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Lysiphlebus alpinus n. sp., a new aphid parasite from the Austrian Alps (Hymenoptera, Aphidiidae)

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We have used an opportunity of our stay in Tirol in 1968 to get at least a preliminary information on the composition of the mountain fauna of aphid parasites. Besides several more widely distributed species, a new parasite was found in Ötztal Alps, which is supposed to be a typical mountain element.

Acknowledgements. It is a pleasure to express our cordial thanks to my friend and colleague, Dr. J. Holman for valuable aphidological help and information.

Lysiphlebus (Phlebus) alpinus n. sp.

Diagnosis : The new species is similar to *L. (P.) fritzmuelleri* MACKAUER in having short metacarp in the fore wings ; it differs from the latter species in having 12-segmented antennae, and hind tibiae with semi-erected hairs.

Female. Head (Fig. 5) transverse, wider than thorax, with sparse long hairs, as seen from above. Gena equal to $^1/_3$ of longitudinal eye-diameter. Face with a broad central longitudinal hairless stripe, the area between the stripe and orbits with sparse uniform long hairs. Clypeus slightly convex, distinctly transverse, margined frontally, with about 6 long hairs, separated by shallow arcuate groove from face ; with deep and small tentorial pit at either side. Tentorio-ocular line equal to $^1/_4$ of intertentorial line. Eyes small, oval, about $^1/_2$ longer than wide (8 : 10, 7 : 10), slightly prominent and convergent to the clypeus, with sparse short hairs. Antennae 12-segmented, thickened to the apex, as long as head, thorax, and tergite 1 together ; F_1 equal to F_2, twice as long as wide (Fig. 6).

Thorax : Mesoscutum (Fig, 7) with few hairs along the sides, and along the traces of effaced notaulices on the disc. Notaulices narrow and rugose, distinct anteriorly and effaced on the disc. Propodeum (Fig. 4) smooth, with more or less distinct two small divergent carinae near the insertion point of tergite 1 ; with few long hairs. Fore wing (Fig. 2) :

Pterostigma triangular, 3.5–4 times as long as wide ; metacarp $^1/_3$–$^1/_2$ shorter than pterostigma ; two abscissae of radial vein, second interradial vein, and joining part of median-cubital vein distinct. Marginal hairs longer than these on the surface. Legs normal, hind femora and tibiae with semi-erected hairs (Fig. 1).

