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A new species of *Thlaspidia* WEISE from Taiwan, and notes on distribution and host plant of *Cassida insulana* GRESSITT (Coleoptera: Chrysomelidae: Cassidinae)

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ABSTRACT. *Thlaspidia tsaoi* n. sp. is described from Taiwan. New localities for *Cassida insulana* GRESSITT are given, and its host plant: *Deeringia polysperma* (Amaranthaceae) is recorded for the first time.

Key words: entomology, taxonomy, host plants, new species, Coleoptera, Chrysomelidae, Cassidinae, *Thlaspidia*, *Cassida indulana*, Taiwan.

The genus *Thlaspidia* WEISE, 1899 comprises only three confirmed species – *Thlaspidia biramosa* (BOHEMAN, 1855), *T. cribrosa* (BOHEMAN, 1855) and *T. lewisii* (BALY, 1874). Two other species were described in the genus – *Thlaspidia pygmaea* MEDVEDEV, 1958 and *T. triangularis* SPAETH, 1926, but their placement in *Thlaspidia* needs confirmation. *Thlaspidia obenbergeri* SPAETH, 1928 was recently transferred to the genus *Cassida* LINNAEUS, 1758 (SEKERKA & BOROWIEC 2008).

The genus is close to the genus *Cassida* L. and distinguishable only by a complex of characters: moderately large or large, circular body, pronotum broadest before the middle, elytra coarsely punctate, disc always with postscutellar tubercle, broad and moderately declivous explanate margin of elytra, apex of epipleura with erect hair, clypeal plate slightly to distinctly elevated before antennal insertions, long and slim antennae, short last segment of tarsi hidden in emargination of third segment, with simple claws, and usually characteristic elytral pattern with at least posterolateral spots on explanate margin of elytra (sometimes the spots are obsolete or occur also humeral

spots). Biologically they are associated with trees of the families Verbenaceae and Oleaceae (BOROWIEC and ŚWIĘTOJAŃSKA 2009).

Recently, Mr. Mei-Hua TSOU collected in Taiwan a short series of specimens which look at first glance as a miniature of *Thlaspidia* and with complex of its generic characters. The only difference is a short and sparse pubescence of apex of elytral epipleura but this character is correlated with size of beetles because the smallest known species *T. lewisii* has epipleural pubescence in length and density intermediate between the small new species and large *T. biramosa* or *T. cribrosa*. Beetles were collected on a Rosaceae tree *Eriobotrya deflexa* (HEMSL.) NAKAI forma *buisanensis* (HAYATA) NAKAI but feeding was not confirmed.

### *Thlaspidia tsoui* n. sp.

#### ETYMOLOGY

Named in honour of its collector Mr. Mei-Hua TSOU.

