Cyclocephala Dejean 1821

Taxonomy

Sub family: Dynastinae / Tribe: Cyclocephalini / Genus: Cyclocephala

Distinguishing Features

Small to medium sized cylindrical beetles, body length 5-25mm. Body colouration black, brown to reddish brown, light brown/ yellowish. Occasionally bicoloured and contrasting between elytra and pronotum, or with various patterning to the pronotum or elytra. Clypeus with dorsal apex shape variable- rounded, emarginate, truncate or acuminate. Antennae with 8-10 segments, and a 3 segmented club. Club elongated in males of some species. Mentum with a variablly shaped apex, but never deeply emarginate. Prontoum simply convex, without any uneveness and with an apical membrane. Protarsi of males with an enlarged inner claw. Protarsi claws of females simple and equal in size. Propygidium lacking stridulatory bands. Metatibia with 2 spurs, located close together. Hind tarsal claws simple.

Cyclocephala signaticollis specific features:

Body length 13-16mm. Body colouration yellowish, light brown, with variable tan brown patternations sometimes present on pronotum and/or elytra. Dark brown to black head. Elytral suture and outer margins commonly darker. Clypeus dark brown to reddish brown, usually slightly lighter than head frons. Frontoclypeal margin sinuate, clypeus slightly raised from frons. Clypeal apex rounded to rounded/truncate, with a slightly upturned margin. Mentum apex narrowing to a rounded point, sometimes with a slight emargination. Antennae with 10 segments, and the antennal club enlongated in males. Distinct patch of fine golden setae extended over apical thrid of scutellum present in fresh specimens.

Related and Similar Species

There are over 350 species in the genus *Cyclocephala* making it large and challenging for species level diagnostics. The last review of the genus was by Endrödi (1985) but since then around 130 species have been decribed.

As a member of the tribe Cyclocephalini it shares the following features:

Horns, fovea, carinae or tubercles absent. Stridulatory area on the propygidium absent. Simple mandibles that lack teeth, metatibial apex truncate and lacking teeth. Many females have an expanded elytral epipleuron near the sides of the abdomen. Males of some species with enlarged protarsal claws.

Some species of *Ancognatha* can have a more variable clypeal apex shape, possibly confusing it with *Cyclocephala* but the mentum shape remains different. The labrum is viewable and more prominent in species *Ancognatha* than it is for species of *Cyclocephala*. *Ancognatha* has a medially incomplete frontoclypeal suture, whereas it is complete in most *Cyclocephala*.



<u>Cyclocephala signaticollis</u> dorsal view. <u>Photographer:</u> <u>Pia Scanlon</u>



<u>Cyclocephala signaticollis lateral view</u> <u>Photographer:</u> <u>Pia Scanlon</u>



<u>Cyclocephala signaticollis ventral view</u> <u>Photographer:</u>



<u>Cyclocephala signaticollis head front</u> <u>Photographer:</u> Pia Scanlon



<u>Cyclocephala signaticollis clypeus</u> <u>Photographer:</u> <u>Pia Scanlon</u>

Biological Data

Female *Cyclocephala* oviposit into moist soil. Larvae are root feeders, though life history for most species remains unknown. Adults of numerous species are pests, generally through foliage and flower feeding on a wide range of crops including sesame, cotton, maize, banana, sunflower, beans, cassava, sorghum, custard apple, guava and citrus along with various ornamental plants. *Cyclocephala signaticollis* (Argentine Scarab) larvae can be a pest of turf roots in Australia. The species has a 1 year lifecycle and spends most of that time as a larvae. Adults emerge at the beginning of summer to mate and live for around 1-4 weeks.

Distribution

Cyclocephala range from Canada in North America to Argentinia in South America. Also present in the West Indies, and introduced to Hawaii (*C. pasadenae*). The South American species *C. signaticollis* has been introduced to eastern Australia (NSW, QLD, VIC).

References

Endrödi, S. 1985 The Dynstinae of the World. W. Junk. London. 800pp. Ratcliffe B.C., Cave R.D. 2015 Dynastinae Scarab Beetles of the West Indies. Bulletin of the University of Nebraska, Vol. 28. 346pp.

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