

*Aspidimorpha* (s. str.) *tibetana*, a new species from China  
(Coleoptera: Chrysomelidae: Cassidinae)

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ABSTRACT. *Aspidimorpha* (s. str.) *tibetana*, species new to science, is described from SE Tibet, China. It belongs to *A. sanctaecrucis* group but is well characterised by the presence of only posterolateral spots on the explanate margin of elytra, a character unique within the group.

Key words: entomology, taxonomy, new species, Coleoptera, Chrysomelidae, Cassidinae, Aspidimorphini, *Aspidimorpha sanctaecrucis* group, Tibet, China.

The genus *Aspidimorpha* comprises 195 species divided into 10 subgenera. African and Australopapuan species were revised recently by BOROWIEC (1992, 1997) and Oriental species by ŚWIĘTOJAŃSKA (2001). After these revisions ŚWIĘTOJAŃSKA and BOROWIEC (2002) restored *Aspidimorpha* (s. str.) *kilimana* WEISE, 1903 from synonyms of *A.* (s. str.) *mrogorensis* WEISE (1899) and BOROWIEC (2006) described *Aspidimorpha* (*Spaethia*) *zambiana* from Zambia. The nominotypical subgenus contains 152 species, distributed in tropical and subtropical parts of Africa, including Madagascar, Oriental Region, Papuan Subregion, and N Australia. Two species occur in Eastern Palaearctic. Oriental species have been divided into 10 groups (ŚWIĘTOJAŃSKA 2001). A very characteristic for the Oriental Region is *Aspidimorpha sanctaecrucis* group, containing the largest and most impressive members of the genus. Until now, the group comprises 14 species, widely distributed in both continental and insular part of the Oriental Region. In the material sent us by Laurent Lesage (Agriculture Canada, Ottawa) we found two specimens of a new species of the group. Its description is given below.

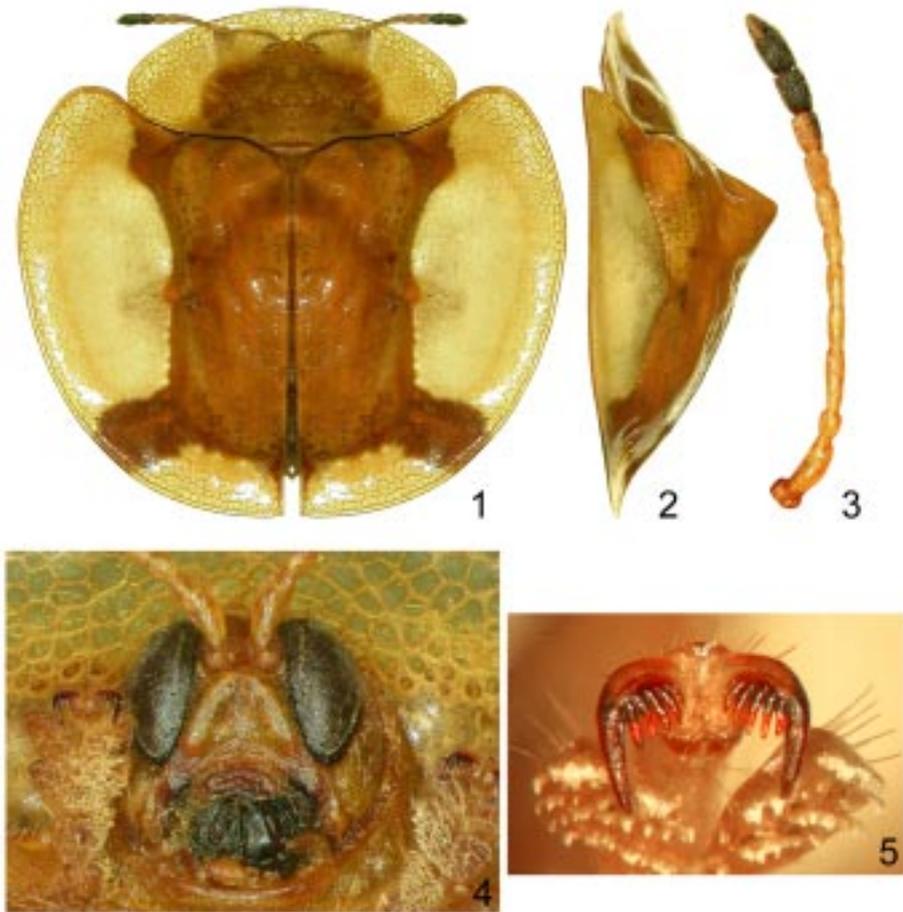
*Aspidimorpha* (s. str.) *tibetana* n. sp.

