

Distributional data on Saldidae (Heteroptera) in Czechoslovakia with a taxonomic note on *Salda sahlbergi* Reuter and *Salda henschi* (Reuter)

LUDVÍK HOBERLANDT

Department of Entomology, National Museum (Nat. Hist.), Praha

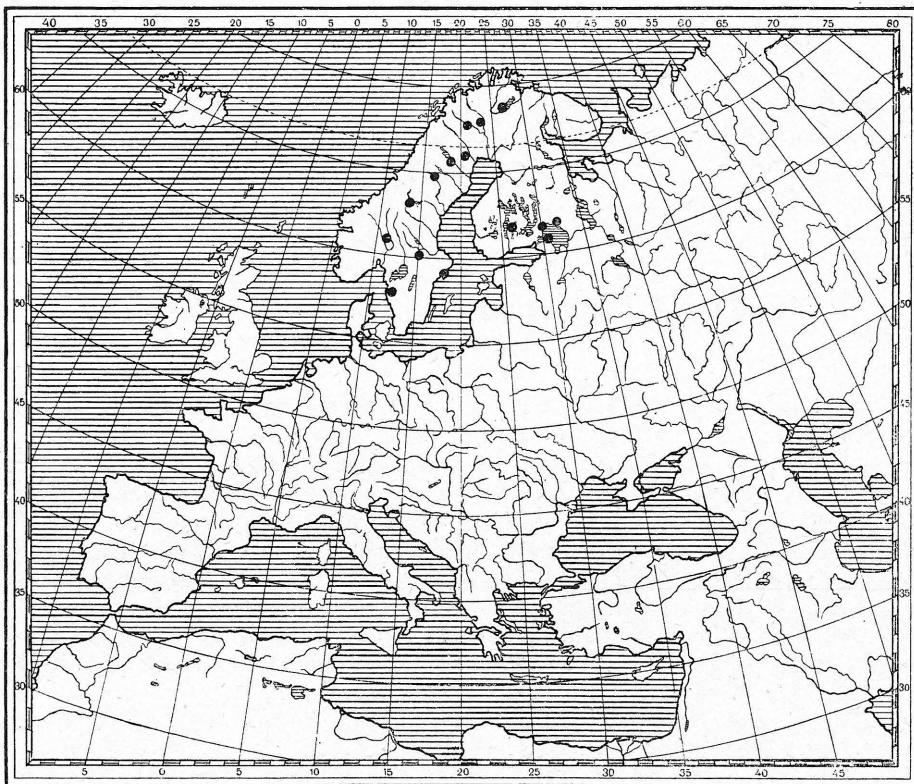
Since the first lists of Heteroptera from the area of Czechoslovakia were published only very little have been recorded on Saldidae and then only in papers dealing with regional fauna generally. Duda (1892) listed from Bohemia 9 species, Spitzner (1892) listed from Moravia only 3 species and Balthasar (1937) from Slovakia 18 species. At the present there are known from the whole of Czechoslovakia 22 species of Saldidae and in this paper is discussed their distribution in the country, as well as the taxonomic position of *Salda sahlbergi* Reuter and *Salda henschi* (Reuter) of which the second species is a remarkable component of the Saldid fauna of Czechoslovakia.

The present distributional data are based on the collections of National museum in Praha, Moravian museum in Brno, Regional museum in Hradec Králové, Slovakian museum in Bratislava and some private collections.

My thanks go to Drs. A. Čejchan (Praha), H. Eckerlein (Coburg), J. Roubal (Praha), G. Seidenstücker (Eichstätt), Á. Soós (Budapest), J. Stehlík (Brno) and P. Štys (Praha), H. H. Weber (Kiel) for help in offering material or other data relevant to this project. In particular I am deeply indebted to Dr. R. H. Cobben (Wageningen), Ing. E. Heiss (Innsbruck) and Dr. P. Lindskog (Stockholm) for permission to use their unpublished data on *Salda henschi* (Reuter) and *Salda sahlbergi* Reuter. My thanks for drawings in this paper are due to my wife Mrs. Jarmila Hoberlandtová—Vávrová.

***Salda sahlbergi* Reuter, 1870, *Acanthia henschi* Reuter, 1891 and *Saldula umbrata* K. Schmidt, 1937**

In the year 1951 when preparing the Catalogue of genera and species of Saldidae the authors (Drake and Hoberlandt) came to the conclusion that three species *Salda sahlbergi* Reuter, 1870, *Acanthia henschi* Reuter, 1891 and *Saldula umbrata* K. Schmidt, 1937 are conspecific members of the genus *Salda*. In the meantime Cobben 1960 shows that *Saldula sahlbergi* belongs to the genus *Salda*, as originally placed by Reuter in the year 1870. In spite of the fact that the result of the study carried out at that time was not convincing the opinion was published. During the last few years, whilst working on the Heteroptera of Czechoslovakia, I came back again to this problem and I concluded that the above mentioned complex of species forms two species of convergent distribution:

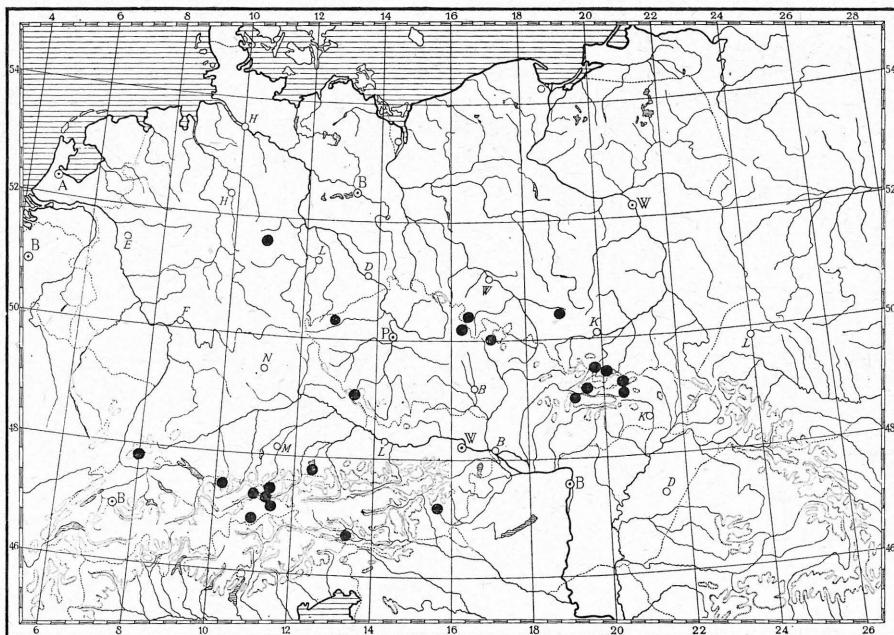


Map 1: map showing the distribution of *Salda (Salda) sahlbergi* Reuter in Europe (Fennoscandia).

Salda sahlbergi Reuter, 1870 described from type-locality Kexholm in Finnland. *Salda henschi* (Reuter, 1891) described as *Acanthia* from type-locality Kežmarok in the Carpathian Mountains.

Besides these two species there has also been described *Saldula umbrata* K. Schmidt, 1937 from the type-locality Obersdorf in the Bavarian Alps. *Salda henschi* and *Saldula umbrata*, however are conspecific and their distribution ranges over the supposed distribution of *Salda henschi* (Reuter).

Salda sahlbergi Reuter is a species of boreal distribution ranging from N. E. Asia as far as to N. W. Europe from whence the distributional records are more abundant. Most Swedish records are from the interior part of the northern coniferous region of Sweden and probably the species is rather generally distributed there on moorlands and boggy and reedy lake margins. This species is not known from north-western mountain regions of Sweden. The rather isolated site on the Swedish west coast should probably be connected with the single Norwegian locality (all the particulars about the occurrence of *Salda sahlbergi* Reuter in Sweden as well as 6 Swedish unpublished records of this species are results of the study of Dr. Per



Map 2: map showing the distribution of *Salda (Salda) henschi* (Reuter) in Central Europe (Czechoslovakia, Germany, Poland and Austria).

Lindskog, Stockholm). *Salda sahlbergi* in Finland is recorded from plain bogs, moorland and marshes with Sphagnum and grass in the vicinity of small pools (Sahlberg 1920). Exact information about localities of Asiatic records are not at my disposal.

Salda henschi (Reuter) converging in the distribution ranges through West Carpathian Mountains district, the Varisian Ranges and East Alps. The species occurs in subalpine zone, isolately at the elevation of 2100 m. (Ötztaler Alpen), predominantly in moorland. The specimens I collected in Ramžová in Vysoké Tatry (High Tatra Mountains) occurs on a biotope of atypical character — on the clayey bank of a small mountain brook in the coniferous region.

Salda sahlbergi Reuter and *Salda henschi* (Reuter) are in general appearance very similar, however they are by several characters well recognizable. *Salda sahlbergi* is in general outline rather more slender than *Salda henschi* and the exterior corial margin more straightened, whilst in *S. henschi* the exterior corial margins are more roundish. The body of *Salda henschi* is rather polished, whilst that of *Salda sahlbergi* is dull. The pubescence on pronotum, scutellum and hemelytra in *Salda henschi* is more conspicuous, rather dense, semiadpressed and longer and with numerous, disperse, distinctly longer suberect hairs. The pubescence in *Salda sahlbergi* is rather sparse and shorter, more adpressed and without distinct longer erect hairs. Antennae and tibiae of *Salda henschi* are rather stouter than in *Salda sahlbergi*. The general

colour appearance of *Salda henschi* is very dark, being on head, pronotum, scutellum and hemelytra almost entirely black with the exception of small yellowish spots on exocorium and endocorium; the spots are always roundish but small and more or less sharply delimited, not confluent. *Salda sahlbergi* is in general appearance paler, often brownish. The yellowish or brownish pattern on corium and clavus large, elongate, conspicuous, more or less confluent one to other; the yellowish pattern of corium and clavus always obsolete.

