

New species, synonymy and records of *Endomia* and *Stenidius* (Coleoptera: Anthicidae) from Asia

Zbyněk KEJVAL

Muzeum Chodska, CZ-344 01 Domažlice, Czech Republic; e-mail: kejval@cmail.cz

Abstract. Three new species, *Endomia graminicola* sp. nov., *E. litoralis* sp. nov. and *Stenidius peplifer* sp. nov., are described from India. A new synonymy, *Endomia ceylonica* (Motschulsky, 1863) = *E. nana* Krekich-Strassoldo, 1928, syn. nov., is proposed. The faunistic records of *Endomia* Laporte, 1840 and *Stenidius* LaFerté-Sénéctère, 1847 species from the following countries (including new state records) are given: Bangladesh, Bulgaria, Cambodia, France, Greece, India, Indonesia, Iran, Laos, Morocco, Myanmar, Oman, Pakistan, Spain, Sri Lanka, Thailand, Tunisia, Turkey, Turkmenistan.

Key words. Coleoptera, Anthicidae, *Endomia*, *Stenidius*, Oriental region, Palaearctic region, taxonomy, new species, new synonymy, faunistics.

Introduction

The present paper is devoted to the taxonomy and distribution of *Endomia* Laporte, 1840 and *Stenidius* LaFerté-Sénéctère, 1847. It summarizes published records and presents new data, including descriptions of three new species from the Indian states of Maharashtra and Madhya Pradesh.

All known Asian *Endomia* and *Stenidius* species were listed/reviewed in my previous papers (KEJVAL 1998, 2002, 2004, 2006). With the new species descriptions and synonymy presented here, the total number of Oriental species is raised to 15 in *Endomia* and 16 in *Stenidius*.

Material and Methods

The following acronyms of depositories are used:

- BMNH Natural History Museum, London, United Kingdom;
- DBET Department of Biodiversity and Evolutionary Taxonomy, University of Wrocław, Wrocław, Poland;
- DCDC Donald S. Chandler collection, Durham, New Hampshire, USA;
- GUPC Gerhard Uhmann collection, Pressath, Germany;
- HNHM Hungarian Natural History Museum, Budapest, Hungary;
- JVOC Jiří C. Vávra collection, Ostrava, Czech Republic;
- MHNG Muséum d'Histoire Naturelle, Genève, Switzerland;

MNHN	Museum National d'Histoire Naturelle, Paris, France;
NHMW	Naturhistorisches Museum, Wien, Austria;
NMPC	National Museum, Praha, Czech Republic;
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany;
TKHC	Tomáš Kopecký collection, Hradec Králové, Czech Republic;
ZKDC	Zbyněk Kejval collection, Domažlice, Czech Republic;
ZMHB	Museum für Naturkunde der Humboldt-Universität, Berlin, Germany;
ZMMU	Zoological Museum, Moscow State University, Moskva, Russia;
ZMOC	Zdeněk Malinka collection, Opava, Czech Republic.

Data from locality labels are cited verbatim only for the type specimens, and my comments are found in square brackets. Separate labels are indicated by double slashes (//). The following abbreviations are used: [h] – handwritten; [p] – printed; env. – environs of; prov. – province; distr. – district; leg. – collected by; Exped. leg. – collected by members of the Czechoslovak-Iranian Entomological expeditions to Iran (1970, 1973 and 1977) organized by the National Museum in Prague. Locality data of these Iranian specimens are specified according to HOBERLANDT (1974, 1981, 1983).

The terminology of body setation follows WERNER & CHANDLER (1995).

Results

Endomia besucheti Bonadona, 1989

Material examined. INDIA: MAHARASHTRA, ca 15 km E of Savantvadi, 15°55'N 75°53'E, 40 m a.s.l., riverside, 22.v.2006, Z. Kejval leg., 1 ♂ 2 ♀♀ (ZKDC); Kolhapur distr., Ajra env., 16°07'N 74°12'E, riverbank, ca 640 m a.s.l., 23.v.2006, Z. Kejval leg., 1 ♂ (ZKDC). **SRI LANKA:** SOUTHERN prov., Hambantota env., 26.-30.vi.2003, O. Mehl leg., 1 ♀ (ZKDC).

