

Aspidapion (s.str.) *acerifoliae* sp.n., a new weevil from the Canary Islands (Coleoptera: Apionidae)

W. SUPPANTSCHITSCH

Abstract

Aspidapion (s.str.) *acerifoliae* sp.n. is described from the Canary Islands. It is related to *Aspidapion* (s.str.) *radiolus* (MARSHAM, 1802). The new species is associated with *Lavatera acerifolia* CAVANILLES, 1803 (Malvaceae), where it develops in the flower bottom.

Key words: Coleoptera, Curculionoidea, Apionidae, *Aspidapion* s.str., taxonomy, new species, Canary Islands

Introduction

Aspidapion was originally described as a subgenus of *Apion* HERBST, 1797 by SCHILSKY (1901) and revised by WAGNER (1906). KOROTYAEV (1985) raised *Aspidapion* to genus level. The generic status was maintained for this taxon by ALONSO-ZARAZAGA (1991), who designated *Aspidapion* as the type genus of a new tribe (*Aspidapiini*) and erected a new supertribe (*Aspidapitae*) for *Aspidapiini* and four other tribes of Palaearctic *Apioninae*. The genus *Aspidapion* s.str. comprises 5 species distributed in the western Palaearctic region. Remarkably, one of these 5 species, *Aspidapion radiolus* (MARSHAM, 1802), is also recorded from East Africa. Another recently described species representing probably a "true" *Aspidapion* (*A. mountanus* PAJNI, BHATEJA & KUMAR, 1991) was found in northern India (PAJNI & al. 1991). Some other species from Madagascar and the Oriental region, originally described in *Aspidapion*, seem to belong to other apionid genera - most probably to *Pseudaspidapion* WANAT, 1990 (WANAT 1990). Only one species of *Aspidapion* (i.e. *Aspidapion radiolus*) has been known from the Canary Islands. The Canarian population of this species, *A. radiolus chalybeipenne* (WOLLASTON, 1854), is considered as a distinct subspecies.

While visiting Tenerife in July, 1992, the author collected seven specimens of a new species of *Aspidapion*. He revisited the island in February, 1993 to obtain more details on the biology of this species. The trip yielded further material and lead to the discovery of the host plant.

Aspidapion (s.str.) *acerifoliae* sp.n.

Holotype ♂: "E-Kanar.Ins.Tenerife / Buenavista 4km W. / 1993.02.11 100m / leg.W.Suppantschitsch / Biologie: brütet / im Blütenboden / von *Lavatera / acerifolia* Cav."; **Allotype** ♀: same locality and collector, 1993.02.06; **Paratypes**: same locality and collector 1992.07.15 (4 ♂♂); 1992.07.30 (3 ♀♀); 1993.02.06 (18 ♂♂, 23 ♀♀); 1993.02.11 (21 ♂♂, 22 ♀♀).

Holotype, allotype and most of the paratypes are preserved in the collection of the author, a couple of paratypes is deposited in each of the following collections: Natural History Museum (Vienna); M.A. Alonso-Zarazaga (Madrid); L. Behne (Eberswalde); R. Borovec (Nechanice); E. Colonnelli (Rome); M. Ehret (Montceau-les Mines); C. Giusto (Rapallo); M. Holecova (Bratislava); J. Kodada (Bratislava); M. Kostál (Brno); O. Majzlan (Bratislava); C. Maus (Freiburg); J. Messutat (Schorndorf); P. Oromí (La Laguna); B. Petryszak (Kraków); K. Schön (Litvínov); P. Sprick (Hannover); M. Wanat (Wrocław).

TYPE LOCALITY: Buenavista, northwestern part of Tenerife, Canary Islands.

