



Key to the species of Phaennidae Xanthocalanus occurring in the China Seas

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Recommended Citation

Shih, Chang-tai; Chen, Qing-Chao; Lan, Yang-Chi; Hsiao, Shih-Hui; and Weng, Chi-Yu (2022) "Key to the species of Phaennidae Xanthocalanus occurring in the China Seas," *Journal of Marine Science and Technology*. Vol. 30: Iss. 5, Article 62.

DOI: 10.51400/2709-6998.2653

Available at: <https://jmstt.ntou.edu.tw/journal/vol30/iss5/62>

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REVIEW-TAXONOMIC INDEX

Key to the Species of Phaennidae *Xanthocalanus* Occurring in the China Seas

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Xanthocalanus agilis(4b/5b/f), *dilatatus* (3a/5a/f), *multispinus*(4a/f) (male unknown), *pulcher*(2a/f) (male unknown)

1a	Female	2
1b	Male	5
2a/1a	Cephalosome with crest. Leg 5 smooth, without spinules	<i>Xanthocalanus pulcher</i>
2b	Cephalosome without crest. Leg 5 with spinules on all segments	3
3a/2b	Pedigerous somite 1 with rounded protrusion at lateral distal corner in dorsal view. Prosome: ratio of length to width less than 1.5	<i>Xanthocalanus dilatatus</i>
3b	Pedigerous somite 1 without rounded protrusion at lateral distal corner in dorsal view. Prosome: ratio of length to width more than 2	4
4a/3b	Leg 5: segment 3 longer than segment 2, middle terminal spine stronger and longer than both lateral terminal spines, a spine present at midlength of outer margin	<i>Xanthocalanus multispinus</i>
4b	Leg 5: segment 3 shorter than segment 2, 3 terminal spines of segment 3 more or less subequal in length, no spine present on outer margin	<i>Xanthocalanus agilis</i>
5a/1b	Pedigerous somite 1 with rounded protrusion at lateral distal corner in dorsal view. Prosome: ratio of length to width smaller than 1.5. Left leg 5: segment 4 three times as long as segment 5; segment 5: inner margin of distal half bulging, with a series of short spines, ending with a robust spine	<i>Xanthocalanus dilatatus</i>
5b	Pedigerous somite 1 without protrusion at lateral distal corner in dorsal view. Prosome: ratio of length to width larger than 2. Left leg 5: segment 4 three times as long as segment 5; segment 5: segment 4 two and half times as long as segment 5; segment 5 tapering distally with no spines on both margins	<i>Xanthocalanus agilis</i>

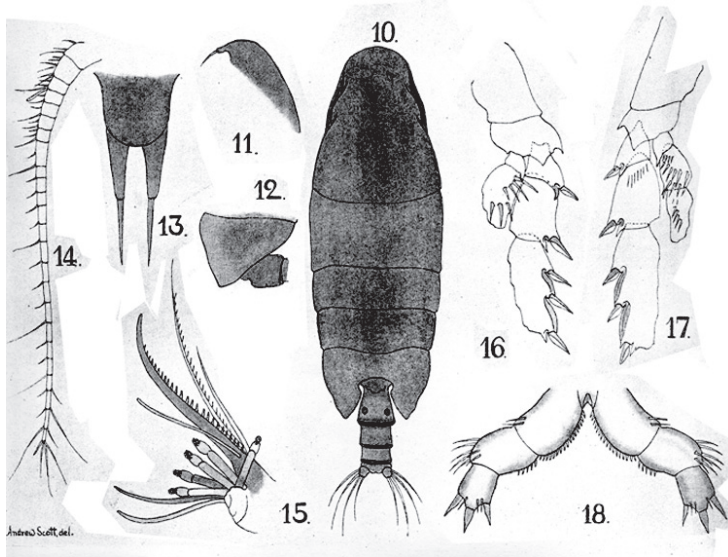
Available online 14 November 2022

* Corresponding author.

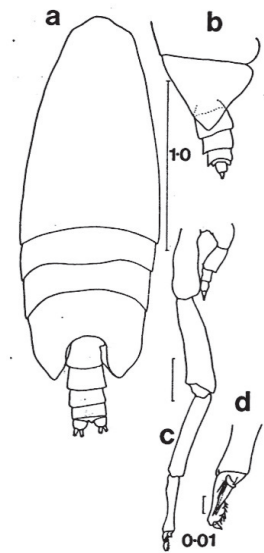
E-mail address: ctshih@mail.ntou.edu.tw (C.-t. Shih).