Distribution. Reliably known from Sri Lanka and India (Kerala, Maharashtra) (BONADONA 1989, KEJVAL 1998).

Remarks. Given the specimens listed below under *E. gratiosa* (Krekich-Strassoldo, 1928), the record of *E. besucheti* from northern Pakistan (Barseen) by TELNOV (2003) appears to be based on misidentified specimens of that species.

Endomia castelsi Pic, 1929

Material examined. INDIA: MADHYA PRADESH, Khajuraho, 8.vi.1983, R. Schuh leg., 1 ♀ (ZKDC); ca 120 km SE of Bhopal, Matkuli env., 22°35'N 78°28'E, 400 m a.s.l., 28.vi.2006, Z. Kejval leg., 1 ♂ (ZKDC); MAHARASHTRA, Pune, v.1908, G. E. Bryant leg., 1 ♂ 1 ♀ (BMNH); RAJASTHAN, near Ajmer, Pushkar, vii.1995, R. Sauer leg., 2 ♀♀ (ZKDC); TAMIL NADU, Tuticorin, salt industry area, 8°47'N 78°06'E, 22.-25.vi.1999, Z. Kejval & M. Trýzna leg., 4 ♂♂ 5 ♀♀ (ZKDC). **IRAN:** KERMAN prov., 7 km W of Kahkom, 28°12'N 55°46'E, 28.v.1973, locality no. 215, Exped. leg., 1 ♀ (NMPC); SISTAN VA BALUCHESTAN prov., S of Sarbaz, valley of river Sarbaz, 26°39'N 61°15'E, 1.-2.iv.1973, locality no. 145, Exped. leg., 2 ♀♀ (NMPC); ca 3 km N of Rask, valley of river Sarbaz, 26°31'N 61°25'E, 3.-4.iv.1973, locality no. 146, Exped. leg., 2 ♂♂ 1 ♀ (NMPC); 13 km SSE of Nikshahr, Nikshahr river valley, 26°08'N 60°11'E, 8.-9.iv.1973, locality no. 152, Exped. leg., 19 ♂♂ 23 ♀♀ (NMPC, ZKDC). **OMAN:** Wadi Mayh, 25 km S of Mutrah, 16.x.1995, M. Balkenohl leg., 1 ♂ (SMNS). **PAKISTAN:** BALUCHESTAN, Avaran, 4.-7.iv.1993, S. Bečvář leg., 1 ♂ (ZKDC); 90 km SSE Quetta, Kundlani, 20.-23.ii.1995, D. Hauck & L. Čížek leg., 1 ♀ (ZKDC). **SRI LANKA:** NORTH-CENTRAL prov., Polonnaruwa distr., 2 km W of Giritale, 25.xii.2000, R. Schuh leg., 1 ♂ 1 ♀ (ZKDC).

Distribution. Sri Lanka, India (Tamil Nadu, Karnataka, Madhya Pradesh, Maharashtra, Haryana) (PIC 1929, 1894 as *E. indica*; UHMANN 1983 as *E. ceylonica*; UHMANN 1994b as *E. indica*; KEJVAL 1998; TELNOV 1999). The first records from Iran, Pakistan and Oman.

Remarks. *Endomia castelsi* usually displays a dark marking on elytra (see Fig. 50 in KEJVAL (1998)). All examined specimens from Oman, Iran and the specimen from Avaran in Pakistan differ in having body unicoloured pale brown.

Endomia ceylonica (Motschulsky, 1863)

Ochthenomus ceylonicus Motschulsky, 1863: 494.

Endomia nana Krekich-Strassoldo, 1928: 104, **syn. nov.**

Type material examined. *Endomia ceylonica*. SYNTYPES: 1 ♂ 1 ♀ [mounted on the same label, male lacking head], '[h, illegible; yellow round label] // type [h] Ochthenomus ceylonicus Motsch I. or. Ceyl. Colomb [h]' (ZMMU).

Additional material examined. **INDIA:** MAHARASHTRA, Bombay – Bandra, Javakar leg., 1 ♀ (BMNH). **SRI LANKA:** SOUTHERN prov., Ratnapura distr., Panamure env., 11.-12.xii.1995, Bečvář & Košťál leg., 1 ♀ (ZKDC); EASTERN prov., Arugambay env., 4.-11.vii.2003, O. Mehl leg., 1 ♀ (ZKDC).