Salda (Salda) sahlbergi Reuter, 1870

(Fig 1.)

- Salda Sahlbergi* Reuter, 1870, Not. F. et Fl. Fenn., 11 : 330
Acanthia (Acanthia) Sahlbergi; Reuter, 1895, Acta Soc. Sc. Fenn., 21 : 13 et 41
Acanthia (Acanthia) sahlbergi; Oshanin, 1909, Verz. pal. Hem., 1 : 590
Acanthia sahlbergi; Reuter, 1912, Öfv. Finsk. Vet. Soc. Förh., 54 : 70
Acanthia Sahlbergi; Oshanin, 1912, Kat. d. pal. Hem. : 88
Salda Sahlbergi; Sahlberg, 1920, Bidr. till. känn. Fin. nat. folk., 79 : 183—184
Acanthia Sahlbergi; Warloe, Vid. Forth. 1924, No. 4 : 36
Saldula sahlbergi; Ossiannilsson, 1947, Op. ent., 12 : 6
Saldula sahlbergi; Kiritshenko, 1951, Nast. polužest. ev. časti SSSR, Opred. po faune SSSR : 94—95
Saldula sahlbergi; Drake and Hoberlandt, 1951, Acta ent. Mus. nat. Pragae, 26 (376) : 10 (part)
Salda (Salda) sahlbergi; Cobben, 1960, Hem. Het. Saldidae in Stichel III. Besttbl. Wanz. II Europa : 220 (part)
Saldula sahlbergi; Kulik, 1965, Izv. Irkutsk. selsk. inst., 25 : 414
Salda (Salda) sahlbergi; Wagner, 1966, Wanzen Het. Tierwelt Deut., 54 : 215—216, 221 (part)
Salda sahlbergi; Wróblewski, 1966, Bull. ent. Pol., 36 : 223—225 (part)
Salda (Salda) sahlbergi; Linnavuori, 1967, Ann. Fennica 11, Nivelkärsäiset, II : 60 (part)
Salda sahlbergi; Wróblewski, 1968, Het. Saldidae. Klucze do ozn. ow. Pol., XVIII, 3 : 14 (part)
Salda Sahlbergi; Benedek, 1969, Heteroptera. Fauna Hung., 94 : 52 (part)

Distribution (map 1): Finland: Kexholm (type-locality) (Reuter 1870, J. Sahlberg 1920), Kirjavalahti in Ladoga Karelen (Lake), Jaskkima in Lädoga Karelen, Niinämäem korpi in Jämsä in Tavastland, Särkijärvi — Lönnhammar in Karisjö; Lappmarkerna; Lutoo in Inari (69° N) (J. Sahlberg 1920).

Sweden: Boh. Grinneröd, As. Lpm. Vilhelmina, Lu. Lpm. Tjamotis (Ossiannilsson 1947); Lu. Lpm. Muddus, P. Lpm. Arvidsjaur, Ly. Lpm. Sorsele, Jmt. Sunne, Vstm. Björkyttam, Upl. Runmarö (new records).

Norway: Krokskogen (Warloe 1924).

U.S.S.R.: Amur district, Klimoutchi, 40 km. W. Svobodnyj (new record); Amur (Oshanin 1909, 1912, J. Sahlberg 1920); Sretensk, Chita Region (Shilka river), Sakhalin, Nakashisuka (new records).

Mongolia: Uvs aimak, Baruuuntuuruun near Somon Baruuntuuruun (Hoberlandt 1972).

Material examined: 1 ♂ — Finland, Jaakkima, J. Sahlberg coll. (Hung. National museum, Budapest)

2 ♂♂ — Finland: Karisjö, J. Sahlberg coll. (National Museum, Praha)

2 ♀♀ — Finland: Jaakkima, J. Sahlberg coll. (National Museum, Praha)

2 ♀♀ — Sweden: Upl. Rummarö, C. C. Coulianos coll. (National Museum, Praha)

1 ♀ — Sweden: Vstm. Linde, Björkyttan, 5. 7. 1964, P. G. Lindskog coll. (National Museum, Praha)

1 ♀ — U. S. S. R.: Amur district, Klimautchi, 40 km. W. of Svobodnyj 17. 6. 1959, I. M. Kerzher coll. (National Museum, Praha)

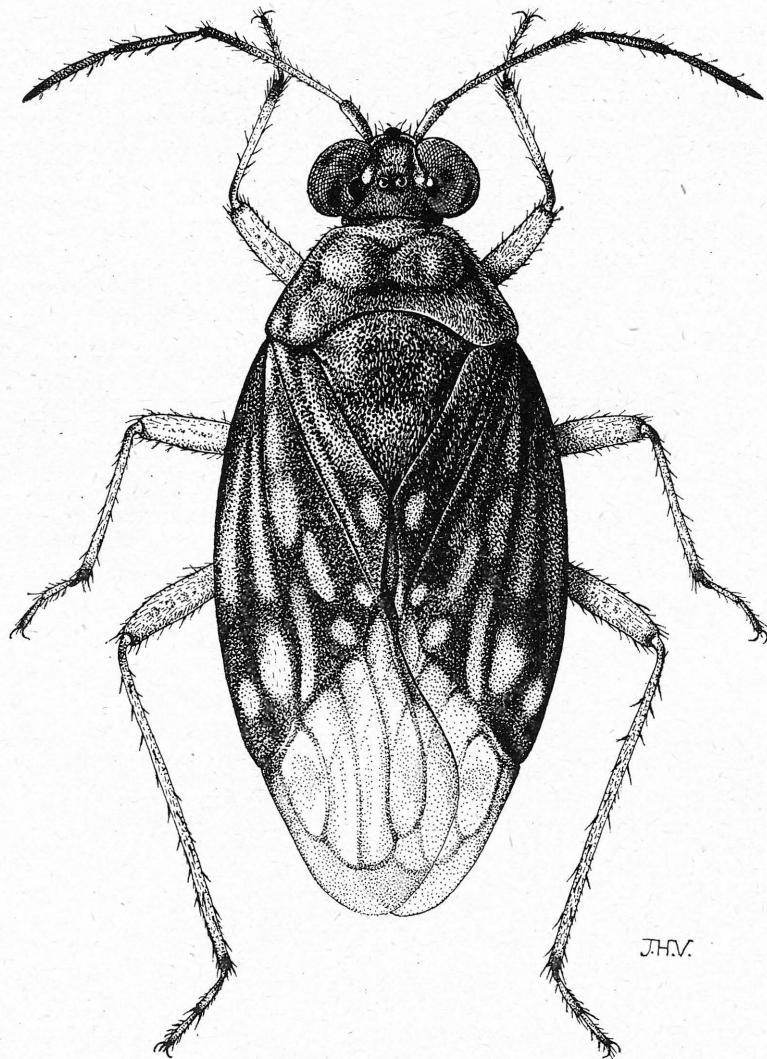


Fig. 1: *Salda (Salda) sahlbergi* Reuter, male from Jaakkima in Finland.

1 ♀ — Mongolia: Uva aimak, on the river Baruuntuurun gol near Somon Baruuntuurun, 1280 m., 25. 6. 1968, Z. Kaszab coll. (National Museum, Praha).

Male, macropterous. Length 4.7—5.1 mm., width 2.0—2.4 mm. General shape of the body elongate, 2.2—2.35 times as long as broad, lateral margins of hemelytra moderately regularly roundish.

Antennae 1.56—1.63 times longer than width of pronotum, slender, slightly thinner than that of *Salda henschii*. Antennal segments with dense subadpressed hairs which

are as long or shorter than the width of antennal segments and with some rather long projecting bristles. Relative lengths of antennal segments 4 : 9 : 6 : 7.

Pronotum 2.3–2.5 times as broad as long, pronotal anterior central elevation 2.3 times as broad as long, lateral pronotal margins rather straight, broadly flattened.

Pronotum, scutellum and hemelytra with not too much dense, long adpressed goldish pubescence. Legs with adpressed pubescence.

General colour appearance blackish brown or dark brown, rather dull. First antennal segment yellowish brown, basally blackish, below and upper with a broad longitudinal black stripe, second to fourth segments dark brownish. Legs brown, femora basally darkened, sometimes with dark spots more or less confluent, tibiae apically and third tarsal segment darkened. Corium with large pale brown markings longitudinally situated between corial veins, which remain blackish brown. Brownish markings often confluent and corium in general appearance rather brownish. Membrane brown, veins darkened.

Parameres stout, distinctly S-sinuate, apical part more curved, inside with fine tubercle and then regularly narrowed in a sharpened apex (figs 2–6). Parandria as in figures 7–8.

Female, macropterous. In general shape and colour similar to male. Length 5.0–5.9 mm., width 2.3–2.7 mm. Body 2.3–2.45 times as long as broad. Relative lengths of antennal segments 4 : 10 : 6 : 7. Subgenital plate in figures 9–10.

