

A new genus and species of the family Saldidae from China (Heteroptera)

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Sinosalda insolita gen. et sp. n. (Saldoidini), is described from the mountains of Shaanxi, China. The new genus is sharing with the Neotropical genus *Pseudosaldula* Cobben the presence of 5 cells in hemelytral membrane.

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Dr. H. Günther (Ingelheim, Germany) donated to the Zoological Institute, St.Petersburg (ZIN), interesting material of Heteroptera collected by A. Pbtz in China. In this material, a specimen representing a new genus and species of Saldidae has been revealed. It is described in this paper.

The new genus belongs to the tribe Saldoidini. It is similar in appearance to the Neotropical genus *Rupisalda* Polhemus and Palaearctic genera *Chartoscirta* Stel and *Calacanthia* Reut. By the presence of five cells in the hemelytral membrane, it is neared to the Neotropical genus *Pseudosaldula* Cobben, which includes 15 species (Cobben, 1961; Schuh et al., 1987) and is placed near the base of the phylogenetic tree of Saldoidini (Polhemus, 1985).

Sinosalda gen. n.

Type species: *Sinosalda insolita* sp. n.

Description. Body elongate. Pronotum, scutellum and hemelytra with long, erect hairs. Corium with well expressed venation. Embolar fracture short, as characteristic of the subfamily Saldinae. Membrane with five cells. Ocelli almost contacting. Preocellar light spots elongate triangular; lateral swellings of frons as long oblique strokes. Head with two pairs of trichobothria: on mandibular plates and lateral swellings of frons, respectively; vertex without trichobothria (possibly, broken off); there is a long hair in front of ocelli. Antennae slender and long; inner side of segment I flattened. Rostrum long, extending to hind margin of hind coxae. Scutellum with a light spot at apex. Parandria rounded, closely spaced. Proctiger with long hollow outgrowth directed forward. Parameres (Fig. 9) stout, strongly scle-

rotized, with very long hairs on processus sensu-
alis and outer side.

Comparison. For comparison with related genera, see the Table and Discussion.

Etymology. The name of the new genus is formed from the Latin name of China (Sina) and the generic name *Salda*.

Sinosalda insolita sp. n. (Figs 1-12)

Holotype. ♂, China, Shaanxi, Quin Ling Shan, Xian E, Hue Shan Mts., 1400 m, 20.VIII.1985, leg. Pbtz. The holotype is kept at Zoological Institute, St.Petersburg; it is in good state of preservation, but the right fore tarsus and the right antenna, except segment I and basal half of segment 2, are missing.

Description. Male. Medium-sized, with complete wings. Body 2.4 times as long as wide (Fig. 1). Head, pronotum and scutellum moderately shining. Short adpressed hairs on head and pronotum whitish, on scutellum with a copper shade, and on hemelytra black; in addition, pronotum, scutellum, and hemelytra with sparse, long, erect black hairs and sides of scutellum and base of hemelytra with semi-erect, silvery-white, flattened hairs.

Head hypognathous, black. Eyes large, naked, 1.6 times as wide as frons (Fig. 2). Ocelli almost contacting. Preocellar spots light yellow, elongate triangular, extending on frons almost to lateral swellings of frons. Lateral swellings of frons yellow, located in middle of frons medial to eyes, widened dorsad, elongate. Frons medial to preocellar plates with a deep furrow on each side, between lateral swellings of frons with a deep median furrow reaching postclypeus. Mandibular plates yellowish brown, with silvery hairs near eyes. Maxillary plates whitish yellow. An-

