

## New taxa of the genus *Agapanthia* from the Mediterranean region (Coleoptera, Cerambycidae)

MILAN SLÁMA

Czechoslovak Entomological Society, Praha

### Taxonomy, *Agapanthia davidi* sp. n., *Agapanthia cynarae michaeli* ssp. n.

**Abstract.** The longicorn beetles *Agapanthia davidi* sp. n. from southern Italy and *Agapanthia cynarae michaeli* ssp. n. from Crete are described and differentiated.

### *Agapanthia davidi* sp. n.

Head of males the same width or weakly narrower than scutum, in females narrower, densely and deeply punctate. Space between dots much smaller than dots, shining. Head with longitudinal medial smooth furrow. Frons moderately convex. Hairing black, erect. Longitudinal band on vertex and front face of head with moderately dense yellow decumbent hairs; these are more dense on gena. Gena distinctly longer than eye, with smooth spot below it.

Antennae black, longer than body, in males 7th to 8th and in females 8th to 9th segments reaching end of elytra. First segment very densely shallowly punctate, rather dull, outer face with decumbent hairs, length of hairs  $1/5$  to  $1/2$  thickness of segment, hairs on inner face decumbent or semi-erect, their length  $1/3$  to  $2/3$  thickness of segment, individual hairs may be longer (Fig. 1a); 2nd to 12th segments long-haired on inner side (length of hairs as on head), hairs erect, dense on segments 2 and 3, on subsequent segments gradually sparser. Basis of 3rd to 12th segments densely covered with grey-white decumbent hairs (very narrowly on segment 3, reaching about  $1/3$  to  $1/2$  on segments 4 to 12), otherwise hairing dark.

Scutum of males as long as wide or wider, in females broader. In some males scutum only moderately broadened posteriorly and as wide at posterior margin as anteriorly, in other males and all females posterior one-third more broadened and posterior margin broader than anterior one. Scutum deeply densely punctate, spaces between dots much smaller than dots. Scutum shining, with long sparse black hairs and with longitudinal yellow tomentose bands along midline and on sides.

Scutellum distinctly broader than long, likewise with dense yellow or grey-yellow hairs.

Elytra behind humeral protuberance almost parallel-sided, upper side rather flat, mainly in males. End of inner margin with obtuse angle or slightly rounded (mainly males), or more strongly rounded (mainly females). Elytra coarsely punctate anteriorly, more finely so posteriorly. Spaces between punctures equal to width of puncture, or up to twice width posteriorly.

Punctation forming irregular transverse rows and elytra appear to be transversely rugose. Elytra with a steely shine; anteriorly with long sparse erect black hairs which are shorter and semi-appressed posteriorly; also entirely covered with grey tomentum which is densest posteriorly.

Ventral side of body covered with short decumbent grey or yellowish hairs excepting central areas of abdominal segments 4 to 6 and small regularly distributed spots bearing larger pits, each with long single erect black hair. These glabrous spots are most conspicuous on the sides of abdomen.

Legs similarly clothed with grey decumbent hairs, with shining spots bearing long erect hairs. Outer ridges of middle tibiae beset in distal half with stout spine-like setae. In hind tibiae these spines present on distal  $1/4$  to  $1/2$ , mostly more scarce, most dense towards end.

Sternite 8 deeply emarginate posteriorly. Tergite 8 bluntly rounded at the end, rarely slightly emarginate medially. Hind margin of tergite 9 of males shallowly emarginate (Fig. 1b).

Parameres narrow, gradually tapering, the gap between them immediately behind their base on average 30 to 50 % of one paramere's width, but exceptionally narrower (Fig. 1c).

Apical sclerotized parts of ovipositor narrowly wedge-shaped, their outer sides straight (Fig. 1d).

Length: Males 10—12 mm (holotype 10 mm), females 12—13 mm (allotype 12 mm).

