



Key to the Genus *Aphrodita* of SCAMIT (Ed. 13) and Local Provisional Species

Modified from MMS Atlas; Hartman, 1968; A Key to the Species of *Aphrodita* (Polychaeta) from the West Coast of North America (Rossi) SCCWRP TSP (1978) 6(2)

Definitions

Asperities - small bumps or scales found on the chaetal shafts

Pilose - hairy

- 1a. Animal greater than 13 mm (½") ----- 2
- 1b. Animal less than 13 mm (½") ----- *Aphrodita* sp

- 2a. (1a) Shafts of dorsal notochaetae with asperities or tubercles. ----- 3
- 2b. Shafts of dorsal notochaetae smooth. ----- 6

- 3a. (2a) Neurochaetae without spurs, may be ornamented near ends with hairs or hooks or ornamentation lacking. ----- 4
- 3b. Neurochaetae (at least inferior series) with spurs near distal end. ----- *Aphrodita armifera*
Moore, 1910
(Monterey Bay, CA)

- 4a. (3a) Superior neurochaetae with pilose tips. ----- 5
- 4b. Superior neurochaetae with smooth, blunt tips. ----- *Aphrodita raripillata*
Essenberg, 1917
(San Diego, CA)
*synonymized w/ *A. armifera*

- 5a. (4a) Without eyespots; palps 11.5X length of prostomium. ----- *Aphrodita longipalpa*
Essenberg, 1917
(La Jolla, CA)
- 5b. Eyespots present; palps 4 - 6.5X length of prostomium; dorsal notochaetae w/ asperities on only convex side of shaft and with abrupt constriction before hooked end. ----- *Aphrodita castanea*
Moore, 1910
(Monterey Bay, CA)
*synonymized w/ *A. negligens*

- 6a. (2b) Dorsal notochaetae as thick as or thinner than superior neurochaetae. ----- 7
- 6b. Dorsal notochaetae 2X thicker than superior neurochaetae. ----- *Aphrodita* sp A
Rossi, 1978 §
(southern CA)

- 7a. (6a) Inferior neurochaetae with pilose tips (or sheaths frayed, appearing pilose). ----- 8
- 7b. Inferior neurochaetae without pilose tips. ----- 10

- 8a. (7a) Median antennae with a long style (>2X length of ceratophore). ----- 9

8b. Median antennae with a short style (<2X length of ceratophore).	<i>Aphrodita negligens</i> Moore, 1905 (Japan)
9a. (8a) Palps 6X length of prostomium, smooth (local vouchers w/ fine cilia on palps); distal ends of neurochaetae falcate, sparsely pilose, or sheath frayed appearing pilose. ** (should be a smaller individual) **	<i>Aphrodita japonica</i> Marenzeller, 1879 (Japan)
9b. Palps 5X length of prostomium, grooved longitudinally; distal ends of neurochaetae tapering to fine tips, densely pilose.	<i>Aphrodita solitaria</i> Essenberg, 1917 (southern CA) <i>*synonymized w/ A. refulgida</i>
10a. (7b) Superior neurochaetae terminating bluntly, distally falcate or slightly curved.	----- 11
10b. Superior neurochaetae terminating in a slender, acuminate tip.	<i>Aphrodita refulgida</i> Moore, 1910 (Monterey Bay, CA)
11a. (10a) Median antennae with a short style (<2X length of ceratophore).	----- 12
11b. Median antennae with a long style (>2X length of ceratophore).	----- 13
12a. (11a) Palps 2.5X length of prostomium, without longitudinal grooves, sparsely covered by cilia; prostomium slightly wider than long; 2 pairs of large eyes present, slightly fused; ventrum thickly covered with fine papillae.	<i>Aphrodita brevitentaculata</i> Essenberg, 1917 (San Diego, CA)
12b. Palps 5.5X length of prostomium, with longitudinal grooves, covered with fine cilia; prostomium as wide as long; 2 pairs of minute eyes present (usually only the dorsal pair visible dorsally); ventrum covered with prominent capped papillae.	<i>Aphrodita cryptommata</i> Essenberg, 1917 (Newport, CA) <i>*synonymized w/ A. japonica</i>
13a. (11b) Median antennae with a prominent ceratophore; prostomium subglobular (width slightly > length); ocular protuberance large, with 2 pairs of eyes, dorsal pair very large; palps 4X length of prostomium.	<i>Aphrodita californica</i> Essenberg, 1917 (Coronado, CA) <i>*synonymized w/ A. castanea -- A. negligens</i>
13b. Median antennae with a short ceratophore; prostomium globular (length slightly > width); ocular protuberance only slightly raised, with 1-2 pairs of eyes; palps 6X length of prostomium. ** (should be a larger individual) **	<i>Aphrodita japonica</i> Marenzeller, 1879 (Japan)

Other *Aphrodita* reported from the region but not by SCAMIT

- Aphrodita falcifera* Hartman, 1939 (Cedros Island, Mexico)
- Aphrodita mexicana* Kudenov, 1975 (Western Mexico)
- Aphrodita parva* Moore, 1905 (British Columbia, Canada)
- Aphrodita sonora* Kudenov, 1975 (Gulf of California, Mexico)

