

Crangon franciscorum

Common gray shrimp

Phylum: Arthropoda
Class: Crustacea
Sub-Class: Malacostraca
Order: Decapoda, Natantia
Family: Crangonidae

Description

Size—type: about 7.6 cm; South Slough (of Coos Bay) specimen, female: 6.5 cm (Schmitt 1921).

Color—white, mottled with small black spots, giving gray appearance; eyes salmon (Schmitt 1921).

Rostrum—short, flattened, rounded (fig. 2): unornamented.

Eyes—free, not covered by carapace: *Crangon* and *Lissocrangon* (Carlton and Kuris 1975).

Antennal Scale—about $\frac{3}{4}$ the length of the carapace: blade broad, rounded and shorter than spine (fig. 2).

Chelipeds—hands subchelate: *Crangon* and *Lissocrangon*; hand (propodus) at least 4 times as long as wide; finger closed nearly longitudinally (fig. 3) (Schmitt 1921).

Carapace—with a single medial spine: *Crangon* and *Lissocrangon*; a pair of lateral spines as well (Kuris and Carlton 1977).

Abdomen—shrimp-like, with typical Caridean bend; 2nd segment overlaps 1st (fig. 1).

Telson—nearly equal in length to uropods; sp. *franciscorum*.

Possible Misidentifications

Other northwest *Crangon* species with only one medial carapace spine are *C. nigricauda*, *C. nigromaculata*, *C. alaskensis*, and *C. handi*.

C. nigricauda, the "black tailed shrimp" has antennal blade and spine of nearly equal length, its fingers of the chelipeds close almost transversely.

C. nigromaculata has a striking round marking on the side of the sixth abdominal segment; its fingers also close transversely, and it may not range north as far as Oregon.

C. alaskensis is a small shrimp, with a slender rostrum, and, in common with all these closely related species, without *C. franciscorum*'s very long propodus.

C. handi, from the outer coast, has a very short, stout antennal scale, and a short 6th abdominal segment (Kuris and Carlton 1977).

Butler calls this species *Crangon franciscorum franciscorum*, to distinguish it from *C.f. angustimana* Rathbun 1902, the long-clawed *Crangon* (Butler 1980). This latter species lives in deeper water, and within a narrower range of temperatures than does *C. f. franciscorum* (Butler 1980).

Ecological Information

Range—southeastern Alaska to San Diego, California; type locality, San Francisco (Schmitt 1921).

Local Distribution—Yaquina Bay; South Slough (Collver Point, channel) (Krygier and Horton 1975).

Habitat—"sandy coves"; in bay channel, substrate of mud, rock (South Slough); also offshore (Schmitt 1921).

Salinity—collected at 30 ‰; determines distribution, (Krygier and Horton 1975).

Temperature—great toleration of temperature variation; prefers warmer water than *C. nigricauda*.

Tidal Level—down to 29 fathoms (91 meters) (Schmitt 1921).

Associates—collected in trawl with *Cancer jordani*, *Hemissenda sp.*, *Rostanga pulchra*, sponges. Can be infested with Bopyrid isopod *Argeia pugettensis* Dana (Butler 1980).

Quantitative Information

Weight—

Abundance—"common to abundant"; with *C. nigricauda*, comprise the major decapod shrimp epifauna, Yaquina Bay (Krygier and Horton 1975), caught commercially, San Francisco (Israel 1936).

Life History Information

Reproduction—spawning December to August (Yaquina Bay) (Krygier and Horton 1975); ovigerous female collected April; eggs hatch in water of high salinity: larval stages occur floating in the plankton: earliest post-larval shrimp found in brackish water of

shallow tidal flats; maturing animals move into deeper water (Israel 1936).

Growth Rate—differential growth rate: large females and males, (Krygier and Horton 1975).

Longevity—females live a maximum 1 1/2 years, males up to one year (Krygier and Horton 1975).