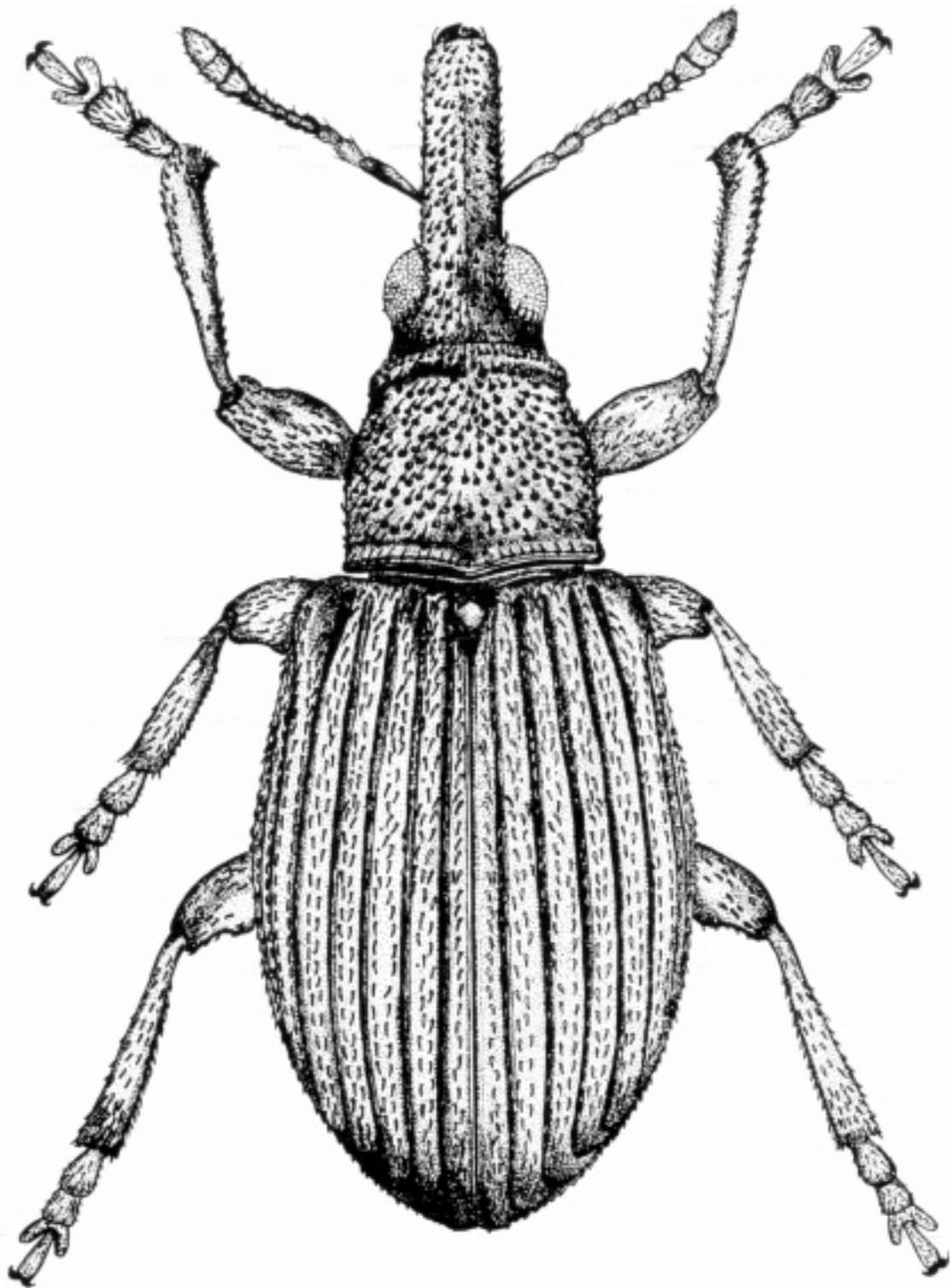


Fig. 1: *Aspidapion* (s.str.) *acerifoliae* sp.n., paratype ♂, habitus.