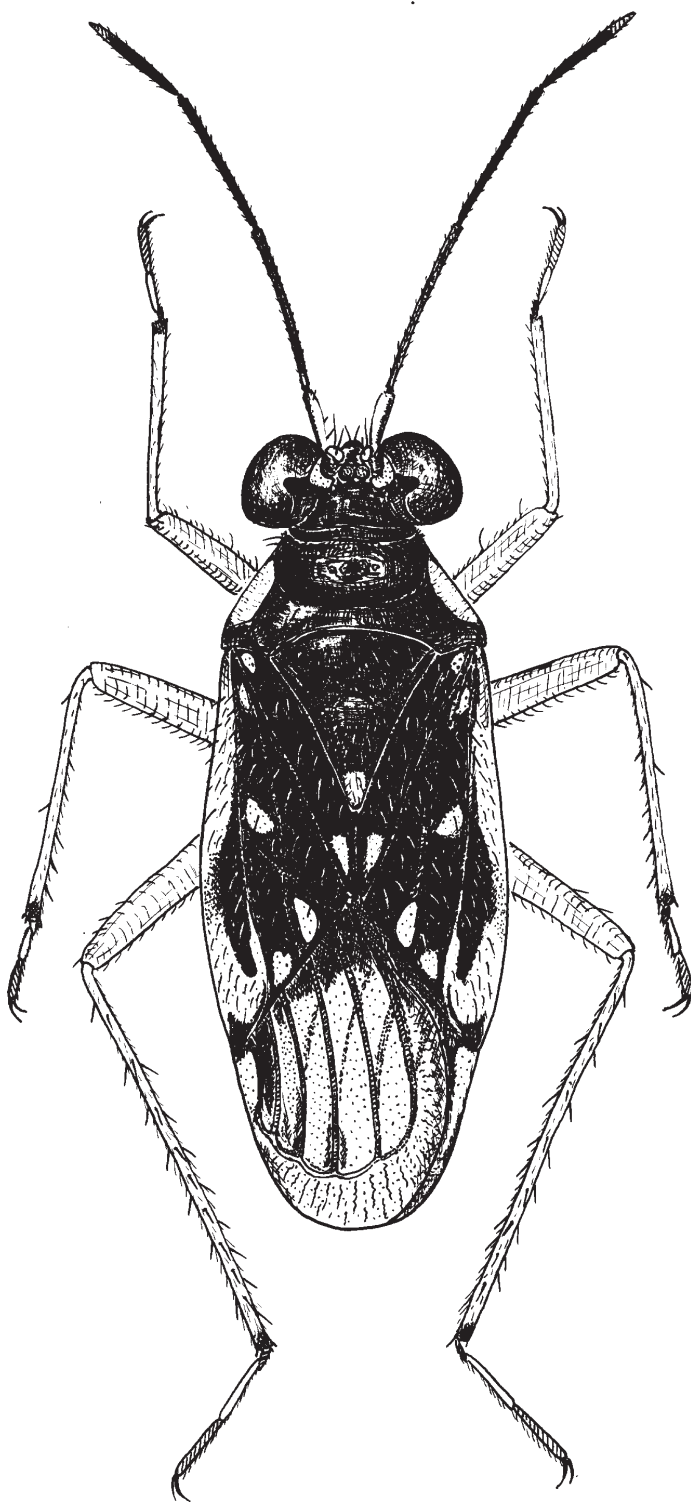