Salda (Salda) henschi (Reuter, 1891)

(Fig. 11)

Acanthia Henschi Reuter, 1891, Rev. d'Ent., 10 : 23

Acanthia (Acanthia) Henschi; Reuter, 1895, Acta Soc. Sc. Fenn., 21 : 12 and 41

Salda Henschi; Horváth, 1897, Hem. Fauna Reg. Hung.: 43

Salda Henschi; Smreczynski, 1909, Spraw. Kom. fizyogr., Kraków, 43 : 74

Acanthia (Acanthia) henschi; Oshanin, 1909, Verz. pal. Hem., 1 : 590

Acanthia henschi; Reuter, 1912, Öfv. Finsk. Vet. Soc. Förh., 54 : 70

Acanthia Henschi; Oshanin, 1912, Kat. d. pal. Hem. : 88

Acanthia Henschi; Stobiecki, 1915, Spraw. Kom. fizyogr., Kraków, 49 : 50

Saldua umbrata Schmidt, 1937, Mitt. deut. ent. Ges., 8 : 44–48, fig. 1

Acanthia henschi; Balthasar, 1937, Bratislava, 11 : 246

Saldua sahlbergi; Drake and Hoberlandt, 1951, Acta ent. Mus. nat. Prague, 26 (376) : 10 (part)

Saldua sahlbergi; Stehlík, 1952, Acta mus. Mor., 37 : 156, 160, 183, 214, 222 (part)

Saldua henschi; Smreczynski, 1954, Frag. Faun., 7 : 13

Saldua umbrata; Polentz, 1957, Beitr. Ent., 7 : 16

Salda (Salda) sahlbergi; Cobben, 1960, Hem. Het. Saldidae in: Stichel, III. Besttbl. Wanz. II Europa : 220 (part)

Saldua umbrata; Franz und Wagner, 1961, Hem. Het. Nordost-Alpen, 2 : 326

Saldua henschi; Wagner, 1961, Hem. Het. Tierwelt Mitteleur., IV, 3 : 107

Salda (Salda) sahlbergi; Wagner, 1966, Wanzen Het. Tierwelt Deut., 54 : 215–216, 221 (part)

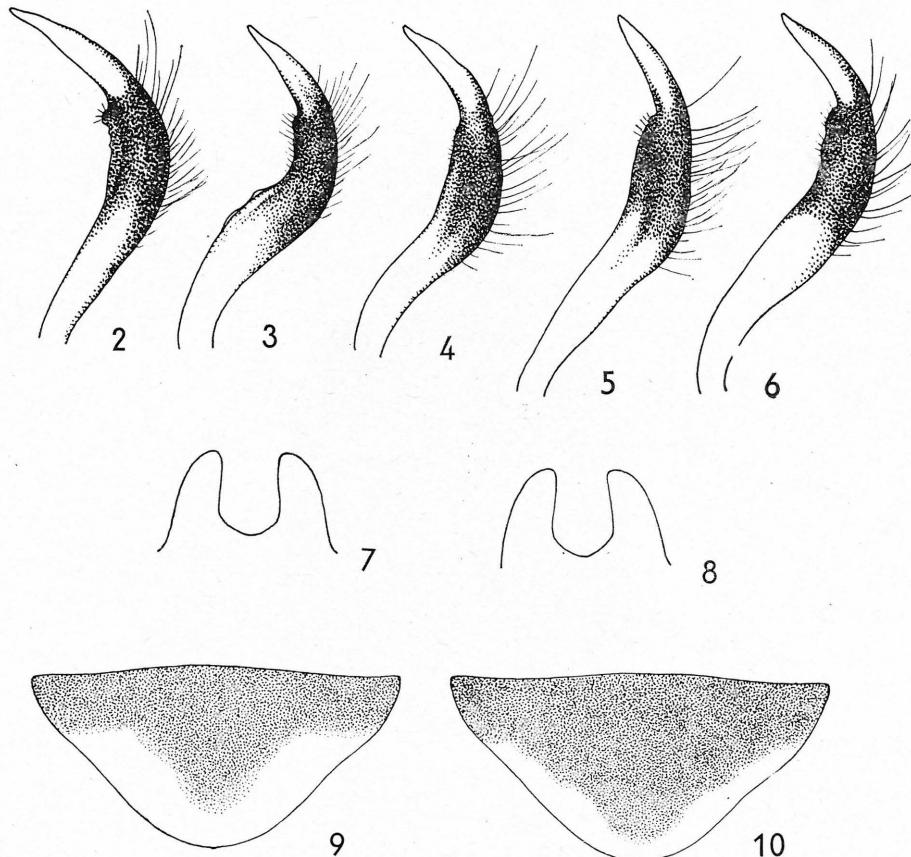
Salda sahlbergi; Wróblewski, 1966, Bull. ent. Pol., 36 : 223–225 (part)

Salda (Salda) sahlbergi; Linnavuori, 1967, Ann. Fennica 11, Nivelkärsäiset II : 60 (part)

Salda sahlbergi; Wróblewski, 1968, Het. Saldidae, Klucze do ozn. ow. Pol. XVIII, 3 : 14 (part)

Salda Sahlbergi; Benedek, 1969, Heteroptera, Fauna Hung., 94 : 52 (part)

Distribution (map 2): Slovakia; West Carpathian mountains, Kežmarok (type-locality) (Reuter 1891, Horváth 1897, Balthasar 1937), Spišská Belá (Horváth 1897, Balthasar 1937). Slovakia; Kozel (new record), Vysoké Tatry (High Tatra), Ramžová (new record); Moravia, Hrubý Jeseník (Jeseník Mountains), Rejvíz,



Salda (Salda) sahlbergi Reuter — figs. 2—6: parameres of male from Jaakkima in Finland (2—4) and from Karislojo in Finland (5—6); figs. 7—8 : parandria of male from Karislojo (7) and from Jaakkima(8), figs. 9—10: subgenital plates of female from Jaakkima (9) and from Rummarö in Sweden (10).

Velké Jezírko (Stehlík 1952); Bohemia: Šumava (Mountains), Polečnice, Orlické hory (Mountains), Krušné hory (Mountains) (new records).

Poland: Upper Silesia, Katowice province, Tarnowskie Gory (Friedrichhütte, K. Schmidt 1937) (Wróblewski 1966, 1968), Tatry (Tatra Mountains), Toporowy Pond (Smreczynski 1909, 1954, Stobiecki 1915, Wróblewski 1966, 1968), Tatry (Tatra Mountains), Mala Laka Valley (Smreczynski 1954, Wróblewski 1966, 1968); District Kladsko, Bystrzyckie Mountains, Zieleniec, moorland Topielisko (Wróblewski 1966, 1968).

Germany: Bavarian Alps, Allgäu, Obersdorf (type-locality of *Saldula umbrata* K. Schmidt 1937); Bavaria, Chiem-See, Galler-Filz (new record); Harz (Mountains), Friedrichsbrunn (Polentz 1957); Schwarzwald (Wagner 1966).

Austria: Steyr, Grosses Löckenmoos bei Goksau (Franz and Wagner 1961),
10

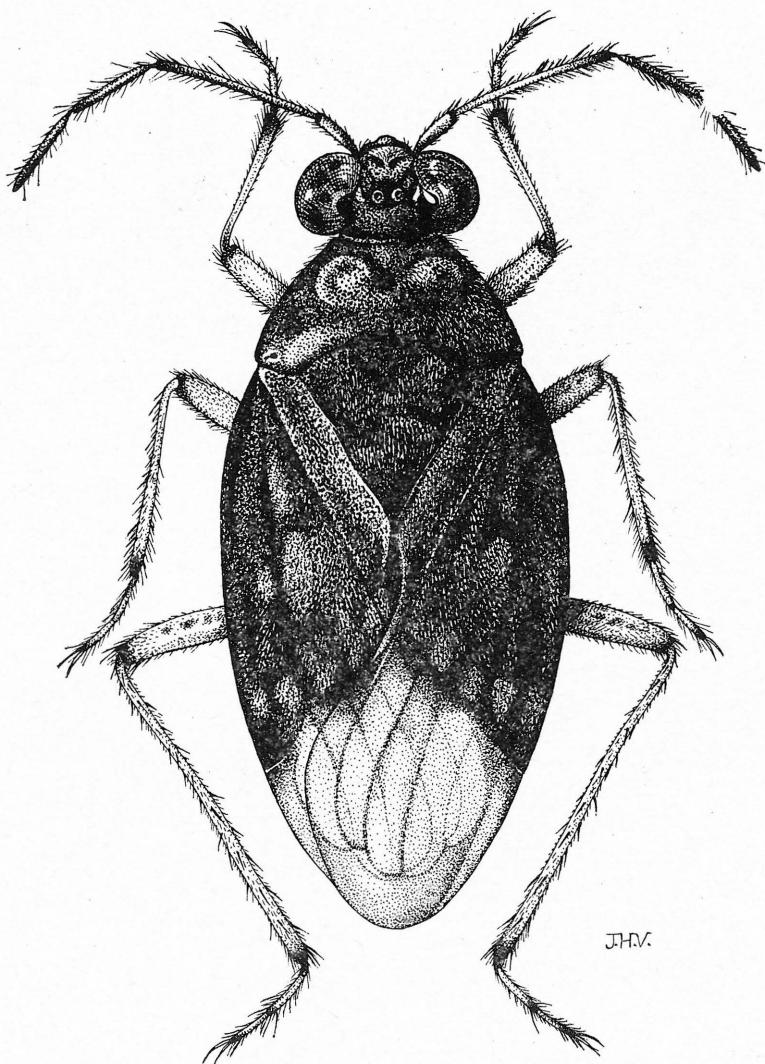


Fig. 11: *Salda (Salda) henschii* (Reuter), male from Jeseníky mountains in Czechoslovakia.

