



## Key to the species of Calanidae Mesocalanus occurring in the China Seas

Chang-tai Shih  
*National Taiwan Ocean University, ctshih@mail.ntou.edu.tw*

Qing-Chao Chen  
*South China Sea Institute of Oceanology*

Yang-Chi Lan  
*Fisheries Research Institute*

Shih-Hui Hsiao  
*National Taipei University of Education*

Chi-Yu Weng  
*Institute of Oceanography, National Taiwan University/Ocean Data Bank of the Ministry of National Science and Technology Council, Taiwan*

Follow this and additional works at: <https://jmstt.ntou.edu.tw/journal>



Part of the [Fresh Water Studies Commons](#), [Marine Biology Commons](#), [Ocean Engineering Commons](#), [Oceanography Commons](#), and the [Other Oceanography and Atmospheric Sciences and Meteorology Commons](#)

### Recommended Citation

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

DOI: 10.51400/2709-6998.2621

Available at: <https://jmstt.ntou.edu.tw/journal/vol30/iss5/30>

This Review-Taxonomic Index is brought to you for free and open access by Journal of Marine Science and Technology. It has been accepted for inclusion in Journal of Marine Science and Technology by an authorized editor of Journal of Marine Science and Technology.

## REVIEW-TAXONOMIC INDEX

# Key to the Species of Calanidae *Mesocalanus* Occurring in the China Seas

Chang-tai Shih <sup>a,\*</sup>, Qing-Chao Chen <sup>b</sup>, Yang-Chi Lan <sup>c</sup>, Shih-Hui Hsiao <sup>d</sup>, Chi-Yu Weng <sup>e</sup>

<sup>a</sup> National Taiwan Ocean University, Taiwan

<sup>b</sup> South China Sea Institute of Oceanology, China

<sup>c</sup> Fisheries Research Institute, Taiwan

<sup>d</sup> National Taipei University of Education, Taiwan

<sup>e</sup> Institute of Oceanography, National Taiwan University/Ocean Data Bank of the Ministry of National Science and Technology Council, Taiwan

*Mesocalanus lighti*(2a/3a/f), *tenuicornis*(2b/3b/f)

1a	Female .....	2
1b	Male .....	3
2a/1a	Antennule more than 2 times as long as body. Length/width ratio of prosome about 3.5. Width of posterior margin of pedigers 1 and 3 subequal .....	<i>Mesocalanus lighti</i>
2b	Antennule about 1.5 times as long as body. Length/width ratio of prosome about 2.8. Width of posterior margin of pediger 1 about 1.2 times width of posterior margin of pediger 3.....	<i>Mesocalanus tenuicornis</i>
3a/1b	Posterolateral caudal seta very short, slightly less than one-tenth length of outer terminal caudal seta. Prosome slender, length 3.6 times width. Left leg 5, exopod segment 2 nearly as long as segment 3 .....	<i>Mesocalanus lighti</i>
3b	Posterolateral caudal seta longer, about 0.7 times length of outer terminal caudal seta. Prosome length 2.8 times width. Left leg 5, exopod segment 2 almost twice as long as segment 3 .....	<i>Mesocalanus tenuicornis</i>

Available online 14 November 2022

\* Corresponding author.

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



*Mesocalanus lighti* (Bowman, 1955) (Size: female, 2.10–3.08 mm; male, 1.90–2.68 mm)