Holotype male: Sicily, Castelbuono, S of Cefalu, 30. 5. 1982, F. Adlbauer lgt. Allotype female: Calabria, Villapiana, 25. 5. 1982, F. Adlbauer lgt. Paratypes: Sicily, Randazzo (prov. Catania), 2 males, 1 female, 29. 5. 1975, 1 female, May 1978; Catania, 1 male, June 1976; Troina (prov. Enna), 1 ex., June 1977; Nicosia (prov. Enna), 2 males, 1. 6. 1975; Cesaro (prov. Messina), 1 male, May 1977, 1 male, June 1977; Bosco Figuzza (prov. Palermo), 1 male, 3. 6. 1975 — all G. Sama lgt; Calabria, Villapiana, 2 males, 1 female, 25. 5. 1982, F. Adlbauer lgt; Lazio, Furbara, 1 ex., May 1930, Cerruti lgt; Monti della Tolfa, 1 ex., 13. 6. 1973.

The holotype and allotype deposited in my collection. Paratypes in coll. of Mr. Karl Adlbauer (Austria), Mr. G. Sama (Italy), and in my collection.

Derivatio nominis: the species is named after my grandson David Štarman.

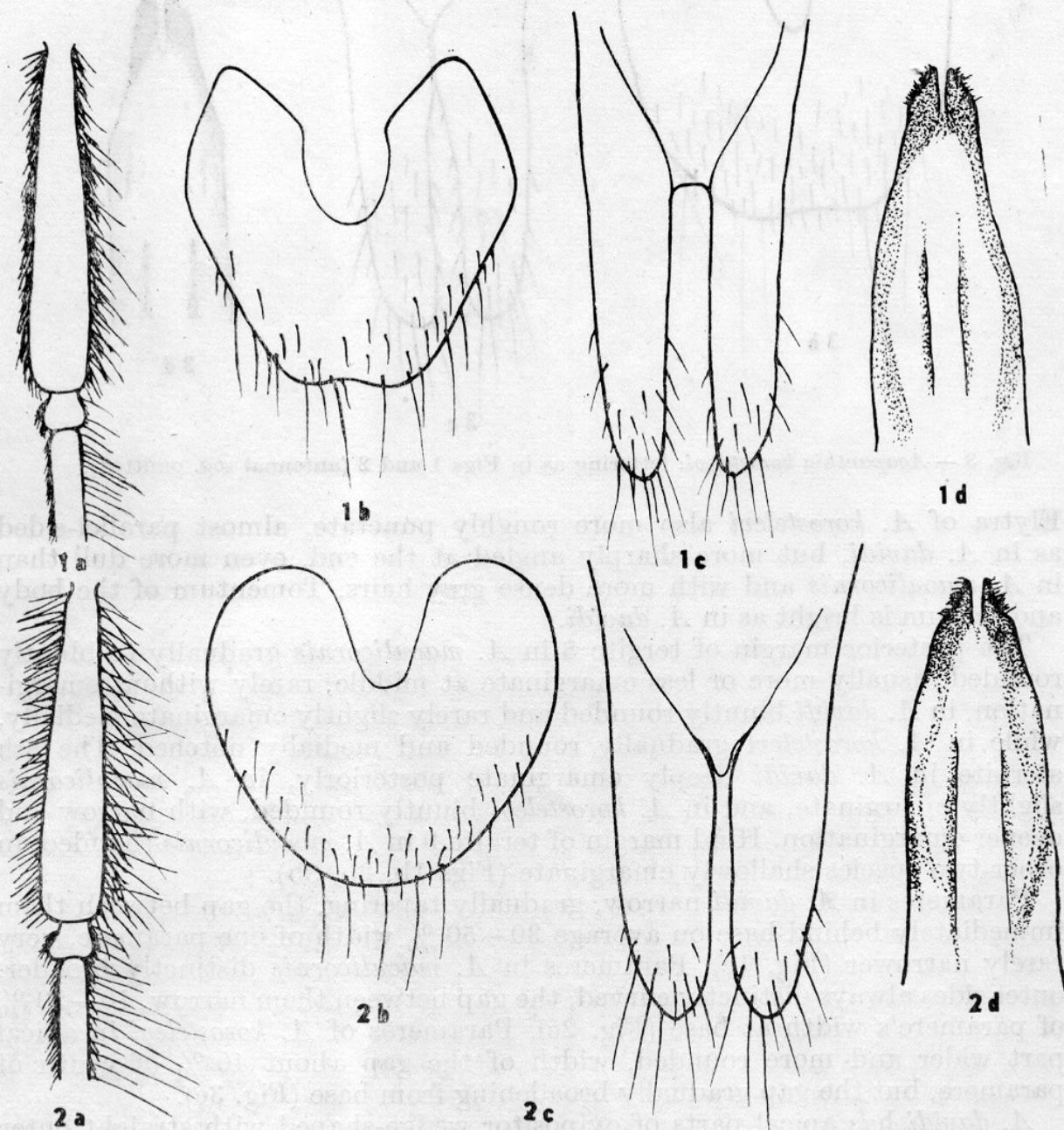
Host plant of this species is not certain. Holotype specimen was collected on *Carduus* sp. (Asteraceae), two males and two females from Calabria were found on *Apium* sp.? (Daucaceae), and two specimens from Catania were found on *Carduus* sp.? (Asteraceae).

