

Family EUCHARITIDAE

T. C. Narendran

The family Eucharitidae comprises perhaps the most wonderfully shaped chalcids. Most of the members of this family are brilliantly coloured and strikingly attractive. Some of them show bizarre form of thoracic scutellum. They are moderate sized individuals and generally measure about 4 mm in length. Eucharitids are closely related to perilampids and both have the prepecti fused with the lateral parts of pronotum. Eucharitids probably descended from the same ancestral stem that produced the present day perilampids.

Eucharitids have remarkable host relationships. They are parasitic on ants. The eggs are laid on plants and the planidium attaches itself to the worker ants and so are carried into the ant nest where it is transferred to the ant larva.

Historical review. The earlier workers who contributed to the study of Eucharitidae include Latreille, Fabricius, Walker, Foerster, Forel, Westwood, Spinola, Ashmead, Kirby, Howard, and Cameron. Later Girault and Ruschka contributed to the study of this family. The recent workers who made substantial contribution include mainly Nikol'skaya, Burks, Bouček and Prinsloo. Eucharitids of the Indian subcontinent were studied by Walker, Forel, Motschulsky, Westwood, Clausen, Masi, Mani, Husain & Agarwal and Narendran. Recently, Hedqvist (1978) published an excellent paper on the Eucharitidae of the Oriental region.

Classification. The family Eucharitidae was known in the past as Eucharidae. This family at present consists of three subfamilies viz. Oraseminae, Eucharitinae and Philomidinae; all represented in the Indian subcontinent. Of the eight genera occurring in the region, reports of the genus EUCHARIS are open to question. The genera EPIMETAGEA Girault and RHIPIPALLUS Kirby were reported from the Indo-Australian region by Hedqvist (1978), but without any species. However, I have included these genera in the key since both Dr. Subba Rao and I believe that they might be present in the Indian subcontinent and will be reported from this region eventually.

KEY TO GENERA, FEMALES AND MALES

1. Prepectus greatly enlarged and strongly bulged, appearing on each side of the thorax as two large shoulders; body yellow with dark spots or patches PHILOMIDES Haliday

- Prepectus and body colour not as in the first alternate . . . 2
- Antennae with one or two anelli, not ramose; prepectus not fused to pronotum anteriorly; mesoscutum not greatly expanded; ovipositor usually extended, wide, scimitar-shaped, with numerous transverse ridges ORASEMA Cameron
- Antennae without anelli, ramose in some males; prepectus fused to pronotum, or separated by a shallow furrow; mesoscutum large, expanded; ovipositor less often extended, long, straight, sometimes with oblique ridges at apex . . . 3
- Scutellum with a forked process at apex (Fig. 43) 4
- Scutellum without such a forked process (Fig. 45) 5
- Antenna serrate in female; flagellar segments ramose in males (Fig. 46); stigmal vein moderately long, perpendicular to marginal vein (Fig. 47); gastral petiole longer than hind coxa SCHIZASPIDIA Westwood
- Flagellar segments cylindrical and elongate in both sexes; stigmal vein reduced (Fig. 48); petiole much longer and slender STILBULA Spinola
- Flagellar segments serrate or normal in female, ramose in males 6
- Flagellar segments neither serrate nor ramose 8
- Apex of scutellum entire or rounded; petiole at least twice as long as hind coxa in female CHALCURA Kirby
- Scutellum at apex usually incised or with two minute spike-like plates, upturned; petiole usually shorter 7
- Thorax strongly and transversely striate; notauli distinct; petiole 2x of hind coxa; funicle segments always serrate in female and ramose in male RHIPIPALLUS Kirby
- Thorax smooth and glossy, occasionally sparsely punctate; notauli indistinct or not as in the first alternate; funicle segments serrate or ramose only in a few species EUCHARIS Latreille
- Petiole not visible; scuto-scutellar suture absent; antenna 11-segmented (1,1,6,3) in female; second valvulae articulated with the stylets through a pair of additional tri-radiate rods INDOSEMA Husain & Agarwal
- Petiole long, visible; other characters different 9
- Petiole at least twice as long as hind coxa; scutellum irregularly rugose, smooth at apex; stigmal vein often very short, rarely reduced to a pterostigma-like spot LOSBANUS Ishii
- Petiole at most slightly longer than hind coxa; stigmal vein long and vertical (Fig. 49) EPIMETAGEA Girault

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