

## THREE SPECIES OF FRESHWATER OSTRACODA (CRUSTACEA) FROM TAMILNADU

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### INTRODUCTION

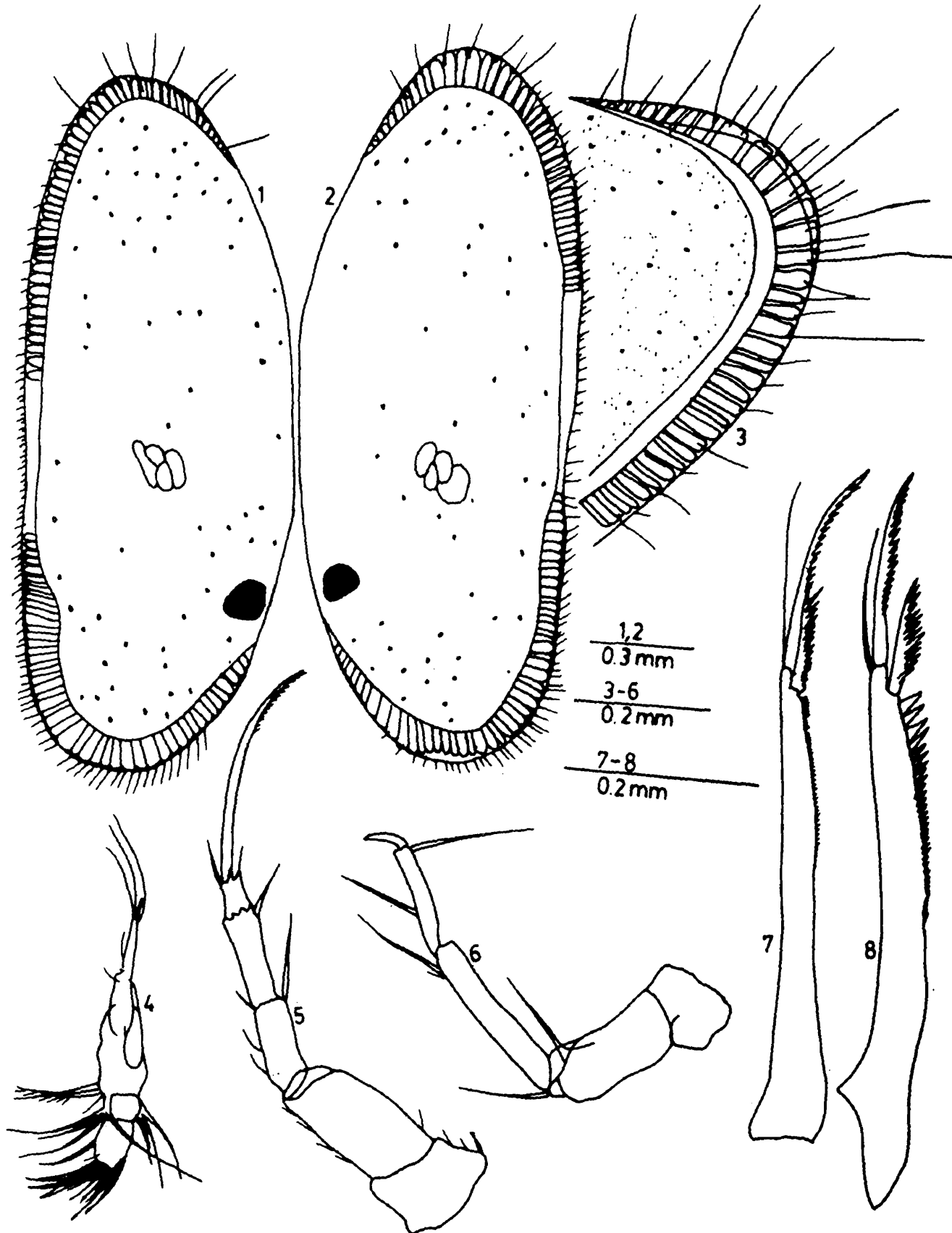
While studying the faunal diversity of Wetlands of Tamil Nadu, three species of Class Ostracoda viz. *Stenocypris major* (Baird, 1859), *Cyprretta fontinalis* Hartman, 1964 and *Physocypria furfuracea* (Brady, 1886) were collected from a drinking water overhead tank at Thiruvanmiyur residential area and YWCA rain water pool, Madras. All the three species have been already described from this region (Victor and Fernando, 1979). However the descriptions were inadequate to identify the species. The present study gives full descriptions of all the three species with illustrations of diagnostic characters.