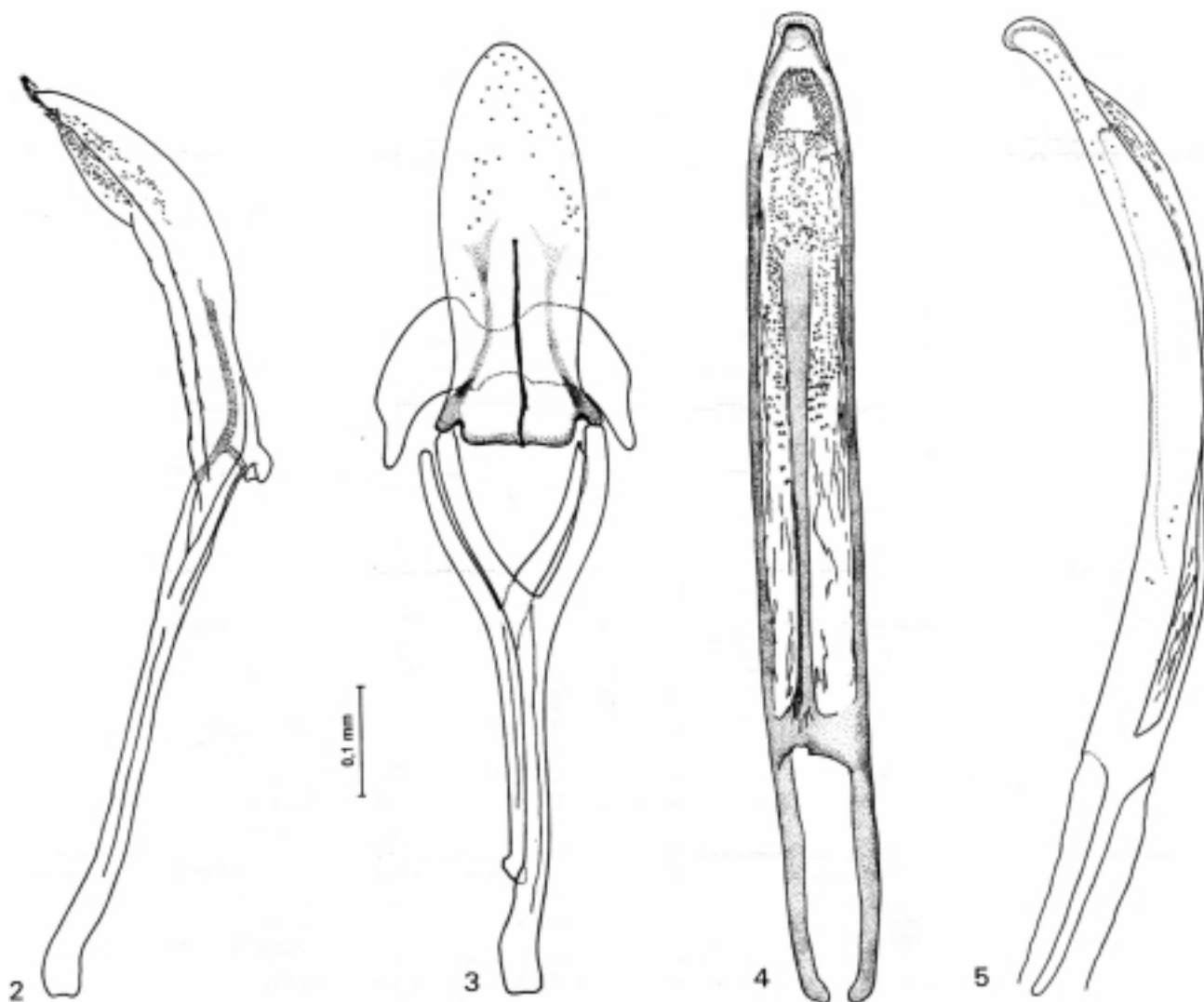
DESCRIPTION: As a member of the subgenus *Aspidapion* s.str. the new species is characterized by the following features: clearly visible body vestiture composed of piliform scales; venter of pronotum with rows of punctures with scales; frons densely punctate; antennal scrobes bordered by sharp edges, reaching interocular area, being open posteriorly; antennae slender, with the club clearly 3-segmented; pronotum campaniform, constricted before base and behind anterior margin, vestiture "centripetal" (cf. ALONSO-ZARAZAGA 1991) and protruding over the front pronotal margin; scutellum distinctly elongate and tuberculate; elytra oval in outline, with shoulders evident and all 9 striae punctured, first stria not reaching base of elytra, interstriae flat, three times as wide as striae, the base of 3rd interstria with aggregated scales; male pygidium of "aspidapionine type" (cf. ALONSO-ZARAZAGA 1991); all male tibiae with short, acute mucrones, front tibiae curved inwards; tarsal claws with large, triangular teeth; tegminal plate without fenestrae and with parameroid lobes completely fused. Body length of males 1.9 - 2.9 mm, of females 2.2 - 2.9 mm (holotype 2.5 mm, allotype 2.8 mm).