The species now described has long been known from Italy incl. Sicily (SAMA, 1975, 1981; SAMA & SCHURMANN, 1980; TASSI, 1968; VITALE, 1936), but it has been wrongly determined as *Agapanthia maculicornis* (GYLLENHALL). Together with the latter species it belongs in the maculicornis-group which differs mainly by the presence of a distinctive pale yellow or grey-yellow band along sides of thorax. Three species are now known: *A. maculicornis* (GYLLENHALL), occurring in Slovakia, Hungary, Yugoslavia, Romania, Greece, southern European part of the USSR and south-west Siberia; *A. korostelevi* DANILEVSKY (DANILEVSKY & MIROSHNIKOV, 1985), described from Nakhichevan region of Azerbaidzhan SSR; and *A. davidi* sp. n. from southern Italy. All the species occur very sporadically.

*A. davidi* differs from *A. maculicornis* (comparison was made with specimens from Hungary) by the less convex frons and somewhat longer gena, by the smooth furrow between antennal bases and by the denser punctation



of head with interspaces smaller. Hairs on 1st antennal segment shorter and more appressed (Fig. 1a), in *A. maculicornis* the hairs are semi-erect to erect and the length of the hairs is 1/2 of antennal width or more (Fig. 2a). Elytra nearly parallel-sided, in *A. maculicornis* sides incurved. End of elytra in *A. davidi* more rounded; elytra black, with a steely shine, punctation less regular, hairs grey. In *A. maculicornis* the elytra are more dull with a bronze tinge, punctation more regular, hairs dirty yellow. *A. davidi* has the yellow body tomentum paler and clearer, particularly on the head and scutum. *A. korostelevi* (comparison was made with one male and one female paratypes) has gena broader and less converging than either of the other species;



Figs 1 — *Agapanthia davidi* sp. n. and 2 — *A. maculicornis*: a — antennal segments 1 to 3; b — 9th abdominal tergite of male; c — parameres; d — ovipositor.

it lacks the smooth shining furrow between antennae. Hairing of 1st antennal segment appressed, more sparse, black or greyish, as long as 1/3 to 1/2 of segment's diameter, sparse erect hairs up to as long as segment's diameter. Grey-white hairs of 3rd antennal segment distributed on whole length of inner side, on outer side gradually disappearing distally. Punctures on scutum larger and more dense than in *A. davidi*, interspaces very small or absent.