Distribution. India (Andhra Pradesh, Goa, Karnataka, Maharashtra, Orissa, Tamil Nadu), Sri Lanka (MOTSCHULSKY 1863; BONADONA 1986; KEJVAL 1998; TELNOV 1998, 2001; UHMANN 1983). Records from India (Madhya Pradesh) and Sri Lanka (Medavachiya) by UHMANN (1983) are based on misidentified specimens of *E. castelsi*; the respective specimens were listed under this species by KEJVAL (1998).

Remarks. The possible synonymy of *E. ceylonica* and *E. nana* was already discussed in my previous paper (KEJVAL 1998). It is now confirmed by the examination of the syntypes of the former species.

Endomia euphratica Krekich-Strassoldo, 1928

Material examined. **IRAN:** CHAHARMahal va BAKHTIARI prov., Kuhrang, 32°26'N 50°06'E, 18.vi.1974, A. Senglet leg., 1 ♂ (ZKDC); KUHGILUYE o BUYER-AHMAD prov., 5-9 km E of Si Sakht, 1700-4000 m a.s.l., 11.-16.vii.2003, I. Jeniš leg., 4 ♂♂ 3 ♀♀ (ZKDC); Imam Sadeh, Demarant region [= most probably TEHRAN prov., Damavand region, Emamzadeh], Elburs Mts., 2300 m a.s.l., 1.iv.1962, J. Klapperich lgt., 1 ♂ (SMNS). **TURKEY:** ADANA, Nur Dağları Mts., Nurdağı Geçidi Pass, 1250-1450 m a.s.l., 10.v.2005, J. Vávra leg., 1 ♂ (JVOC).

Distribution. Iran, Iraq, Turkey (KREKICH-STRASSOLDO 1928, KEJVAL 1998).

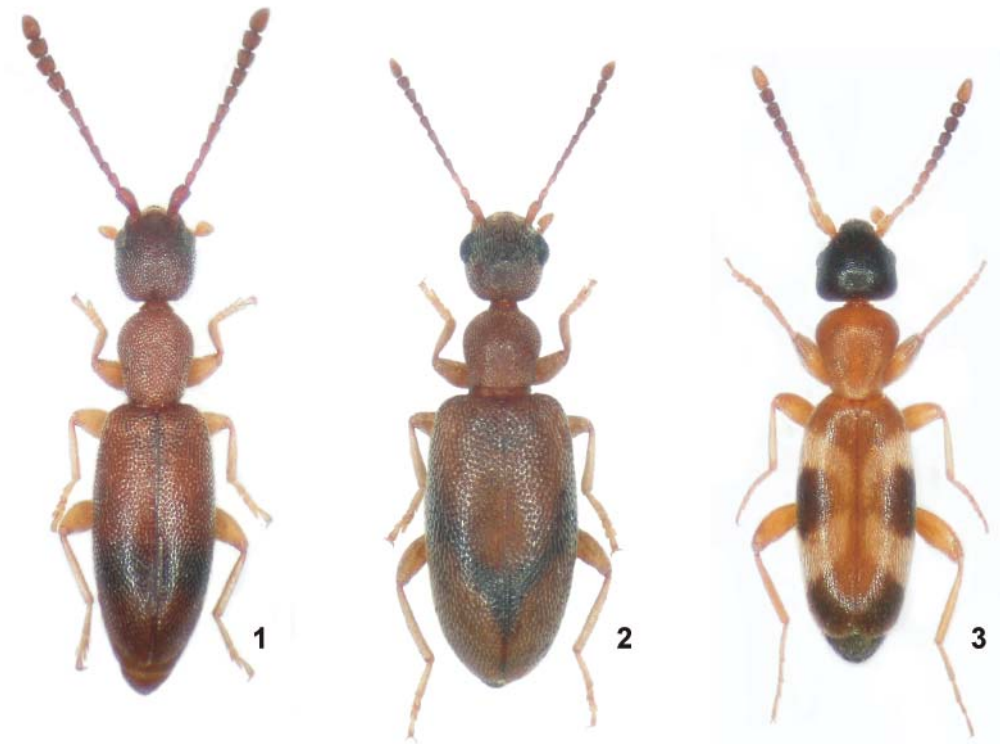
Endomia graminicola sp. nov.