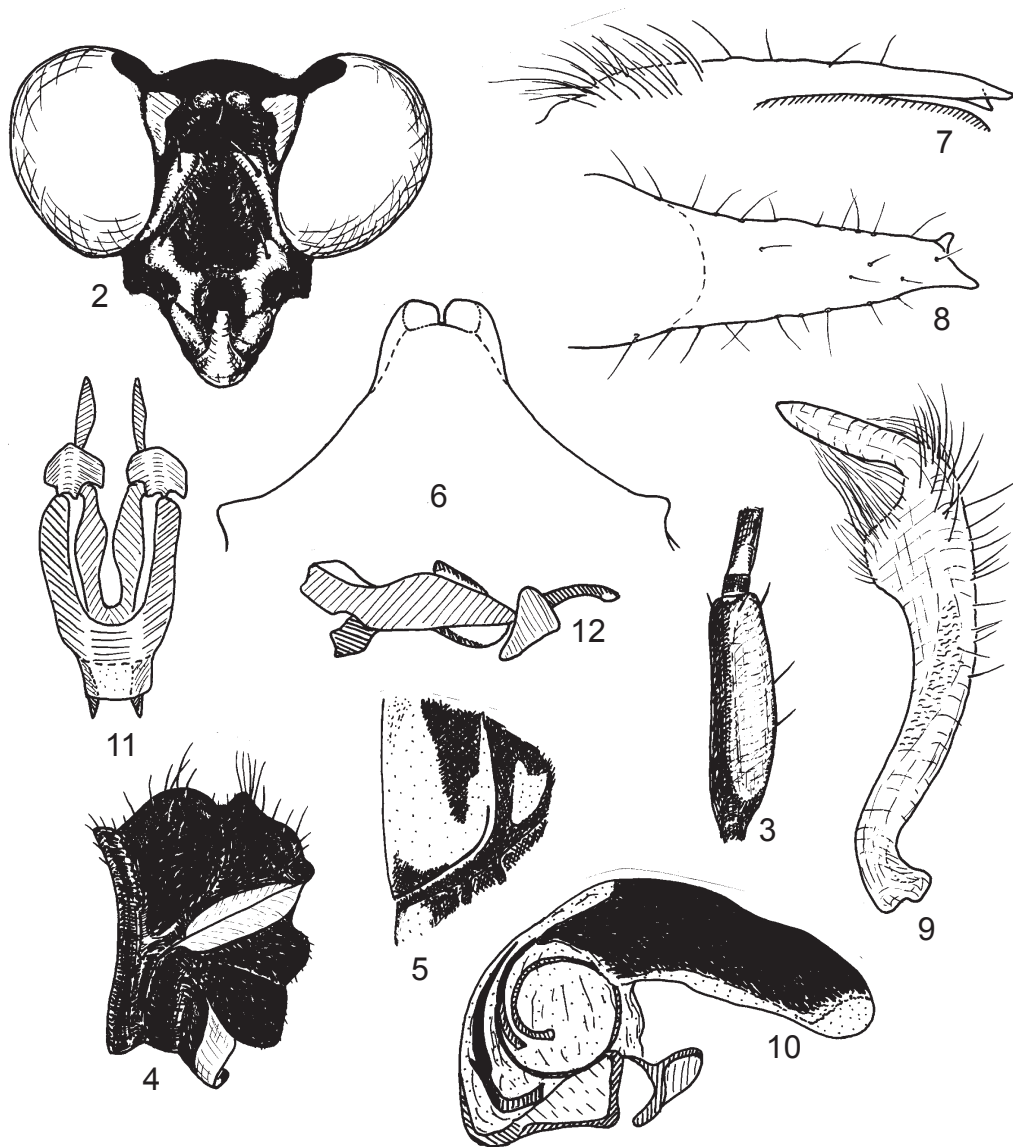


