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# *Angustassiminea californica*

A small salt marsh snail

Phylum: Mollusca

Class: Gastropoda, Caenogastropoda

Order: Littorinimorpha

Family: Truncatelloidea, Assimineidae

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**Taxonomy:** Defined by Tryon in 1865. Updated from *Assiminea* to *Angustassiminea* in 2019 (MolluscaBase 2019).

## Description

**Size:** less than 4 mm high; most specimens collected near 3 mm.

**Color:** glossy chestnut (Keen 1971), smooth, transparent (largest whorl); interior porcelain-like, not pearly; spire often almost black (Coos Bay specimens); animal white with black markings (fig. 4).

### Shell:

**Shape:** 5 whorls: rounded, convex; globose to turbinata (Keen and Coan 1974), taller than wide; aperture subcircular, without notch or canal; inner lip spread out as a small thickened callus (Keen and Coan 1974) (fig. 3).

**Columella:** continuous with inner lip: no shelf, no folds, appressed to whorl. Spreads into callus. (fig. 3).

**Operculum:** very thin, transparent, subspiral, convex (fig. 2).

**Body:** eyes on short ocular peduncles, no tentacles: family Assimineidae (Keen 1971) (fig. 4). Radula with 3 basal cusps on both sides of central plate: genus *Angustassiminea* (not figured).

## Possible Misidentifications

*Angustassiminea californica* is one of a small association of salt marsh snails. Within our range it is often found with or near *Littorina (Algamorda) newcombiana*. This is a slightly larger littorine (to 6 mm) with 4 whorls, a nearly circular aperture, and with a simple chink between the large whorl and inner lip. The general shape and ap-

pearance of the two gastropods is quite similar. *L. (A.) newcombiana* does not have ocular peduncles.

A 2<sup>nd</sup> snail common found in salt marshes is *Ovatella myosotis*, a pulmonate of rather olive shape, up to 8 mm long. It is subcylindrical, not turbinata, with a short spire, three columellar folds, and no operculum. (See plate)

Littorine snails are larger than *Angustassiminea*, but can be superficially similar: *Littorina sitkana*, often found in this association, is globose, almost as wide as long, and has either heavy striated sculpture or dark horizontal lines. The animal has long tentacles, not *Angustassiminea*'s unusual ocular peduncles. *Littorina scutulata*, the checkered littorine, is occasionally found in the saltier parts of marshes. It is quite a bit larger than all the preceding snails, and is patterned on its exterior and purple inside.

## Ecological Information

**Range:** Vancouver Island, British Columbia, to Cabo San Lucas, Baja California (Keen 1971).

**Local Distribution:** Coos Bay, many stations: South Slough, Haynes Inlet.

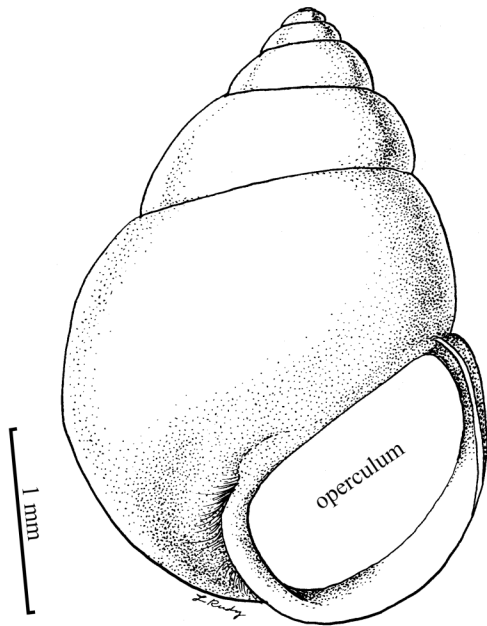
**Habitat:** under driftwood, debris, *Salicornia*, in mud.