| | <i>radiolus ssp. chalybeipenne</i> | <i>acerifoliae</i> sp.n. |
|--------------------|--|--|
| habitus | slender, body length/width (rostrum excl.) in male ca. 2.45, in female ca. 2.35 | more robust (Fig. 1), body l/w (r.e.) in both sexes ca. 2.25 |
| colouration | black with blue, violet, green or bronze | dark brown with bronze lustre |
| vestiture | fine, composed of ivory-coloured, hair-like scales, ca 0.05 mm long, shorter than half of breadth of elytral interstria | distinct, hair-like scales, thicker, ivory coloured, ca 0.075 mm long, longer than half of breadth of elytral interstria |
| male rostrum | ca. 1.25 x longer than pronotum, ca. 4 x longer than wide at its narrowest part (Fig. 14, 15) | about as long as pronotum, ca. 3 x longer than wide (Fig. 6, 7) |
| female rostrum | longer, strongly curved, 1.2 - 1.37 x longer than pronotum, length/min. width 4.0 - 4.3, length/min. height ca 5.0 (Fig. 16, 17) | shorter, slightly curved, 1.15 - 1.25 x longer than pronotum, length/min. width 2.8 - 3.1, length/min. height ca. 3.5 (Fig. 8, |
| male | less glossy | more glossy |
| female pronotum | thin, in dorsal view narrowed medially and clearly widened at apex (Fig. 16) | much thicker, in dorsal view almost parallel-sided (Fig. 8) |
| female mesorostrum | evidently dilated above antennal insertion (Fig. 16) | dilatation above antennal insertion obsolete (Fig. 8) |
| antennae | funicle widening distad, its 7th segment ca. 1.2 x wider than long, club 2.5 - 3.0 x longer than wide (Fig. 14) | funicle filiform, its last segment as long as wide, club ca. 2.0 x longer than wide (Fig. 6) |
| eyes | less prominent, in lateral view rather elliptical (Fig. 14, 16) | more prominent, in lateral view rather circular (Fig. 6, 8) |
| pronotum | as long as wide, the disc more shiny (Fig. 14, 16) | transverse (length/width ca. 0.85) |
| scutellum | ca. twice as long as wide | ca. 1.5 x longer than wide |
| elytra | widest at middle, interstriae punctate, less shiny | widest slightly before middle, interstriae smoother, more shiny |
| legs | more slender, hairs on the tibia shorter, hardly overlapping (Fig. 20) | more robust, tibial hairs clearly overlapping (Fig. 12) |
| male pygidium | uniformly convex (Fig. 18, 19) | the apical, punctured part depressed (Fig. 10, 11) |
| penis | the apex obtusely rounded, in lateral view flattened and not forming a knob | the apex constricted and truncate at front edge, in lateral view forming a ventrad directed |
| tegmen | manubrium about 1.3 as long as arms of the fork | manubrium about 1.8 x longer than arms of fork (Fig. 2, 3) |

Table 1: The most significant differences between *Aspidapion* (s.str.) *acerifoliae* sp.n. and *Aspidapion* (s.str.) *radiolus chalybeipenne*.

The new species is closely related to *Aspidapion* (s.str.) *radiolus*.

BIOLOGY: The new species was collected exclusively from *Lavatera acerifolia* CAVANILLES, 1803 (Malvaceae). Larval development was found to take place in the flower bottoms. The same plant is a host of *A. radiolus chalybeipenne*, but the latter was collected also on *Lavatera cretica* L. and *Malva parviflora* L.