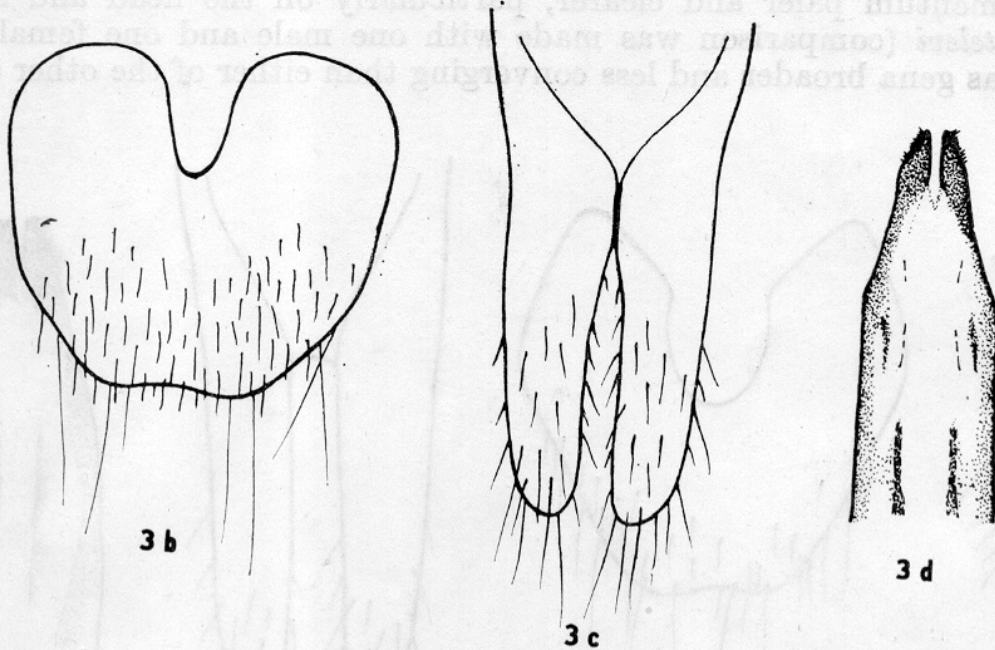


Fig. 3 — *Agapanthia korostelevi*: lettering as in Figs 1 and 2 (antennal seg. omitted).

Elytra of *A. korostelevi* also more roughly punctate, almost parallel-sided as in *A. davidi*, but more sharply angled at the end, even more dull than in *A. maculicornis* and with more dense grey hairs. Tomentum of the body and scutum is bright as in *A. davidi*.

The posterior margin of tergite 8 in *A. maculicornis* gradually to bluntly rounded, usually more or less emarginate at middle, rarely without emargination, in *A. davidi* bluntly rounded and rarely slightly emarginate medially, while in *A. korostelevi* gradually rounded and medially notched. The 8th sternite in *A. davidi* deeply emarginate posteriorly, in *A. maculicornis* slightly emarginate, and in *A. korostelevi* bluntly rounded, with narrow and deeper emargination. Hind margin of tergite 9 in *A. maculicornis* rounded, in other two species shallowly emarginate (Figs 1b, 2b, 3b).

Parameres in *A. davidi* narrow, gradually tapering, the gap between them immediately behind base on average 30—50 % width of one paramere, very rarely narrower (Fig. 1c). Parameres in *A. maculicornis* distinctly broader, outer sides always distinctly curved, the gap between them narrow, 10—20 % of paramere's width at base (Fig. 2c). Parameres of *A. korostelevi* in apical part wider and more rounded, width of the gap about 40 % of width of paramere, but the gap gradually broadening from base (Fig. 3c).