Fig. 1. *Sinosalda insolita* gen. et sp. n., holotype.

teclypeus black, with a median yellow stripe in apical half. Labrum yellow, with darkened lateral margins. Gular lobes black, with narrowly white anterior margins. Head with two pairs of trichobothria, on mandibular plates and lateral swellings of frons, respectively; the third pair of trichobothria, on vertex, absent (broken off?). In addition, apical part of anteclypeus with a pair of long setae and a very long seta present in front of ocelli.

Antennae long and slender, 2.7 times as long as head and pronotum combined; lengths of segments 1-4 (mm): 0.42, 1.00, 0.76, 0.66. Segment 1 slightly thickened; its outer side rounded in cross section, brown, with thin black hairs; inner side flat, whitish yellow, with several short erect black setae (Fig. 3). Segments 2-4 with black adpressed pubescence and black semi-erect thin hairs; segment 2 dark brown, slightly thickened distally; segments 3 and 4 black, apical part of segment 4 light; bases of segments 2-4 with intercalary segments, those of segments 2 thick and oblong, of 3 and 4 small and spherical. Rostrum very long, extending to hind coxae; segment 2 white, 3 and 4 pale brown.

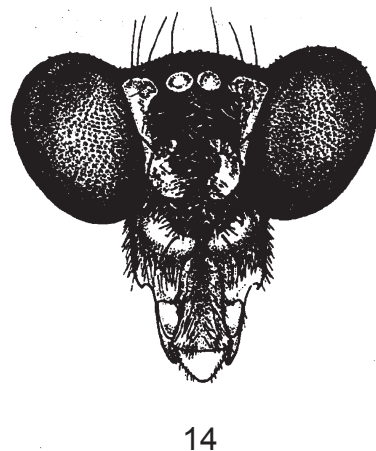
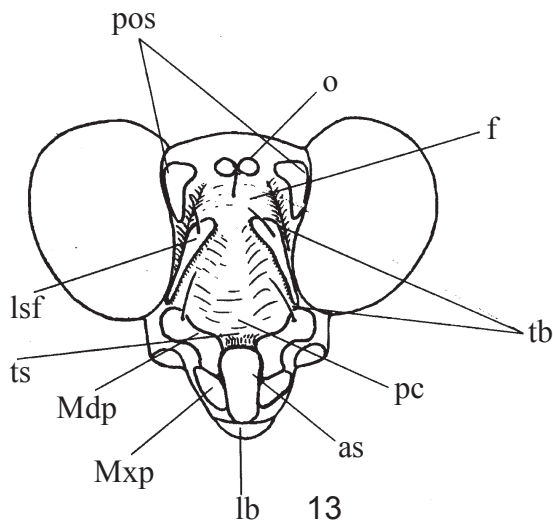
Pronotum strongly narrowed cephalad, black, moderately shining, with straight lateral margins, sides bearing in the middle a wide whitish yellow stripe dorsally and ventrally. Callus rounded, noticeably convex (Fig. 4), reaching lateral pronotal margins, separated from collar and basal part of pronotum by several badly seen punctures. Median pit of callus deep; on each side from pit, a weak depres-



Figs 2-12. *Sinosalda insolita* gen. et sp. n., holotype. **2**, head; **3**, antennal segment 1; **4**, pronotum (lateral view); **5**, embolar fracture; **6**, parandria; **7, 8**, appendix of proctiger (**7**, lateral view; **8**, dorsal view); **9**, paramere; **10**, endosoma (lateral view); **11, 12**, endosomal medial sclerite (**11**, lateral view; **12**, dorsal view).

sion. Prothorax on each side with silvery-white hairs. Coxal covers of all legs white. Legs long, slender, yellow. Fore femora ventrally (i.e. on morphologically hind side) with a wide and laterally (i.e. on dorsal side) with a narrow dark brown stripe. In middle femora, anterior (dorsal) dark stripe narrow and short, posterior (ventral) stripe dark brown, wide, partly expanding to dorsum (i.e. hind side). Hind femora with only posterior (ventral) narrow, dark brown stripe. Tibiae

yellow, darkened at apices; middle and hind tibiae with strong dark brown setae. Tarsal segment 2 yellow; segments 1 and 3 brown; segment 2 of hind tarsi 1.4 times as long as segment 3. Scutellum black, moderately shiny, with a large yellow spot at apex. Clavus velvety-black, with two yellow spots: a small proximal and a larger apical. Corium also velvety-black, except moderately shiny narrow stripe along clavus, with venation typical of Saldinae. Endocorium with a small yellow



Figs 13, 14. Head, front view. **13**, *Sinosalda insolita* gen. et sp. n.; **14**, *Calacanthia trybomi*. *ac*, anteclypeus; *f*, frons; *lb*, labrum; *lsf*, lateral swelling of frons; *Mdp*, mandibular plate; *Mxp*, maxillary plate; *pc*, postclypeus; *pos*, preocellar spot; *o*, ocelli; *tb*, trichobothria; *ts*, transverse swelling.

lowish spots at base and three white spots in apical half: at apices of medial and radial cells and within apicomedial cell. Exocorium with lateral white stripe becoming narrower and embrowned beyond middle and bent toward radiomedial vein at apex. Embolar fracture short (Fig. 5). Cuneus yellowish white. Membrane complete, with 5 well marked cells; longitudinal veins dark brown; outer cell very dark, by a fourth shorter than sub-lateral cell.

Abdomen black. Parandria of genital segment disproportionately small as compared to other Palaearctic species, closely spaced, rounded at apex (Fig. 6). Proctiger with long hollow outgrowth directed forward (Figs 7, 8). Paramere (Fig. 9) stout, strongly sclerotized; processus hamatus long and thickened; processus sensu- alis flat, wide, projecting forward. Hairs on process- us sensu- alis and outer side of paramere very long, soft; outer side in addition with long stout hairs. Filum gonopori forming one coil (Fig. 10). Endosomal medial sclerite as in Figs 11, 12.

Body length 4.6 mm.

Discussion

Two characters separate *Sinosalda* from other examined genera of Saldidae: the directed forward outgrowth of proctiger and absence of trichobothria on vertex (but the latter are possibly broken off in the single examined specimen).

Judging from the short embolar fracture, the new genus belongs in the subfamily Saldinae (Chi-

loxanthinae have a very long fracture). In the Saldinae, it should be placed in the tribe Saldoidini because of only one coil of the filum gonopori.