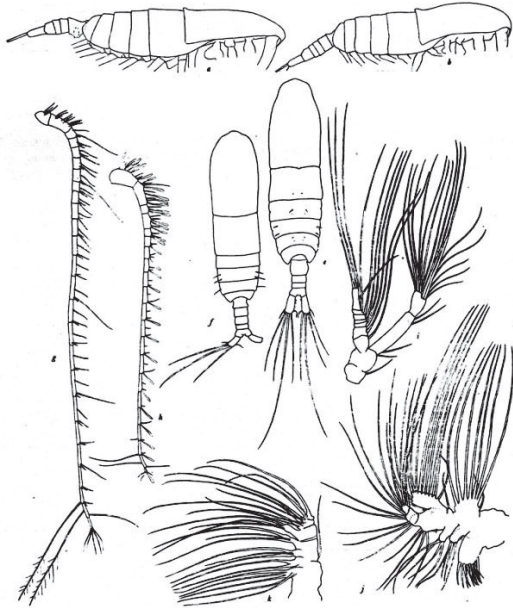


Fig. 1

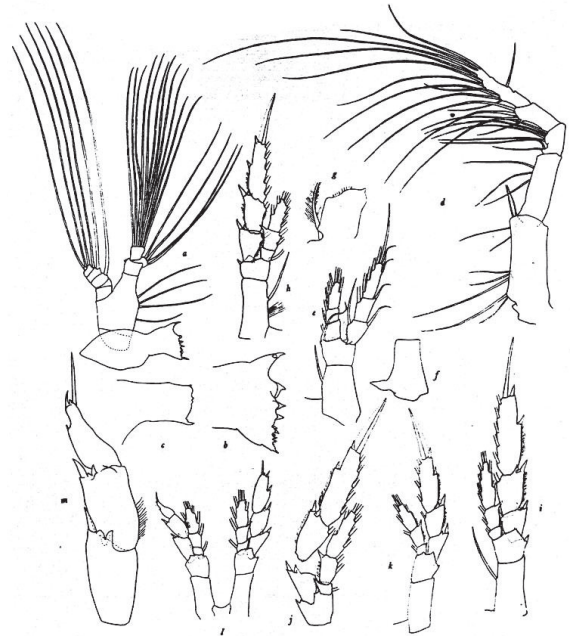


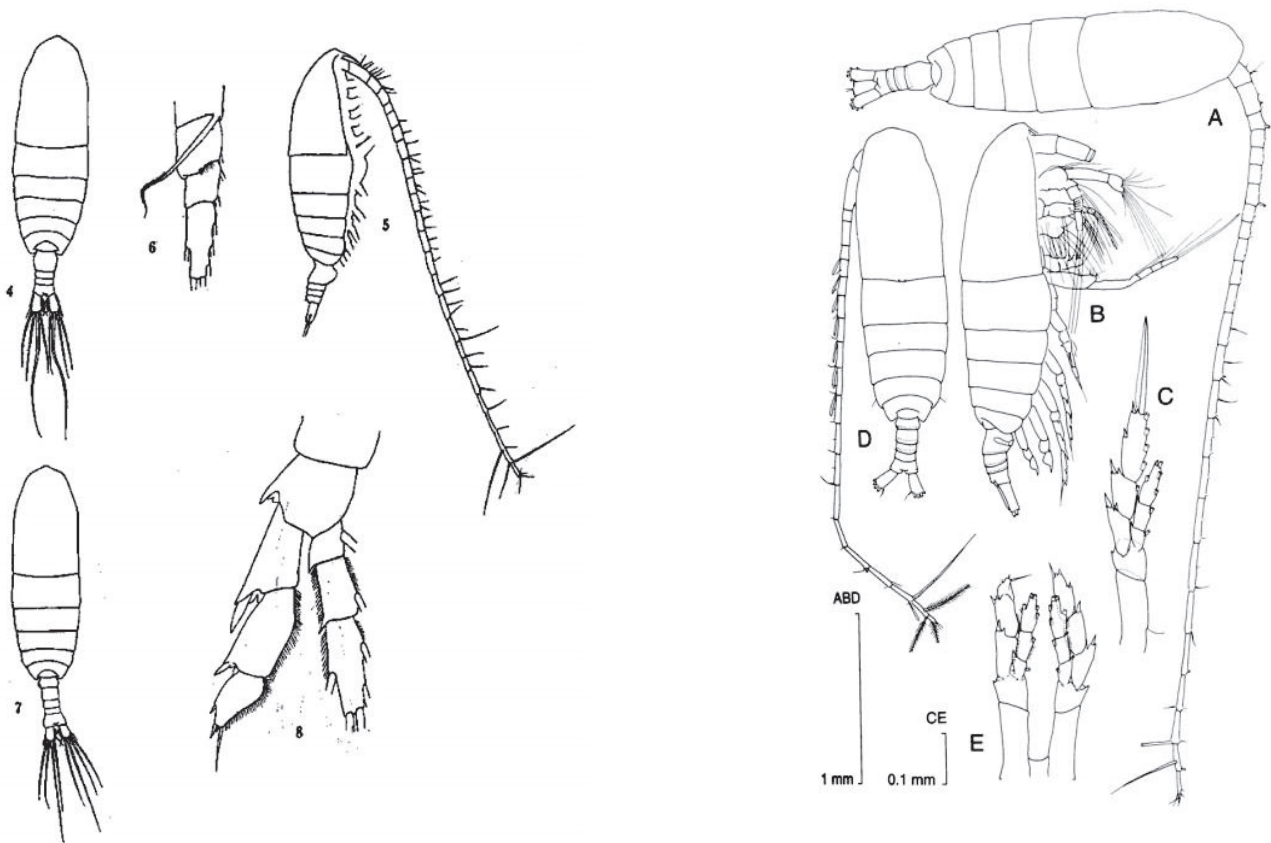
Fig. 2

*Mesocalanus lighti* (Bowman, 1955)

Bowman, 1955. As *Calanus lighti*. Fig.1, a-b; e-k. Female (off Baja California): a/e, habitus (lateral/dorsal); g, antennule; i, antenna; j, maxillule; k, maxilla. Nota: Ratio of length to depth of cephalothorax about 6:1 (as opposed to 4.5:1 in *M. tenuicornis*). Male: b/f, habitus (lateral/dorsal); h, antennule. Fig.2. Female: a, mandible; b, mandibular masticatory edge; d, maxilliped; e, leg 1; f, leg 5 exopod segment 1 (lateral); g, 1st segment of endopod of P1; h, P2; i, P3; j, P4 (basipod 1 not shown). Male: c, mandibular gnathal lobe; l, leg 5; m, left leg 5 exopod.

