

NEW INFORMATION OF GENITALIA OF *CICINDELA FABRICII* W. HORN (COLEOPTERA: CICINDELIDAE) FROM PAKISTAN

Syed Kamaluddin¹, S. Anser Rizvi² and N. Yasmeen²

¹Department of Zoology, Federal Urdu University of Arts, Science and Technology, Karachi Pakistan.

²Department of Zoology, University of Karachi, Karachi-75270, Pakistan.

ABSTRACT

The species *Cicindela fabricii* W.Horn., is newly redescribed with male genital characters from Pakistan.

Keywords: *Cicindela fabricii* W.Horn, Cicindelidae, Coleoptera, male genitalia

INTRODUCTION

The voracious family Cicindelidae Linné comprises about 1200 species of the world, of which at least 50% species belong to the genus *Cicindel.*, Members of this genus spread throughout the world but other genera are found in tropical or subtropical countries. The species of *Cicindela* are found not only in sandy areas but also in aquatic and coastal areas. The chief characteristic of this family is protective resemblance and mimicry, specially in the genus *Cicindela*. Two large tubercles on thorax in Eastern tropic species have so extensively mimicked (William, 1987; George. 1971; Graves, 1963; Wallis, 1961; Cazier, 1954).

Acciavatti and Pearson (1989) listed areas of Indian subcontinent in which specimen had been collected through literature, private collection and museum specimens.

RESULTS

Cicindela fabricii
(Fig. 1A-1B)

Cicindela febricii W.Horn. Deutsche Ent.Zeitschr.1804,p.171.

Body shape: (Fig. 1A)

Suboblong

Coloration:

Black with metallic brown and green margin, beneath metallic shining, legs with metallic green and purple, elytra with three anal shape spots, mandibles black apically, yellow base and upper half metallic green and brown, Maxillary palpi blackish brown with apex yellow, labial palpi apically black, 2nd segment yellow, antennae metallic green and purple.

Head:

Rhomboidal shape, medially depressed, sides of frons convex, slightly overlap to eyes laterally, with nine longitudinal striae, anteriorly truncate, eyes very large, bulging, convex, slightly concave in the middle laterally, oval shape, faceted; antennae exerted just beneath of eyes laterally, 1st segment thick, large, curve, 2nd segment shorter than rest, 3rd segment longer than rest, cylindrical, labrum quadrate shape, anteriorly crenulate, three spiny tooth, six spots just near anterior margin through which long curve hairs arise, mandibles large, projectile, fastly turned, cross each other, three pointed tooth, maxillary palpi with four, 2nd segment longer than other, labial palpi two segmented, 2nd segment longer than rest, long hard setae deeply.

Thorax:

Quadrate shape, anterior end rounded, behind constricted, posteriorly bisinuate, sides almost straight, medially divided two large, broad tubercles, lateral margin with white suberrect hairs; scutellum triangular shape, large; elytra with shoulders broader than base of thorax, sides almost elongate, straight, slightly turn at base, basal apices pointed, three oval shape large spot near the basal margin, fine punctation over elytra, prosternum with thin long

scale between coxae very distinct, end of scale triangular shape, not reach the mesocoxae, mesosternum short, metasternum broad, lateral margin with scattered white pubescent; legs cylindrical, long, with two tibial spurs, hind legs longer than rest, tarsi five segment, 1st segment longer than rest, claws free, thin, pointed, curved.