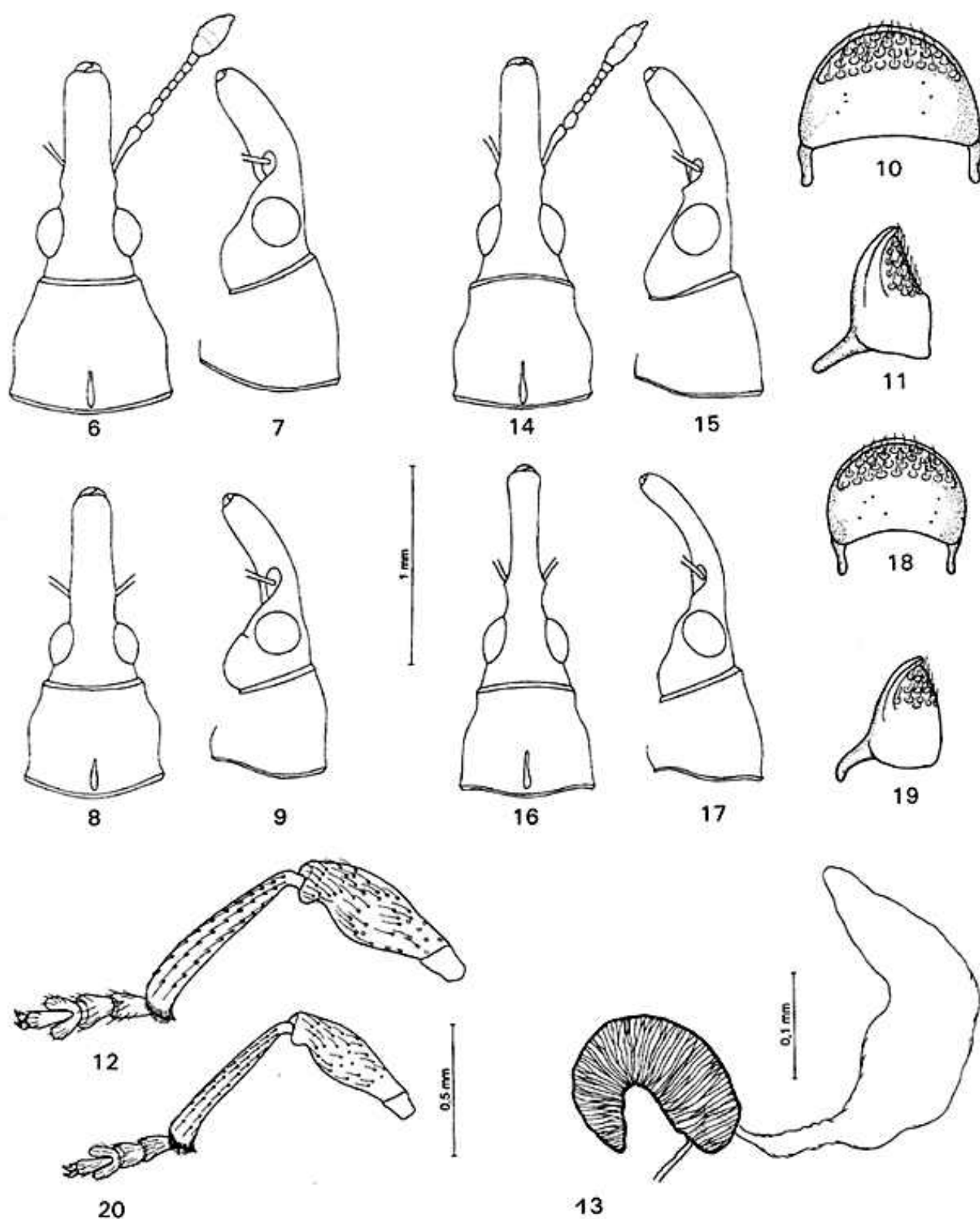


Figs. 2 - 5: *Aspidapion* (s.str.) *acerifoliae* sp.n., ♂; 2) tegmen, lateral view; 3) id., dorsal view; 4) median lobe of aedeagus, dorsal view; 5) id., lateral view.

Flowers collected on February 11th, 1993, and dissected on February 23rd, 1993, revealed larvae and one pupa, which developed to a female adult of *A. acerifoliae* on March 4th, 1993. In Europe *A. radiolus* was found on a large set of Malvaceae and its larvae develop in stems.