Sinosalda is similar to *Rupisalda* Polhemus and *Chartoscirta* Stel in the hypognathous head with a median impression or furrow and in the high callus separated by a deep furrow from the hind part of the pronotum. Species of *Rupisalda* resemble *Sinosalda* also in the elongate body, fully developed wings, yellow sides of pronotum, two pale spots (basal and proximal) on clavus, and filum gonopori forming one coil. Both genera differ from *Sinosalda* in the antennal segment 1 not flattened on inner side, presence of 3 pairs on trichobothria on head, widely spaced parandria, and body length usually not surpassing 4.2 mm (but 5 mm in *R. monticola* Polhemus).

In the venation of the membrane, the new genus is similar to the Neotropical *Pseudosaldula* Cobben. Five cells of membrane are characteristic of Chiloxanthinae, but present only in *Pseudosaldula* and *Sinosalda* among Saldinae. *Pseudosaldula* shares with *Sinosalda* also the presence of erect hairs on the dorsal side of body, yellow sides of pronotum, closely spaced parandria, stout parameres with long hairs. However, species of *Pseudosaldula* examined by me differ from *Sinosalda insolita* in the short-oval body, absence of proximal and sometimes of apical pale spots on clavus, and 2.5 coils of the filum gonopori.

Calacanthia is similar to the new genus in the structure of head: frons elongate, so that the

Table. Taxonomic characters of *Sinosalda*, *Pseudosaldula*, *Rupisalda* and *Chartoscirta*

Character	<i>Sinosalda</i>	<i>Pseudosaldula</i>	<i>Rupisalda</i>	<i>Chartoscirta</i>
Body shape and size	Elongate, macropterous, 4.6 mm	Short-oval, submacropterous, less than 4.1 mm	Elongate, macropterous, usually 2.6-4.2 mm	Short-oval, submacropterous, less than 4.1 mm
Head	Hypognathous	Less inclined	Hypognathous	Hypognathous
Erect hairs on dorsum	Absent on head	Present on the whole dorsum	Absent or present on the whole dorsum	Absent or present on the whole dorsum
Trichobothria on head	2 pairs	3 pairs	3 pairs	3 pairs
Mediolateral plates	Present	Absent	Present	Present
Inner side of antennal segment 1	Flattened	Rounded	Rounded	Rounded
Callus of pronotum	Extending to lateral margins of pronotum, high, separated from hind lobe of pronotum by a deep furrow	Not reaching lateral margins of pronotum, low, not markedly separated from hind lobe of pronotum	Extending to lateral margins of pronotum, high, separated from hind lobe of pronotum by a deep furrow	Extending to lateral margins of pronotum, high, separated from hind lobe of pronotum by a deep furrow
Sides of pronotum	Pale	Black or pale	Pale	Black
Apex of scutellum	Pale	Black	Black	Black
Pale spots on clavus	2 (at base and apex)	1 (at apex) or none	2 (at base and apex)	1 (at apex)
Cells of membrane	5	5	4	4
Outgrowth of proctiger	Present	?	Absent	Absent
Parandria	Rounded, closely spaced, but not contacting	Rounded, contacting	Widely spaced	Widely spaced
Coils of filum gonopori	1	2	1	1.5

Note. Species examined or studied from the literature: *Pseudosaldula andensis* Dist., *P. ?perula* Drake, *P. regilla* Drake, *P. rogeri* Kirk. (coll. ZIN; Cobben, 1961); *Rupisalda abdominalis* Champ., *P. dewsi* Hodgden, *P. saxicola* Polhemus, *P. ventralis* Stål (coll. ZIN; Polhemus, 1985); *Chartoscirta cincta* H.-S., *Ch. cocksi* Curt., *Ch. dilutipennis* Reut., *Ch. elegantula* Fall. (coll. ZIN).

clypeal area is shifted below the lower level of eyes; preocellar spots narrow and long, extending beyond the margin of ocelli; lateral swellings of frons well developed; furrows between lateral swellings of frons and eyes present (but less deep in *Calacanthia*); clypeal swelling weakly developed; antennal segment 1 with flattened inner side (in *C. trybomi*). However, species of *Calacanthia* differ from other examined genera of Saldidae in the strongly developed anteclypeus, so that the lower part of the head is strongly shifted ventrally.

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