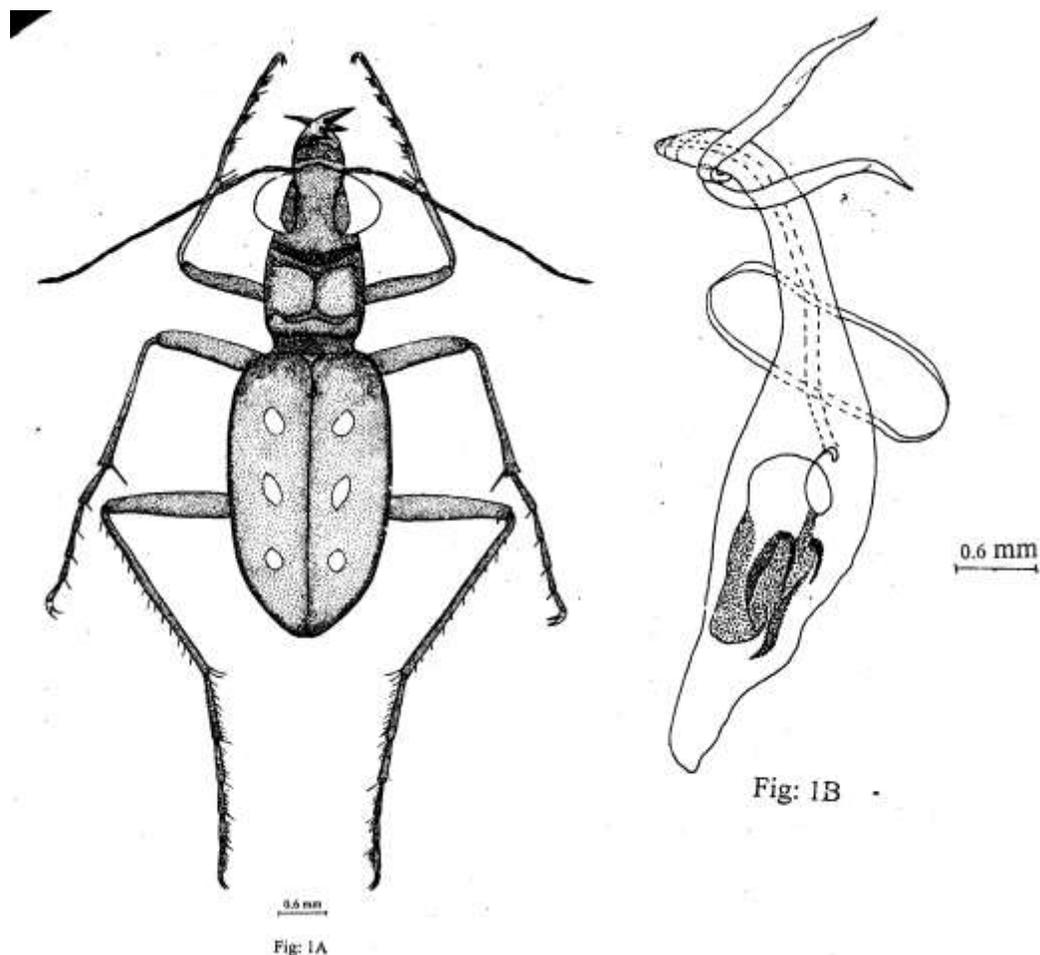


Fig.1. *Cicindela fabricii*, 1A. Entire specimen; 2B. male genitalia.

Abdomen:

Concealed by elytra, beneath convex, five segment with metallic green and dark blue.

Measurement:

Male; with mandibles, 16.5mm

Material Examined:

8 males, Karachi, Sindh, Pakistan. Leg Zubair. A. 5.iv.2004

Male genitalia: (Fig. 1B)

Median lobe curved, tubular, swollen along the distal two thirds; median orifice from a slit on ventral side, median foramen at basal end, lateral lobe slender, slightly shorter than length of median tubular lobe, taper at end, basal piece U shape, hanging within median lobe, internal sac coiled, complex, with coil flagellum, through which duct arise and goes to passes from median orifice.

Comparative note:

Cicindela fabricii is closest allies to *C. aurulenta* and *C. octogramma*, from *C. aurulenta* it differs to *C. fabricii* by its green labrum, short and broad pronotum, its sides rounded while *C. octogramma* differs to *C. fabricii* by fine

striation in head, long and narrow pronotum, sides less rounded elytra much elongate with side parallel and also characters noted in the description.

REFERENCES

- Acciavatti, R.E and D.L. Pearson (1989). The tiger beetles genus *Cicindela* (Coleoptera, Insecta) from the Indian subcontinent. *Ann. Carnegie Mus.*, 58: 77-353.
- Cazier, M.A. (1954). A review of the Mexican tiger beetles of the genus *Cicindela* (Coleoptera, Cicindelidae). *Bull. Amer. Mus. Nat. Hist.*, 103: 227-310.
- George, C. (1971). On the validity of *Cicindela cyanocephalonota* Eckhoff (Coleoptera; Cicindelidae). *Coleopt. Bull.*, 25: 34.
- Graves, R.C. (1963). The Cicindelidae of Michigan (Coleoptera). *Amer. Midl. Nat.*, 69: 492-507.
- Wallis, J.B. (1961). *The Sicindelidae of Canada*. University of Toronto press, Toronto. 74pp.
- William, D. (1987). Studies on the Australian Cicindelidae: VI. A review of the subgenus *Rivacindela* of the genus *Cicindela* (Coleoptera). *Entomol. News.*, 98: 117-134.

(Accepted for publication November 2005)