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## *Cassida stevensi*, a new species from India (Coleoptera: Chrysomelidae: Cassidinae: Cassidini)

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ABSTRACT. *Cassida stevensi* sp. nov., a member of *C. triangulum* group, is described and figured from NE India (Darjeeling).

Key words: entomology, taxonomy, new species, Coleoptera, Chrysomelidae, Cassidinae, *Cassida*, India.

### INTRODUCTION

*Cassida* LINNAEUS, 1758, with 428 known species, is the most speciose genus within Cassidinae; 163 of them are known from the Oriental region (BOROWIEC & ŚWIĘTOJAŃSKA 2011). The area of NE India (Arunachal Pradesh, Assam, Megalaya, Nagaland, Sikkim and northern part of West Bengal) is one of its biodiversity hot spots still hiding numerous undescribed species. Part of them had been described in past years (BOROWIEC & ŚWIĘTOJAŃSKA 1997, SEKERKA & BOROWIEC 2008, BOROWIEC 2009). During my stay in the Natural History Museum, London I found another new species from Darjeeling district in West Bengal. It belongs to *C. triangulum* group and its description is given below.

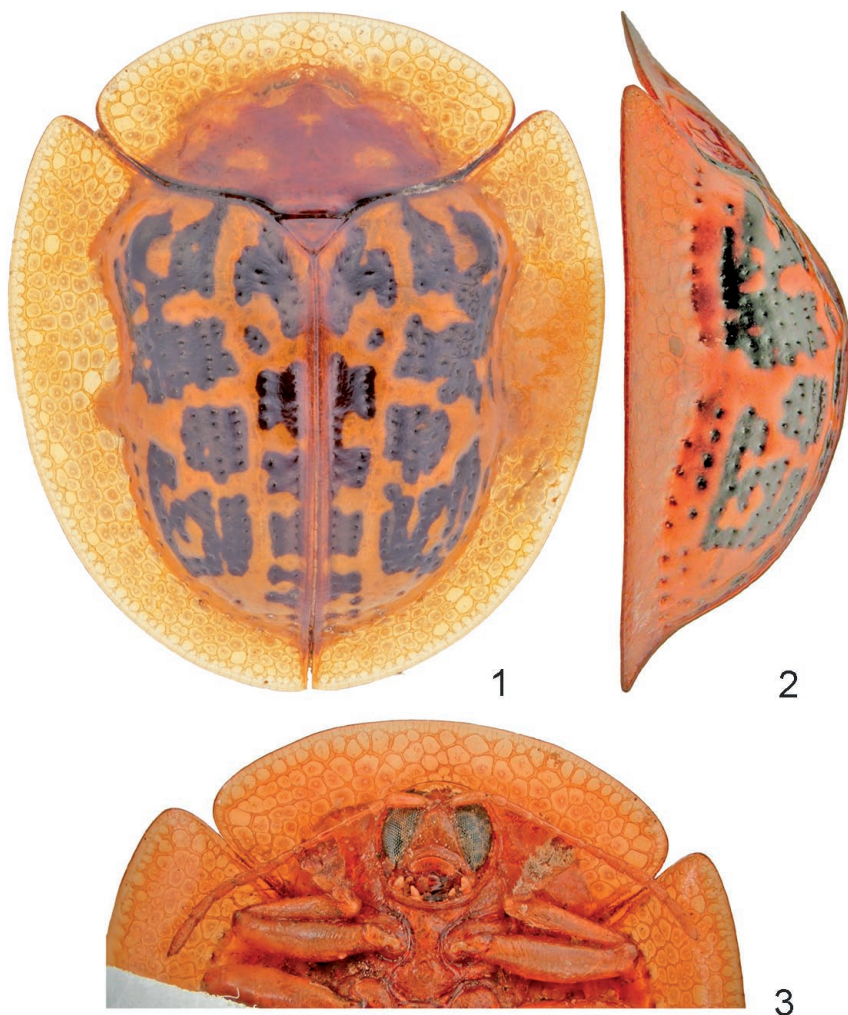
### *Cassida stevensi* sp. nov.

#### ETYMOLOGY

The species is dedicated to Herbert STEVENS (1877-1964), an ornithologist and collector, who collected this species.

