



Entomofauna

ZEITSCHRIFT FÜR ENTOMOLOGIE

Band 17, Heft 8: 137-148

ISSN 0250-4413

Anselden, 10. Juli 1996

Review of the flea-beetle genus *Clavicornaltica* SCHERER, 1974

(Coleoptera: Chrysomelidae, Alticinae)

LEV N. MEDVEDEV

Abstract

The knowledge about all species of the flea-beetle genus *Clavicornaltica* SCHERER, 1974 (Chrysomelidae, Alticinae) is summarized. The problem of species characters with high variability is discussed. The species from different sites in the Oriental and Papuan region are listed, 4 new taxa are described: *C. malayana* sp. nov. (Malaysia), *C. iriana* sp. nov. (Irian Jaya), *C. iriana sarawacensis* ssp. nov. (Borneo), *C. tarsalis* sp. nov. (Irian Jaya).

Key words: Chrysomelidae, Alticinae, *Clavicornaltica*, new species, taxonomy, Oriental and Papuan region.

Zusammenfassung

Das Wissen der Arten der Gattung *Clavicornaltica* SCHERER, 1974 (Chrysomelidae, Alticinae) wird zusammengefaßt. Das Problem der Charakterisierung der Arten, die eine große Variabilität aufweisen, wird besprochen. Die Arten der verschiedenen Gebiete in der Orientalis und auf Papua werden aufgelistet. 4 neue Taxa werden beschrieben: *C. malayana* sp. nov. (Malaysia), *C. iriana* sp. nov. (Irian Jaya), *C. iriana sarawacensis* ssp. nov. (Borneo), *C. tarsalis* sp. nov. (Irian Jaya).

Introduction

During the last two decades, the use of advanced collecting techniques, in particular the sifter and the Winkler apparatus, in hitherto scarcely explored parts of the Oriental and Papuan region has yielded, among other taxa, a whole complex of litter- and/or soil-dwelling genera of Alticinae, all minute and partly apterous (SCHERER 1969, 1989; MEDVEDEV 1984, 1990, 1992; DÖBERL 1991). These genera have been described mainly from the Himalayas, but they seem to be much more widespread. Moreover, it

seems possible that even several Palaearctic genera are distributed there as well, e.g. *Mniophila*, *Minota*. The feeding of the *Mniophila* species is known to be associated with mosses, this being the more so conspicuous as all the remaining chrysomelids feed on higher plants. Thus the genus is likely to be a humicole.

Within the above complex the unusual flea-beetle genus *Clavicornaltica* SCHERER, 1974 is distinguished by the geniculate and claviform antennae, a character shared with no other Alticinae or even Chrysomelidae. The general appearance strongly resembles that of Leiodidae or Scydmaenidae, beetle families which *Clavicornaltica* often accompany syntopically.

Recently I received from Dr. W. SCHAWALLER, Stuttgart, a considerable number of *Clavicornaltica* from different Oriental and Papuan regions for examination. In addition, due to the courtesy of Dr. M. BRANCUCCI, Basel, a few specimens from Bhutan have been received for study. This material is summarized in the present paper.

Abbreviations:

CLMM Collection Lev Medvedev, Moscow;
HNHM Hungarian Natural History Museum, Budapest;
NHMB Naturhistorisches Museum, Basel;
SMNS Staatliches Museum für Naturkunde, Stuttgart.

Acknowledgements

I feel particularly obliged to Dr. M. BRANCUCCI (Basel), Dr. O. MERKL (Budapest) and Dr. W. SCHAWALLER (Stuttgart) for the loan of this exciting material. This project has been supported partly by an individual grant of the International Science Foundation (MFU 000) and the Biodiversity Program of the Russian Academy of Sciences, Moscow.

Species characters

Clavicornaltica has been erected for 5 species from Sri Lanka (SCHERER 1974). Two more congeners have since been described from the Philippines (SCHERER 1979; MEDVEDEV 1993), and one more from Nepal (Medvedev 1984), thus bringing the number of known species to a total of 8.

Yet, along with further accumulation of material available for study, the species-specific characters in all the group of genera around and including *Clavicornaltica* appear increasingly doubtful against the background of a pronounced individual variability. Already when describing the Sri Lankan species and using such diagnostic characters as the size and shape of the eyes, the presence of a frontal groove, the pattern of the elytral punctation, the size and the coloration of the body, etc., SCHERER (1974) noted that the most common species *besucheti* SCHERER, 1974 does not entirely fit the conventional framework. He subdivided that species into no fewer than 4 forms occurring mostly together as well as with other congeners.