#### DIAGNOSIS

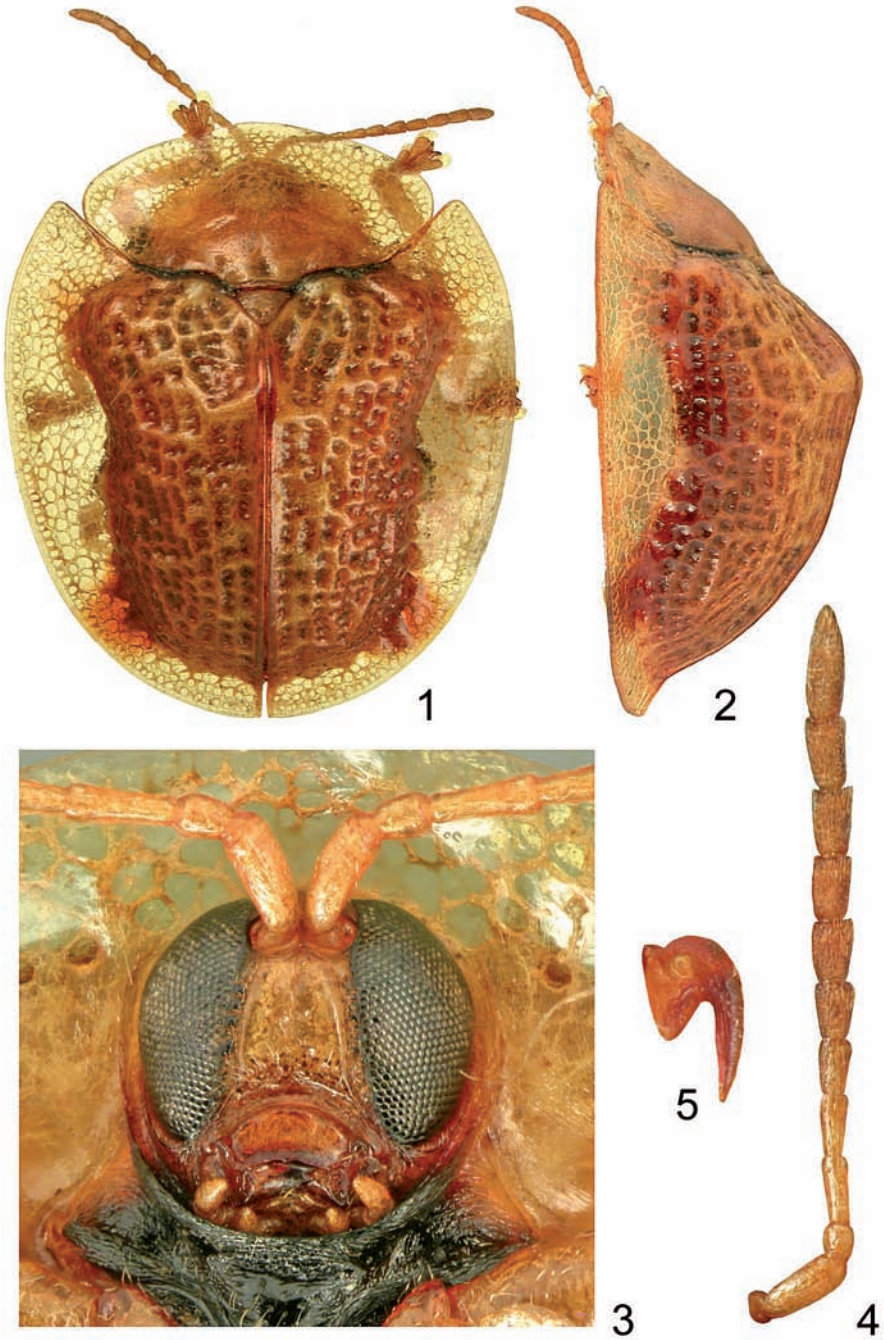
The new species at first glance differ from its congeners by the small size with body length below 7.0 mm while other species have length usually above 7 mm, often above 8 mm. Very small specimens of *Thlaspidia lewisii* with body length below 7 mm differ in presence of both humeral and posterolateral spots of explanate margin of elytra (only posterolateral spot or without spots in *T. tsoui*). MEDVEDEV (1958) for its poorly described *T. pygmaea* noted body length only 5.2 mm but the placement of this species in the genus *Thlaspidia* is doubtful. It differs from *T. tsoui* in uniformly yellow ventrites (in all other species of the genus, including *T. tsoui*, ventrites are partly black). Species of *Cassida variabilis* group: *C. crucifera* (KR.), *C. obenbergeri* (SP.) and *C. variabilis* (BOH.) look at first glance similar to *T. tsoui* but differ in tarsal claws appearing strongly appendiculate due to distally projecting flanks of last segment of tarsi while in the genus *Thlaspidia* claws are simple and last segment of tarsi has no projecting flanks.

#### DESCRIPTION

Length: 6.5-6.95 mm, width: 5.75-6.0 mm, length of pronotum: 2.1-2.4 mm, width of pronotum: 3.8-4.0 mm, length/width ratio: 1.12-1.17, width/length ratio of pronotum: 1.65-1.83. Body almost circular (Fig. 1).

Pronotum uniformly yellow. Scutellum yellow. Elytral disc yellow, along sides with reddish band of diffused borders. Explanate margin of elytra yellow, in half of known specimens with small reddish posterolateral spot, in remaining specimens without spots. Clypeus, legs and antennae yellow. Thorax completely black or lateral plates partly yellowish. Abdomen yellow, in the middle with black spot occupying at most half width of sternites, sometimes only first two and last sternite with small black spots close to posterior margin.

