

Table 2 Effect of acetylene on oxidation of elemental sulphur in an alluvial soil

C ₂ H ₂ KPa	SO ₄ ²⁻ - S formed µg/g soil ^a
0	45.5 ± 0.5
10	42.0 ± 1.0
100	26.0 ± 0.5

^a Values are the mean of duplicate samples ± the deviation.

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ON THE OCCURRENCE OF DAPHNIA PROJECTA HEBERT, 1977 (CLADOCERA, DAPHNIDAE) AND DESCRIPTION OF MALE FROM SOUTHERN TAMILNADU.

K. VENKATARAMAN and S. KRISHNASWAMY
 Department of Environmental Biology,
 Madurai Kamaraj University,
 Madurai 625 021, India.

WHILE studying the Cladocera of temporary ponds of southern Tamilnadu, we found abundant material of

Daphnia projecta Hebert. This species was first described from Australia¹ based upon females only. However, in the present study, males were collected and are described for the first time.

Daphnia is very well represented in temperate regions (10 to 12 species) and has only a few in tropicals (2 species)^{2,3}. Several explanations are given for this relative paucity of species in the tropical regions²⁻⁵. In southern Tamilnadu, located in tropical India, as many as five species of *Daphnia* namely, *D. similis*, *D. cephalata*, *D. longicephala*, *D. projecta* and *D. lumholtzi*⁶, all of them probably temperate in origin, occur.

This paper reports the presence of *D. projecta* in the southern Tamilnadu ponds for the first time and gives a full description of male, thus completing the description of the species.

Female with dorsoanterior helmet; rostrum slightly recurved and pointed. Eye small, ocellus inconspicuous. Strong carapace spines; tail long, equal to the length of carapace (figure 1). Postabdomen with 8 to

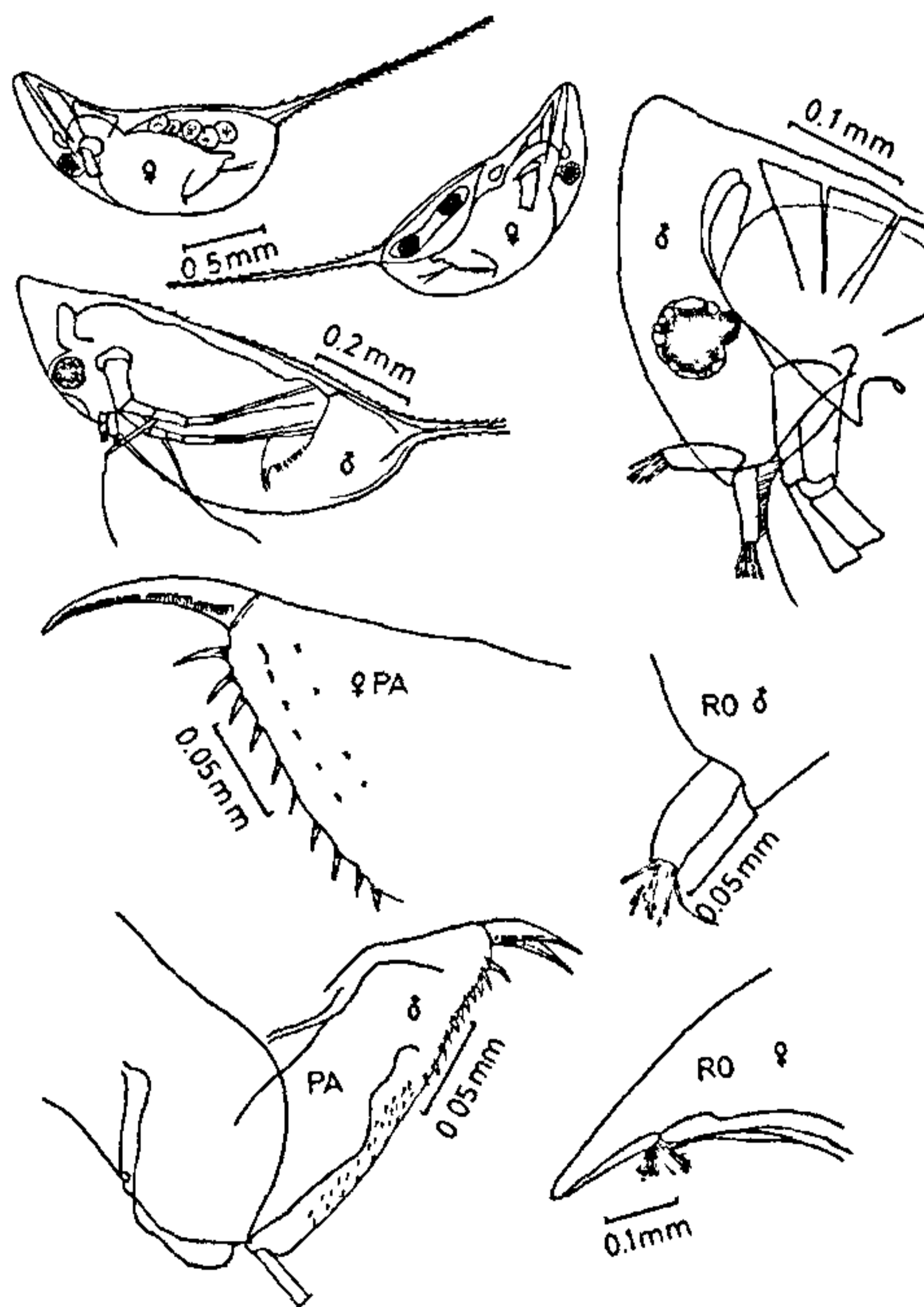


Figure 1. *Daphnia projecta* female and male: PA – postabdomen; RO – rostrum.

12 dorsal spines. Reproductive females less than 1.5 mm. Maximum adult size 2.2 mm.

Male with anteriorly projecting helmet, rostrum absent; dorsal margin of head and body with spines. Antennules well-developed and movable; flagellum in the antennules not well-developed. Eye moderately large and the ocellus inconspicuous. Ventral margin of carapace convex. Tail long (figure 1). The first leg modified to form a prehensile organ and each terminates in a long seta which protrudes beyond the shell to the exterior. Postabdomen with 10 to 12 dorsal spines, dorsal margin without processes. Maximum size 1 mm.

The present species can be considered as rare in the tropical region.

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BLOSSOM BLIGHT OF GLADIOLUS CAUSED BY *CURVULARIA ERAGROSTIDIS*

C. I. CHACKO and
N. N. RAGHAVENDRA RAO

*Indian Institute of Horticultural Research,
Bangalore 560 080, India.*

GLADIOLUS (*Gladiolus* sp.) is an important ornamental crop and is cultivated mainly for its much sought cut flowers. Incidence of a severe blossom blight disease of gladiolus varieties has been consistently observed during the monsoon months in the experimental farm of the Institute. The incidence of the disease was more serious in the cv. "Friendship". Initial symptoms are noticed on the calyx of young buds in the form of water-soaked patches. These soon enlarge in size and turn brown to black in colour with the onset of sporulation of the pathogen (figures 1, 2).



Figures 1 & 2. Infection symptoms on gladiolus cv. "Friendship" 1. Infected flowers showing typical symptoms ($\times \frac{1}{3}$ nat. size) 2. Enlarged lesions on partially opened flower and young bud ($\times 1$).

Infected buds shrivel, fail to open and rot. The development of bud rot is faster during moist warm weather. Sometimes, partially opened flowers are also infected; the individual petals become brown, shrivel and subsequently decay.