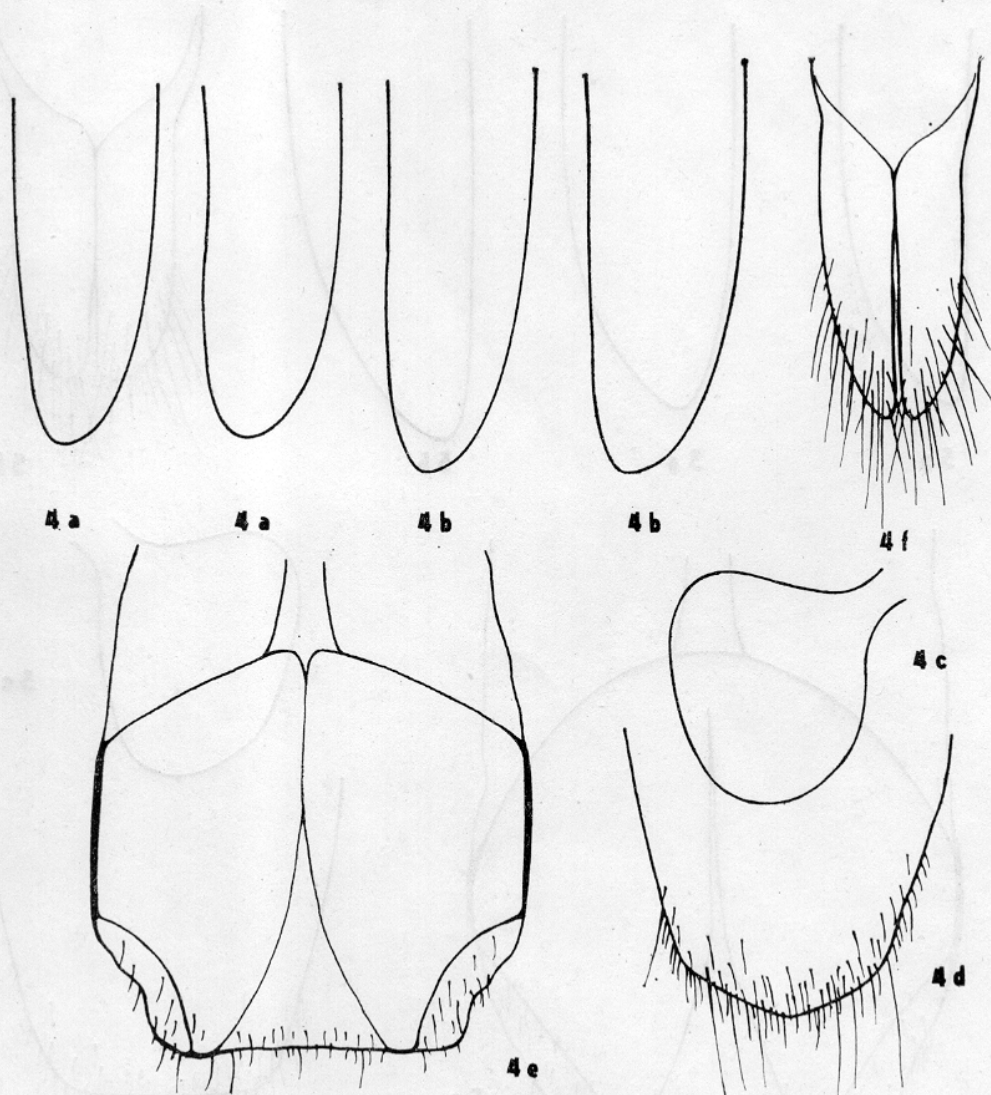
*A. davidi* has apical parts of ovipositor wedge-shaped with straight outer sides (Fig. 1d), while in *A. maculicornis* outer sides distinctly curved (Fig. 2d). *A. korostelevi* has apical parts of ovipositor narrowed, with outer sides gently curved (Fig. 3d).



*Agapanthia cynarae michaeli* ssp. n.

Head with narrow medial more or less defined suture reaching from vertex to clypeus either continuously, or is interrupted between antennae, or only locally indicated. Frons more sparsely deeply punctured, interspaces larger than punctures, shining and very finely punctate. Puncturation on vertex more dense, interspaces smaller than punctures. Head covered with sparse long erect black hairs and semi-erect to decumbent yellow hairs which on vertex form only a medial band. Form of eyes as shown in Fig. 4c.