Xanthocalanus agilis Giesbrecht, 1892 (Size: female, 2.14–2.68 mm; male, 2.07–2.58 mm)



Scott



Roe

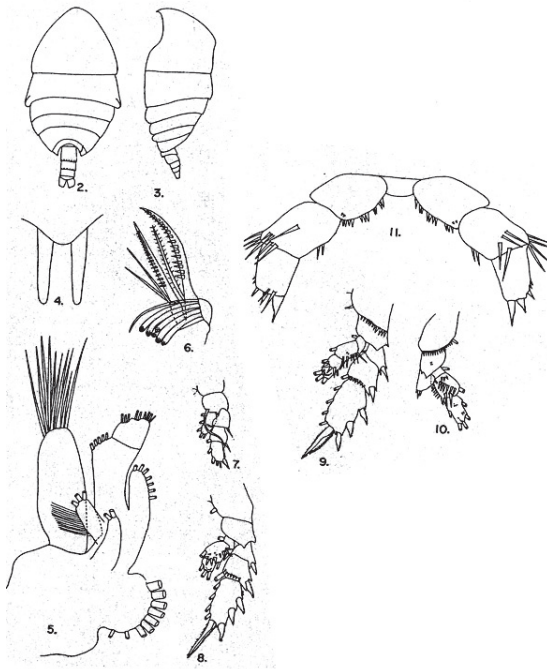
Xanthocalanus agilis Giesbrecht, 1892

Scott, A., 1909, Plate XXXIII, *Xanthocalanus agilis* Giesbrecht, 1892, Fig. 10-18, Female (from Molucca Passage & Celebrs Sea): 10, habitus (dorsal); 11, forehead (lateral); 12, last thoracic and genital segments (left side); 13, rostrum; 14, antennule; 15, maxilla (distal portion); 16, leg 2; 17, leg 4; 18, leg 5.

H.S.J. Roe, 1975: 312, Fig. 9. *Xanthocalanus agilis* Giesbrecht, 1892, Male: a, habitus (dorsal); b, last thoracic segment and urosome (right lateral side); c, leg 5; d, terminal segment of left leg 5.

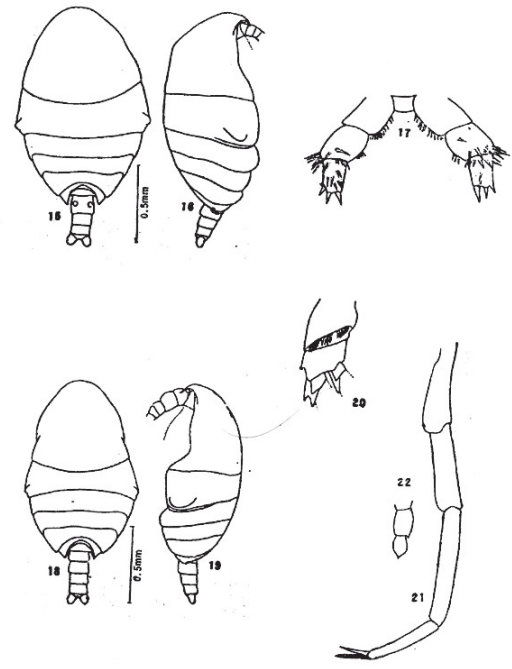
Adapted from Razouls C., de Bovée F., Kouwenberg J. and Desreumaux N., 2005–2020. Diversity and Geographic Distribution of Marine Planktonic Copepods. Sorbonne University, CNRS. Available at <http://copepodes.obs-banyuls.fr/en> [Accessed May 20, 2021].

Xanthocalanus dilatatus Grice, 1962 (Size: female, 1.50–1.60 mm; male, 1.40 mm)



