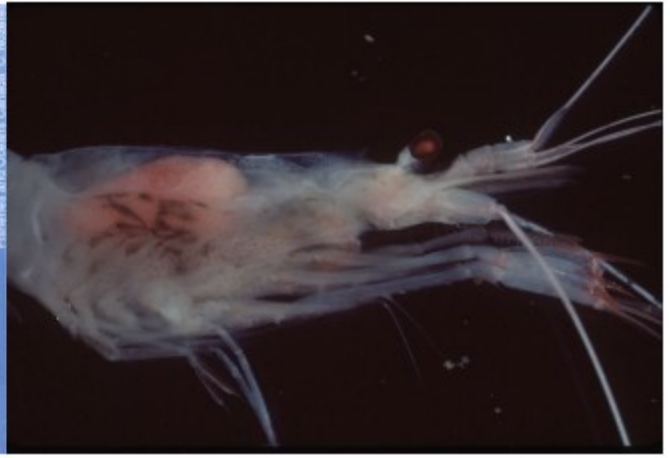
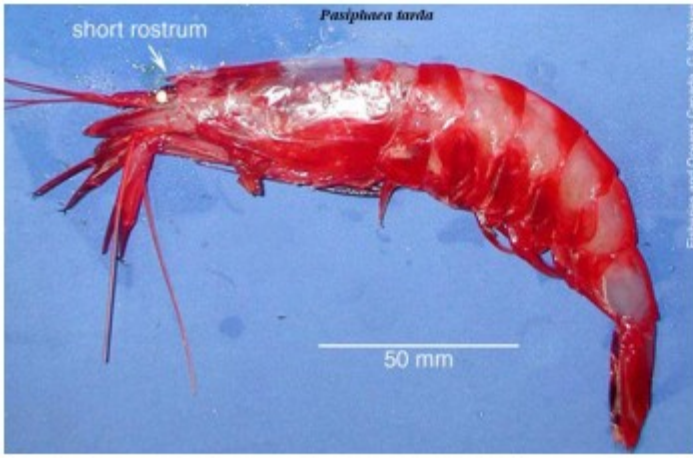
### References

**original description:** Kroyer H. (1845). Karcinologiske Bidrag. Naturhistorisk Tidsskrift, 1, 283-345, 403, 453-638 + pls 2-3, 6-7.

**Butler, T.H. 1980.** Shrimps of the Pacific coast of Canada. Ottawa; Department of Fisheries and Oceans Canada.

**Wicksten, M.K. 2012.** Decapod Crustacea of the Californian and Oregonian Zoogeographic Provinces. Magnolia Press, Auckland, New Zealand.





Fisheries and Oceans Canada, C. Nicholas