Working out additional samples from different places, I have also come across the same problem of variation even within a single population. Thus, the eyes vary considerably in size and shape from flat to convex, being usually larger in males than in females. The frontal groove is always developed, but can be strongly reduced. The degree of elytral punctation is subject to an especially strong variation ranging from entirely reduced to well-developed rows of punctures expressed all along their extent.

However, when transilluminated, the elytra in all such cases display 11 regular rows of punctures. The coloration varies from yellow to virtually black, the elytral punctation therewith being usually more faint in paler specimens; they can prove to actually represent younger and not yet fully colored (sclerotized) beetles. Finally, any representative series usually comprises individuals clearly distinguishes only by their larger body size but identical to the remaining subsample in all other respects. All humicolous Alticinae are the smallest amongst chrysomelids, often being less than 1 mm in length. Therefore, the traditional principles of species discrimination accepted in the Chrysomelidae are likely to be sometimes unsafe concerning these Alticinae.

Himalayan species

C. himalayensis MEDVEDEV, 1984

This species has a rather characteristic shape of the aedeagus (fig. 1) and includes 4 forms:

Form A: Elytra with well developed rows. Wings absent in both sexes. Length 1.05 - 1.25 mm. Corresponds to the typical form (MEDVEDEV 1984). - Nepal, type series.

Form B: Same as form A, but the elytral rows very feeble. Length 1.3 mm. - Nepal, type series. India, Darjeeling, North Point, 1300 m, 16.X.1967 leg. TOPAL, 2 ex. HNHM. India, Darjeeling, Ghum, 2000 m, 6.-17.X.1967 leg. TOPAL, 2 ex. HNHM. India, Darjeeling, Debrapani, 1700 m, 30.V.1980 leg. TOPAL, 4 ex. HNHM. India, Darjeeling, Goomti, 1200 m, 27.-30.V.1980 leg. TOPAL, 2 ex. HNHM.

Form C: Colour dark. Elytra with distinct rows. Wings absent (? female). Length 1.2 mm. - Bhutan, Phuntsoling, 1 ex. NHMB.

Form D: Colour dark. Elytra impunctate. Wings present (? male). Length 1.4 mm. - Bhutan, Phuntsoling, 1 ex. NHMB.

Sri Lanka species (after SCHERER 1974)

C. pusilla SCHERER, 1974

Elytra impunctate. Length 0.8 - 1.0 mm.

C. fortispunctata SCHERER, 1974

Elytra distinctly punctate. Length 0.75 - 1.0 mm.

C. loebli SCHERER, 1974

Elytra impunctate. Length 1.1 - 1.6 mm.

C. mussardi SCHERER, 1974

Elytra distinctly punctate. Length 1.3 - 1.5 mm.

C. besucheti SCHERER, 1974

Includes 4 forms, differing in size, colour and punctuation (SCHERER 1974). Length 1.5 - 2.2 mm.

Indian species

C. cf. fortepunctata SCHERER, 1974

New material: India, Kerala, Thekkaddy, Peryar, 2.IX.1989 leg. RIEDEL, 2 ex. CLMM, SMNS.

The specimens have punctures only on the sides of the elytra; one specimen is dark, the other fulvous. Length 1.1 mm. This series seems to be transitional between *fortepuncta* and *loebli*.

Vietnam species

C. besucheti SCHERER, 1974

New material: Vietnam, Luc Yen, 5.XII.1971 leg. TOPAL, 2 ex. HNHM. Vietnam, Cuc Phuong, 3.-18.V.1966 leg. TOPAL, 175 ex. HNHM. Vietnam, Thanh Hoa Prov., Sam Sen, 28.I.1986 leg. MAHUNKA, 1 ex. HNHM. Vietnam, Vinh Phu Prov., Tam Dao, 21.X.1986 leg. MAHUNKA, 2 ex. HNHM. Ha Son Binh Prov., Hoa Binh, 30.X.1986 leg. MAHUNKA, 1 ex. HNHM. Vietnam, Lam Dong Prov., 35 km NE Bao Loc, 23.X.1988 leg. MAHUNKA, 4 ex. HNHM. Vietnam, Lam Dong Prov., 12-15 km S Bao Loc, 22.X.1988 leg. MAHUNKA, 8 ex. HNHM. Vietnam, Lam Dong Prov., 5 km S Dalat, 21.X.1988 leg. MAHUNKA, 4 ex. HNHM.

