

from Ross from Lamy TIMOÈLI KEY TO WEST COAST ORBINIIDAE Adapted from Fauchald, 1977, 1972, and Hartman, 1969 1. Horra Two asetigerous anterior segments . . . la. 2 lb. A single asetigerous segment 5 Branchiae present on all but a few anterior and posterior 2a. segments PROTOARCIELLA 3 Branchiae absent 2b. 4 3a. 1 to 5 furcate setae in all notopodia (may be absent in few posteriormost notopodia); notopodial postsetal lobe begins as short digitate lobe, elongates thru setigers 4 to 16, then gradually shortens to become a short conical papilla PROTOARCIELLA OLIGOBRANCHIA Furcate setae absent in first 9 notopodia, then 2 in 3b. tenth and succeeding notopodia; notopodial postsetal lobe elongate thruout body, does not change size or shape PROTOARCIELLA SP. A Williams 4a. Thoracic setae all capillaries. . . ORBINIELLA NUDA Thoracic setae includes capillaries and acicular 4b. spines GENUS A Williams 5a. Prostomium rounded or truncate. . . NAINERIS . . 6 5b. Prostomium more or less pointed 6a. Branchiae present from setigers 20-23, small and inconspicuous NAINERIS NANNOBRANCHIA Branchiae present from anterior thoracic setiger, large 6Ъ. and conspicuous 7 Branchiae present from setiger 4-5; postsetal lobe of 7a. thoracic neuropodia simple; thoracic neuropodia with uncini but not subuluncini . NAINERIS QUADRICUSPIDA (1) 7b. Branchiae present from setiger 5-6; postsetal lobe of thoracic neuropodia bifid from setiger 7 on; no subul(2) ... 7c. Branchiae present from setiger 7-15; postsetal lobe of thoracic neuropodia changes from a simple low fold to short and fleshy with a small superior papilla; subuluncini present in thoracic neuropodia NAINERIS DENDRITICA All thoracic parapodia with only slender, pointed setae $\hat{\star} ig k$ 8a. LEITOSCOLOPLOS 8b. Some thoracic neuropodia with setae of another kind . . 12 9a. Subpodial lobe on posterior thoracic neuropodia; thorax with 16-18 setigers; branchiae present from setiger 11-12 LEITOSCOLOPLOS PANAMENSIS 9Ъ. No subpodial lobe - - -. 10

10a. 10b.	Thorax with 15 to 21 setigers; branchiae present from setigers 13-18 LEITOSCOLOPLOS ELONGATUS Thorax with less than 15 setigers; branchiae present
	on setiger 13 or before
lla.	Thorax with 13 to 15 setigers; branchiae start on setiger 12-13 (on at least one of the last thoracic (3) setigers)
llb.	
12-	There is acted of 2 abruntly different kinds 12
12a. 12b.	Thoracic setae of 2 abruptly different kinds 13 Thoracic setae not abruptly different
13a.	Anterior three thoracic neuropdia with bristle-tipped setae
13b.	
14a.	Branchiae from setiger 8 or 9 through remaining
14b.	setigers CALIFA CALIDA Branchiae from setiger 8 or 9 through setigers 18 - 20 only CALIFIA MEXICANA
15a.	Ventral fringe absent; posterior thoracic segments 4; modified spines weakly hastate, dark brown; branchiae start on setiger 6 PHYLO NUDUS
15b.	Ventral fringe present; posterior thoracic segments number 6 or more
16a.	thoracic segments; interramal cirrus present in some
16b.	abdominal parapodia PHYLO FELIX Modified spines acicular, yellow; 13 or more posterior thoracic segments; interramal cirrus mIssing
17a.	Some thoracic neuropodia with rows of papillae along the ventrum ORBINIA JOHNSONI
17b.	Without rows of papillae on the ventrum
18a.	10 - 15 large unéni in each thoracic neuropodia; abdominal neuropodia with thick, projecting acicula; branchiae from setiger 12SCOLOPLOS (LEODAMAS) MAZATLANENSIS
185.	Thick projecting acicula absent in abdominal neuropodea, only pointed setae SCOLOPLOS (SCOLOPLOS) 19 Acmerger (>12/13) VS. Aprecept
19a.	Subpodial lobe present in Enuropodia from setigers 14-17 to about setiger 32 SCOLOPLOS (SCOLOPLOS) ARMIGER
19b.	Without subpodial lobes

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- 20a. Transition from thorax to abdomen at setigers 19-26 (in adult worms; smaller worms change at 17/18-23); branchiae usually present from transitional setigers (from 14th at earliest) . . .SCOLOPLOS (SCOLOPLOS) ACMECEPS
- 20b. Transition from thorax to abdomen at setiger 14-15; branchiae present at setiger 11-13. SCOLOPLOS (SCOLOPLOS) ACMECEPS PROFUNDUS

(1)

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There are two forms of <u>quadricuspids</u> found in southern California. The first has notopodial postsetal lobes that are long and cirriform instead of short and triangular, and its branchiae are long, slender and cirriform instead of simple flat lobes (see Hartman, 1969). The other has posterior neuropodia with 2 postsetal lobes (Sue Williams, per. com.)

(2)

Large specimens in southern California have been found with 3 postsetal lobes beginning at setigers 12-15.

(3) L. This species is similar to <u>V</u>. mexicanus Fauchald (1972), which has 13 to 14 thoracic segments and branchiae present from segment 11-13. It differs in having a definite color pattern on the pro-and peristomium, the anterior third of the prostomium is abruptly tapered. The position of the neuropodial postsetal lobe is also distinct. Found at Coal Oil Point (SW) off Orange County and Pt. Dume in 300-600 m (LH).

Special thanks to Sue Williams for sharing her notes on new taxa and variations.