#### 1. *Stenocypris major* (Baird, 1859)

(Figs. 1-8)

*Female* : Body length  $2.005 \pm 0.055$  (N = 10), height  $0.777 \pm 0.017$  mm. Shell elliptical in shape, dorsal margin smoothly convex, ventral side straight with an inundation slightly before the middle towards anterior side. Both anterior, posterior and ventral side with hairs, anterior side with small hairs, posterior side with 7-8 long hairs and ventral side with long and short hairs. Anterior margin more convex than posterior. Radial band of septa present from anterior to posterior margin, anterior and posterior septa longer than the ventral septa at the middle. Surface of valve punctate and hairy. Central muscle scars present (Figs. 1-3). First antenna with first podomere of protopodite four times longer than the second podomere with a three segmented Rome organ; second antenna with hairy natatory setae reaching the tips of the terminal claws. I thoracic leg with all setae setulate (Fig. 4), II thoracic leg with a toothed end claw (Fig. 5), III thoracic leg with a prominent claw and seta, seta in the penultimate podomere setulate (Fig. 6). Furcal rami asymmetrical, posterior margin of right ramus strongly toothed, terminal seta of left ramus (Fig. 7) slightly longer than the terminal claw (Fig. 8).

*Remarks* : This species is considered to be cosmopolitan in occurrence and highly variable in morphology and size. Body size is one of the characters often changing in this species. The maximum size recorded in this species from various parts of South East Asian region changes considerably (Victor and Fernando, 1981). They also pointed out that almost all the species so far collected outside the Oriental region might not be true *S. major*. The presence of fine invisible



**Figs. 1-8 :** *Stenocypris major* (Baird, 1859), female : 1-Left valve, external view ; 2-Right valve, external view; 3-anterior end of the valve; 4-maxilla; 5-Thoracic leg II; 6-Thoracic leg III; 7-8-furca.

teeth on the left furcal rami also shows variation. In some of the studies, it is mentioned that these teeth present only at the distal region of the furca. However, the present study shows that these fine teeth are conspicuous only at high power with proper orientation of the furca under the microscope.