## DIAGNOSIS

*Cassida stevensi* is a member of the *C. triangulum* group characterized by appendiculate tarsal claws, venter of pronotum without antennal grooves, elytral disc moderately convex, apex of elytra bare, disc of pronotum with red spot and elytra black with yellow stripes. The group comprises only two species: *C. triangulum* (WEISE, 1897) and *C. indochinensis* (SPAETH, 1919). However they are frequently misidentified with sympatric *Chiridopsis scalaris* (WEBER, 1801) and *Ch. mimica* (WEISE, 1905). The two later mentioned could be easily distinguished by deep antennal grooves on venter of



1-3. *Cassida stevensi* sp. nov.: 1 – habitus dorsal, 2 – habitus lateral, 3 – head, antennae, prosternal process and collar

pronotum, strongly and regularly convex elytra, smooth and regular surface of elytra without any impressions and much circular body in outline. Members of *C. triangulum* group are never as convex as *Chiridopsis*, have elytral surface irregular with feeble ribs and impressions (particularly postscutellar impression is obvious), and explanate margin of elytra much broader.

*Cassida stevensi* differs from both its relatives in complicated irregular elytral pattern composed of numerous yellow bands and stripes on black background and sutura narrowly reddish; pattern otherwise very similar to sympatric *Ch. mimica* and differing only in reddish sutura. *Cassida triangulum* and *C. indochinensis* has elytral bands much sparser and more regularly arranged and shaped (Figs. 4, 5). Besides the pattern *C. triangulum* differs in uniformly black sutura (always narrowly reddish in *C. stevensi*). *Cassida indochinensis* has reddish stripe along sutura as *C. stevensi* but it is much broader, especially in posterior 2/3 length of elytra extending beyond the 2nd row of punctures while in *C. stevensi* it is limited by the 1st.

All species are mostly separated geographically. *Cassida indochinensis* is a species of continental SE Asia inland: south China, Laos, Thailand and Vietnam (BOROWIEC & ŚWIĘTOJAŃSKA 2011) distributed from lowlands to lower hillside (ca 200-1200 m). Most specimens of *C. stevensi* came from montane locality in NE India, however, the species was also collected in one lowland locality in Myanmar (Theinzeik, 17°4'N, 97°18', 20 m a.s.l.). *Cassida triangulum* was besides Borneo and Java described also from Myanmar 'Tharrawaddy, Shinégyn, Rangoon' (WEISE 1897). During my stay



4, 5. *Cassida indochinensis*: 4 – habitus dorsal, *Cassida triangulum*: 5 – habitus dorsal

in Museum für Naturkunde, Berlin I reexamined the type series and it consists of 10 specimens, lectotype and nine paralectotypes, all from Borneo designated by BOROWIEC (1999). Unfortunately I was not able to find any specimen from Myanmar thus cannot verify their identification, however, they might represent also *C. stevensi* as all localities are situated in lowlands of Martaban gulf and are not far from Theinzeik.

#### DESCRIPTION

Measurements (n = 9): length of body 5.62-6.58 mm (mean: 6.18 mm), width of body: 5.24-5.95 mm (mean: 5.58 mm), length of pronotum: 1.89-2.14 mm (mean: 1.96 mm), width of pronotum: 3.59-4.16 mm (mean: 3.83 mm), length/width of body ratio: 1.07-1.13 (mean: 1.11), width/length of pronotum ratio: 1.82-2.06 (mean: 1.95). Body almost circular (Fig. 1).

Pronotum yellow with red disc and two small, diffuse, more or less visible, yellow spots on disc. Scutellum reddish. Elytral disc black with complicated yellow pattern formed by bands and stripes (Fig. 1) and suture narrowly red. Ultimate interval and explanate margin yellow. Underside including legs and antennae yellow.

Pronotum elliptical, 1.95 times wider than long, with maximum width around midlength and with rounded sides. Disc more or less distinctly bordered from marginalia, moderately convex, impunctate, shiny and smooth. Explanate margin moderately declivous with honeycomb structure and smooth and shiny surface.

Scutellum triangular, smooth and shiny, without distinct sulci.

Base of elytra distinctly wider than pronotum, basal margin gently sinuate with very fine serrulation. Humeral angles distinctly protruding anterad, moderately rounded. Disc moderately and regularly convex (Fig. 2). Postscutellar impressions moderately deep. Punctuation of elytra mostly irregular, only sutural row regularly arranged. Punctures in rows irregularly arranged and forming isolated groups restricted to black pattern of disc. Yellow parts of disc impunctate. Intervals 1-2 times wider than puncture diameter. Punctures small in diameter and moderately impressed. Scutellar row distinct, formed by 5-6 punctures. Marginal row distinct, broken around midlength by wide vacancy, its punctures distinctly coarser and more impressed than those in submarginal row. Explanate margin of elytra moderately declivous, in the widest part as width as half of elytron, shallowly and indistinctly punctate, underside with honeycomb structure. Apex of elytral epipleura sparsely pubescent.