Carinthia (Kärnten), Weissensee (new record); North Tirolia (Nordtirol), Gaisstal bei Ehrwald, Mcor vor Mösern, Wildmoosalp. Oberleutsch — Moorhäusl, Ötzthal (new records; all hitherto unpublished records of N. Tirolia have been communicated to me by Ing. E. Heiss, Innsbruck; the specimens are deposited in his collection).

Material examined: 1 ♀ (holotype) — „Kesmárk“; Czechoslovakia, Slovakia, Vysoké Tatry, Kežmarok. (Hung. National Museum, Budapest)

3 ♂♂ and 1 ♀ — „Sz. Béla“; Czechoslovakia, Vysoké Tatry, Spišská Belá, 6. 7. 1882 (Hung. National Museum, Budapest)

- 1 ♀ — Czechoslovakia, Slovakia, Kozel, 15. 7. 1936 F. Müller coll. (National Museum, Praha)
- 3 ♀♀ — Czechoslovakia, Slovakia, Vysoké Tatry, Ramžová, 1200 m., 18.—28. 6. 1949 L. Hoberlandt coll. (National Museum, Praha)
- 1 ♂ and 1 ♀ — Czechoslovakia, Moravia, Hrubý Jeseník, 10. 6. 1946 S. Hrabě coll. (National Museum, Praha)
- 11 ♂♂ and 9 ♀♀ — Czechoslovakia, Moravia, Hrubý Jeseník, Rejvíz, Velké Jezírko, 8. 8. 1951 J. Stehlík coll. (National Museum, Praha)
- 1 ♂, 6 ♀♀ and 2 nymphs — Czechoslovakia, Moravia, Hrubý Jeseník, 7. 7. 1964 M. Slouková coll. (National Museum, Praha)
- 10 ♂♂ and 3 ♀♀ — Czechoslovakia, Moravia, Hrubý Jeseník, Rejvíz, Velké mechové jezírko, 31. 8. 1955 coll. P. Štys (Collectio P. Štys)
- 10 ♂♂ and 4 ♀♀ — Czechoslovakia, Moravia, Hrubý Jeseník, Rejvíz, Velké mechové jezírko, 3. 7. 1962 coll. P. Štys (Collectio P. Štys)
- 2 ♂♂ — Czechoslovakia, Bohemia, Šumava, Polečnice, 8. 1956 P. Štys coll. (National Museum, Praha)
- 4 ♂♂ and 8 ♀♀ — Czechoslovakia, Bohemia, Orlické hory, Jelení lázeň u Šerlichu, 4. 8. 1973 coll. P. Štys (Collectio P. Štys)
- 6 ♂♂ and 4 ♀♀ and nymphs — Czechoslovakia, Bohemia, Krušné hory, Boží Dar, 30. 7. 1974 coll. P. Štys (Collectio P. Štys)
- 2 ♀♀ (holotype and paratype of *Saldula umbrata* K. Schmidt) — Germany, Bayerische Alpen, Allgäu, Obersdorf, 26. 7. 1933 K. Schmidt coll. (Zoological Museum, München)
- 2 ♂♂ and 2 ♀♀ (paratypes of *Saldula umbrata* K. Schmidt) — Germany, Bayerische Alpen, Allgäu, Obersdorf, 2. 8. 1933, 5. 8. 1937, 26. 7. 1938 K. Schmidt coll. (Zoological Museum, München)
- 1 ♀ — Germany, Chiem-See, Galler-Filz, 7. 8. 1949 H. Bühlmann coll. (Zoological Museum, München)
- 1 ♂ and 1 ♀ — Germany, Schwarzwald, Wildseemoor, 900 m., 10. 7. 1952 H. H. Nowotny coll. (National Museum, Praha)
- 7 ♂♂ and 5 ♀♀ — Austria, Kärnten, Weissensee, 950 m., 8.—30. 8. 1958 H. H. Weber coll. (National Museum, Praha)
- 1 ♂ and 1 ♀ — Austria, Tirol, Ötztaler Alpen, 2100 m., 22. 8. 1960 H. Pechlaner coll. (National Museum, Praha)
- 2 ♂♂ and 2 ♀♀ — Austria, Nordtirol, Mösern, 1300 m., 14. 7. 1960 E. Heiss coll. (National Museum, Praha).

Male, macropterous. Length 4.3—4.8 mm., width 1.9—2.2 mm. General shape elongate 2.13—2.4 times as long as broad, lateral margins of hemelytra regularly moderately roundish.

Antennae 1.4—1.5 times longer than the width of pronotum, slender, however slightly thicker than that of *Salda sahlbergi* Reuter. Antennal segments with dense suberected pubescence on an average as long or longer than the width of antennal segments and with some rather long projecting bristles. Relative lengths of antennal segments 4 : 10 : 6 : 6.

Pronotum, scutellum and hemelytra with long dense subadpressed goldish pubescence. Legs with conspicuous suberected pubescence.

General colour appearance bright black. First and second antennal segments yellowish or yellowish brown or pale brownish, first antennal segment basally blackish or darkened, below and upper with more or less distinct longitudinal blackish stripe, second antennal segment distinctly darkened apically; third and fourth segment brownish. Legs yellowish or yellowish brown, femora below with longitudinal blackish stripe, more distinct in anterior femora. Tibiae apically darkened. Pronotum, scutellum and abdomen deep black, bright, the colour of the corium predominantly black with yellowish or brownish spots, which are small, mostly roundish, when they are larger or elongate than regularly sharply delimited and not conspicuously confluent. Membrane pale yellowish brown, basally blackish, veins darkened.

Parameres slender, S-sinuated, regularly in basal as well as in apical parts, inside with a more distinct tubercle, apical pointed part rather longer (figs. 12–19). Parandria as in figures 20–23.

Female, macropterous. General shape and colour similar to male. Length 4.9 to 5.5 mm; width 2.1–2.4 mm. Body 2.15–2.26 times as long as broad. Relative lengths of antennal segments 4 : 11 : 6 : 6. Subgenital plate as in figures 24–25.

Salda (Salda) littoralis littoralis (Linné, 1758)

In Czechoslovakia recorded only from Slovakia: Bratislava (Horváth 1897, Balthasar 1937). Unfortunately it was impossible to ratify this old record of this species. Species is of Holarctic distribution and recorded from all adjoining countries.

Salda (Salda) morio Zetterstedt, 1839

Previously recorded only from Central Bohemia: Čelákovice (Roubal 1953). It was not possible to ratify this single record of this species in Central Bohemia, however, it is possible that the population has floated down from Krkonoše Mountains by the river Labe (the Elbe).

New records: 2 ♀♀ — Slovakia, Vysoké Tatry, Ramžová, 1200 m, 18. 6. 1949 L. Hoberlandt coll. (National Museum, Praha).

1 ♀ — Slovakia, Hrádok nad Váhom, K. Roland coll. (National Museum, Praha).

The species is probably of Eurosiberian distribution and the European distribution extends up to arctic Lapland. It occurs in peat bogs at the margins of pools. The specimens I collected in Tatra Mountains in Ramžová occurred on the clayey bank of small mountain brook in the coniferous region together with *Salda (Salda) henschii* (Reuter), *Salda (Teloleuca) brancziki* (Reuter), *Saldula (Saldula) orthochila* (Fieber) and *Saldula (Saldula) c-album* (Fieber).

Salda (Salda) muelleri (Gmelin, 1788)

Present records: Bohemia, Cheb (Dalla Torre 1877, Duda 1884, 1885, Scholz 1930), Soos (Roubal 1957, Štys 1960), Krkonoše (Mountains), Liščí bouda, 1250 m. (Roubal 1959); Slovakia: Trenčín, Martin, Vysoké Tatry, Kežmarok, Spišská Belá (Horváth 1897, Balthasar 1937), Hrádok nad Váhom (Balthasar 1937).

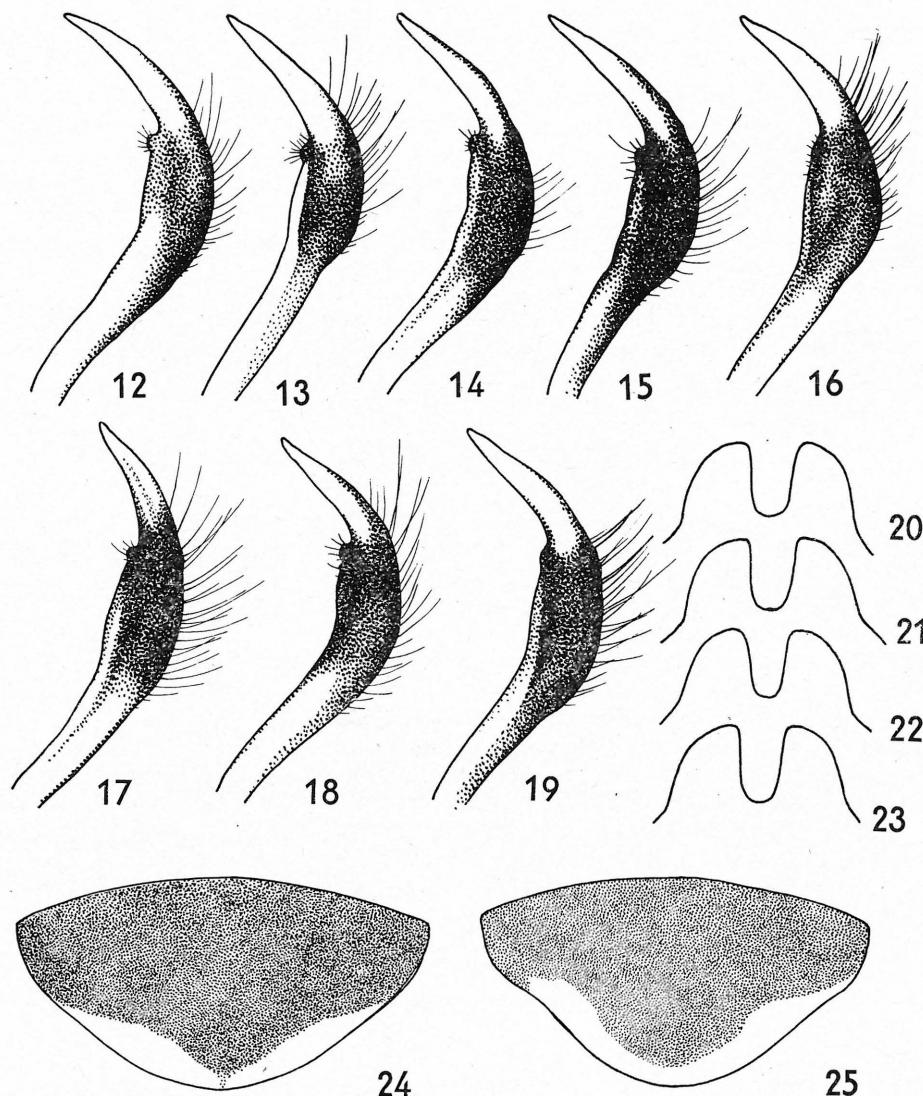
New records: 1 ♀ — Bohemia: Šumava Mountains, Železná Ruda, 7. 6. 1946 J. Obenberger coll. (National Museum, Praha).