References

- 1) **Blake, J. A.** 1995. Family Aphroditidae Malmgren, 1867. pages 99-104. IN: Blake, James A.; Hilbig, Brigitte; and Scott, Paul H. *Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. 5 - The Annelida Part 2. Polychaeta: Phyllodocida (Syllidae and scale-bearing families), Amphinomida, and Eunicida*. Santa Barbara Museum of Natural History. Santa Barbara.
- 2) **Chamberlin, R. V.** 1919. Pacific coast Polychaeta collected by Alexander Agassiz. *Bulletin of the Museum of Comparative Zoology* 63(6): 251-270.
- 3) **Essenberg, C.** 1917. On some new species of Aphroditidae from the coast of California. *University of California Publications in Zoology* 16(22): 401-430.
- 4) **Hartman, O.** 1936. Nomenclatural changes involving California polychaete worms. *Journal of the Washington Academy of Sciences* 26(1): 31-32.
- 5) **Hartman, O.** 1938. Annotated list of the types of polychaetous annelids in the Museum of Comparative Zoology. *Bulletin of the Museum of Comparative Zoology at Harvard College* 85(1): 3-31, plates 1-3.
- 6) **Hartman, O.** 1939. Polychaetous annelids. Part I. Aphroditidae to Pisionidae. *Allan Hancock Pacific Expeditions* 7(1): 1-156.
- 7) **Hartman, O.** 1959. Catalogue of the Polychaetous Annelids of the World. Parts 1 and 2. *Allan Hancock Foundation Occasional Paper* 23: 1-628.
- 8) **Hartman, O.** 1968. *Atlas of the Errantiate Polychaetous Annelids from California*. Los Angeles, Ca, University of California, Allan Hancock Foundation.
- 9) **Hutchings, P. A. & McRae, J.** 1993. The Aphroditidae (Polychaeta) from Australia, together with a redescription of the Aphroditidae collected during the Siboga Expedition. *Records of the Australian Museum* 45: 279-363.
- 10) **Imajima, M.** 2003. Polychaetous Annelids from Sagami Bay and Sagami Sea Collected by the Emperor Showa of Japan and Deposited at the Showa Memorial Institute, National Science Museum, Tokyo (II). Orders included within the Phyllodocida, Amphinomida, Spintherida and Eunicida. *National Science Museum Monographs* 23: 1-221.
- 11) **Kudenov, J. D.** 1975. Errant polychaetes from the Gulf of California, Mexico. *Journal of Natural History* 9(1): 65-91.
- 12) **Kudenov, J. D.** 1975. Two new species of errant polychaetes from the Gulf of California, Mexico. *Bulletin of the Southern California Academy of Sciences* 74(2): 75-80.
- 13) **Marenzeller, E. von.** 1879. Südjapanische Anneliden. I. (Amphinomea, Aphroditea, Lycoridea, Phyllocoea, Hesionea, Syllidea, Eunicea, Glycera, Sternaspidea, Chaetopterea, Cirratulea, Amphictenea.). *Denkschriften der Kaiserlichen Akademie der Wissenschaften, Mathematisch-naturwissenschaftliche Classe, Wien* 41(2): 109-154, plates I-VI.
- 14) **McIntosh, W. C.** 1885. Report on the Annelida Polychaeta collected by H.M.S. Challenger during the years 1873-1876. *Ser. Zoology* vol. 12 [part 34 of reports]: 1-554, plates 1-55, 1A-39A, & Annelida stations map.
- 15) **Monro, C. C. A.** 1933. The Polychaeta Errantia collected by Dr. C. Crossland at Colón, in the Panama region, and the Galapagos Islands during the Expedition of the S.Y. 'St. George'. *Proceedings of the Zoological Society of London* 103(1): 1-96.
- 16) **Moore, J. P.** 1905. New species of Polychaeta from the North Pacific, chiefly from Alaskan waters. *Proceedings of the Academy of Natural Sciences of Philadelphia* 57: 525-554, plates XXXIV-XXXVI.
- 17) **Moore, J. P.** 1910. The polychaetous annelids dredged by the U.S.S. "Albatross" off the coast of Southern California in 1904: II. Polynoidae, Aphroditidae and Sigalionidae. *Proceedings of the Academy of Natural Sciences of Philadelphia* 62: 328-402, plates XXVIII-XXXIII.
- 18) **Pettibone, M. H.** 1953. Some scale-bearing polychaetes of Puget Sound and adjacent waters. 1-89. *University of Washington Press. Seattle*.

- 19) **Rossi, M.** 1978. A Key to the Species of *Aphrodita* (Polychaeta) from the West Coast of North America. *SCCWRP TSP* 6(2): 3-5.
- 20) **WoRMS.**

Version History

1.0	Key created	November, 2021 - BMH
1.1	Added non-SCAMIT reported <i>Aphrodita</i>	November, 2021 - BMH
2.0	Removed DRAFT designation	April, 2023 - BMH