Clypeus 1.15 times longer than wide, with obsolete but distinct clypeal grooves, running along eyes and converging in an arch close to antennal insertions (Fig. 3). Surface flat, smooth and micro-reticulate. Labrum shallowly emarginate to 1/6 length. Prosternal process flat and sparsely pubescent. Apex strongly expanded apically, rhomboidal, flat and smooth, its surface slightly irregular. Antennae moderately long. Length ratio of antennal segments: 100:57:102:107:93:73:85:90:87:75:94. Second antennomere of half length of the third, fourth slightly longer than the third (Fig. 3).

Tarsi moderately broad, last tarsomere slightly protruding behind setae of penultimate one. Claws divergent, with moderate tooth.

Sexual dimorphism indistinct.

## DISTRIBUTION

India: (Assam, West Bengal: Darjeeling) and Myanmar (Mon).

## MATERIAL EXAMINED

Holotype, glued: 'Sikkim: / Gopaldhara, / Rungbong Vall. / H. Stevens [white, printed and cardboard label]'; 6 paratypes, glued: same data as holotype; 2 paratypes, glued: 'Nurbong, / Mahanuddi Vy., / Darjiling / H. Stevens. -14. [white, printed and cardboard label]'; paratype, pinned: 'India / Assam [white, printed and cardboard label]'; 2 paratypes, glued: 'Birmanie / Theinzeik / P. Loizeau / 1914 [w, p, cb]'. Holotype and four paratypes at the Natural History Museum, London, United Kingdom; four paratypes at Department of Zoology, Faculty of Science, University of South Bohemia, České Budějovice, Czech Republic; one paratype at Department of Biodiversity and Evolutionary Taxonomy, University of Wrocław, Wrocław, Poland; one paratype (Assam) at Museum für Naturkunde, Berlin, Germany; one paratype (Theinzeik) at Naturhistorisches Museum Basel, Switzerland (coll. Frey). All specimens provided with red, printed and cardboard label: 'HOLOTYPE [or PARATYPE respectively] | *Cassida* | *stevensi* sp. nov. | L. Sekerka des. 2011'.

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## REFERENCES

- BOROWIEC, L., 1999. A world catalogue of the Cassidinae (Coleoptera: Chrysomelidae). Biologica Silesiae, Wrocław, 476 pp.
- , 2009. New records of Asian and Australopapuan tortoise beetles (Coleoptera: Chrysomelidae: Cassidinae). *Genus*, **20**: 435-484.
- BOROWIEC, L., ŚWIĘTOJAŃSKA, J., 1997. Two new species of *Cassida* LINNAEUS from the Oriental Region (Coleoptera: Chrysomelidae: Cassidinae). *Ann. Zool.*, Warszawa, **47**: 275-278.
- , 2011. Cassidinae of the world - an interactive manual (Coleoptera: Chrysomelidae). Permanent electronic publication: [www.biol.uni.wroc.pl/cassidae/katalog%20internetowy/index.htm](http://www.biol.uni.wroc.pl/cassidae/katalog%20internetowy/index.htm)
- SEKERKA, L., BOROWIEC, L., 2008. Three new species of *Cassida* LINNÉ, 1758 from India and note on *Thlaspidia obenbergeri* SPAETH, 1928 (Coleoptera: Chrysomelidae: Cassidinae: Cassidini). *Ann. Zool.*, **58**: 611-620.
- SPAETH, F., 1919. Neue Cassidinae aus der Sammlung von Dr. K. BRANCSIK, dem Ungarischen National-Museum und meiner Sammlung. *Ann. Mus. Nat. Hung.*, **17**: 184-204.

- WEBER, F., 1801. Observationes entomologicae, continens novorum quae condidit generum characteres, et nuper detectarum specierum descriptiones. Kiliae, 12+117 pp.
- WEISE, J., 1897. Kritisches Verzeichniss der von Mr. ANDREWES eingesandten Cassidinen und Hispinen aus Indien. Deutsche Entomol. Zeitschr., **1897**: 97-150.
- , 1905. *Chirida mimica* n. sp. Deutsche Entomol. Zeitschr., **1905**: 210.