1 ♀ — Bohemia, Františkovy lázně — Soos, 18. 6. 1960 A. Smetana coll. (National Museum, Praha).

1 ♂ and 1 ♀ — Slovakia, Vysoké Tatry, Ramžová, 7. 6. 1949 L. Hoberlandt coll. (National Museum, Praha).

The records by Horváth 1897 from Spišská Belá, 6. 7. 1882 (1 ♂ and 1 ♀) and from Trenčín (2 ♂♂ and 4 ♀♀) I examined (Hung. National Museum, Budapest).

In the conditions of our country mainly as tyrrhophil occurring in moorland beneath Sphagnum. The specimens collected in High Tatra (Vysoké Tatry) in Slovakia occurred on the clayish bank of a small mountain brook in the coniferous region. Species probably of Eurosiberian distribution.



Salda (Salda) henschi (Reuter) — figs. 12—19 parameres of male from Jeseníky mountains in Czechoslovakia (12—16), from Sumava mountains in Czechoslovakia (17) and from Weissensee in Austria (18—19); figs. 20—23: parandria of males from Jeseníky mountains (20, 21), from Šumava mountains (22) and from Weissensee (23); figs 24—25: subgenital plates of females from Šumava mountains (24) and from Weissensee (25).

Salda (Teloleuca) pellucens (Fabricius, 1779)

Present records: Slovakia, Vysoké Tatry (High Tatra), Lubochňa, Demenovské jeskyně (Horváth 1897). In the list of Slovakian Heteroptera by Balthasar (1937) this species is not recorded.

New records: 1 ♀ — Slovakia, Liptovské hole, Roháče, 15. 7. 1937 (National Museum Praha)

1 ♀ — Slovakia, Vysoké Tatry, Ždiar, 1946 J. Král coll. (National Museum, Praha)

1 ♀ — Slovakia, Vysoké Tatry, Hrádok, 1200 m., 12.—15. 7. 1954 L. Hoberlandt coll. (National Museum, Praha)

1 ♀ — Slovakia, Nízké Tatry (Lower Tatra), Lučná dolina, 2. 7. 1959 I. Löbl coll. (National Museum, Praha)

Slovakian records by Horváth (1897) reexamined: Tatra, 13. 7. 1882 (2 ♂♂ and 5 ♀♀) and 17. 7. 1882 (1 ♂), (Hung. National Museum, Praha)

The species occurs in similar conditions in the Slovakian Carpathian Mountains to those stated by Wróblewski (1966, 1968). It seems to be attached to small mountain streams and brooks. Species of Holarctic distribution.

Salda (Teloleuca) brancziki (Reuter, 1891)

Present records: Slovakia, Kežmarok (Reuter 1891, Horváth 1897, Balthasar 1937), Vrátná dolina, Spišská Belá (Horváth 1897, Balthasar 1937), Lubochňa, Korytnica, Dunajec (Balthasar 1942).

New records: 1 ♀ — Slovakia, Oravský Podzámok, 15. 7. 1935 L. Hoberlandt coll. (National Museum, Praha)

29 ♂♂ and 30 ♀♀ — Slovakia, Vysoké Tatry, Ramžová 18.—28. VI. 1949 L. Hoberlandt coll. (National Museum, Praha)

5 ♂♂ and 2 ♀♀ — Slovakia, Vysoké Tatry, Hrádok, 1200 m., 12.—15. 7. 1954 L. Hoberlandt coll. (National Museum, Praha)

15 ♂♂ and 2 ♀♀ — Slovakia, Vysoké Tatry, Belá near Pribylina, 17. 7. 1954 L. Hoberlandt coll. (National Museum, Praha)

72 ♂♂ and 45 ♀♀ — Slovakia, Vysoké Tatry, Belá near Podbánsko, 21.—24. 7. 1954 L. Hoberlandt coll. (National Museum, Praha)

5 ♂♂ and 3 ♀♀ — Slovakia, Oravský Podzámok, 4. 8. 1955 L. Hoberlandt coll. (National Museum, Praha)

4 ♀♀ — Slovakia, Liptovské Hole, Tichá dolina, 6. 7. 1956 A. Smetana coll. (National Museum, Praha)

1 ♂ and 1 ♀ — Slovakia, Malá Fatra, Zazrivá, 5. 8. 1957 L. Hoberlandt coll. (National Museum, Praha)

1 ♂ — Slovakia, Královany, 6. 8. 1958, J. Reška coll. (Coll. J. Roubal)

1 ♂ — Slovakia, Malá Fatra, 7. 7. 1958 J. Reška coll. (Coll. J. Roubal)

1 ♂ — Slovakia, Velká Fatra (Coll. J. Roubal).

The particulars concerning the life-cycle of this species given by Wróblewski (1966) are similar for the population living in the conditions of the Carpathian Mountains in Slovakia. The adult bug is there found from the end of June to the beginning of August, the mating and oviposition occur in August. *Salda (Teloleuca) brancziki* in the Slovakian Carpathian Mountains occurs rather abundantly on shallow wide banks of larger streams, with smaller stones and sand and with sparse or lacking any vegetation. The specimens were very active in sunlight, but immediately hid under stones when it became cloudy. It seems to be a typical biotope of this

species in Slovakian Carpathian Mountains. When collecting this species in different biotopes the specimens have been not abundant.

Salda (Teloleuca) brancziki is a species of European distribution with extension to the mountains ranges.

Chartoscirta cincta (Herrick Schaeffer, 1842)

Present records: Bohemia: Poděbrady, Blatná (Duda 1884, 1885, Scholz 1930), Trstěnice, Chlum (Roubal 1957), Velký Tisý (Štys 1958, 1960), Soos (Štys 1960) Krkonoše, Vrchlabí, D. Kalná (Roubal 1969); Morava: Zlín (Gottwaldov) (Balthasar 1945); Slovakia: Jurský Šur (Sl. Jur) (Balthasar 1937, Ország 1966).

New records: Bohemia: numerous specimens from Stéblovice, Jindřichův Hradec, Soos; Moravia: numerous specimens from Pístovice, Lednice, Střelice, Adamov, Říčky, Chomutov, Černoviz, Olomouc; Slovakia: numerous specimens from Turná nad Bodvou, Kežmarok, Trenčín (Hung. National Museum, Budapest), Zadiel, Salka (Moravian Museum, Brno), Malé Karpaty, Bratislava (Regional Museum, Hradec Králové).

Species occurring on moor and Sphagnetum, on swamp with grass vegetation. Species of Palaearctic distribution.

Chartoscirta elegantula (Fallén, 1807)

Present records: Bohemia: Praha (Fieber 1837, Roubal 1953), Panenská Tynice (Duda 1884, 1885), Doksy (Roubal 1956, 1967 b), Soos (Štys 1960), Rudohoří, Nové Město (Roubal 1964), Máchovo jezero, Břehyně (Roubal 1967 b); Slovakia: Jurský Šur (Sl. Jur) (Balthasar 1937).

New records: 3 ♂♂ — Bohemia, Soběslav, 20. 9. 1942 B. Štícha (Moravian Museum, Brno)

1 ♂ — Bohemia, Týniště nad Orlicí, 8.—20. 7. 1959 Z. Bouček coll. (National Museum, Praha)

1 ♂ and 1 ♀ — Bohemia, Veselí nad Lužnicí, 28. 3. 1961 J. Dlabola coll. (National Museum, Praha).

On swampy meadows and in grassy vegetation in the neighbourhood of stagnant water of all kinds. Species of Eurosiberian distribution.

Chartoscirta cocksi (Curtis, 1835)

Present records: Bohemia: (Duda 1892), Karlovy Vary (Scholz 1930), Trstěnice (Roubal 1957), Soos (Roubal 1957, Štys 1960); Moravia: Hrubý Jeseník, Rejvíz, Velké Jezírko (Stehlík 1952), Rychlebské hory, Uhelná, Nové Vilémovice, Račí údol (Štys 1959); Slovakia: Kežmarok, Spišská Belá, Turná nad Bodvou (Horváth 1897), Trenčín, Slovenský Kras (Balthasar 1937), Jurský Šur (Ország 1966).