C. fortepunctata SCHERER, 1974

New material: Vietnam, Nihn Bihn Prov., Cuc Phuong, 5.-18.V.1966 leg. TOPAL, 8 ex. HNHM. Vietnam, Lam Dong Prov., 12 km S Bao Loc, 22.X.1988 leg. MAHUNKA, 1 ex. HNHM.

This small series from Vietnam differs from *besucheti* in having the body more elongate and less convex, the other characters correspond rather well to the description. Body length 0.95 - 1.3 mm; body without head 1.45 - 1.6 times as long as wide, prothorax 1.8 - 2.0 times as long as wide, elytra 1.05 - 1.1 times as long as wide and 1.55 - 1.8 times as long as high.

Thailand species

C. cf. loebli SCHERER, 1974

New material: Thailand, Amphoe Chiang Dao, Doi Chiang Dao, 1700 m, 9.I.1989 leg. TRAUTNER & GEIGENMÜLLER, 1 ex. SMNS.

I am not sure in the determination of this single specimen, but can not distinguish it from *loebli*.

Taiwan species

C. cf. loebli SCHERER, 1974

New material: Taiwan, Pilam, II.1908 leg. SAUTER, 1 ex. HNHM.

This single specimen corresponds in the main features with the description of *loebli*, but the head is shining and shows no microsculpture. Body almost round, strongly convex, apterous. Length 1.2 mm.

Malaysian, Indonesian and New Guinean species

C. cf. pusilla SCHERER, 1974

New material: West Sumatra, Bukittinggi, Lembah Anai, 800 m, 16.X.1991 leg. RIEDEL, 2 ex. CLMM, SMNS.

Both specimens fully correspond to the description. Length 0.9 mm, elytra impunctate. However, *pusilla* and *fortepunctata* might represent the same biospecies.

C. cf. besucheti SCHERER, 1974

New material: Malaysia, Cameron Highland, Gn. Jasar, 4.IV.1990 leg. RIEDEL, 2 ex. CLMM, SMNS; Gn. Brinchang, 20.IV.1990 leg. RIEDEL, 3 ex. SMNS; Gn. Beremban, 1.-3.IV.1990 leg. RIEDEL, 2 ex. SMNS; Maxwell Hill, Taiping, 10.IV.1990 leg. RIEDEL, 4 ex. SMNS. West Sumatra, Bukittinggi, Gn. Merapi & Lembah Anai & Batang Palupuh & Singgalang, 800-2600 m, 16.-19.X.1990 leg. RIEDEL, 14 ex. CLMM, SMNS; West Sumatra, Medan Kabanjahe, Gn. Sinabung, 7.-8.X.1990 leg. RIEDEL, 1 ex. SMNS.

Both series from Malaysia and Sumatra are variable, and a few specimens are more similar to *mussardi* and *loebli*, which also might be proved in future as synonyms of *besucheti*. The coloration varies from pitchy black to dark fulvous. The anterior tarsi of males are not widened. Metasternum even or more convex in the middle. Males with short wings, females apterous. First abdominal sternite with a sharp ridge, widened anteriorly in a narrow triangle. Length 1.3 - 1.8 mm. Among both series dominate 2 forms: either with punctured rows on the outer half of the elytra or with strongly reduced punctures.

C. malayana sp. nov.

Holotype (male): Malaysia, Cameron Highland, Gn. Beremban, 1.-3.IV.1990 leg. RIEDEL, SMNS.

Paratypes: Malaysia, Cameron Highland, Gn. Jassar, 4.IV.1990 leg. RIEDEL, 1 ex. CLMM. Malaysia, Maxwell Hill, Taiping, 10.IV.1990 leg. RIEDEL, 1 ex. SMNS.

Description: Body black, mouthparts, antennae and legs dark rufous, hind femora piceous. Body ovate, very convex; depth of elytra as large as their breadth. Head smooth, ocular grooves deep, frontal grooves and tubercles absent, eyes large (0.11 mm), frons 3x as broad as eye (fig. 2), interantennal space a little broader than eye (0.14 mm). Prothorax strongly transverse, side margin very feebly arcuate, surface impunctate. Elytra 1.2x as broad as long, impunctate. Metasternum with a longitudinal elevation along middle, prolonged on the first abdominal sternite; this prolongation is elongate triangular on the fore part and cariniform behind (fig. 3). Male with short wings and without widened anterior tarsi; aedeagus with elongate triangular apex. Length of body 1.9 mm, breadth 1.25 mm.