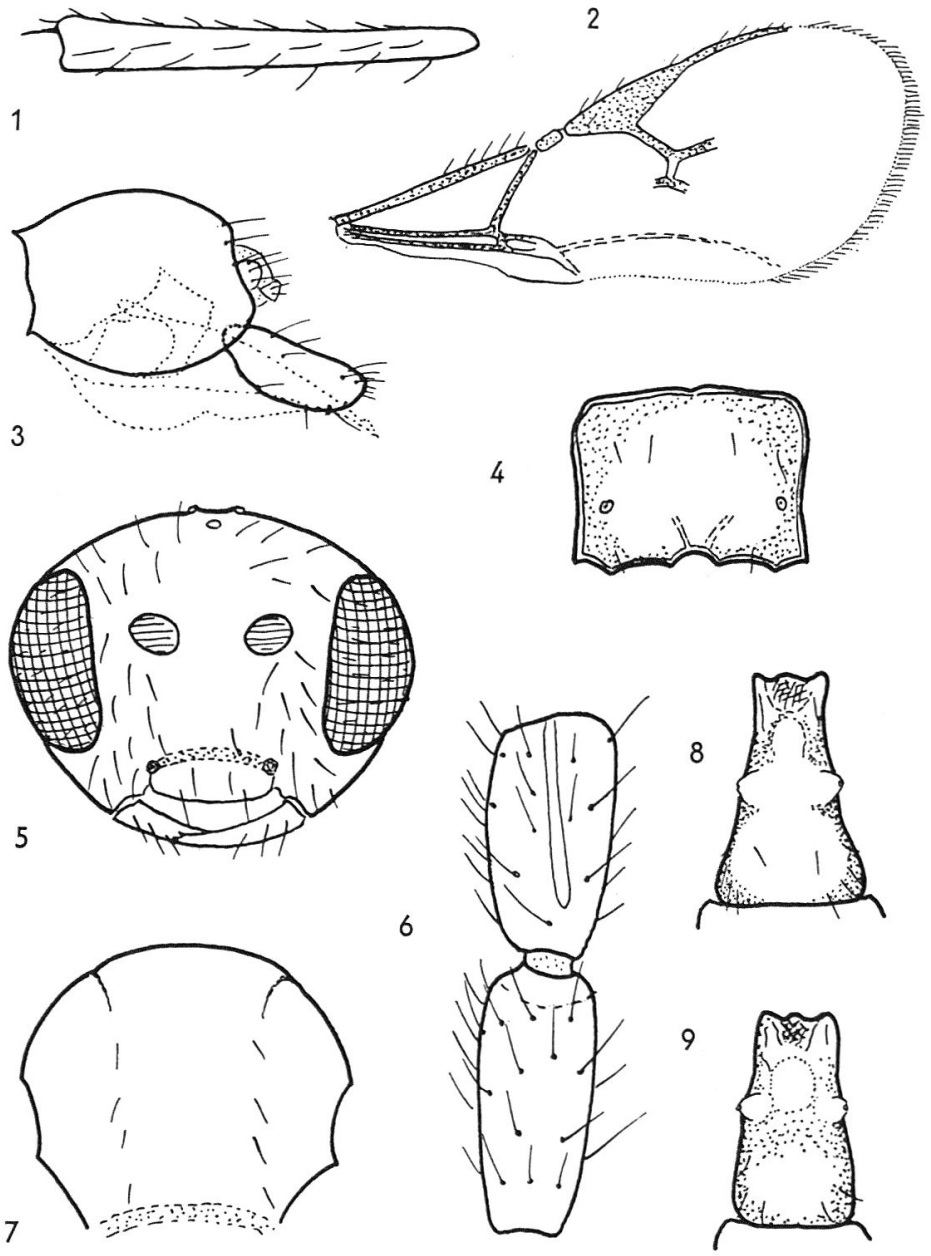

Fig. 1–9. — *Lysiphlebus (Phlebus) alpinus* n. sp. — 1. Hind tibia. — 2. Fore wing. — 3. Genitalia. — 4. Propodeum. — 5. Head, frontal view. — 6. Flagellar segments 1 and 2. — 7. Mesoscutum, from above. — 8. Tergite 1. — 9. Tergite 1, male. (all figures drawn from female paratypes, except where otherwise stated).

Abdomen : Tergite 1 (Fig. 8) prolongately triangular, about twice as long as wide at spiracles ; the distance between the spiracles and apex about equal to the width at spiracles ; smooth, shiny, with sparse long hairs on the apical lateral parts ; with central keeliform tubercle. Spiracular tubercles slightly prominent, situated at half of the tergite. Genitalia (Fig. 3).

Coloration : Head brown black ; mandibles (except apexes) light brownish ; palpi brownish. Antennae brown, F_1 with narrow basal light ring. Thorax brown black to black. Tegulae brown. Wings subhyaline, venation brownish. Legs brown ; trochanters, base of tibiae, tarsi (except darkened apexes) yellowish or light brownish. Tergite 1 yellowish at the base, brown to the apex. Abdomen brown, with a narrow yellowish or lighter band at the suture between tergites 2 and 3. Ovipositor sheaths dark brown.

Length of body : about 1.4 mm.

Male. — Antennae 13-segmented. Tergite 1 (Fig. 9).

Similar to the female except sexual differences. Coloration generally darker.

Holotype ♀ : Δ Zirmkogl, Ötztal Alps, Tirol, 25.VIII.1968, *Semiaphis* sp. on *Lonicera coerulea* (STARÝ). Deposited : Coll. Starý. Allotype ♂ : Topotypical, with the same data as the holotype ♀. Deposited : Coll. Starý.

Material examined. *Semiaphis* sp. (? n.sp.) cf. *sphondyli* (KOCH). Austria : Δ Zirmkogl, the slopes, nr. the village Vent, Ötztal Alps, Tirol, 25.VIII.1968, on *Lonicera coerulea*, subalpine meadows, about 1300–1500 m alt., holotype ♀, allotype ♂, 2 ♀♀ 2 ♂♂ paratypes (STARÝ).

Habitat. In subalpine and transitional forest zones. It may be found in subalpine meadows and pasture meadows, in clearings in forest associations *Pinus cembra*, *Pinus mugo mugo*, *Rhododendron ferrugineum*, *Calluna vulgaris*, etc. as well as in their extensions along the mountain streams to higher altitudes.

Host range. — Probably a specialized parasite of a leaf-curling aphid, *Semiaphis* sp. The aphid seems to be a new species, holocyclic on *Lonicera coerulea* (HOLMAN, personal suggestion).

Biology. — Internal parasite of aphids. Mummified aphids are light brownish. They were found in groups of several specimens each — this indicates a gradual oviposition by a parasite female in an aphid colony.

Notes on distribution. — It is too early to classify the distribution of this species with respect to the faunistic complexes of parasites as defined by STARÝ (cf. ,1970). However, because of our study of considerable material of aphid parasites from various parts of Europe, the new species seems to be restricted to the Alpine area. Its occurrence in the Šumava range in Czechoslovakia (southwest boundary) is possible, as the host plant, *Lonicera coerulea*, is reported to occur there in wet

forests, dark valleys, in *Pinus mugo uncinnata* growths, on peat bogs, in mountain and subalpine zones (DOSTÁL, 1950).

References

DOSTÁL J., 1950. — Key to the flora of Czechoslovakia. I, II. Praha, 2269 pp.

MACKAUER M. and STARY P., 1967. World Aphidiidae. In : Delucchi V. and Remaudiere G. *Index of Entomophagous Insects. Le François, Paris,* 195 pp.

STARY P., 1970. Biology of aphid parasites (Hymenoptera : Aphidiidae) with respect to integrated control. *Series entomologica* 6 : 643 pp. Dr. W. Junk N.V., The Hague.

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