

Short Communication

First record of male *Daphnia cephalata* King (Cladocera: Daphnidae) from Oriental region

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Abstract

Male *Daphnia cephalata* King is described from South India and compared with the males of West Australia. This is the first record of its occurrence in the Oriental region.

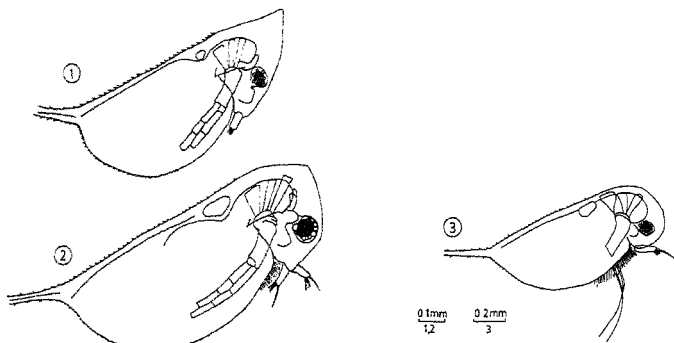
Key words: Male *Daphnia cephalata*, Oriental region, record.

1. Introduction

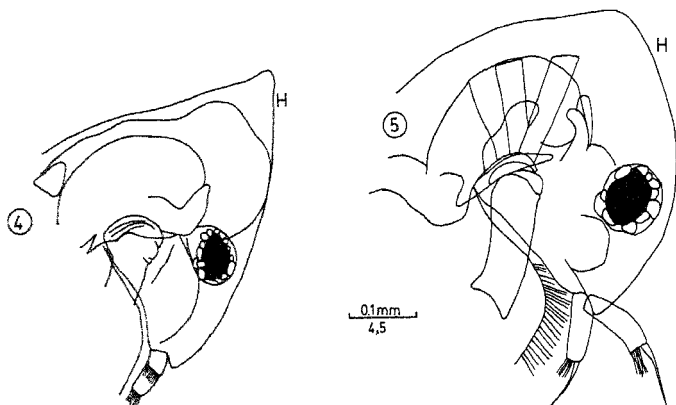
Routine identification of species of Cladocera is based on characters found in mature females, while the species of *Daphnia* are largely distinguished by their body size and head shape. These features are highly variable and hence it is important to examine several specimens from a population for identification. Males are readily recognised by the antennule which is longer than that of the female and mobile with well developed setae, which are used for identification of species. However, males always are rare in a population and their collection depends on season and time. Due to this reason, males of most species of Cladocera often remained unknown in literature. The present study reports the occurrence of male of *Daphnia cephalata* King (1852) collected from a reddish-brown turbid pond in Madurai (Lat: 9° 53' N; Long: 78° 8' E), South India, for the first time from the Oriental region.

2. Description

Male: Body length—1.3 to 1.5 mm; body width—0.45 to 0.59 mm. Small, 1/3 the size of female (Figs 1-3). Carapace tapering posteriorly. Head as wide as body, pointed at first instar, slightly rounded at second instar and almost rounded in all adult instars (Figs. 3-5). Ventral margin of head flat, top of head well curved, dorsal margin flat and vertical. Rostrum absent. Eye large, almost touching the forehead. Ocellus absent. Ventral margin of carapace angled anteriorly, evenly curved to tail. Anterior half densely setose at shoulder,

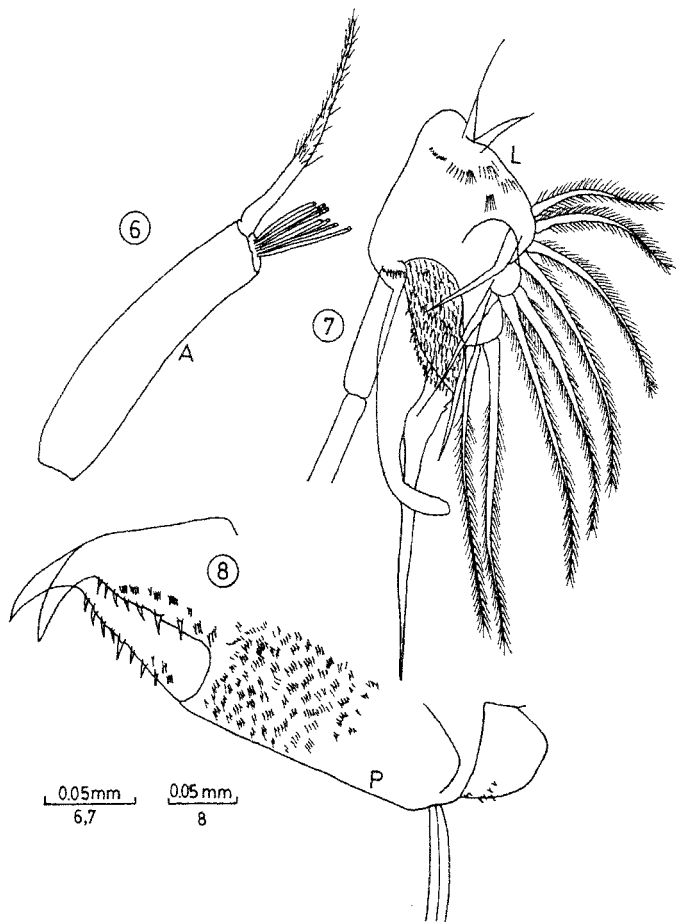


FIGS 1-3. Lateral view of *Daphnia cephalata* male. 1 - I instar; 2 - II instar and 3 - adult.



FIGS 4-5. Detail of head of *Daphnia cephalata* male. 4 - I instar and 5 - II instar.

setae long, plumose, shortening posteriorly to midline. Body with rectangular reticulation. Tail long, half as long as carapace. Antennule small, mobile, terminal setae short and plumose (Fig. 6). First thoracic appendage with hook and a long seta (Fig. 7). Dorsal margin of postabdomen straight, with slightly bulged abdominal process (Fig. 8). Two abdominal setae plumose distally. Anal spine subequal with no sinuation in anal margin. Group of



FIGS 6-8. *Daphnia cephalata* male: 6 - antennule (A); 7 - I thoracic appendage (L) and 8 - postabdomen (P).

2-5 denticles form irregular rows oblique to dorsal margin, proximal to anal spines in between abdominal seta and anal margin.

3. Remarks

The material collected in the present study agrees well with the description of the species given by Hebert¹. But it varies in the size of body, shape of helmet and ventral shoulder of carapace of the description given by Benzie². The body size of males from West Australia (1.10 ± 0.09 mm) is smaller than that of South Indian males (1.2 to 1.5 mm). However, females from South India are smaller than the Australian species³. The male of *D. cephalata* with round head found in the present study differs from the male of West Australia with a lateral crest. Moreover, the sinuate shoulder of West Australian males is absent in the South Indian males. It is also interesting to note that the males have so far not been reported from Sri Lanka⁴ and South India^{5,6} despite extensive surveys.

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