Differs from all other species of the genus by the unusual structure of the metasternum.

C. iriana sp. nov.

Holotype (male): Irian Jaya, Prov. Jayawijaya, Wamena, Angguruk, 1600-1700 m, 21.-30.IX.1991 leg. RIEDEL, SMNS.

Paratypes: Together with holotype, 2 ex. SMNS. Irian Jaya, Prov. Jayawijaya, Wamena, Pronggoli, 2000-2400 m, 17.-19.IX.1991 leg. RIEDEL, 1 ex. SMNS. Irian Jaya, Paniai Prov., Nabire, Pusppensaat, 500-200 m, 14.-15.VIII.1991 leg. RIEDEL, 1 ex. SMNS. Irian Jaya, Manokwari Prov., Anggi, Pc. Trikora, 2200-1900 m, 26.-27.VIII.1991 leg. RIEDEL, 1 ex. SMNS. Irian Jaya, Baliem-Tal, Jiwika-Wapdaku, 1700-2300 m, 5.-6.IX.1990 leg. RIEDEL, 1 ex. SMNS. Irian Jaya, Manokwari, Gn. Meja, 300 m, 22.-23.IX.1990 leg. RIEDEL, 2 ex. SMNS.

Description: Body black or pitchy black, sometimes dark red fulvous; antennae, mouthparts and legs lighter. Body ovate, moderately convex, depth of elytra (0.7 mm) about 0.75 - 0.8x as large as their breadth. Head with almost straight frontal groove and traces of frontal tubercles, eyes rather large and convex (0.07 - 0.1 mm), their breadth is almost the same as an interantennal space (0.1 - 0.12 mm), vertex usually finely punctate. Antennal club broad, with the last segment truncate and more or less excavated at the apex (fig. 4). Prothorax transverse, with distinctly arcuate sides. Elytra with 4-5 rows of deep punctures along the side margins except at apex. Metasternum evenly convex, impunctate. First abdominal sternite with a ridge, widened in the anterior part in a distinct triangle (fig. 7). Anterior tarsi of males with the segment 1 very feebly widened, about 2x as long as broad (fig. 5). Hind tibiae broad, distinctly arcuate on the outside, with comperatively short spur (fig. 6). Females apterous, males with short wings. Length of body 1.2 - 1.4 mm, breadth 0.85 - 1.0 mm.

The species seems to be very variable, 4 groups might be distinguished:

Form A: Typical form, described above.

Form B: Head without any traces of frontal tubercles, vertex smooth. Eyes small, interantennal space almost 2x as broad as eye. Elytra without distinct rows of punctures, sometimes with a few punctures in the middle part near the side margin. The ridge of the first abdominal sternite of the same form, but the basal triangle more narrow and elongate. Length 0.9 - 1.4 mm.

Form C: Similar to form A, but elytral rows fully developed. Wings absent in males. Metasternum finely, but distinctly punctured. Length 1.3 mm, breadth 0.95 mm.

Form D: Colour dark red. Head without frontal tubercles, clypeus punctate, vertex smooth, eyes large and convex, their diameter equal to interantennal space. Antennal club thick, with the last segment truncate and excavated (fig. 4). Elytra with fully developed rows of deep punctures, distinct toward the apex; interspaces narrow, about 1.2 - 1.5 of puncture diameter. Wings well developed. Metasternum strongly punctured. The ridge of the first abdominal sternite as in form B. Last abdominal segment convex, with broadly rounded hind margin. Length 1.8 mm, breadth 1.25 mm. Possibly this last form represents a valid species.

C. iriana sarawacensis ssp. nov.

Holotype (sex unknown): Borneo, Sarawak, Belaga Distr., Long Lihau, 17.-21.III.1990 leg. RIEDEL, SMNS.

Paratypes: Together with holotype, 4 ex. CLMM, SMNS. Borneo, Sarawak, Belaga, 14.-16.III.1990 leg. RIEDEL, 1 ex. SMNS.

Description: This series is very similar with the nominate *iriana* sp. nov. (forms A & B), but differs in having the last antennal segment a little longer than broad and the longitudinal ridge on the first abdominal sternite narrow, not widened or very slightly widened anteriorly. The elytra impunctate or with punctured rows laterally. Males with

shortened wings. Coloration dark red or pitchy red, underside sometimes lighter, but not contrasting. Length 1.2 - 1.4 mm.