## 2. *Cypretta fontinalis* Hartman, 1964 (Figs. 9-16)

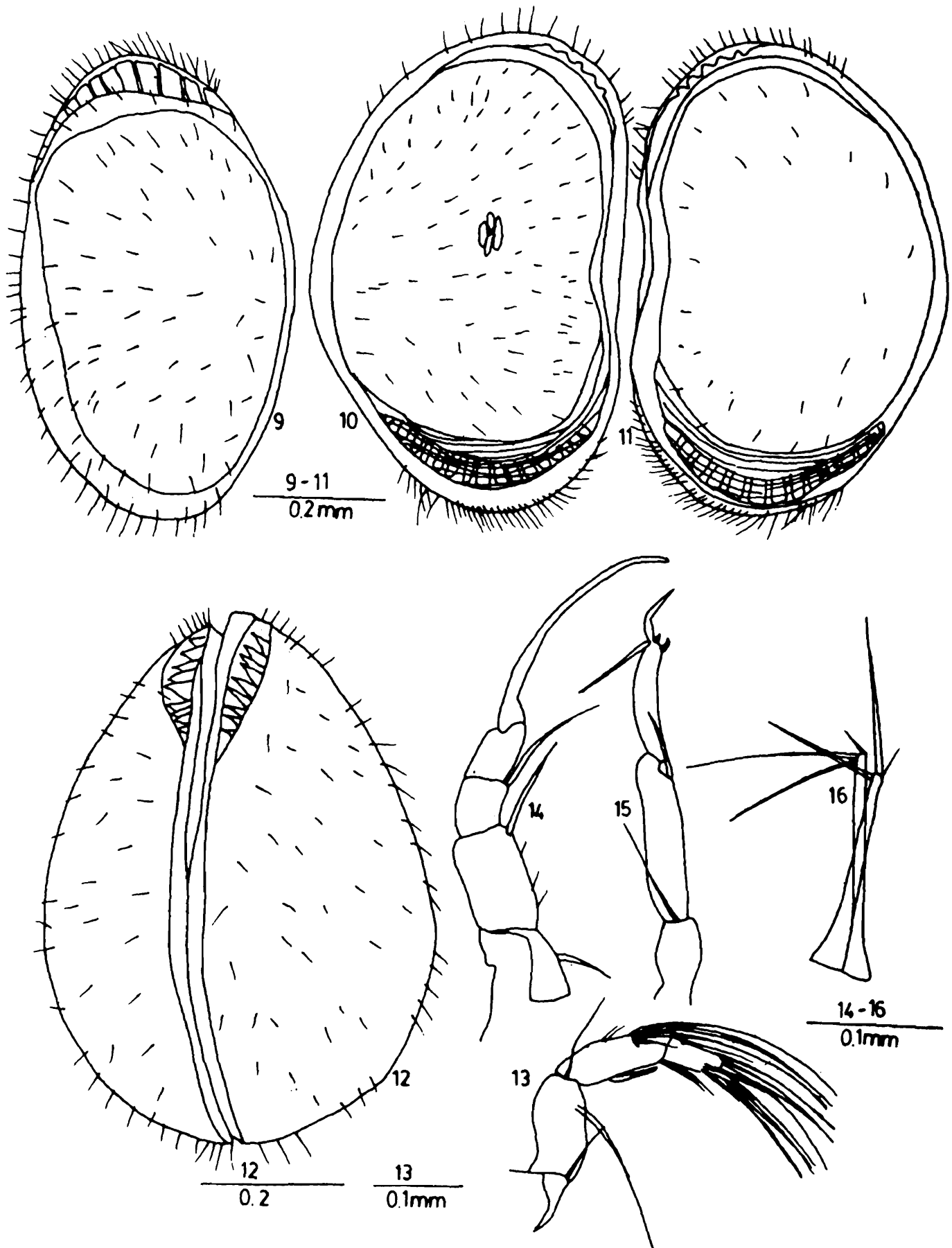
**Female** : Body length  $0.736 \pm 0.013$  mm; height  $0.568 \pm 0.011$  mm. Valves tumid, narrow at anterior end and broad at posterior side, maximum height slightly below the middle right, valve overlapping the left, valves without any ornamentation and with hairs sparsely present at the posterior end and regularly present at the anterior region and ventral. Anterior margin of valve with a well-defined septa (Figs. 9-12). Prominent central muscle scars present on the valve. II antenna with the natatory setae almost reaching the tips of terminal claws and aesthetasc 'Y' two-segmented (Fig. 13). II thoracic leg with distal claw curved (Fig. 14). Terminal podomere of the third leg with a long claw, two small claws and relaxed seta (Fig. 15). Furcal rami symmetrical, terminal and subterminal claws slender, dorsal seta less than  $\frac{1}{4}$  the length of subterminal claw and terminal seta rudimentary (Fig. 16).

**Remarks** : The present species appears to be slightly smaller in size than the Hartman's original description (0.83-0.86 mm). Both Hartman (1965) and Victor and Fernando (1979) did not give any description about the thoracic appendages. The presence of a projection or a wavy pattern in the posterior side of right valve was not described by both the previous authors (loc. cit).