Grice

Xanthocalanus dilatatus Grice, 1962

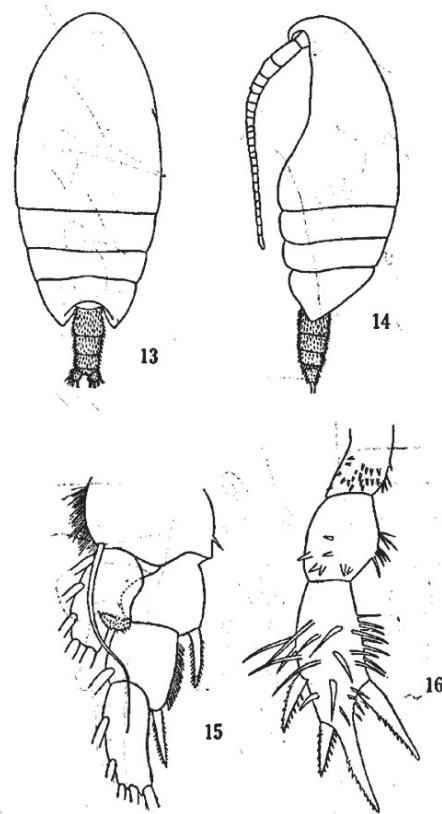


Guangshan & Honglin

Grice G.D., 1962, 61 (186) *Xanthocalanus dilatatus* Grice, 2, 3, habitus (dorsal, lateral); 4, rostrum; 5, maxillule; 6, maxilla (terminal part); 7, leg 1; 8, leg 2; 9, leg 3; 10, leg 4 (distal two segment of exopod missing); 11, leg 5.

Guangshan & Honglin, 1984. *Xanthocalanus dilatatus* Grice, 1962, Female: 15, 16, habitus (dorsal, lateral); 17, leg 5; 20, B1 and B2 of leg 3. Male: 18, 19, habitus (dorsal, lateral); 21, leg 5 (left); 22, leg 5 (right).

Xanthocalanus multispinus Chen & Zhang, 1965 (Size: female, 1.85–1.95 mm; male, unknown)

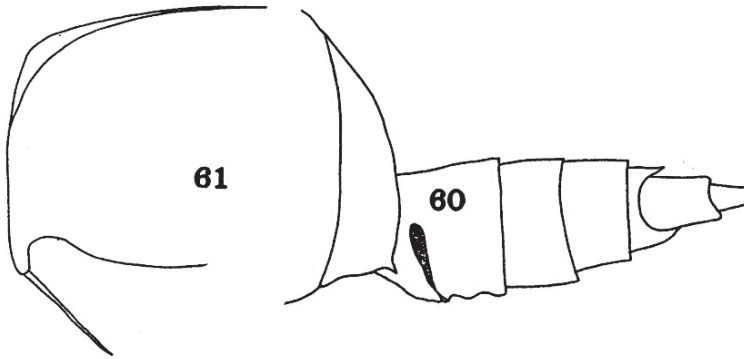


Xanthocalanus multispinus Chen & Zhang, 1965

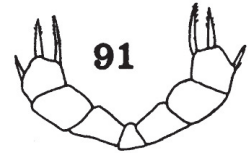
Q.-c Chen & S.-z. Zhang, 1965, Pl.17, 13–16. Female (from E China Sea): 13, habitus (dorsal); 14, idem (lateral left side); 15, left leg 1 (anterior); 16, leg 5 (posterior).

Nota: Head and 1st thoracic segment fused, 4th and 5th fused. Forehead rather broad, rostral spines, large. A1 24-segmented. Exopod of A2 longer than endopod. Endopod of P1 with outer middle swollen. Length of cephalothorax 4.7 times that of urosome. Urosome 4-segmented with numerous hairs. Anal segment very short. Length and width of furcal rami about equal. Apical spine of 3rd exopodal segment of P2–P4 coarser, with coarser outer marginal.

Xanthocalanus pulcher Esterly, 1911 (Size: female, 3.42 mm; male, unknown)



Pl. 29 (Head & last prosomal somite and urosome)



Pl. 31 (Leg 5)

Xanthocalanus pulcher Esterly, 1911

C.O. Esterly, 1911, Pl.29, Figs. 60 and 61. *Xanthocalanus pulcher* Esterly, 1911, Female (from San Diego Region; from vertical haul: 0–90 m): 60, last prosome segment and urosome (lateral, left side). Nota: Fig. 61. Head with a long, low crest. Rostrum consists of 2 slender filaments. Antennule 23-segmented and as long as the prosome. Maxillule with 9 bristles on the exopod, 5 on the 2nd basal, 8 on the endopod and 4 on the 2nd lobe of the inner margin. Maxilla with 6 vermiform and 2 pencillate appendages. Exopod of leg 1 3-segmented, the 1st segment without a spine on the outer margin. None of the feet are heavily spinose on the faces; the largest spines are on the endopod of leg 2 and there are none at all on the leg 4. Pl.31, Fig. 91, Female: leg 5.