***C. tarsalis* sp. nov.**

Holotype (male): Irian Jaya, Baliem Distr., Kangime, 1900 m, 4.IX.1990 leg. RIEDEL, SMNS.

Description: Pitchy black, basal part of antennae and legs paler. Body ovate, depth of elytra about 0.8x as their breadth. Head with almost straight frontal groove, without frontal tubercles, eyes convex, but small (0.07 mm), almost 2x narrower than inter-antennal space (0.13 mm); surface shining, finely punctate. Antennal club broad, apical segment subquadrate (fig. 8). Prothorax 1.9x as broad as long, with arcuate sides, all angles rounded and lateral setigerous pore just behind the middle; surface shining, very finely and sparsely punctate. Elytra 1.1x as long as broad, with rows of sparse punctures, disappearing behind the middle; interspaces between rows broad and flat, 3-4x as broad as diameter of punctures. Wings absent. Metasternum evenly convex, impunctate. First abdominal sternite with a ridge, widened anteriorly in a broad subquadrate part (fig. 11). Last abdominal sternite convex with truncate hind margin. Anterior tarsi with the segment 1 strongly widened, segment 2 moderately broad (fig. 9). Hind tibiae not very broad, with a more elongate spur (fig. 10). Length of body 1.6 mm, breadth 1.2 mm.

This species is characterized by the strongly widened first segment of the anterior tarsi.

Philippine species

***C. philippinensis* SCHERER, 1979**

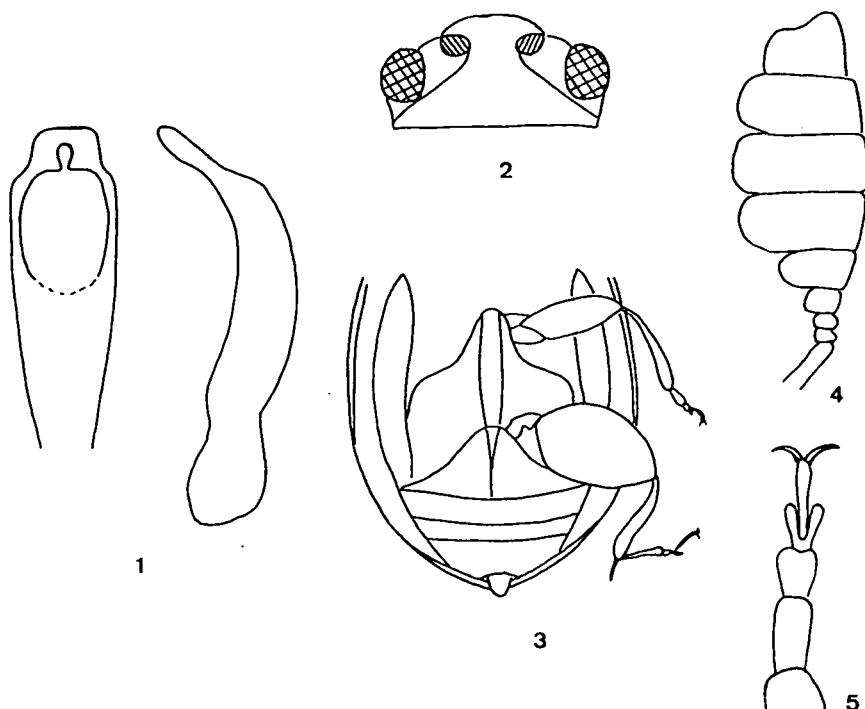
New material: Philippines, Leyte Island, Lake Danao, 500 m, 19.II.-8.III.1991 leg. SCHAWALLER, 6 ex. CLMM, SMNS. Leyte Island, SW Abuyog, 100-300 m, 8.III.1991 leg. SCHAWALLER, 1 ex. SMNS. Leyte Island, N Baybay, above Visayas State College of Agriculture, 200-500 m, 22.II.-10.III.1991 leg. SCHAWALLER, 12 ex. CLMM, SMNS.

The species was described from Luzon, based on a single specimen, which seems to be a female. In the description nothing was mentioned about the wings and characters of the underside. The new series from Leyte corresponds with this description, but might be divided in 4 forms:

Form A: Elytra with distinct rows, but engraved only near the side margin. Colour dark brown. Length 1.27 mm. - Luzon, type specimen.

