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

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

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

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<tr>
<th>Step</th>
<th>Condition</th>
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<td>Female</td>
<td><em>Xanthocalanus dilatus</em></td>
</tr>
<tr>
<td>1b</td>
<td>Male</td>
<td><em>Xanthocalanus pulcher</em></td>
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<tr>
<td>2a/1a</td>
<td>Cephalosome with crest. Leg 5 smooth, without spinules</td>
<td><em>Xanthocalanus pulcher</em></td>
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<tr>
<td>2b</td>
<td>Cephalosome without crest. Leg 5 with spinules on all segments</td>
<td><em>Xanthocalanus dilatus</em></td>
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<td>Pedigerous somite 1 with rounded protrusion at lateral distal corner in dorsal view. Prosome: ratio of length to width less than 1.5</td>
<td><em>Xanthocalanus multispinus</em></td>
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<td><em>Xanthocalanus agilis</em></td>
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<tr>
<td>4a/3b</td>
<td>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</td>
<td><em>Xanthocalanus multispinus</em></td>
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<tr>
<td>4b</td>
<td>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</td>
<td><em>Xanthocalanus agilis</em></td>
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<tr>
<td>5a/1b</td>
<td>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</td>
<td><em>Xanthocalanus dilatus</em></td>
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<tr>
<td>5b</td>
<td>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</td>
<td><em>Xanthocalanus agilis</em></td>
</tr>
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E-mail address: ctsih@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, 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.

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

Grice G.D., 1962, 61 (186) Xanthocalanus dialatus 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 dialatus 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)

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).

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

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.