## ETYMOLOGY

Named after its terra typica, Tibet province in China.

## DIAGNOSIS

A member of *Aspidimorpha sanctaegrucis* group. *A.* (s. str.) *tibetana* differs from all species of the group in characteristic elytral pattern with well developed posterolateral spots on the explanate margin of elytra but reduced humeral spots. Other species of the group have both humeral and posterolateral spots, or only humeral spots, or have the explanate margin of elytra without spots. A very large



1-5. *Aspidimorpha tibetana* n. sp.: 1 – dorsal, 2 – lateral, 3 – antenna, 4 – head, 5 – hind claws

size, reddish elytra without dark spots and the presence of posterolateral spots on the explanate margin of elytra nears the new species to *A. castaneipennis* Sp., *A. lobata* BOH., *A. sanctaecrucis* (F.), and *A. tamdaoensis* ŚWIĘT. *A. (s. str.) tibetana* has elytral surface regular, without distinct folds, and sparse punctate like in *A. castaneipennis* and *A. lobata*, and unlike *A. sanctaecrucis* and *A. tamdaoensis*. *A. castaneipennis* differs in presence of both humeral and posterolateral or only humeral spots and in extremely short inner pecten of claws with teeth only slightly reaching behind the ventral margin of claw, while in *A. tibetana* pecten extending  $2/5$  length of claw. *A. lobata* differs in slimmer body and inner pecten of claws with only three teeth extending to  $1/3$  length of claw (five teeth extending to  $2/5$  length of claw in *A. tibetana*). *A. sanctaecrucis* differs in complete set of spots on explanate margin, irregular surface of elytra, and usually a very long inner pecten of claws, in most populations extending to  $1/2$ - $2/3$  length of claw. Populations with shorter pecten (especially from Vietnam and Assam in India), extending only to  $2/5$  length of claw distinctly differ in very irregular elytral surface and dense puncturation in elytral rows. *A. tamdaoensis* differs in irregular surface of disc, dense puncturation in rows, and inner pecten of claws with three to four teeth extending to only  $1/3$  length of claw. In profile, elytral tubercle in *A. tibetana* is distinctly higher than in *A. tamdaoensis*. Colour photos of all the species of the group are available in BOROWIEC and ŚWIĘTOJAŃSKA (2002).

#### DESCRIPTION

Length 13.7-13.8 mm, width 14.2-14.6 mm, length of pronotum 4.1-4.2 mm, width of pronotum 8.5-8.8 mm, width of elytral disc 6.5 mm, length/width ratio 0.94-0.97, width/length ratio of pronotum 2.02-2.15. Body very broad, sides broadly rounded (fig. 1).

Pronotum uniformly yellow. Elytral disc ochraceous-yellow. Explanate margin of elytra yellow with complete posterolateral spots, brown on upperside and black on underside, and rudimental humeral spots, brown on upperside and black on underside. Humeral spots extending only to basal  $1/3$  width of the explanate margin. Ventrites uniformly yellow. Antennae mostly yellow, two last segments black.

Pronotum very broad, with maximum width almost in the middle, sides rounded. Disc moderately convex, impunctate, shiny. Explanate margin indistinctly bordered from disc, flat, impunctate, shiny, with transparent honeycomb structure.