(Figs. 1, 4, 5)

Type locality. India, Maharashtra, Mulshi.

Type material. HOLOTYPE: ♂, 'INDIA, Maharashtra, ca 30 km W of Pune, MULSHI env., 18°29'N 73°30'E, ca 700 m, 13.-16.vi.2006, Z. Kejval lgt.' (NMPC). PARATYPES: 11 ♂♂ 8 ♀♀, same data as holotype (ZKDC, 1 specimen each in BMNH, DCDC, HNHM, MHNG, MNHN, NHMB, NHMW, SMNS); 1 ♀, 'INDIA, Maharashtra Pune Distr., Mulshi at Mulshi lake, 8.X.2005 catch., leg. L. Borowiec // India Expedition 2005 Dept. of Biodiversity and Evol. Taxonomy Wrocław University' (DBET).

Description (male, holotype). Head dark brown, with reddish/carmine tinge; pronotum rufous to reddish; elytra brown, with indication of darker transverse band in posterior half (Fig. 1); antennae rufous brown; legs and palpi yellowish.



Figs. 1-3. Habitus (paratype). 1 – *Endomia graminicola* sp. nov. 2 – *E. litoralis* sp. nov. 3 – *Stenidius peplifer* sp. nov.

Head 1.3 times as long as wide, somewhat widely rounded posteriorly; tempora subparallel, slightly narrowing towards base, posterior temporal angles rounded, moderately indicated; frontal protrusions small but distinctly protruding, frons flattened (not impressed); basal median carina less distinct, very slightly impressed in dorsal view. Eyes small, moderately convex. Surface less glossy, distinctly and rather densely punctured. Setation inconspicuous, very short, subdecumbent to appressed; setae rather narrow (not typically scale-like). Antennae strong, widened in terminal third (Fig. 4); basal antennomere thickened; antennomere 10 about 1.1 times, antennomere 11 1.5 times as long as wide.

Pronotum 1.4 times as long as wide, moderately narrower than head including eyes, evenly rounded anteriorly, at most slightly impressed postero-laterally in dorsal view. Surface less glossy; punctation and setation as on head.

Elytra twice as long as wide; humeri somewhat rounded but distinct; postscutellar impression absent. Surface moderately glossy, distinctly punctured; punctation somewhat sparser and coarser than on head. Setation similar to that on head, moderately longer.

Sternum VII simple. Segment IX forming thin, posteriorly bifurcate apodeme.

Aedeagus (Fig. 5); apical portion of tegmen 1.7 times as long as basal-piece, simple, nearly evenly narrowing towards moderately widened, triangular apex in ventral view.

Female. Externally identical with male.

Body length (♂♀). 1.7-2.0 mm (holotype 1.8 mm).

Variability. Elytra pale brown, with vaguely outlined but distinct brown-black transverse band to nearly unicoloured dark brown with reddish/carmine tinge (as head) and slightly paler apical fourth.

Differential diagnosis. *Endomia graminicola* sp. nov. can be easily recognized by its small size, slender body form, combined with strong antennae and very short, inconspicuous body setation. It differs from all known Oriental species in the form of tegmen, which is narrow with a slightly widened, triangular apex.

Etymology. Noun in apposition, composed from Latin gramineus (= gramineous, grass) and incola (= inhabitant); named in reference to the collecting circumstances.

Bionomics. Unknown. In Mulshi, the specimens were found on moist clay soil with sparse, mostly grazed grass in a small, flattened place among fields in an agricultural landscape. They were collected individually on the ground, together with specimens of *Stenidius bezdeki* Kejval, 2006, as I moved the plant debris near the grass tufts.

Distribution. India (Maharashtra).