New records: Moravia: numerous specimens from Dolní Věstonice (National Museum, Praha), Ševy, Brno—Říčky, Bystrcany (Moravian Museum, Brno); Slovakia: numerous specimens from Štúrovo (National Museum, Praha), Vihorlat, Krivošťany (Moravian Museum, Brno).

Species by some authors considered as a tyrrphophil or species occurring in Sphagnum. Wet or swampy grassy stations are characteristic biotopes of this species. Species of Palaearctic distribution.

Micracanthia marginalis (Fallen, 1818)

Present records: Bohemia, Krkonoše, Obří důl (Roubal 1955 b, 1959), Soos (Štys 1960).

New record: 6 ♂♂ and 1 ♀, 1 nymph — Bohemia, Šumava Mountains, Horská Kvilda, 1200 m., 29. 8. 1962 L. Hoberlandt coll. (National Museum, Praha).

Tyrrphophile species; in Soos (W. Bohemia) as well as in S. Bohemia, Šumava Mountains, H. Kvilda occurring in the formation of *Drosera rotundifolia* and Sphagnum. Species of European distribution with rather boreale extension.

Saldula (Macrosaldula) scotica (Curtis, 1835)

Present records: Bohemia: Praha (Duda 1884, 1885, 1892, Nickerl 1905, Scholz 1930), Libčice, Soběslav (Duda 1884, 1885, 1892, Scholz 1930), Rudohoří, Potůčky (Nickerl 1905, Scholz 1930), Krkonoše, Špindlerův Mlýn (Nickerl 1905, Roubal 1959, 1961 a), Karlovy Vary, Cheb (Scholz 1930), Jizerka—Kořenov (Roubal 1967 b); Moravia: Beskydy, Prostřední Bečva (Balthasar 1945), Hrubý Jeseník, Divoká Desná, Opavice (Stehlík 1952); Slovakia: Trenčín, Vrátná, Korytnica, Kláštor pod Znievom, Vŕško, Vysoké Tatry, Javorina (Horváth 1897, Balthasar 1937).

New records: Bohemia, numerous specimens from Železná Ruda, Žampach, Malá Skála, Zbraslav (National Museum, Praha); Moravia: Beskydy, Radhošť (National Museum, Praha), Moravice (Moravian Museum, Brno); Slovakia: Královany, Kežmarok, Nízke Tatry, Králova Hoľa, Piešťany, Oravský Podzámok, Vysoké Tatry, Belá near Pribilina, Pôdbranské, Liptovské hole, Tichá dolina, Veľká Fatra (National Museum, Praha), Levočská dolina (Moravian Museum, Brno).

Species occurring on the stony and rocky vegetationless banks of submontane rivers; however it occurs on banks of the rivers in lowlands without any mountainous characters. Species of Palaearctic distribution.

Saldula (Macrosaldula) variabilis (Herrich Schaefer, 1835)

Present records: Bohemia: Praha, Libčice, Soběslav (Duda 1884, 1885, 1892, Scholz 1930); Slovakia: Modrý Kámen near Lučenec, Trenčín, Vysoké Tatry, Kežmarok (Horváth 1897, Balthasar 1937).

New records: Piešťany, Vysoké Tatry, Ramžová (National Museum, Praha).

Species occurring on stony banks of rivers and brooks, more common in mountains regions. Species of European distribution, absent from England and Scandinavia.

Saldula (Saldula) orthochila (Fieber, 1859)

Present records: Bohemia: Cheb (Dalla Torre 1877, Duda 1885, Scholz 1930), Praha (Duda 1884, 1885, 1892, Roubal 1959), Alberice (Roubal 1959 a), Soos (Štys 1960), Česká Lípa (Roubal 1967 b), Krkonoše, Luční bouda (Roubal 1969); Moravia:

Hrubý Jeseník, Vysoká hole, Šerák, Rejvíz, Velké Jezírko, Velká Jezerní hora, Malá Jezerní hora, U tří hranic pod Koperníkem (Stehlík 1952), Rychlebské hory, Homole, Nové Vilémovice (Štys 1959); Slovakia: Trenčín, Korytnica, Lučky, Piechov, Vysoké Tatry, Belanské Tatry, Ždiar, Javorina (Horváth 1897, Balthasar 1937).

New records: numerous specimens from Bohemia: Krkonoše, Nový Svět, Nová Huť, Zbraslav, Horní Lipno; Slovakia: Oravský Podzámok, Vysoké Tatry, Ramžová, Belá, Pribilina, Ulič, Nízké Tatry, Králova hola, Levočská dolina (National Museum, Praha).

Species occurring on biotopes of different characters, very often on extremely bare dry sites or completely wet grassy places or on banks of rivers and brooks. But it prefers mountain or submontane regions. Species of Eurosiberian distribution.

Saldula (Saldula) nobilis (Horváth, 1884)

Present record: Slovakia: Vysoké Tatry, Kežmarok (type-locality), (Horváth 1884, 1897, Balthasar 1937).

New record: 4 ♂♂ and 7 ♀♀ — Slovakia, Oravský Podzámok, 12. 7. 1935 L. Hoberlandt coll. (National Museum, Praha).

Species occurring on wide stony banks of larger submontane rivers with disperse grassy vegetation. The Carpathian biotope is very similar to that of Austrian and Bavarian Alps. Species of Eurosiberian distribution restricted to mountains areas.

Saldula (Saldula) opacula (Zetterstedt, 1839)

Present records: Bohemia: Poděbrady, Brandýs n. L. (Duda 1884), Třeboň, Jindřichův Hradec, Blatná, Zbraslav, Hostivice, Dolní Počernice, Čelákovice (Roubal 1958), Soos (Štys 1960), Krkonoše, Černá hora (Roubal 1961 a); Moravia: Hrubý Jeseník, Vozka (Stehlík 1952), Lednice, Sedlec, Hodonín, Nová Ves, Pohorelice, Stanovice, Velké Němčice, Sokolnice, Brno, Pístovice, Olomouc—Jírová (Stehlík 1960); Slovakia: Petřžalka, Čeklís (Balthasar 1937), Jurský Šur (Ország 1966).

New records: numerous specimens from Bohemia: Praha, Kamberk, Mšec, Doksy (National Museum, Praha); Moravia: Ševy, Hodonín, Chomutov (Moravian Museum, Brno); Slovakia: Kamenný Most, Plešivec, Zadiel, Vihorlat, Krivošany (National Museum, Praha).

Species occurring on banks of waters of any kind, covered with vegetations as well as on salty sites. Species of Holarctic distribution.

Saldula (Saldula) saltatoria (Linné, 1758)

Present records: Bohemia (Duda 1884, 1885, 1892): Praha, Vrané, Černošice (Nickerl 1905), Čelákovice, Blatná (Roubal 1958), Karlovy Vary, Tis, Blatno, Petrohrad, Vroutek, Stráž n. O., Perštejn, Ústí n. L., Malá Skála, Soos (Roubal 1957), Krkonoše, Mísečky, Studničná hora, Výrovka, Čertova zahrada, Albeřice, Sněžka (Roubal 1959 a), Soos (Štys 1960), Krkonoše, Vrchlabí, Medvědí bouda, Kozelské hřebeny, Špindlerův Mlýn, Pec, Jánské Lázně, Pomezní boudy, Jilemnice,

Rýchory (Roubal 1969); Moravia: Brno, Napajedla, Praděd (Spitzner 1892), Praděd (Kolenati 1850), Hrubý Jeseník, Moravice, Opavice, Rejvíz, Malé Jezírko, Malá Jezerní hora, U tří hranic pod Keprníkem, Velká Jezerní hora, Vozka (Stehlík 1952), Kotouč (Roubal 1955 a), Rychlebské hory, Petříkov, Lukavec, Palaš, Rací údolí (Štys 1959); Slovakia: Bratislava (Balthasar 1937), Jurský Šur (Ország 1966).

New records: numerous specimens from Bohemia: Šumava, Černé jezero, Horská Kvilda, Neratovice, Praha, Štěchovice, Lnáře, Malá Skála, Mříčná, Čelákovice, Sobotka, Peřimov, Horní Lipka, Karlštejn, Karlovy Vary, Seč—Železné hory, Radotín, Lobkovice, Zichovec, Bylany, Trstenice, Sedlo u Litoměřic, Plzeň, Kost, Krkonoše, Labská bouda, Žandov, Česká Lípa, Mimoň (Roubal 1967 b), Nový Svět, Sněžka, Jilemnice, Bylany; Moravia: Zlín (Gottwaldov), Beskydy, Hutisko, Hodonín, Bzenec, Čejč, Račice, Ševy, Přštovice, Třebíč, Dolní Věstonice, Lednice, Příbice, Strachotín, Sedlec, Mutěnice, Brno, Olomouc, Litovel; Slovakia: Oravský Podzámok, Královany, Piešťany, Trenčín, Nízké Tatry, Králova Hola, Vysoké Tatry, Kežmarok, Ramžová, Pribilina, Podbánsko, Hrádok, Skalnaté pleso, Zadiel (National Museum, Praha and Moravian Museum, Brno).

Wide-spread species occurring as ubiquist. Species of Holarctic distribution.