Form B: Piceous black with lighter legs. Segment 1 of anterior tarsi strongly widened in males (fig. 12), not widened in females. Males winged. Elytra smooth and shining, without distinct punctures. Metasternum evenly convex, first abdominal sternite with a sharp ridge, triangularly widened anteriorly. Aedeagus fig. 14. Length 1.2 - 1.5 mm. Resembles *tarsalis* sp. nov in the structure of male tarsi.

Form C: Red fulvous to dark brown. Segment 1 of anterior tarsi not widened in males, males winged. Elytra with distinct rows of punctures, which are mostly unengraved except near the sides. Metasternum evenly convex, first abdominal sternite with a narrow central ridge. Aedeagus fig. 15. Length 1.1 - 1.4 mm. This form seems to be very similar to the form A.



Figs 1-5 *Clavicornaltica*.

- 1) Aedeagus of *himalyaensis*;
 2) head of *malayana* sp. nov.; 3) underside of *malayana* sp. nov.;
 4) antennal club of *iriana* sp. nov.; 5) anterior tarsus of male of *iriana* sp. nov.

Form D: Quite identical with form C, but wings absent and metasternum distinctly longitudinally elevated along the middle (fig. 13), this elevation is limited on the sides with strong punctures. Length 1.2 - 1.4 mm. These specimens seem to be the females of the form C.

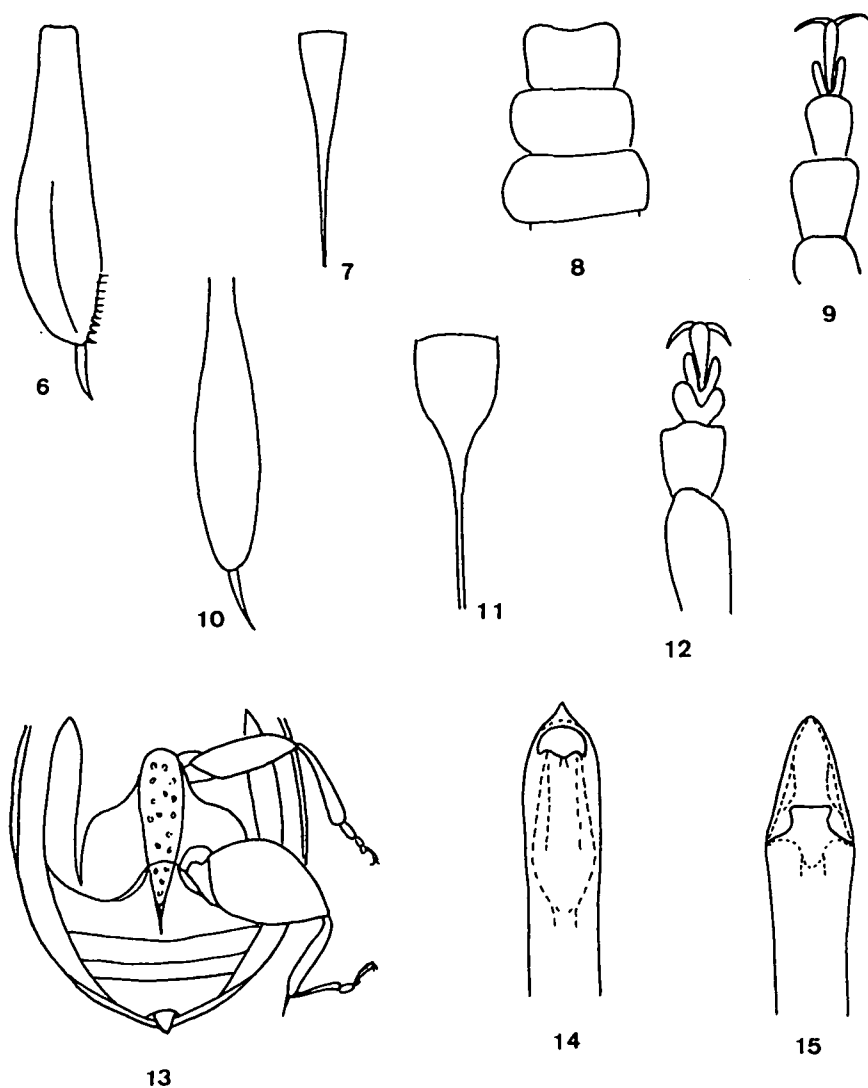
***C. trautneri* MEDVEDEV, 1993**

The single female was described from Leyte Island. Length of body 2.1 mm.

