

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

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### 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

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### INTRODUCTION

The voracious family Cicindelidae Linné comprises about 1200 species of the world, of which atleast 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, 2<sup>nd</sup> 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, 1<sup>st</sup> segment thick, large, curve, 2<sup>nd</sup> segment shorter than rest, 3<sup>rd</sup> 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, 2<sup>nd</sup> segment longer than other, labial palpi two segmented, 2<sup>nd</sup> 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 while nine 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, 1<sup>st</sup> segment longer than rest, claws free, thin, pointed, curved.

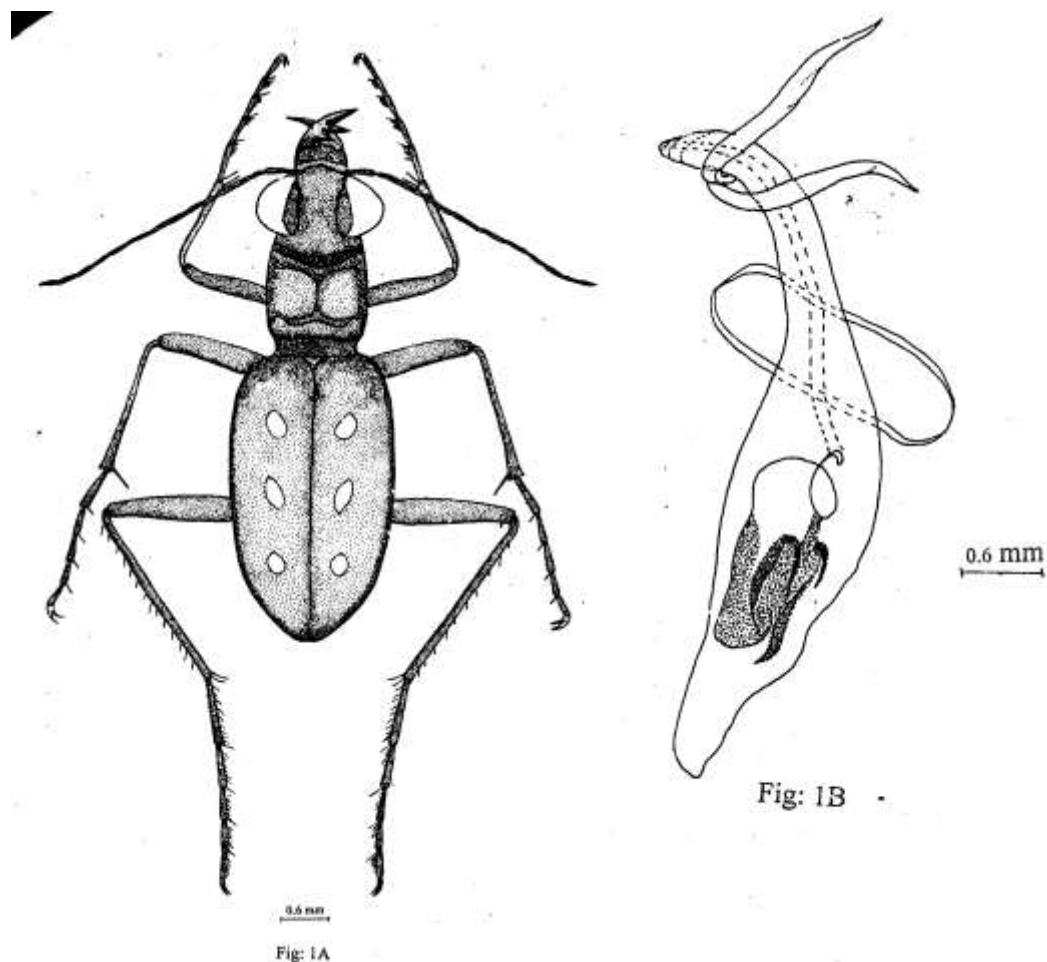


Fig.1. *Cicindela fabricii*, 1A. Entire specimen; 2B. male genitalia.

#### 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 ventricle 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 closet allies to *C. aurulenta* and *C. octogramma*, from *C. aurulenta* is differ to *C. fabricii* by it green labrum, short and broad pronotum, its sides rounded while *C. octogramma* is differ 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.

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