Saldula (Saldula) c-album (Fieber, 1859)

Present records: Bohemia: Nová Huť, Rudohorí, Potůčky (Nickerl 1905, Scholz 1930), Nejdek (Roubal 1957), Žandov, Břehyně (Roubal 1967 b); Moravia: Napajedla (Spitzner 1892), Hrubý Jeseník, Moravice, Divoká Desná, Opavice, Bogenlehne near Vidle (Stehlík 1952); Slovakia: Bratislava, Vrátná, Liptovská Teplá, Vysoké Tatry, Kežmarok (Horváth 1897, Balthasar 1937), Liptovský Sv. Ján, Belanské Tatry, Ždiar, Liptovské hole, Plešivec (Balthasar 1937).

New records: 1 ♂ — Bohemia, Karlovy Vary, 12. 3. 1940 K. Pfleger coll. (National Museum, Praha)

1 ♀ — Bohemia, Pernink, 1. 4. 1946 Z. Tesař coll. (National Museum, Praha)

5 ♂♂ and 4 ♀♀ — Moravia, Štěpánov, 20. 4. 1941 A. Palásek coll. (Moravian Museum, Brno)

4 ♂♂ and 3 ♀♀ — Moravia, Chomutov, 9. 3. 1946 A. Palásek coll. (Moravian Museum, Brno)

3 ♂♂ and 6 ♀♀ — Moravia, Adamov, 19. 4. 1953 P. Lauterer coll. (Moravian Museum, Brno)

4 ♂♂ and 1 ♀ — Moravia, Dolní Věstonice, 15. 5. 1959 J. Stehlík coll. (Moravian Museum, Brno)

4 ♂♂ and 2 ♀♀ — Slovakia, Oravský Podzámok, VII. 1935 L. Hoberlandt coll. (National Museum, Praha)

1 ♀ — Slovakia, Vysoké Tatry, Ramžová, 1200 m., 18. 6. 1949 L. Hoberlandt coll. (National Museum, Praha)

15 ♂♂ and 14 ♀♀ — Slovakia, Vysoké Tatry, Belá near Podbánsko, 21. 7. 1954 L. Hoberlandt coll. (National Museum, Praha)

5 ♂♂ and 4 ♀♀ — Slovakia, Vysoké Tatry, Belá near Pribilina, 17. 7. 1954 L. Hoberlandt coll. (National Museum, Praha)

3 ♂♂ and 1 ♀ — Slovakia, Vysoké Tatry, Hrádok, 12.—15. 7. 1954 L. Hoberlandt coll. (National Museum, Praha)

2 ♀♀ — Slovakia, Královany, 11. 7. 1950 L. Hoberlandt coll. (National Museum, Praha)

1 ♂ — Slovakia, Ulič, 5. 7. 1949 J. Mařan coll. (National Museum, Praha)

1 ♂ — Slovakia, Moravany, K. Pfleger coll. (National Museum, Praha)

This species occurs predominantly on bitopes of mountain or submontane character in Czechoslovakia, however there is a set of localities ranging in lowland. Species of Holarctic distribution.

Saldula (Saldula) melanoscela (Fieber, 1859)

Present records: Moravia: Rebešovice, Chomutov, Lednice (Stehlík 1962); Slovakia: Vysoké Tatry, Kežmarok (Horváth 1897, Balthasar 1937).

New records: 1 ♂ — Bohemia, Matsleinsdorf, 3. 8. 1941 H. Thaum coll. (National Museum, Praha)

1 ♂ and 2 ♀♀ — Moravia, Hodonín, 4. 8. 1958 J. Roubal coll. (National Museum, Praha)

1 ♂ — Slovakia, Trenčín, 1937 J. Čepelák coll. (National Museum, Praha)

1 ♂ — Slovakia, Oravský Podzámok, 4. 8. 1955 L. Hoberlandt coll. (National Museum, Praha)

3 ♀♀ — Slovakia, Královany, 11. 7. 1958 L. Hoberlandt coll. (National Museum, Praha)

1 ♂ — Slovakia, Sivá brada, 13. 5. 1950 J. Stehlík coll. (National Museum, Praha)

1 ♂ — Slovakia, Štúrovo, 3. 6. 1952 B. Kouřil coll. (National Museum, Praha)

1 ♀ — Slovakia, Kamenný most nad Hronom, 2. 8. 1952 L. Hoberlandt coll. (National Museum, Praha)

1 ♂ and 1 ♀ — Slovakia, Kamenný most nad Hronom, 6. 8. 1960 L. Hoberlandt coll. (National Museum, Praha)

3 ♂♂ and 4 ♀♀ — Slovakia, Somotor, 9. 7. 1959 A. Palásek coll. (Moravian Museum, Brno).

Species occurring on stony and sandy banks of running water with sparse or lacking any vegetation. Distributed through lowland and submontane regions of Czechoslovakia. Species of Palaearctic distribution.

Salduls (Saldula) pilosella pilosella (Thomson, 1871)

Present records: Slovakia, Turna nad Bodvou, Somotor (Horváth 1897, Balthasar 1937), Liptovské hole, Tichá dolina (Roubal 1965).

New records: 1 ♀ — Moravia: Valtice, Nesyt, 1. 9. 1962 A. Smetana coll. (National Museum, Praha)

23 ♂♂ and 42 ♀♀ — Slovakia, Kamenný most nad Hronom, 6. 8. 1960 L. Hoberlandt coll. (National Museum, Praha).

Halophilous species, of European distribution. Nominal subspecies of rather northern extension.

Saldula (Saldula) pallipes (Fabricius, 1794)

Present records: Bohemia: Soběslav (Duda 1884, 1885, 1892, Scholz 1930), Praha Nová Hut (Nickerl 1905, Scholz 1930), Soos (Roubal 1957, Štys 1960), Ústí nad Labem, Unčín, Střekov (Roubal 1957), Poděbrady (Roubal 1967 a), Děčín (Roubal 1967 b); Moravia: Zlín (Balthasar 1942); Slovakia: Bratislava (Horváth 1897, Balthasar 1937).

New records: numerous specimens from Bohemia: Kost, Křivoklát, Františkovy lázně, Bylany; Moravia: Sedlec, Hodonín, Nová Ves, Pohořelice, Pístovice, Lednice, Brno, Hlohovec, Olomouc; Slovakia: Vysoké Tatry, Skalnaté pleso 1700 m., Ramžová, Královany, Pieštany, Turná nad Bodvou, Somotor, Kovačovské kopce (National Museum, Praha and Moravian Museum, Brno).

Saldula (Saldula) arenicola (Scholtz, 1846)

Present records: Bohemia: Soběslav (Duda 1884, 1885, 1892, Scholz 1930), Oleška (Roubal 1957), Poděbrady (Roubal 1967 a); Moravia: Prosnice, Slezsko (Spitzner 1892); Slovakia: Vrátná, Kežmarok, Somotor (Horváth 1897, Balthasar 1937), Malé Karpaty, Velká—Poprad, Trenčín, Cejkov u Trebišova, Kovačovské kopce (Balthasar 1937), Mikula (Roubal 1961 b).

New records: 3 ♂♂ and 2 ♀♀ — Bohemia, Zichovec near Slaný, 13. 4. 1971 I. Kovář coll. (National Museum, Praha)

3 ♂♂ and 5 ♀♀ — Moravia, Sedlec (Nesyt), 8. 9. 1946 J. Stehlík coll. (Moravian Museum, Brno)

5 ♂♂ and 7 ♀♀ — Moravia, Pohořelice, 15. 4. 1959 J. Stehlík coll. (Moravian Museum, Brno)

7 ♂♂ and 5 ♀♀ — Moravia, Hodonín, 17. and 21. 9. 1959 M. Kocourek coll. (Moravian Museum, Brno)

4 ♀♀ — Slovakia, Vysoké Tatry, Ramžová, 28. 7. 1949 L. Hoberlandt coll. (National Museum, Praha)

7 ♂♂ and 3 ♀♀ — Slovakia, Kamenný most nad Hronom, 6. 8. 1960 L. Hoberlandt coll. (National Museum, Praha).

Species predominantly attached to sandy areas on banks of waters of any kind. Species distributed through Europe, N. Africa, W. Asia and N. America.

Saldula (Saldula) xanthochila (Fieber, 1859)

2 ♂♂ and 1 ♀ — Slovakia (South), Ragač (hills), Gemerský Jablonec, 3. 8. 1971 L. Hoberlandt coll. (National Museum, Praha).

Specimens have been collected on sandy banks of a stream near to exposed steppe area of the south slopes of andesite hills Ragač. This species is distributed through Middle and South Europe, some parts of North Africa and West, Middle and Central Asia as well as through North America. Previously not recorded from Czechoslovakia. In neighbouring countries recorded from Hungary, Austria, Germany and Poland.

SUMMARY

In the paper is given a distributional list of Saldidae in Czechoslovakia. There are recorded from the whole country 22 species, from Bohemia 15 species, from Moravia 11 species and from Slovakia 21 species of the family Saldidae. *Salda sahlbergi* Reuter must be cancelled from the list of Czechoslovakian fauna of Saldidae. *Salda sahlbergi* Reuter and *Salda henschii* (Reuter) are both good species, they are in the present paper characterized and separated and their distribution is discussed. In Czechoslovakia (in Slovakia, Moravia and Bohemia) is distributed *Salda henschii* (Reuter) having a convergent distribution with *Salda sahlbergi* Reuter. *Saldula xanthochila* (Fieber) is recorded from Czechoslovakia (Slovakia) for first time.