Australian species

***C. australica* KONSTANTINOV, 1995**

According to the description, this species is similar to *philippinensis* and *fortepunctata*. A size is not indicated.



Figs 6-15 *Clavicornaltica*.

- 6) Hind tibia of *iriana* sp. nov.; 7) ridge on the first abdominal sternite of *iriana* sp. nov.;
 8) apical segments of the antennal club of *tarsalis* sp. nov.;
 9) anterior tarsus of male of *tarsalis* sp. nov.; 10) hind tibia of *tarsalis* sp. nov.;
 11) ridge on the first abdominal sternite of *tarsalis* sp. nov.;
 12) anterior tarsus of male of *philippinensis*; 13) underside of *philippinensis* (form D);
 14) aedeagus of *philippinensis* (form B); 15) aedeagus of *philippinensis* (form C).

References

- DÖBERL, M. - 1991. Alticinae (Coleoptera, Chrysomelidae) aus Nepal. - Rev. suisse Zool. 98: 613-635.
- KONSTANTINOV, A. - 1995. New species of *Clavicornaltica* and *Orthaltica* from the Australian and Oriental regions. - Zoosystematica Rossica 3: 283-288.
- MEDVEDEV, L.N. - 1984. Chrysomelidae from the Nepal Himalayas. I. Alticinae. - Senckenbergiana biol. 65: 47-63.
- MEDVEDEV, L.N. - 1990. Chrysomelidae from the Nepal Himalayas. Part II.- Stuttgarter Beitr. Naturk. (A) 453: 1-46.
- MEDVEDEV, L.N.- 1992. Chrysomelidae from the Nepal Himalayas. Part III. - Stuttgarter Beitr. Naturk. (A) 485: 1-36.
- MEDVEDEV, L.N. - 1993. Alticinae of the Philippine Islands. Part I. - Russian ent. J. 2: 41-58.
- SCHERER, G. - 1969. Die Alticinae des Indischen Subkontinents (Coleoptera, Chrysomelidae). - Pac. Ins. Mon. 22: 1-251.
- SCHERER, G. - 1974. *Clavicornaltica*, a new genus from Ceylon. - Rev. suisse Zool. 81: 57-68.
- SCHERER, G. - 1979. *Clavicornaltica* recorded also from the Philippine Islands. - Rev. suisse Zool. 86: 713-714.
- SCHERER, G. - 1989. Ground living flea beetles from the Himalaya. - Spixiana 12: 31-55.

Authors' address:

Lev N. MEDVEDEV
Institute of evolutionary morphology and ecology of animals
Leninsky prospect 33,
117071 Moscow, Russia

Literaturbesprechungen

MEHLHORN, H. (Hrsg.): Grundriß der Zoologie. - Gustav Fischer Verlag, Stuttgart, 1995. 2. Aufl., 760 S.

Dieses umfangreiche und dabei kompakte "Lehrbuch" der Zoologie versucht einerseits zoologisches Basiswissen zu vermitteln, andererseits die größeren Zusammenhänge zu erläutern, um einen Einstieg in die vielen zoologischen Fachgebiete zu erleichtern. Besonders erwähnenswerte Veränderungen bzw. Neuerungen konnten gegenüber der ersten Auflage nicht festgestellt werden. Nach wie vor vermißt man Kapitel über "Zoogeographie" sowie "Natur- und Umweltschutz"; trotzdem wird dieses Taschenbuch einer Gesamtdarstellung der modernen Zoologie durchaus gerecht, indem die Beschreibung der Baupläne, die Biologie der einzelnen Tierstämme, Entwicklungs- und Stoffwechselphysiologie, Exkretion, Osmoregulation, Atmung, Bau und Funktion von Muskeln, Neuronen, Nerven- und Augensystemen, Mechano- und Chemorezeption, Hormonale regulation, Blut-, Lymph- und Immunsysteme sowie die Ökologie behandelt werden. Zahlreiche informative Fotos und Strichzeichnungen (zweifarbige) begleiten den Text, so daß die didaktische Vermittlung eines essentiellen zoologischen Grundwissens durchaus gelungen ist.

Ein sehr empfehlenswertes und preiswertes Taschen-Lehrbuch.

R. GERSTMAYER

MEHLHORN, H., PIEKARSKI G.: Grundriß der Parasitenkunde. - Gustav Fischer Verlag, Stuttgart, 1995. 4. Aufl., 452 S.

