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The genus *Apiocephalus* was erected by Gahan with the species *Apiocephalus punctipennis* Gahan, from East Africa (Gahan 1898); subsequently *Apiocephalus licheneus* was described on the basis of a female collected in Dehradun, India (Gahan 1906). At present only these two species are known under this genus. Apparently, *Apiocephalus* is very similar to *Capnolymma*. Gahan (1906) had separated these two genera on the basis of the length of the antennal scape and placed both these genera in the subfamily Lepturinae. Vives (2003) also considered them under Lepturinae with a comment that the genera *Capnolymma*, *Acapnolymma* and *Apiocephalus* have close affinity with Madagascan Lepturinae.

Gahan (1906) has given an adequate description of *Apiocephalus licheneus*, however no illustrations of this species are available anywhere. Here we give a brief description and good illustrations.

The description given below is based on a female specimen collected in Kolhapur: 29.x.2012; Shivaji University campus, Kolhapur; coll. A.B. Mamlayya; it will be deposited in the museum of the Department of Zoology, Shivaji University, as 'Ceramb 3').

Apiocephalus licheneus Gahan, 1906

Description: Colour dark brown, body entirely pubescent with white or grayish-white, black and brownish pubescence. White pubescence forms a pattern, in distal 1/4th of the elytra, which appears similar to the growth of lichen on dark wood and this is perhaps

FIRST RECORD OF THE LONG-HORNED BEETLE *APIOCEPHALUS LICHENEUS* GAHAN FROM WESTERN INDIA (COLEOPTERA: CERAMBYCIDAE: LEPTURINAE)

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the reason why Gahan named the species *licheneus*; though he himself did not provide its etymology (Image 1). The prothorax, metasternum, metepisterna and distal sternites are also covered with a dense pubescence. The first two sternites are shining dark brown to black in the median region but have grayish and dark brown pubescence on their lateral sides.

Head elongate, slightly sloping in front of eyes, gradually narrowed behind the eyes producing a noticeable 'neck'; mandibles prominent, curved, sharply pointed; front rugulose, shining, with sparse white pubescence at places. Clypeus narrow, transverse; maxillary and labial palpi moderately long, dark brown and covered with sparse pubescence (Image 2); eyes large, coarsely faceted, very feebly or shallowly emarginated behind antennal tubercles; head width maximum at eye level; genae moderately long (Image 3). Antennae inserted at a distance in front of the eyes, antennal

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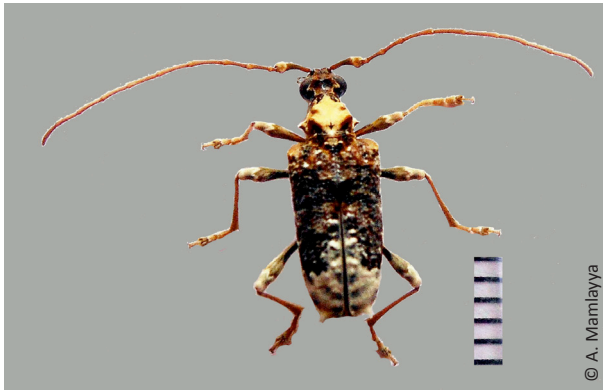


Image 1. Dorsal view of *Apiocephalus licheneus*. Note the typical shape and the pattern of elytral pubescence.



Image 2. Head of *Apiocephalus*, in frontal view.



Image 3. Dorsal view of vertex of head of *Apiocephalus* to show coarsely faceted eyes and the small tubercles between the eyes.



Image 4. Antennal scape of *Apiocephalus* in dorsal view; note the shape and pubescence.

tubercles moderately raised and the area between them concave and coarsely punctate; a short median sulcus between antennal tubercles; antennae as long as body, scape moderately long, slightly curved and gradually thickened from base towards apex, finely punctate, with a distinct wavy ring of whitish pubescence at the distal tip (Image 4); all antennomeres covered with short, fine, gray pubescence. Vertex with two shallow, rounded, depressions between the eyes laterally, behind each of this depression there is a small tubercle, one on either side between the eyes (see Image 3). Vertex and neck covered with bronzy or brownish pubescence bordered with a narrow line of whitish pubescence, just behind the eyes. The gular area is strongly punctate, with very sparse pubescence; underside of neck with a few fine, transverse folds; overall gular area and underside of neck dark brown and shining.

