

Microcosmus exasperatus Heller, 1878  
Pyuridae

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SCAMIT Code: CSUF 1A

Date examined: Dec. 8, 1986  
Voucher by: Gretchen Lambert

Literature:

- Kott, P. 1985.  
Van Name, W.G. 1945.

Diagnostic Characters:

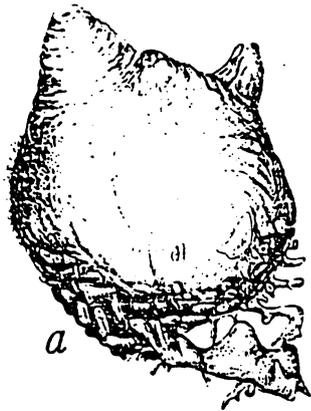
1. Tunic thick and tough, usually some shade of red, reddish purple, or pink externally and pearly grey internally.
2. Branchial sac with 8 or 9 branchial folds on each side of the body. Ninth fold might be rudimentary. Branchial siphon lined with tiny, fleshy, flattened spines bluntly pointed. At the base of the branchial siphon lining are 4 pockets which form a cuspid valve. Eight to ten branchial tentacles pinnately branched with secondary and sometimes tertiary branching.
3. One gonad on each side of the body, consisting of 3-4 segments on the left side and 4-5 on the right. Gonad on left side crosses the descending loop of the gut.
4. Dorsal tubercle C shaped with the horns inrolled and spiralled at least one turn.
5. Dorsal lamina a continuous membrane, not cleft into languets.

Remarks:

This species can be distinguished from common California Pyura species by a constellation of characters: the 8 branchial folds instead of 6, the spines lining the branchial siphon, the 4 pockets at the base of the branchial siphon, the gonad crossing the descending gut loop (it does not cross in Pyura), the spiralling of the horns of the dorsal tubercle, and the absence of languets on the dorsal lamina.

Depth range: intertidal to 42 m., perhaps deeper.

Distribution: This is the first record that I am aware of for southern California. It is a very sidespread warm water species, occurring from the Red Sea to Malaysia, Australia, and Hawaii, as well as Bermuda, the West Indies, Florida and Brazil. It does occur in some Australian temperate waters. We have collected it from San Diego, San Pedro, and Alamitos Harbors on floats since Feb. 1986.



Tokioka 1967, p. 209



Branchial spines  
Kott 1985, p. 337

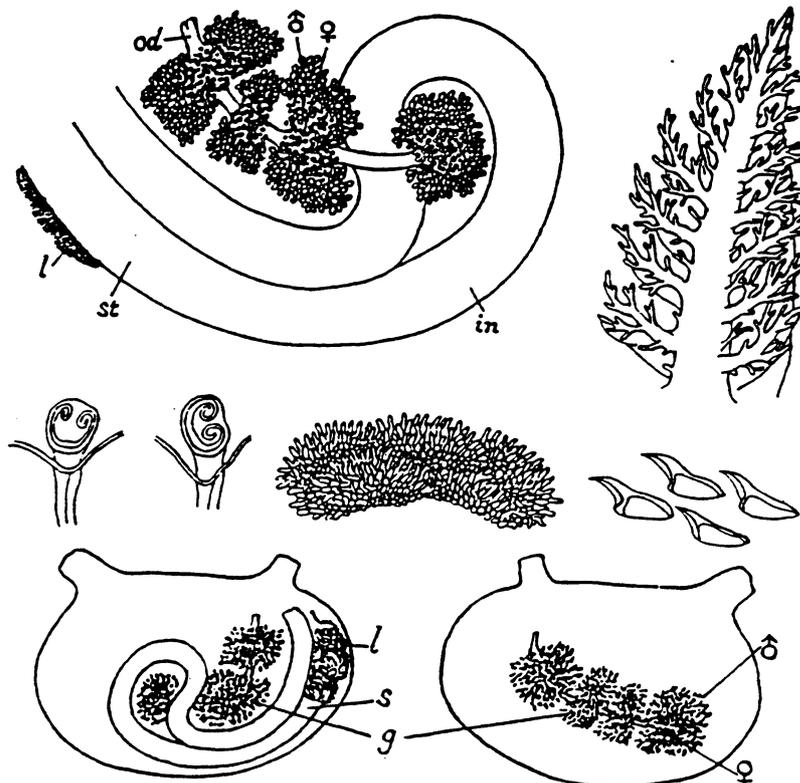


FIG. 230. *Microcosmus exasperatus* Heller. Details: alimentary tract, tentacle, dorsal tubercle, liver, and minute spines ( $\times 250$ ), from lining of the distal part of branchial siphon; also, left and right sides of body, somewhat enlarged.