DISTRIBUTION: So far known only from the type locality, but the presence of *A. acerifoliae* on other islands of the Canaries seems likely. The host plant *Lavatera acerifolia* is known from all Canary Islands except Hierro, although it is now rarely found and has practically disappeared from some of the islands. In July, 1994 I could not find this plant on Gomera and Gran Canaria, even though I searched intensively at localities where it is known to have occurred. I observed only a few stunted specimens in gardens, none of which were infested by *A. acerifoliae*. In February, 1995 I tried in vain to find the species on La Palma.

ETYMOLOGY: The name is derived from *Lavatera acerifolia*, the only known host plant of the new species.



Figs. 6 - 13: *Aspidapion* (s.str.) *acerifoliae* sp.n.: 6) head, rostrum and pronotum of ♂, dorsal view; 7) id., lateral view; 8) head, rostrum and pronotum of ♀, dorsal view; 9) id., lateral view; 10) pygidium of ♂, dorsal view; 11) id., lateral view; 12) right front leg of ♂; 13) spermatheca.

Figs. 14 - 20: *Aspidapion* (s.str.) *radiolus* ssp. *chalybeipenne*: 14) head, rostrum and pronotum of ♂, dorsal view; 15) id., lateral view; 16) rostrum and pronotum of ♀, dorsal view; 17) id., lateral view; 18) pygidium of ♂, dorsal view; 19) id., lateral view; 20) right front leg of ♂.

Acknowledgements

For drawing Figs. 1 - 5 and 13, I am very much obliged to Dr. J. Kodada (Bratislava). For help and critical comments I wish to thank Dr. E. Colonnelli (Rome), Dr. M.A. Alonso-Zarazaga (Madrid), Dr. M. Wanat (Wroclaw) and Dr. C. Giusto (Rapallo). I also wish to thank Dr. P. Cate (Wien), for having checked the English text. I thank Dr. B. Wallnöfer (Wien) for the identification of the host plant.

Zusammenfassung

Aspidapion (s.str.) *acerifoliae* sp.n., eine auf den Kanarischen Inseln vermutlich endemische Art wird beschrieben. Sie wird mit einer verwandten Spezies, *Aspidapion* (s.str.) *radiolus* (MARSHAM), welche mit einer Unterart, *Aspidapion* (s.str.) *radiolus* ssp. *chalybeipenne* (WOLLASTON), auch auf den Kanarischen Inseln heimisch ist, verglichen. Die Entwicklung von *Aspidapion* (s.str.) *acerifoliae* sp.n. erfolgt in den Blütenböden der endemischen *Lavatera acerifolia* CAVANILLES (Malvaceae).

References

- ALONSO-ZARAZAGA, M.A. 1991: Revision of the supraspecific taxa in the Palearctic Apionidae Schoenherr, 1823 (Coleoptera, Curculionidea). 2. Subfamily Apioninae Schoenherr, 1823: Introduction, keys and descriptions. - Graellsia 46 (1990): 19-156.
- KOROTYAEV, B.A. 1985: Novye vidy dolgonosikov podsemejstva Apioninae (Coleoptera, Apionidae) iz Vietnama, Kitaia i Indii. - Nasekomye Vietnama: 133-156.
- PAJNI, H.R., BHATEJA, B.R. & KUMAR, D. 1991: Two new species of subgenus *Aspidapion* Schils. under genus *Apion* Hbst. (Apionini: Apionidae: Curculionidea). - Entomon 16 (2): 121-127.
- SCHILSKY, J. 1901: Die Käfer Europa's. - In: Küster, H.C. & Kraatz, G. (Hrsg.). - Nürnberg: Bauer & Raspe, 100 pp.
- WAGNER, H. 1906: Beiträge zur Kenntnis der Gattung *Apion* Herbst I. - Münchener Koleopterologische Zeitschrift I (2): 373-379; 1906a II. 3, 13-34; 1906b III. 3, 187-208.
- WANAT, M. 1990: Apionidae (Coleoptera, Curculionidea) of the Arabian Peninsula. - Fauna of Saudi Arabia 11: 55-81.

Dipl.Ing. Wolfgang SUPPANTSCHITSCH
Stollgasse 3, A - 1070 Wien, Austria