Antennae in male reaching to end of elytra on 7th or 8th segment, in females on 8th or 9th segment. First segment with dense rather appressed short black hairs and often also with yellow hairs on outer side; 3rd segment on inner side with denser long black hairs, densest at the end; 4th segment with sparse, 5th segment with single long black hairs. Base of 3rd segment with narrow grey ring, grey hairing of the following segments reaching 1/3 to 2/5, remaining parts of segments with very short black hairs. Antennae black, or (under grey hairing) brown.



Figs 4 — *Agapanthia cynarae michaeli* ssp. n.: a — apical part of right elytron of male; b — dtto, female; c — outline of eye; d — 9th abdominal tergite of male; e — dtto, female; f — parameres.

Scutum narrower anteriorly, in posterior third expanded laterally; usually shorter than width at base, particularly in females, exceptionally of the same length; densely deeply roughly punctured, with elongate narrow smooth medial area covered with yellow hairs. Scutum with long sparse erect hairs, with three longitudinal bands of shorter dense yellow hairs.

Scutellum transverse, moderately rounded posteriorly, mostly with dense yellow decumbent hairs.

Length of elytra of males makes 2.60 to 2.84 and of females 2.64 to 2.77 of the central width of both elytra. Elytra in anterior 3/4 almost parallel, with their ends rounded (Figs 4a, 4b); puncturation dense and coarse to granulated anteriorly, becoming shallower and sparser posteriorly. Elytra with sparse black hairs (very long at base, gradually shortening posteriorly), and also with denser yellow to yellow-green shorter hairs. Epipleurons more densely tomentose.