Endomia gratiosa Krekich-Strassoldo, 1928

Material examined. PAKISTAN: NORTH-WEST FRONTIER prov., valley of Indus, Barseen, Motel Barseen, 1100 m a.s.l., 28.viii.2001, B. Benedek & G. Ronkay leg., 2 ♂♂ 1 ♀♀ (HNHM, ZKDC); Khyber agency, middle stream of Kabul river, 700-900 m a.s.l., 15.-22.viii.2005, V. Gurko leg., 1 ♂ (ZKDC). INDIA: MADHYA PRADESH, Khajuraho, 8.vi.1983, R. Schuh leg., 1 ♀ (ZKDC); ca 120 km SE of Bhopal, Matkuli env., 22°35'N 78°28'E, 400 m, 28.vi.2006, Z. Kejval leg., 4 ♀♀ (ZKDC); RAJASTHAN, 15 km N of Udaipur, Eklingji, 24°45'N 73°43'E, ca 700 m a.s.l., 7.vii.2006, Z. Kejval leg., 2 ♂♂ 1 ♀ (ZKDC); UTTARANCHAL, Rishikesh, 6.viii.1989, Riedel leg., 1 ♂ (ZKDC); ca 13 km NW of Nainital, Khairna Bridge, 13.-17.vii.2003, riverbanks, 900 m a.s.l., Z. Kejval & M. Trýzna leg., 3 ♂♂ 2 ♀♀ (ZKDC).

Distribution. India (Uttaranchal, Rajasthan, Madhya Pradesh, Tamil Nadu), Pakistan (KREKICH-STRASSOLDO 1928; KEJVAL 1998; UHMANN 1994a as *E. indica*; TELNOV 1998, 2001).

Endomia indica (LaFerté-Sénéctère, 1849)

Material examined. MYANMAR: Rangoon distr., Hlegu – Goygon, iii.1997, M. Klícha leg., 1 ♂ (ZKDC).

Distribution. Reliably known only from Myanmar (LAFERTÉ-SÉNÉCTÈRE 1849b, KEJVAL 1998). The records from India (West Bengal, Madhya Pradesh) and Thailand (UHMANN 1983, 1993, 1994a) are based on misidentified specimens of *E. lunulata* Krekich-Strassoldo, 1928, *E. gratiosa* and *E. castelsi*; see KEJVAL (1998) and the herein listed specimens. Another record from India (Uttaranchal) by UHMANN (1994a) is dubious and should be verified; the respective specimen is probably deposited in GUPC (not examined).

Endomia litoralis sp. nov.

(Figs. 2, 6, 7)

Type locality. India, SW Maharashtra, ca 15 km E of Savantvadi, 15°55'N 75°53'E.

Type material. HOLOTYPE: ♂, 'INDIA, Maharashtra, ca 15 km E of SAVANTVADI, 15°55'N 75°53'E, riverside, alt. ca 40 m, 22.v.2006, Z. Kejval lgt.' (NMPC). PARATYPES: 5 ♂♂ 5 ♀♀, same data as holotype (ZKDC).

Additional material examined (see Remarks). **INDIA:** MAHARASHTRA, Pune, v.1908, G. E. Bryant leg., 1 ♀ (BMNH).

Description (male, holotype). Head and pronotum rufous brown; elytra yellowish brown, at places with rufous tinge, and with black, rather sharply outlined, nearly V-shaped marking (Fig. 2), widened on suture and extending along lateral margins anteriorly as far as humeri; antennae rufous brown; legs and palpi yellowish brown.

Head 1.2 times as long as wide, unevenly rounded posteriorly; tempora rather strongly narrowing towards base, posterior temporal angles slightly indicated; frontal protrusions slightly indicated; basal median carina distinct, slightly impressed in dorsal view. Eyes large, rather convex. Surface less glossy, distinctly and rather densely punctured. Setation distinct, subdecumbent, whitish; setae thick, blunt, narrow (not typically scale-like). Antennae short, slender, moderately enlarged in terminal third (Fig. 6); basal antennomere slender, at most moderately enlarged; antennomere 10 about 1.1 times, antennomere 11 1.8 times as long as wide.

Pronotum 1.2 times as long as wide, moderately narrower than head including eyes, rather evenly rounded anteriorly, at most slightly impressed postero-laterally in dorsal view. Surface less glossy; punctation and setation as on head.

Elytra 1.8 times as long as wide, rather convex; humeri distinct; postscutellar impression absent. Surface moderately glossy, distinctly punctured; punctation distinctly sparser and somewhat coarser than on head. Setation similar to that on head, moderately longer.