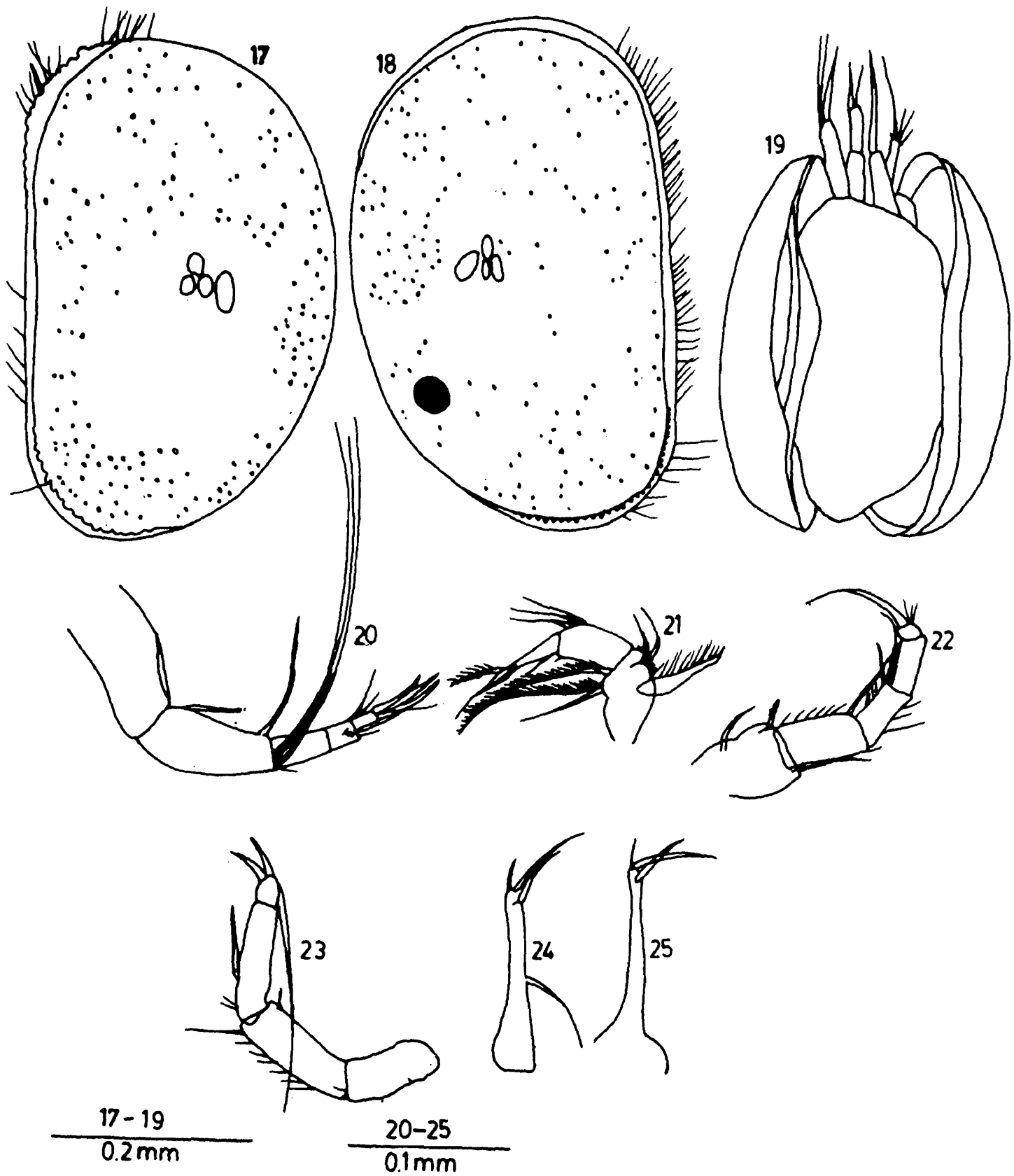
## 3. *Physocypria furfuracea* (Brady, 1886) (Figs. 17-25)

**Female** : Body length  $0.523 \pm 0.0009$ ; height  $0.0347 \pm 0.000$  mm (N = 23). Shell subovate, dorsal side convex, maximum height slightly posterior to middle, both anterior and posterior margins rounded, left valve overlapping the right, anterior and posterior margins rounded, right valve with tubercles on anterior and posterior margins (Figs. 17-19). Left valve with smooth margins. Valve surface smooth with purple patch when alive. Natatory setae of the second antenna well developed, reaching well beyond the tips of the terminal claws; exceeding more than twice the length of terminal claws, claws evenly toothed (Fig. 20). Maxilla small (Fig. 21). Second segment of the second leg with single seta, and claw slender and smooth, seta on terminal segment very long (Fig. 22). Third leg with a short terminal segment with two claws and a long refluxed seta (Fig. 23). Furcal rami symmetrical; short and stout, dorsal seta placed almost at the middle of the ramus and longer than the terminal claws (Fig. 24), terminal seta with  $\frac{1}{3}$  length of the terminal claw (Fig. 25).

**Remarks** : This species was first described from Sri Lanka. Victor and Fernando (1979) synonymised *P. tuberata* Gurney 1916 with the present species without mentioning any reasons for it. *P. furfuracea* occurs in Maharashtra, Gujarat, Andrapradesh, Kerala and in Tamil Nadu it is recorded from Salem, Srirangam and Pondichery.



Figs. 9-16 : *Cypretta fontinalis* Hartman, 1964, female : 9-12-valves, external view ; 13-antenna II; 14-thoracic leg II; 15-thoracic leg III; 16-furca.



**Figs. 17-25 :** *Physocypria furfuracea* (Brady, 1886), female : 17-19-valves, external view; 20-antenna II; 21-Maxilla; 22-thoracic leg II; 23-thoracic leg III; 24-25-furca.

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