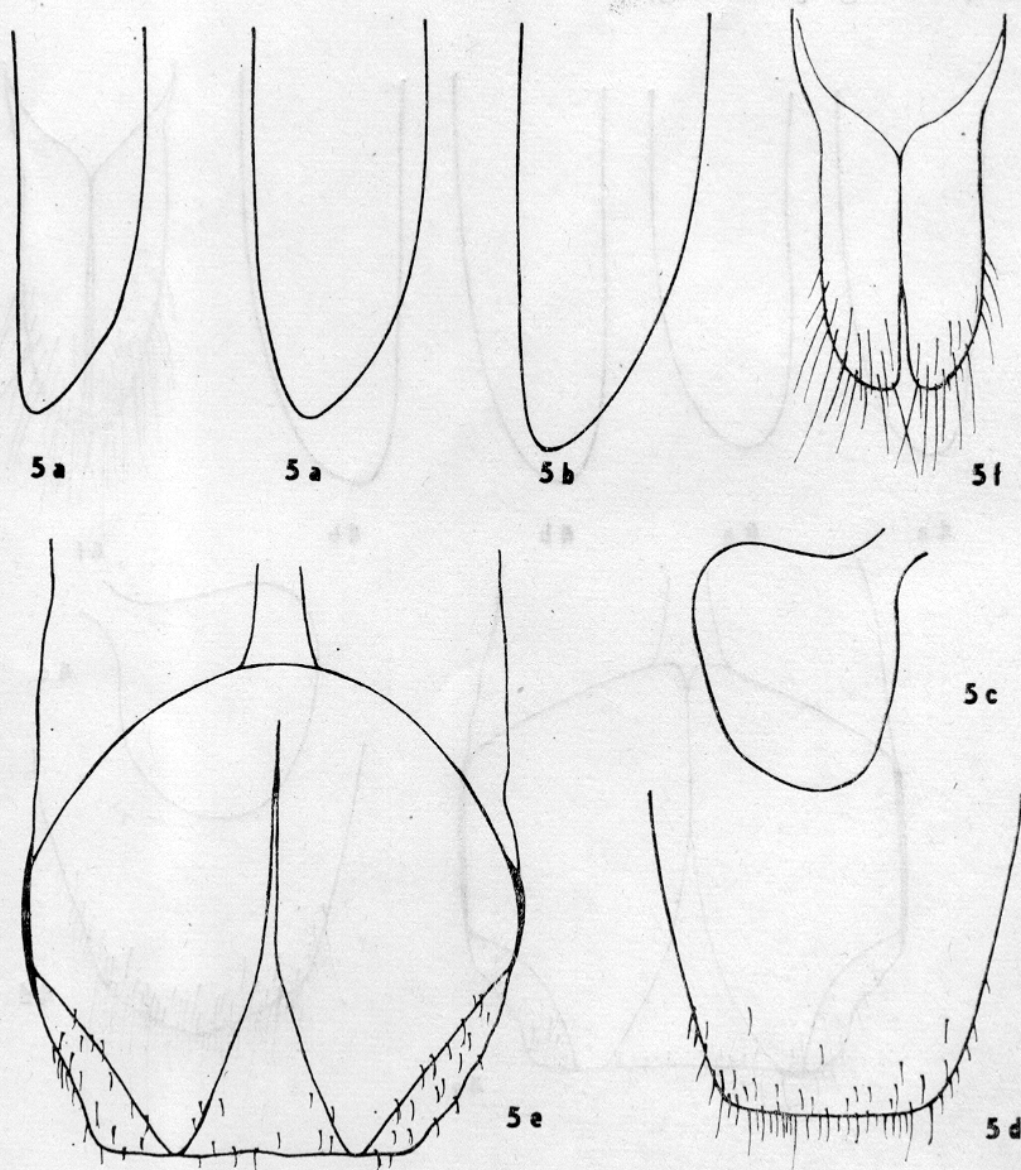


Fig. 5 — *Agapanthia cynarae cynarae*. lettering as in Fig. 4.



Eighth tergite rounded or cut, rarely gently emarginate. Ninth tergite of males rounded, bearing long black and short pale hairs (Fig. 4d). The form of 9th tergite of females is shown in Fig. 4e.

Parameres comparatively narrow, with long setae, outer margins gradually curved (Fig. 4f).

Length: Males 12–17mm (holotype 16 mm), females 14–17 mm (allotype 15 mm).

Holotype male: Crete, Voutas, June 1984, J. and M. Sláma lgt. Allotype female, same data as holotype. Paratypes: 16 males and 11 females, same data as holotype; 1 male and 3 females, same locality, 15. 6. 1984, P. Berger lgt; Crete, Theriso, 1 male and 1 female, 16. 6. 1984, J. and M. Sláma lgt; Crete, Gazi, 1 female, 1934, J. Mařan et O. Štěpánek lgt.

The holotype, allotype and majority of paratypes are at present in my collection. Some paratypes are in the collection of P. Berger (France), the National Museum (Praha, Czechoslovakia), the Institute of Evolutionary Morphology and Ecology of Animals (Moscow, USSR), and the Zoological Institute of Academy of Sciences (Leningrad, USSR).

Derivatio nominis: the subspecies is named after my grandson Michael Štarman.

Most specimens were found on *Acanthus spinosus* L. (Acanthaceae) (det. P. Berger), only one specimen on *Carduus* sp.? (Asteraceae) in neighbourhood of *Acanthus*, and one specimen on *Cynara cardunculus* L. (Asteraceae).

The subspecies from Crete differs from the nominate subspecies (compared mainly with specimens from Yugoslavia, Rijeka, Fiume, the type locality) as follows:

Body shorter and broader. Length of elytra of males makes 2.60 to 2.84 of central width of elytra (2.93 to 3.10 in ssp. *cynarae*; in females this difference is not so obvious). Elytra of both sexes are rounded posteriorly (Figs 4a, b, 5a, b); tomentum more or less dense, green-yellow, nearly to fully regularly distributed. Epipleurons of elytra mostly more densely tomentose.

Eyes are broader and shorter (Figs 4c, 5c).

Eighth tergite of abdomen usually narrower, rounded or cut, rarely gently emarginate (in *cynarae* s. str. the emargination deeper). Ninth tergite in males rounded, bearing long black and short pale hairs (in *cynarae* s. str. cut or moderately rounded, with short black and very short pale hairs) (Figs 4d, 5d). Differences in the form of 9th tergite of females are clear from the figures (Figs 4e, 5e). Parameres narrower and longer, bearing longer and more dense setae (Figs 4f, 5f).