Prothorax very broad at base, narrowed towards

apex, broadest at the level of lateral tubercles, its anterior margin slightly raised, behind which there is a shallow transverse sulcus all around; the disc of prothorax as well as lateral spines covered densely with white, silky pubescence; disc of prothorax is provided with four prominent lateral tubercles- an anterior pair and a posterior pair: anterior pair consists of smaller more or less rounded, blunt tubercles while the posterior pair is of larger, blunt, but distinctly conical tubercles; the area in between tubercles flattish in the middle but somewhat concave laterally; a distinct black cross mark is present at the base which is actually due to fine carinae that are devoid of pubescence. Laterally the prothorax has a distinct conical, tubercular spine with a broad base (Images 5, 6). Prosternum somewhat sunken, with sparse pubescence at the side, prosternal process densely covered with pubescence, elevated almost to the level of globular coxae and somewhat tubercle-like distally (Image 7); mesosternum considerably depressed

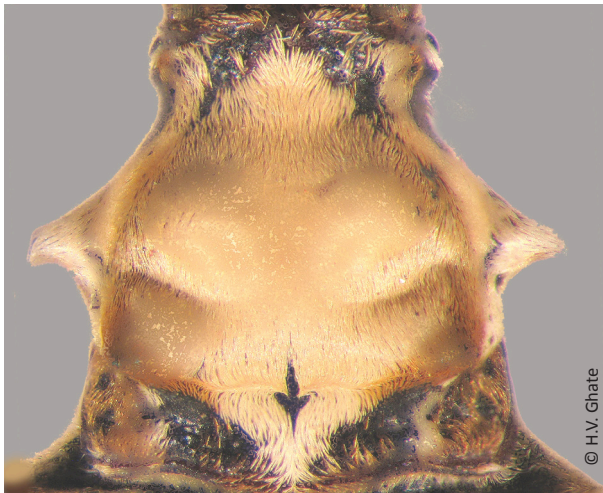


Image 5. Dorsal view of prothorax of *Apiocephalus*; note pubescence, tubercles and the small cross mark at the base.



Image 7. Pubescent prosternal process of *Apiocephalus*.

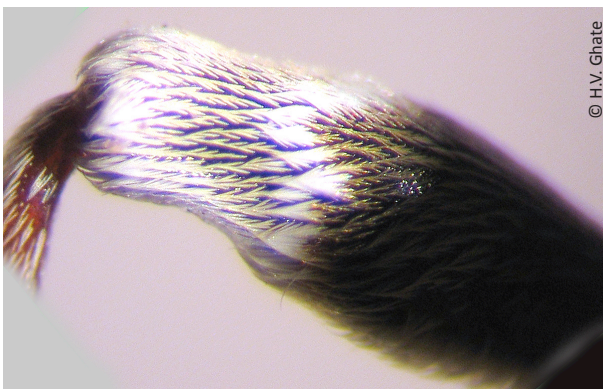


Image 9. Femur of *Apiocephalus* showing terminal ring of silky pubescence.

relatively, much below the level of pro- and mesocoxae; mesosternal process broad, tongue-like and elevated between mesocoxae; metasternum of moderate length, densely covered with white pubescence, its anteromedian region produced like a tongue to meet the

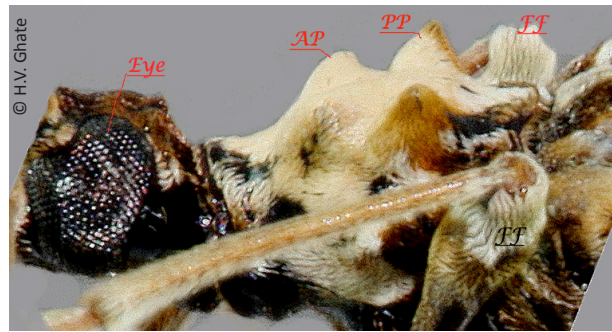


Image 6. Lateral view of prothorax of *Apiocephalus* to show positions of anterior and posterior pair (AP and PP, respectively) of tubercles on the disc; FF marks indicate front femora.