LITERATURE

- Balthasar V., 1937: Slovenské ploštice. Katalog a pokus o rozbor složek fauny slovenských Heteropter. *Bratislava* 11 : 194—249.
- Balthasar V., 1942: Pozoruhodné nálezy ploštic na Moravě a na Slovensku. Opuscula Heteropterologica II. *Folia ent.* 5 : 25—28.
- Balthasar V., 1945: Nové nálezy ploštic na Moravě. Opuscula Heteropterologica IV. *Folia ent.* 9 : 5—9.
- Benedek P., 1969: Heteroptera VII. Fauna Hung. 94 : 1—86, figs. 1—43.
- Benedek P., 1970: The semiaquatic Heteroptera in the Carpathian Basin with notes on the distribution and the phenology of the species. *Faun. Abh.* 3 : 27—49.
- Cobben R. H., 1960: Die Uferwanzen Europas. Hemiptera-Heteroptera Saldidae. In Stichel W.: Illustrierte Bestimmungstabellen der Wanzen. II. Europa, pp. 209—263, figs 8—250. Berlin.
- Duda L., 1884: Soustavný přehled českého hmyzu polokřídloho (Hemiptera — Heteroptera), pp. 1—39. Hradec Králové.
- Duda L., 1885: Beiträge zur Kenntnis der Hemipteren-Fauna Böhmens. (8. Fortsetzung.) *Wiener Ent. Zeit.*, 4 : 293—294.
- Duda L., 1892: Hmyz polokřídly (Rhynchota). Catalogus insectorum faunae Bohemiae, pp. 1—VII, 1—44.
- Drake, C. J. and Hoberlandt L., 1951: Catalogue of genera and species of Saldidae (Hemiptera). *Acta ent. Mus. Nat. Pragae*, 26 (376) : 1—12.
- Franz H. und Wagner E., 1961: Hemiptera Heteroptera in Die Nordost-Alpen im Spiegel ihrer Landtierwelt, 2 : 271—400.
- Hoberlandt L., 1972: Results of the Zoological Explorations by Dr. Z. Kaszab in Mongolia. 191. Heteroptera (2): Saldidae. *Acta faun. ent. Mus. Nat. Pragae*, 14 : 143—152, figs 1—15.
- Horváth G., 1897: Fauna Regni Hungariae, pp. 1—72 (sep.). Budapest.
- Kiritschenko A. N., 1961: Nastojašcie polužestkokrilye evropejskoj časti SSSR (Hemiptera). Opredelitel po faune SSSR. 423 pp. figs 1—416. Leningrad.
- Kulik S. A., 1965: Nazemnye polužestkokrilye (Heteroptera) vostočnoj Sibiri i Dalnego Vostoka. *Izv. irkutsk. selskochoz. inst.*, 25 : 409—424.
- Linnavuori R., 1967: Nivelkätsäiset II, Luteet 2 Geocorisae. Animalia Fennica 11 : 1—232, figs 1—157. Helsinki.
- Nickerl O., 1905: Fundorte böhmischer Wanzenarten. Beiträge zur Insekten-Fauna Böhmens. pp. I—IV, 1—43. Prag.
- Oshanin V., 1906—1909: Verzeichnis der palaearktischen Hemipteren. Heteroptera 1, pp. I—LXXIV, 1—1087. St. Petersburg.
- Oshanin V., 1912: Katalog der paläarktischen Hemipteren. pp. I—XVI, 1—187. Berlin.
- Ország I., 1966: Príspomok k poznaniu fauny bzdóch (Heteroptera) Jurského súra a príľahlých svahov Malých Karpát. *Ent. problémky*, 6 : 37—75, figs 1—11.
- Polentz G., 1957: Beiträge zur Kenntnis mitteleuropäischer Wanzen (Heteroptera). *Beitr. Ent.*, 7 : 16—19.
- Reuter O. M., 1870: Pargas sockens Heteroptera. *Not. Sällsk. F. Fl. Fenn. förh.* 11 : 309—326.
- Reuter O. M., 1891: Species novae generis *Acanthia* F., Latr. *Rev. d'Ent.* 10 : 21—27.
- Reuter O. M., 1895: Species palearcticae generis *Acanthia* Fabr., Latr. *Acta soc. sc. Fenn.*, 21 : 1—58, figs 1—12.

- Reuter O. M., 1912: Hemipterologische Miscellen. *Öfv. Finska Vet.-Soc. Förh.*, **54**, A, 7 : 1–76.
- Roubal J., 1953: Nové české Heteroptera a příspěvek k studiu příslušné faunistické literatury. Faunae bohemicae Heteroptera nova. *Acta mus. Silesiae*, **3** : 17–27.
- Roubal J., 1955a: K faunistice Heteropter Štramberka. *Přír. sbor. Ostravského kraje*, **16** : 71–75.
- Roubal J., 1955 b: Druhý příspěvek o zvřízené českých ploštic. *Acta soc. ent. Čechosl.*, **52** : 159–160.
- Roubal J., 1956: Třetí faunistický příspěvek o českých Heteropterách. *Acta mus. Silesiae*, **5** : 31–32.
- Roubal J., 1957: Studie o plošticích ze severozápadních Čech s kritickými poznámkami. *Acta soc. ent. Čechosl.*, **53** : 63–109.
- Roubal J., 1958: Cinquième additif à la liste des Heteropteres de la Bohême. *Bull. de la Sté Ent. de Mulhouse*, 1958 : 73–75.
- Roubal J., 1959 a: O krkonošských Heteropterách. *Acta Mus. Reginaehradecensis*, A, **2** : 183–192.
- Roubal J., 1959 b: Polygonum aviculare L. — biotop Heteropter na velkoměstské periferii. *Acta mus. Silesiae*, A, **8** : 37–40.
- Roubal J., 1961 a: O krkonošských Heteropterách, II. *Acta mus. Reginaehradecensis et Pardubicensis*, A, **1** : 139–146.
- Roubal J., 1961 b: Tretí príspevok k zoznamu slovenských Heteropter. *Biológia*, **16** : 701–703.
- Roubal J., 1964: Septième additif à la liste des Heteropteres de Bohême. *Bull. de la Sté Ent. de Mulhouse*, 1964 : 47–48.
- Roubal J., 1965: Štvrtý príspevok k poznaniu slovenských Heteropter. *Acta rer. natur. Mus. Nat. Slov.*, **11** : 84–87.
- Roubal J., 1967 a: Faunistická studie o plošticích (Heteroptera) okolo Poděbrad se zřetelem k rapidnímu poklesu někdejší bohaté zvířeny Polabské. *Acta mus. Reginaehradecensis*, A, **8** : 117–122.
- Roubal J., 1967 b: Fauna ploštic (Insecta: Heteroptera) severních Čech. *Sbor. Severočes. mus.*, přír. vědy, **3** : 127–159.
- Roubal J., 1969: O krkonošských Heteropterách III. *Acta mus. Reginaehradecensis*, A, **10** : 35–54.
- Sahlberg J., 1920: Enumeratio Hemipterorum Heteropterorum Faunae Fennicae. *Bidr. till. kann. af Fin. nat. och. folk.*, **79**. No. 2 : 1–227.
- Schmidt K., 1938: Beiträge zur deutschen Wanzenfauna III. *Mitt. deut. ent. Ges.*, **8** : 43–48, figs 1–4.
- Scholz M. F. R., 1930: Verzeichnis der Wanzen Böhmens, ČSR. *Ent. Anzeiger*, **10** : 1–35.
- Smreczynski S., 1909: Dodatek do spisu pluskiew š. p. B. Kotuli. *Spraw. Kom. fizyogr.*, Kraków, **43** : 69–79.
- Smreczynski S., 1954: Materiały do fauny pluskwiaków (Hemiptera) Polski. *Fragmenta faun.*, **7** : 1–146.
- Spitzner W., 1892: Beitrag zur Hemipteren-Fauna Mährens. *Verh. naturf. Ver. Brünn*, **30** : 3–34.
- Stehlík J., 1952: Fauna Heteropter Hrubého Jeseníku. *Acta mus. Mor.*, **37** : 131–248, Tab. I–VII.
- Stehlík J., 1962: Zajímavé nálezy Heteropter na Moravě a na Slovensku IV. *Acta mus. Mor.*, **47** : 125–134.
- Stobiecki S., 1915: Wykaz pluskwiaków (Rhynchota) zebranych w Galicji zachodniej i środkowej. *Spraw. Kom. fizyogr.*, Kraków, **49** : 126–219.
- Štys P., 1958: K fauně Heteropter přírodní rezervace „Velký a Malý Tisý“ v Čechách. *Ochrana přírody*, **13** : 72–74, fig. 1.
- Štys P., 1959: Příspěvek k poznání ploštic Rychlebských hor. In: *Rychlebské hory*, Ostrava, pp. 246–289.
- Štys P., 1960: Die Wanzenfauna des Moorgebiets Soos in Böhmen (Heteroptera). *Acta Univ. Carolinae, Biol. Suppl.* 1960 : 83–133, figs 1–15.
- Wagner E., 1961: Heteroptera — Hemiptera. Die Tierwelt Mitteleuropas. IV, **3** : 1–172, figs 1–95.
- Wagner E., 1966: Wanzen oder Heteropteren, I. Pentatomorpha. Die Tierwelt Deutschlands. Teil 54 : I–VI, 1–235, figs 1–149.
- Warloe H., 1924: Fortegnelse over Norges Hemiptera Heteroptera. *Videnskapsselsk. Forh. for 1924*, Nr. 4 : 1–41. Kristiania.
- Wróblewski A. 1966: Shorebugs (Heteroptera, Saldidae) of Poland. *Bull. ent. Pologne*, **36** : 219–302, maps 1–10.
- Wróblewski A., 1968: Pluskwiaki różnoskrzydłe — Heteroptera, Saldidae. Klucze do oznaczania owadów Polski, XVIII, **3** : 1–35, figs 1–127.