

# *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; 2<sup>nd</sup> segment overlaps 1<sup>st</sup> (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 6<sup>th</sup> 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*, *Hermisenda 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**—

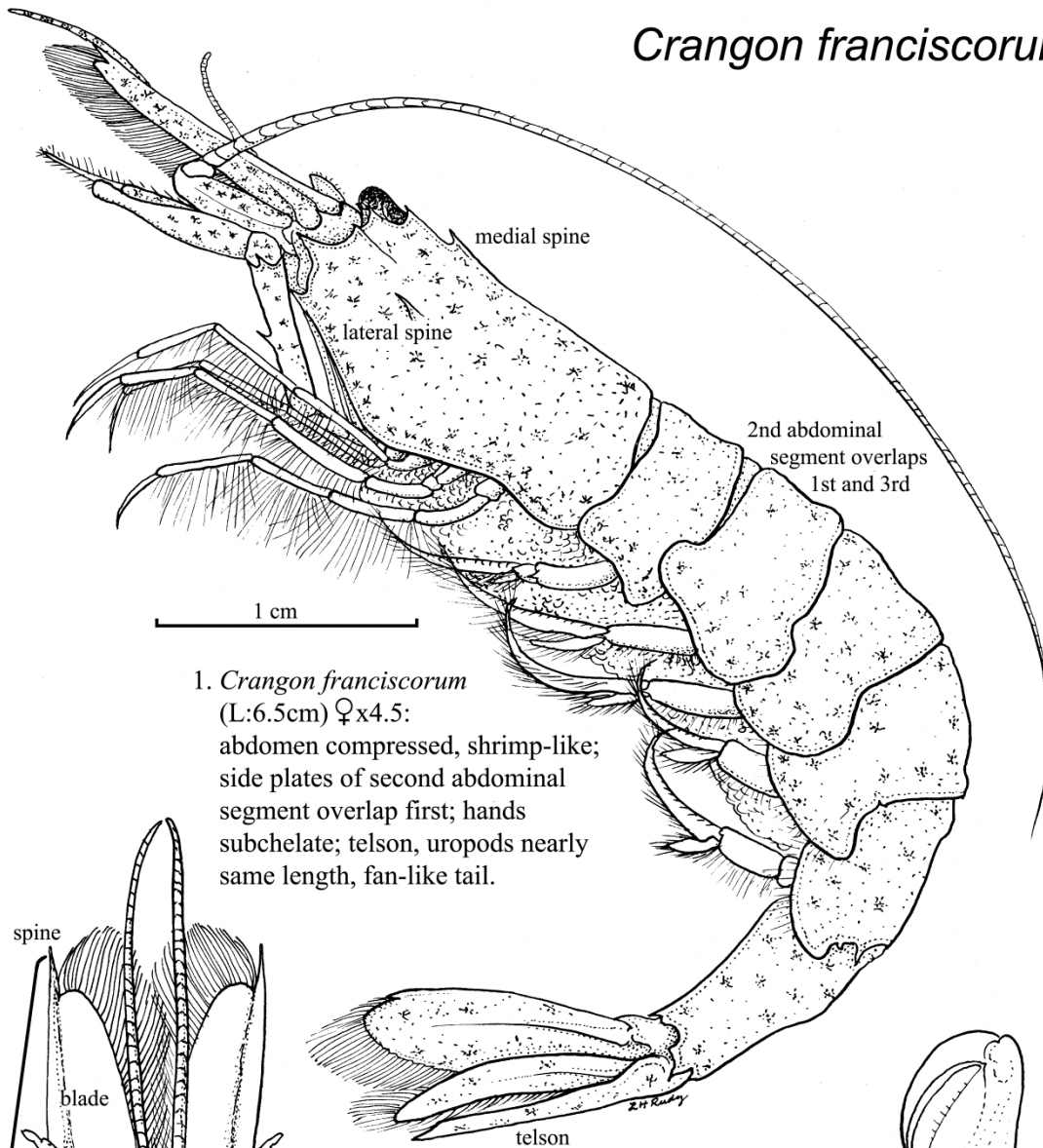
**Predators**—sport and food fishes-important food item of young striped bass in upper Coos Bay (Krygier and Horton 1975); primary food shrimp in San Francisco Bay.

**Behavior**—

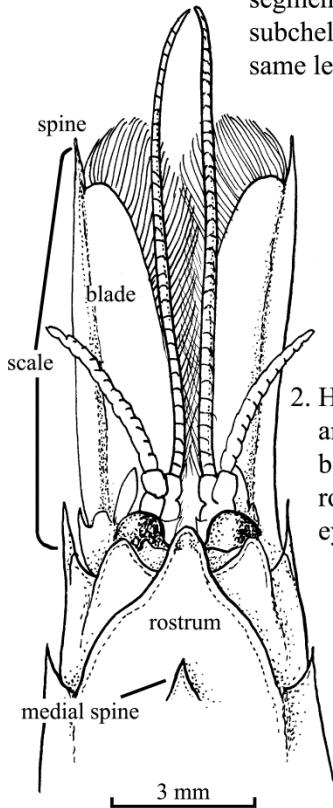
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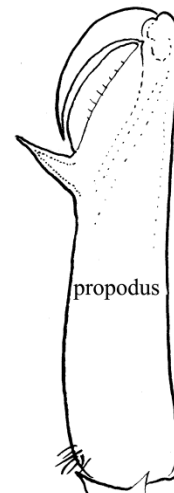
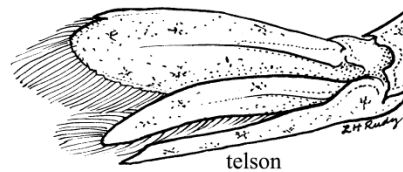
# *Crangon franciscorum*



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.