**Salinity:** generally a wide toleration of salinities: to 2.4 ‰ seawater; possibly to 16 ‰ (Matthews 1979).

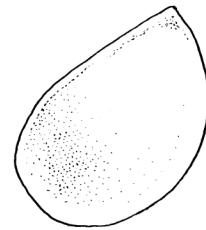
**Temperature:** varied (salt marsh temperatures).

**Tidal Level:** family Assimineidae are intertidal<sup>4</sup>; all live above the low tide level; this species likes upper, usually dry parts of the marsh, about 3-4 feet (South Slough, Coos

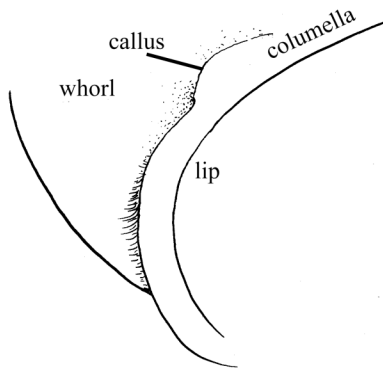
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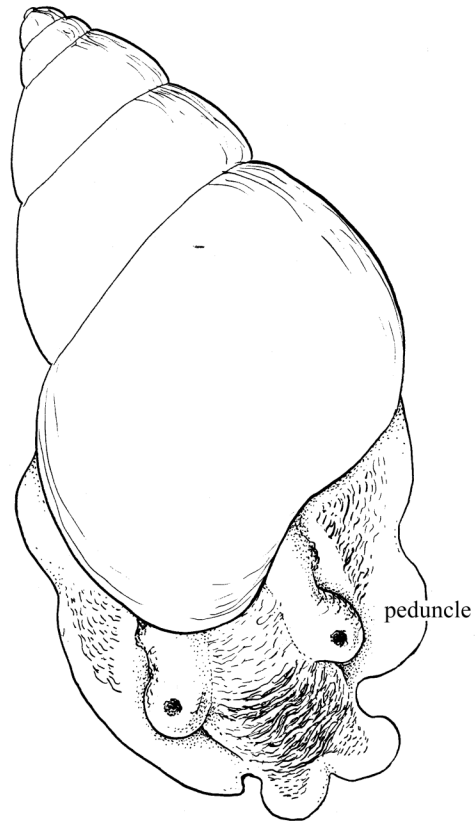
1. *Angustassiminea californica*  
(anterior view, H:3.3 mm) x30:  
5 convex whorls, taller than wide



2. Operculum x30



3. Inner lip x50:  
columella continuous with lip,  
with no shelf, and a thick callus,  
lip appressed to whorl



4. Animal (dorsal view) x30:  
note eyes on ocular peduncles; no tentacles

Bay).

**Associates:** littorines *L. sitkana*, *L. (A.) newcombiana*, pulmonate *Ovatella myosotis*, amphipod *Traskorchestia traskiana*; plants: *Salicornia*, *Distichilis*, *Fucus*.

**Abundance:** common in *Salicornia* marshes (Smith and Carlton 1975).

## Life-History Information

### Reproduction:

**Larva:**

**Juvenile:**

**Longevity:**

**Growth Rate:**

**Food:**

**Predators:** fish: many snails found in gut content analysis (Coos Bay) (Matthews 1979).

**Behavior:**

## Bibliography

1. KEEN, A. M. 1971. Sea shells of tropical west America; marine mollusks from Baja California to Peru. Stanford University Press, Stanford.
2. KEEN, A. M., and E. COAN. 1974. Marine Molluscan Genera of Western North America: An Illustrated Key. Stanford University Press, Stanford, California.
3. MATTHEWS, R. 1979. A comparative study of preferred salinities among South Slough snails. Oregon Institute of Marine Biology (University of Oregon).
4. MOLLUSCABASE. 2019. MolluscaBase. *Angustassiminea californica* (Tryon, 1865), World Register of Marine Species at: <http://www.marinespecies.org/aphia.php?p=taxdetails&id=845921>. [Accessed 3/18/2019].

Updated 1983

Taxonomy updated 2019

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