Food—

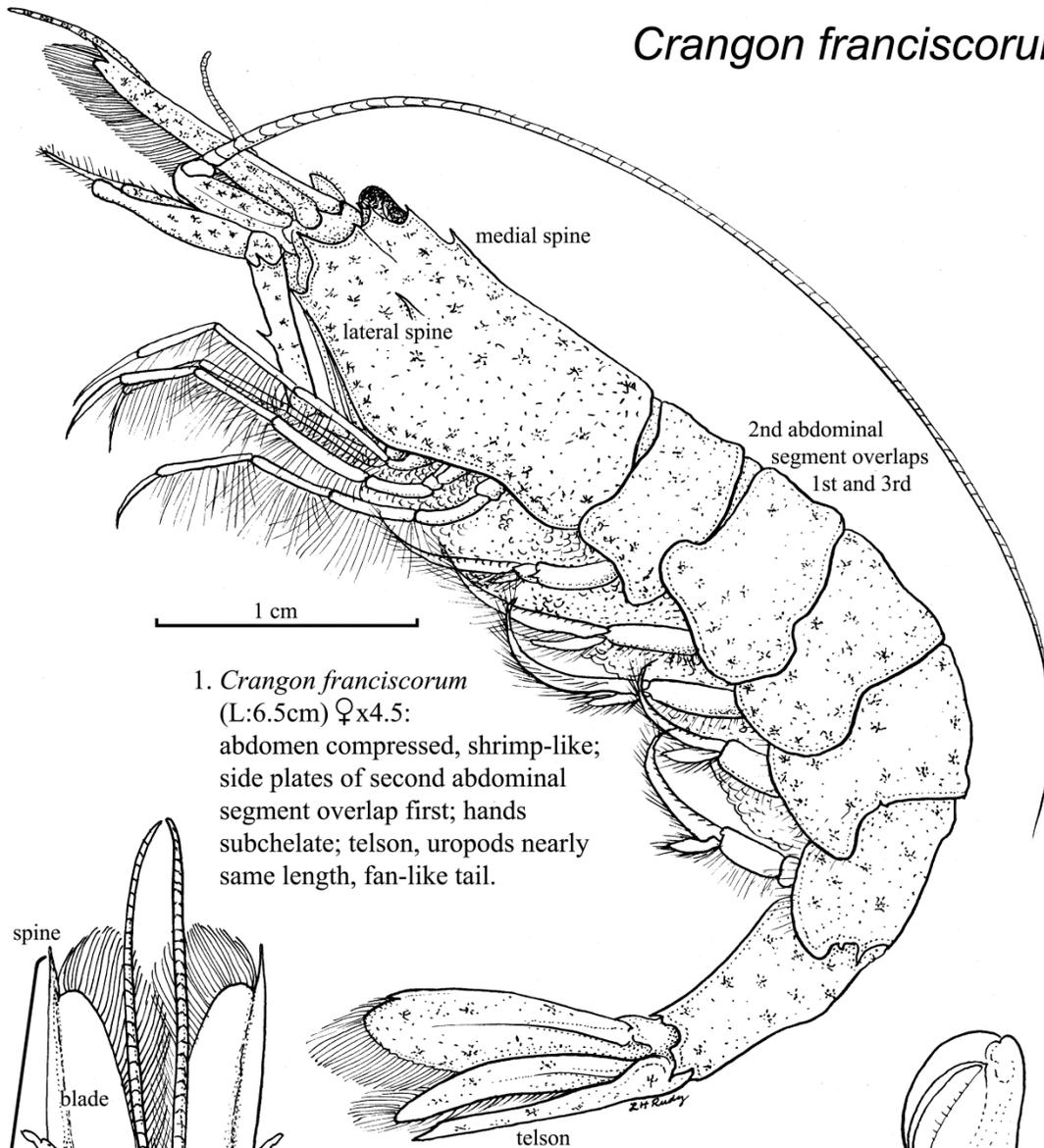
Predators—sport and food fishes-important food item of young striped bass in upper Coos Bay (Krygier and Horton 1975); primary food shrimp in San Francisco Bay.

Behavior—

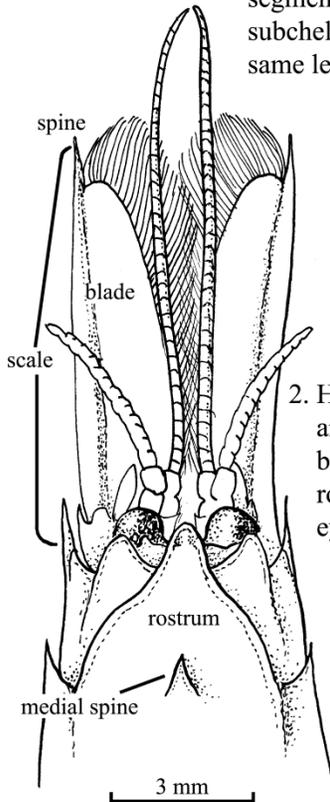
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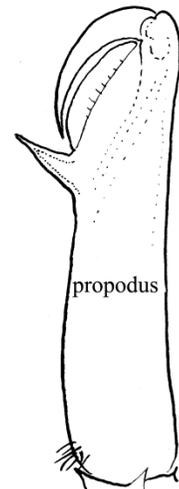
Crangon franciscorum



1. *Crangon franciscorum*
(L:6.5cm) ♀x4.5:
abdomen compressed, shrimp-like;
side plates of second abdominal
segment overlap first; hands
subchelate; telson, uropods nearly
same length, fan-like tail.



2. Head x8:
antennal scale 3.4 length of carapace;
blade broad, rounded; spine long;
rostrum short, flattened; rounded;
eyes free; carapace with medial spine.



3. First cheliped:
hand slender, finger turned back,
nearly longitudinal; propodus at
least four times as long as wide.