Pronotum elliptical, with maximum distinctly before the middle, sides rounded, no basal corners. Disc convex, indistinctly bordered from explanate margin except small



1-5. *Thlaspidia tsoui* n. sp.: 1 – dorsal, 2 – lateral, 3 – head, 4 – antenna, 5 – tarsal claw

impressions on sides of disc, with indistinctly separated area above head, parescutellar lobe with shallow impression. Surface of disc smooth and shiny, with mirror brilliance, but with several small punctures. Explanate margin very broad, smooth and shiny, with honeycomb structure.

Scutellum triangular. Base of elytra much wider than pronotum, elytral sides and apex rounded. Humeri strongly protruding anterad, angulate. Anterior margin of elytron smooth. Disc in profile strongly convex, with distinct postscutellar tubercle (fig. 2), with deep postscutellar impressions and well marked principal impressions. Puncturation of disc very coarse and dense, mostly regular but regularity of rows partly disturbed by elytral relief. Punctures in row almost touching each other, marginal row distinct, its punctures in anterior half of the row distinctly coarser than punctures in lateral rows. Intervals narrow, as wide as or slightly narrower than row, second interval more or less elevated, surface of disc with numerous transverse folds and wrinkles thus surface of disc appears irregular with distinct relief. Marginal interval well marked, broad, almost twice wider than submarginal row, humeral fold narrow, lateral fold broad but only slightly convex and in some specimens looks rather like broad interspace of marginal row than fold. Surface of disc smooth and shiny. Explanate margin of elytra moderately declivous, broad, in the widest part slightly less narrower than 1/3 width of disc of elytra, its surface regular, smooth and shiny, transparent with distinct honeycomb structure. Apex of elytral epipleura with very short and sparse setae.

Head moderately broad, eyes very large, gena obsolete. Clypeus 1.1 times as long as wide, with fine clypeal lines running close to margin of eye and converging in triangle. Sides and apex of clypeal plate slightly elavetad, surface smooth and shiny, without special sculpture but with several small punctures (Fig. 3). Labrum not emarginate. Prosternal collar long, on sides slightly longer than last palpomere. Prosternal process moderately broad, strongly expanded apically, on sides impressed, along middle elevated, its surface slightly irregular with few setose punctures.

Antennae slim and long, segments 9 and 10 approximately 1.6 times as long as wide. Length ratio of antennal segments: 100:43:92:86:67:61:67:64:67:67:157, segment 3 approximately 2.2 times longer than segments 2 and only slightly longer than segment 4 (fig. 4).

Claws simple (Fig. 5).

#### TYPE MATERIAL

Holotype: "Taiwan: Pingtung (8094), Tahanshan ([Chinese name]), 24.I.2009, leg. M.-H. Tsou"; paratype: the same data but number in brackets (8095); two paratypes: the same data but date 22.I. 2009 and number in brackets (8016) and (8017) respectively; paratype: the same data but date but date 06.II.2008 and number in brackets (3653); paratype: the same data but date but date 07.II.2008 and number in brackets (3714). Holotype and four paratypes preserved in Taiwan Agricultural Research Institute, Taichung (TARI), two paratypes in Department of Biodiversity and Evolutionary Taxonomy, University of Wrocław, Wrocław, Poland (DBET).

***Cassida insulana* GRESSITT, 1952**

*Cassida insulana* GRESSITT, 1952 seems to be a very rare species because no additional records have been known after its original publication. The species was redescribed recently based only on holotype specimen (BOROWIEC & LEE 2008). Fortunately, shortly after the redescription numerous specimens were collected in two localities (Chihpen, Taitung County, 17.I.2009, leg. C.-F. Lee; Wukungshan, Kaoshiang County, 23.I.2009, leg. M.-H. Tsou) associated with its host plant: *Deeringia polysperma* (Amaranthaceae). This should be the first record of the host plant for *Cassida insulana* GRESSITT.

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