According to information received from Dr. P. Schurmann (Austria), typical *Agapanthia cynarae cynarae* has been found in Crete. However, I was unable to borrow any specimens. Should the occurrence of the nominate form be confirmed, it would mean that the newly described ssp. *michaeli* is an independent species very near to *A. cynarae*.

Note: Some general data (e.g. on the distribution etc.) have been drawn mainly from the monographic works cited in "References" (CHEREPANOV, 1984; HEYROVSKÝ, 1955; KASZAB, 1971; PANIN & SAVULESCU, 1961 and PLAVILSHCHIKOV, 1930, 1968).

### Acknowledgements

I would like to express my thanks to the reviewers of the article, prof. A. Pfeffer and Dr. P. Švácha, for their valuable comments, and to Dr. Švácha also for the correction of the English version of the manuscript.

## REFERENCES

- CHEREPAKOV A. I. 1984: Usachi severnoi Azii (Longhorned Beetles of North Asia). Vol. 5 (Lamiinae: Pterycoptini — Agapanthiini). 214 pp., Nauka, Novosibirsk (In Russian).
- DANILEVSKY M. L. & MIROSHNIKOV A. I. 1985: Zhuki-drovoseki Kavkaza (Coleoptera, Cerambycidae) (Longhorned Beetles of Caucasus). 428 pp., Krasnodar (In Russian).
- HEYROVSKÝ L. 1955: Fauna ČSR 5. Tesaříkovití — Cerambycidae. 348 pp., Nakl. ČSAV, Praha.
- KASZAB Z. 1971: Fauna Hungariae 106. Cincérek — Cerambycidae. 283 pp., Akadémiai Kiadó, Budapest.
- PANIN S. & SAVULESCU N. 1961: Fauna Republicii Populare Romine 10. Coleoptera — Cerambycidae. 523 pp., Academiei RPR, Bucuresti.
- PLAVILSHCHIKOV N. N. 1930: Die Agapanthia-Arten der palaearktischen Region. *Bestimm.-Tab. europ. Coleopt.*, **98** : 1—40.
- PLAVILSHCHIKOV N. N. 1968: Obzor roda Agapanthia Serv. (Coleoptera, Cerambycidae) fauny SSSR (Review of the genus Agapanthia Serv. of the fauna of USSR). *Sb. Trud. zool. Mus.*, Moskva **11** : 113—168.
- SAMA G. 1975: Su alcuni interessanti Cerambycidi della fauna italiana. *Boll. Ass. romana Ent.* **30** : 46—53.
- SAMA G. 1981: Materiali per una Fauna dei Cerambycidae d'Italia. *Ann. Mus. civ. Stor. nat. (Genova)* **83** : 473—522.
- SAMA G. & SCHURMANN P. 1980: Coleotteri Cerambycidi di Sicilia. *Animalia* (Catania) **7** : 189—230.
- TASSI F. 1968: Su alcuni interessanti Longicorni Italiani. *Boll. Accad. gioenia Sci. nat.* (Catania) Ser. IV, **9** : 475—496.
- VITALE F. 1936: I Longicorni Siciliani. *Atti Accad. pelorit*, **38** : 75—101.

### Новые таксоны рода *Agapanthia* из Средиземноморской области (Coleoptera, Cerambycidae)

Таксономия, *Agapanthia davidi* sp. n., *Agapanthia cynarae michaeli* ssp. n.

**Резюме.** Дается описание и отличительные признаки жуков дровосеков *Agapanthia davidi* sp. n. из южной Италии и *Agapanthia cynarae michaeli* ssp. n. из острова Крит.

Received July 23, 1985; accepted April 9, 1986

*Author's address:* M. Sláma, 257 42 Krhanice 175, Czechoslovakia.