Scutellum triangular, impunctate, without impressions. Base of elytra much wider than the base of pronotum, basal margin finely crenulate, humeri rounded. Disc distinctly convex, with very high postscutellar tubercle (fig. 2), elytral profile distinctly concave behind the top of angulation. Surface of disc with mostly regular, with shallow postscutellar, principal, and posterolateral impressions. Folds around postscutellar impressions distinct. Slope with only few, very low folds. Puncturation of disc fine, mostly regular. Punctures in rows sparse, distinctly sparser than in related species of *Aspidimorpha sanctaecrucis* group.

Marginal interval distinct, median fold distinct but low. Punctures in marginal row c. thrice larger than in submarginal part of disc. Explanate margin very broad, in the widest part 1.4 times as wide as half width of disc, almost horizontal, impunctate and shiny. The apex of elytral epipleura with sparse, erect hair.

Head broad, gena distinct, clypeus c. 1.6 times as wide as long, dull, elevated before antennal insertions and on sides, deeply impressed in the middle, with shallow clypeal lines (fig. 4). Labrum shallowly emarginate. Mandibles without teeth, only with cutting edge. Prosternal process as in *Aspidimorpha sancatecrucis*, collar with sparse and short pubescence. Antennae slim and long, length ratio of antennal segments: 100:43:100:67:67:50:70:60:63:67:103. Segment 3 approximately 2.3 times as long as segment 2 (fig. 3).

Claws pectinate on both sides, inner outer margin minutely serrate. Inner pecten with five teeth extending to 2/5 length of claw (fig. 5), outer pecten with three teeth, the largest extending to 1/5 length of claw.

#### TYPE MATERIAL

Holotype: "CHINA: Tibet, Cha-Yu, 21-28 VII 2004, Via Li Jingke" (preserved in the collection of Agriculture Canada, Ottawa, Canada); paratype: the same data (preserved at the Department of Biodiversity and Evolutionary Taxonomy, Wrocław University, Wrocław, Poland). The type locality is placed in SE part of the Xizang Province (= Tibet, 98°10' E/29°20' N, 2360 m a.s.l.) close to NE border of India and NW border of Burma.

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#### REFERENCES

- BOROWIEC, L., 1992. A review of the tribe Aspidomorphini of the Australian Region and Papuan Subregion (Coleoptera: Chrysomelidae: Cassidinae). Genus, Wrocław, **3**: 121-184.
- , 1997. A monograph of the Afrotropical Cassidinae (Coleoptera: Chrysomelidae). Part II. Revision of the tribe Aspidimorphini 2, the genus *Aspidimorpha* HOPE. Genus, suppl., Biologica Silesiae, Wrocław, 596 pp.
- , 2006. A new species of *Aspidimorpha* sgen. *Spaethia* from Zambia (Coleoptera: Chrysomelidae: Cassidinae). Genus, **17**: 249-252.
- BOROWIEC, L., ŚWIĘTOJAŃSKA, J., 2002. Cassidinae of the world - an interactive manual (Coleoptera: Chrysomelidae). Permanent electronic publication (open in 2002): [www.biol.uni.wroc.pl/cassidae/katalog%20internetowy/index.htm](http://www.biol.uni.wroc.pl/cassidae/katalog%20internetowy/index.htm)
- ŚWIĘTOJAŃSKA, J., 2001. A revision of the tribe Aspidimorphini of the Oriental Region (Coleoptera: Chrysomelidae: Cassidinae). Genus, suppl., Biologica Silesiae, Wrocław, 318 pp. + 18 pl.
- ŚWIĘTOJAŃSKA, J., BOROWIEC, L., 2002. A new species of *Conchyloctenia* SPAETH from South Africa and redescription of *Aspidimorpha kilimana* WEISE, bona species (Coleoptera: Chrysomelidae: Cassidinae: Aspidimorphini). Genus, Wrocław, **13**: 211-217.