Sternum VII unevenly convex, with indication of an apical angle. Segment IX forming strong, posteriorly bifurcate apodeme.

Aedeagus (Fig. 7); apical portion of tegmen 1.4 times as long as basal-piece, simple, nearly evenly narrowing towards bluntly pointed to rounded apex in ventral view.

Female. Externally identical with male.

Body length (♂♀). 2.3-2.7 mm (holotype 2.5 mm).

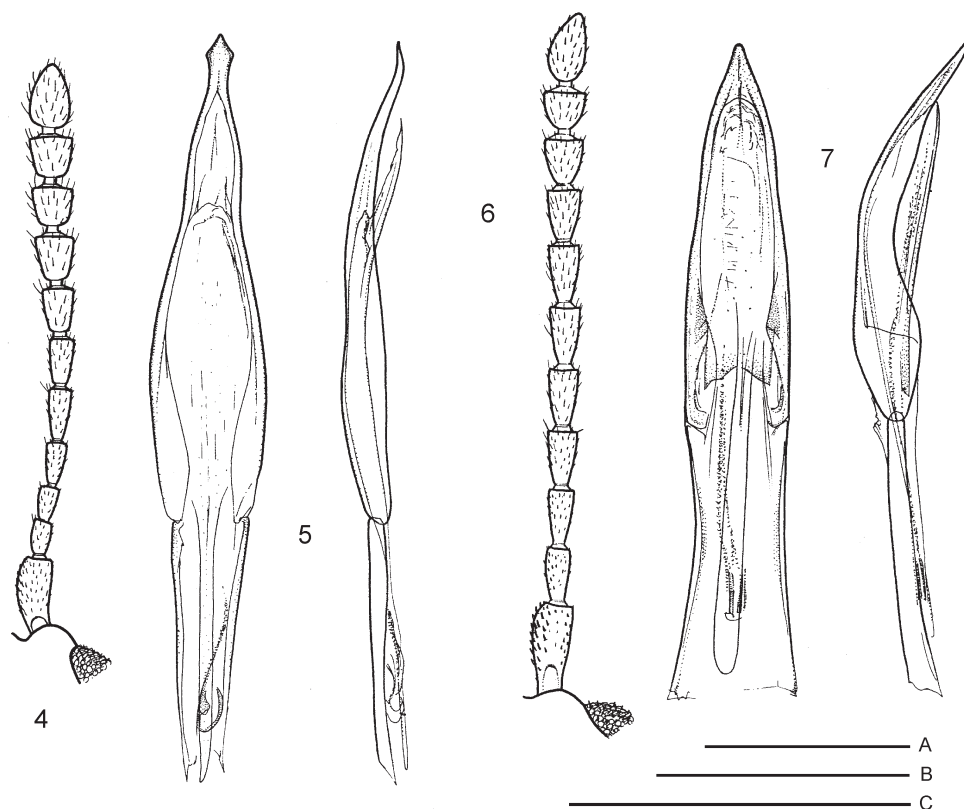
Variability. Some specimens with head base wider, more widely rounded, tempora rather moderately narrowing towards base. Dark marking of elytra mostly less conspicuous, band narrower, sometimes reduced laterally and forming Y-like shaped spot, not extending anteriorly on suture.

Differential diagnosis. *Endomia litoralis* sp. nov. is externally nearly identical and undoubtedly closely related to *E. castelsi*. It shows moderate difference in the dark marking of elytra (crossing the suture somewhat less posteriorly), which may be less distinct in pale-coloured (with reduced marking) or teneral specimens. However, it differs substantially from the latter species in the simple, dorso-ventrally flattened apex of tegmen and the simple median lobe of aedeagus, lacking lateral subapical protrusions; for *E. castelsi* see Figs. 52-54 in KEJVAL (1998).

Etymology. From Latin *litoralis* (= coastal, littoral); referring to the collecting circumstances.

Bionomics. Unknown. All specimens were collected in moist plant debris in a depression of a large, flattened stone on the bank of an almost dry riverbed (end of dry season), together with specimens of *E. besucheti*.

Distribution. India (Maharashtra).