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 25, 2021].

*Mesocalanus tenuicornis* (Dana, 1849) (Size: female, 1.50-3.40 mm; male, 1.50-3.40 mm)



Chen & Zhang

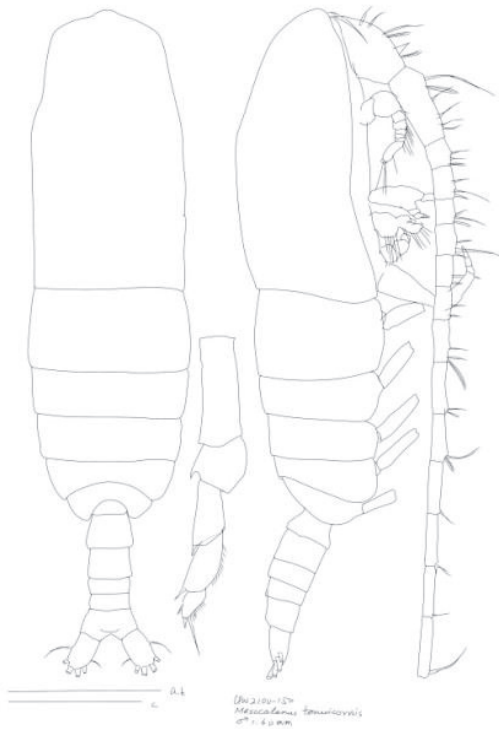
*Mesocalanus tenuicornis* (Dana, 1849)

Bradford-Grieve

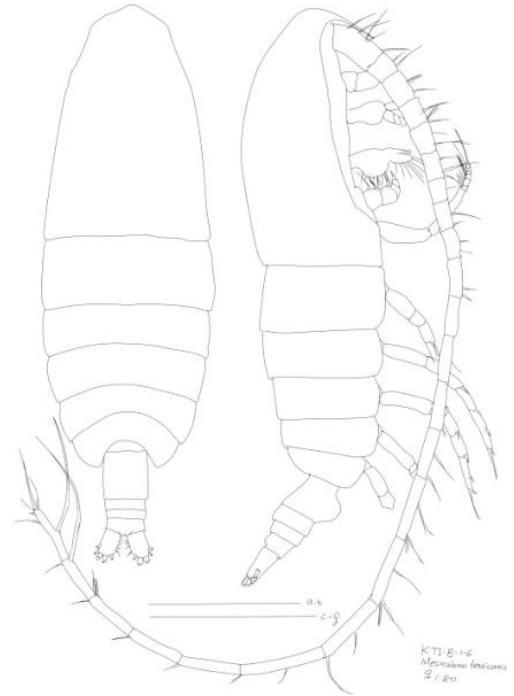
Chen & Zhang, 1965 As *Neocalanus tenuicornis*. Pl.2, 4–8. *Mesocalanus tenuicornis* (Dana, 1849), Female (from E China Sea): 4/5, habitus (dorsal/lateral); 6, leg 1 endopod (anterior). Male: 7, habitus (dorsal); 8, left leg 5 (posterior).

Bradford-Grieve, 1994. Fig.14. Female: A/B, habitus (dorsal/lateral); C, leg 5. Male: D, habitus (dorsal); E, P5 with 7 setae each.

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 25, 2021].

*Mesocalanus tenuicornis* (Dana, 1849)

Female



Male

*Mesocalanus tenuicornis* (Dana, 1849)

Original. *Mesocalanus tenuicornis* (Dana, 1849), female, 1.80 mm. East China Sea, habitus (dorsal/lateral); male, 1.60 mm, habitus (dorsal/lateral).leg 5.

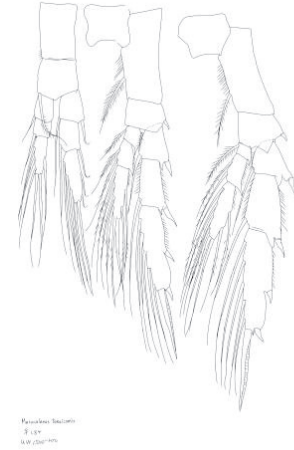
*Mesocalanus tenuicornis* (Dana, 1849)



*Antenna & mandible*



*Maxillule, maxilla & maxilliped*



*Legs 1-3*

*Mesocalanus tenuicornis* (Dana, 1849)

Original. *Mesocalanus tenuicornis* (Dana, 1849), Female, antenna & mandible; maxillule, maxilla & maxilliped; legs 1–3.