Image 8. Metasternum (Meta) of *Apiocephalus* showing part of mesosternum (Meso) and angular prolongation (AP) of abdominal ventrite.

mesosternal process, a deep median sulcus prominent in the distal half of metasternum and a distinct transverse sulcus at base; metepisternum also covered with grayish pubescence (Image 8).

All legs moderately long, covered with grayish and blackish pubescence, coxae prominent, femora fusiform-clavate and show a typical wavy ring of white and gray pubescence at the tip (Image 9); tibia more pubescent; in hind legs first tarsal segment long - equal to second and third put together; hind-claws divergent.

Elytra much broad at the base than prothorax, coarsely punctate in basal 1/4th and without any costae, covered with patches of pubescence that produce light brown or blackish patches at places. A pattern of white, silky, pubescence present in the apical 1/4th of elytra (Image 10). Elytra almost parallel sided, except in the apical 1/3rd region, where these are narrowed, their apices moderately truncate; a projecting tuft



Image 10. Elytra of *Apiocephalus* in dorsal view to show 'lichen-growth' like pattern of pubescence. A - Apex; B - Base



Image 13. Ventral view of *Apiocephalus*



Image 11. Elytral tip of *Apiocephalus* in dorsal view, note apparently emarginated appearance due to tuft of pubescence



Image 12. Elytral tip of *Apiocephalus*, in ventral view; note tuft of pubescence and true shape of the elytral tip.

of pubescence present at each of the outer angles, apparently giving a false impression of an emarginate elytra (Images 11, 12), as pointed out by Gahan (1906).

Abdominal segments dark brown, minutely punctured and partly covered with long gray pubescence ventrally. First two abdominal ventrites shining and less pubescent in the middle while the remaining with prominent, long pubescence all over (Image 14).

Discussion: It appears that *Apiocephalus licheneus* Gahan is a very rare beetle, as there are no published records of it being collected anywhere in India (or elsewhere) since the original collection. This may be because there are no extensive surveys for Cerambycidae, and because these beetles are a difficult group taxonomically. The only other record is of the host plant and emergence period of this species by Beeson (verbatim: "beetles occur in September–October and January–February, host plant *Buchanania latifolia* Roxb."), who also studied larva and pupa (Beeson 1941). It is possible that this species is endemic to India or Indian subcontinent.

There is a recent suggestion that *Apiocephalus* should now be placed in the subfamily Dorcasominae, Tribe Dorcasomini Lacordaire (Ozdikmen 2008); however, the mandibles of *Apiocephalus* possess a distinct molar plate



Image 14. Ventral view of abdomen of *Apiocephalus*, note pubescence on various parts.

at the base (Image 15), which is typical in Lepturinae members, and this fact has been verified by Dr. Eduard Vives (pers. comm. June 2013, Barcelona, Spain). Thus we firmly place *Apiocephalus* in Lepturinae again rather than accepting its transfer to Dorcasominae.



Image 15. Mandible of *Apiocephalus* to show molar plate, marked in red.

References

- Beeson, C.F.C. (1941). *The Ecology and Control of the Forest Insects of India and Neighbouring Countries*. Bishen Singh Mahendra Pal Singh, Dehradun (Indian Reprint 1993), 1007pp.
- Gahan, C.J. (1898). Descriptions of new Longicorn Coleoptera from east Africa. *Annals and Magazine of Natural History* 2(7): 40–59.
- Gahan, C.J. (1906). *The Fauna of British India, including Ceylon & Burma, Coleoptera - Volume I*. Taylor & Francis, London, 329pp.
- Ozdikmen, H. (2008). A nomenclatural act: some nomenclatural changes on Palaearctic longhorned beetles (Coleoptera: Cerambycidae). *Munis Entomology and Zoology* 3(2): 707–715.
- Vives, E. (2003). Notes on Lepturinae (IX), new and interesting Lepturinae from South East Asia (Coleoptera : Cerambycidae). *Les Cahiers Magellanes* 31: 1–16.