Figs. 4-7. 4-5 – *Endomia graminicola* sp. nov., holotype. 4 – antenna; 5 – aedeagus in ventral (left) and lateral (right) view. 6-7 – *E. litoralis* sp. nov., holotype. 6 – antenna; 7 – aedeagus in ventral (left) and lateral (right) view. Scale = 0.2 mm: A – Fig. 5. Scale = 0.5 mm: B – Figs. 4, 6; C – Fig. 7.

Remarks. The specimen from Pune (BMNH) resembles *E. litoralis* in the form of the dark markings of elytra, however its identity is not clear because it is a female. Two other specimens, bearing the same labels and including a male, belong to the closely related *E. castelsi* (see above), which might suggest sympatric occurrence of both species.

Endomia lunulata Krekich-Strassoldo, 1928

Material examined. **BANGLADESH:** Monsoon season 1978, H. D. Catling leg., 1 ♂ (BMNH). **LAOS:** KHAMMOUAN prov., Nakai env., 17°43'N 105°09'E, 500-600 m a.s.l., 22.v.-8.vi.2001, E. Jendek & O. Šauša leg., 1 ♂ 3 ♀♀ (ZKDC). **THAILAND:** BANGKOK, Klong Tuey, 21.v.1958, P. Penchitra leg., 2 ♀♀ (BMNH); PHETCHABUN prov., 40 km N of Phetchabun, Lom Sak, ca 120 m a.s.l., viii.1987, W. Thielen leg., 1 ♂ (SMNS).

Distribution. Bangladesh, India (Uttaranchal, West Bengal), Thailand, Vietnam, Laos (KREKICH-STRASSOLDO 1928; KEJVAL 1998; UHMANN 1983 as *E. indica*). The records here are the first from Laos and Bangladesh.

Remarks. KREKICH-STRASSOLDO (1928) described *E. lunulata* after specimens from ‘Keri Forest, Sarda [river], Bengal’. The occurrence in Nepal (KEJVAL 1998, TELNOV 2003) is based on this type locality. However, the site is located on/near the India-Nepal border, and is more likely to occur on the Indian side in Lakhimpur-Kheri district in Uttaranchal.

Endomia quinquemaculata Uhmman, 1995

Material examined. **LAOS:** BORIKHAN prov., 20 km N of Muang Pakxan, Borikhan env., 16.-20.v.2003, O. Šafránek leg., 1 ♀ (ZKDC). **THAILAND:** MAE HONG SON prov., Soppong, 19°29'N 98.18'E, 750 m a.s.l., 13.v.1993, L. Bocák leg., 2 ♂♂ 1 ♀ (SMNS, ZKDC); the same data, but V. Kubáň leg., 2 ♂♂ 2 ♀♀ (SMNS); same locality, 26.v.-29.v.1999, P. Viktora leg., 2 ♂♂ (ZKDC); Huai Sua Tao, 19°19'N 97°59'E, 11.-17.v.1992, L. Dembický leg., 1 ♂ (ZKDC).

Distribution. Thailand (UHMANN 1995; KEJVAL 1998; TELNOV 1999, 2005). This is the first record from Laos.

Remarks. The specimens from Soppong, collected by L. Bocák (SMNS, ZKDC), bear exactly the same data as the holotype and are clearly topotypic. The specimens collected in Soppong by V. Kubáň (SMNS) originate most probably from the type locality as well, since V. Kubáň visited this place together with L. Bocák.

Endomia unifasciata unifasciata (Bonelli, 1807)