In diesem bewährten Taschenbuch sind alle wichtigen Parasiten auf über 700 Einzelabbildungen und in 19 Tabellen erfaßt, werden morphologisch beschrieben und ihre komplizierten Entwicklungszyklen vergleichend dargestellt. Die Beschreibungen orientieren sich anhand des zoologischen Systems, d.h. es werden human- und tierpathogene Parasiten von den Protozoen über die Helminthen bis zu den Arthropoden behandelt. Durch Impulse aus der Molekularbiologie, durch Immunsuppression infolge HIV-Infektionen und durch verstärkte Ausbreitung von Parasiten aufgrund politischer Wirren in vielen Ländern, hat die Parasitologie nie an Aktualität und Interesse verloren und dieses kompakte Lehrbuch bietet einen fundierten Überblick und Einstieg in dieses biologische Teilgebiet.

R. GERSTMAYER

KAESTNER, A.: Lehrbuch der speziellen Zoologie. - STARCK, D.: **Band II: Wirbeltiere. Teil 5/1 und 5/2: Säugetiere.** - Gustav Fischer Verlag, Jena, 1995. 1241 S.

Mit diesen zwei inhaltsstarken Bänden wird eine weitere Lücke in der Neuauflage des "Kaestner's" geschlossen. Erfaßt werden sämtliche Ordnungen rezenter und fossiler Mammalia, wobei von den ersteren die meisten Familien mit ihren wichtigsten Gattungen und Arten berücksichtigt sind. Entsprechend der Gesamtkonzeption des Werkes wird zunächst die funktionelle Anatomie unter besonderer Berücksichtigung der Anpassungstypen und des Lebensraumes behandelt. Dies beinhaltet, ausgehend von der äußeren Körperdecke den Bewegungsapparat, das Nervensystem, die Sinnesorgane, das Verdauungssystem bis hin zu Atmung, innere Organe, Fortpflanzung, Harnorgane und endokrine Drüsen. Kurze Kapitel sind dem Temperaturhaushalt (Winterschlaf) und der Karyologie gewidmet. Ab S. 270 beginnt der Hauptteil des Werkes, der Systematik, Phylogenese und Verbreitung der Säugetiere gewidmet ist und alles Wissenswerte zu Morphologie und Biologie der einzelnen Säugetierfamilien (Gattungen, z.T. auch Arten) enthält. Zahlreiche Strichzeichnungen zu Morphologie (u.a. Schädelmerkmale), Verhalten, Nahrungserwerb und Verbreitung sowie Habituszeichnungen illustrieren den Text. Probleme des Artenschutzes und der praktischen Nutzung (Jagd, Haus- und Nutztiere, Krankheiten) finden Berücksichtigung; alle in Europa vorkommenden Arten sind in Listen erfaßt. Ein überaus umfangreiches, nach Tiergruppen geordnetes Literaturverzeichnis sowie ein mit Autorennamen versehenes Tiernamen- und ein Sachverzeichnis runden die beiden Bände ab.

Eine sehr gelungene, umfassende und für alle Zoologen empfehlenswerte Monographie.

R. GERSTMAYER

Druck, Eigentümer, Herausgeber, Verleger und für den Inhalt verantwortlich:
Maximilian SCHWARZ, Konsulent für Wissenschaft der O.Ö. Landesregierung,
Eibenweg 6, A-4052 Ansfelden
Redaktion: Erich DILLER, ZSM, Münchhausenstraße 21, D-81247 München
Max KÜHBANDNER, Marsstraße 8, D-85609 Aschheim
Wolfgang SCHACHT, Scherrerstraße 8, D-82296 Schöngeising
Erika SCHARNHOP, Himbeerschlag 2, D-80935 München
Johannes SCHUBERTH, Mannertstraße 15, D-80997 München
Emma SCHWARZ, Eibenweg 6, A-4052 Ansfelden
Thomas WITT, Tengstraße 33, D-80796 München
Postadresse: Entomofauna (ZSM), Münchhausenstr. 21, D-81247 München;
Tel. (089) 8107-0, Fax 8107-300

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Entomofauna](#)

Jahr/Year: 1996

Band/Volume: [0017](#)

Autor(en)/Author(s): Medvedev Lev N.

Artikel/Article: [Review of the flea-beetle genus Clavicornaltica SCHERER, 1974 \(Coleoptera: Chrysomelidae, Alticinae\). 137-146](#)