Material examined. **BULGARIA:** Simitli, 4.viii.1975, Z. Jindra leg., 1 ♀ (ZKDC); Kresna, sands of Struma river, 22.-31.vii.1982, L. Bocák leg., 5 ♂♂ 7 ♀♀ (ZKDC); same locality, 8.vii.1984, Kadlec & Voříšek leg., 1 ♂ (ZKDC); Sandanski, 16.v.1989, Mykyška leg., 1 ♀ (ZKDC). **FRANCE:** CORSE, Ponte Leccia, Asco river, 22.v.1992, J. Mertlík leg., 1 ♀ (ZKDC). **GREECE:** MACEDONIA, Leptokaria env., 0-200 m a.s.l., 9.-15.vi.1995, Fencí & Hosnedl leg., 1 ♂ (ZKDC); Macedonia, Amfipolis, 11.-30.vii.2004, Z. Kraus leg., 1 ♂ (ZKDC); PELOPONNESOS, Leftkro, 10.iv.1995, T. Kopecký leg., 3 ♂♂ 2 ♀♀ (TKHC, ZKDC). **IRAN:** FARs prov., 36 km E of Gav Bandi, Konardan, 27°09'N 53°20'E, 23.-24.iv.1977, locality no. 309, Exped. leg., 2 ♂♂ (NMPC); S-Iran, 15 km NE of Bandar Lengeh, Chah-kuh, 26°38'N 55°00'E, 25.-26.iv.1977, locality no. 313, Exped. leg., 1 ♂ 1 ♀ (NMPC); HORMOZGAN prov., Issin, 27°19'N 56°17'E, 28.iv.-6.v.1977, locality no. 320, Exped. leg., 1 ♂ 2 ♀♀ (NMPC); 6 km W of Genu, Bang-e Tang, 27°27'N 56°18'E, 400 m a.s.l., 7.-9.v.1977, locality no. 323, Exped. leg., 1 ♀ (NMPC); Bila'i, 26°30'N 57°07'E, 40 m a.s.l., 13.-14.v.1977, locality no. 329, Exped. leg., 10 ♂♂ 6 ♀♀ (NMPC, ZKDC); 28 km NWN Bila'i, Ziarat, 27°41'N 57°05'E, 14.-15.v.1977, locality no. 330, Exped. leg., 3 ♂♂ (NMPC); KERMAN prov., 7 km W of Kahkom, 28°12'N 55°46'E, 28.v.1973, locality no. 215, Exped. leg., 3 ♂♂ 2 ♀♀ (NMPC); MAKHRAN prov., Minab, 27°09'N 57°05'E, 19-20.v.1973, locality no. 203, Exped. leg., 2 ♂♂ 4 ♀♀ (NMPC); SISTAN VA BALUCHESTAN, 68 km S of Rask, Bahukalat, 25°44'N 61°32'E, 3.-4.iv.1973, locality no. 147, Exped. leg., 1 ♂ (NMPC); Sarbaz env., Sarbaz river valley, 26°39'N 61°15'E, 1.-2.iv.1973, locality no. 145, Exped. leg., 1 ♂ 1 ♀ (NMPC); 13 km SSE of Nikshahr, Nikshahr river valley, 26°08'N 60°11'E, 8.-9.iv.1973, locality no. 152, Exped. leg., 1 ♀ (NMPC); Bampur, 17.-27.viii.1996, M. Kafka leg., 2 ♂♂ 2 ♀♀ (ZKDC); TEHRAN prov., Elburz Mts. East, Eyn Varzan, 2000 m a.s.l., 2.-3.viii.1970, locality no. 83, Exped. leg., 2 ♀♀ (NMPC, ZKDC). **MOROCCO:** 50 km S of Marakech, Asni env., 1150 m a.s.l., 26.iv.1990, Z. Kejval leg., 1 ♂ (ZKDC); Moyen Atlas, Errachidia env., 23.iv.1995, T. Lackner leg., 1 ♂ (ZKDC); High Atlas Mts., Mzouzite env., 2500 m a.s.l., 15.-17.v.2003, T. Kopecký leg., 2 ♀♀ (TKHC); SE-Morocco, 20 km S of Agdz, Tamnougalt, Draa river valley, 18.-21.v.2003, T. Kopecký leg., 1 ♀ (TKHC). **PAKISTAN:** BALUCHESTAN, Avaran, 4.-7.iv.1993, S. Bečvář leg., 2 ♀♀ (ZKDC); 90 km W of Turbat, Tump, 13.-15.iv.1993, S. Bečvář leg., 1 ♀ (ZKDC). **SPAIN:** Blanes env., Rio Tordera valley, 22.vii.1990, J. Strejček leg., 1 ♀ (ZKDC); NE-Espagne, Massanet, Riera de Sta. Colona, 30.vi.1997, P. Bulirsch leg., 1 ♂ (ZKDC). **TUNISIA:** S of Tabarka, Kadeira, Rannagha riv., 28.-29.iv.1997, T. Kopecký leg., 2 ♂♂ (TKHC, ZKDC). **TURKEY:** ADANA prov., Pozanti, near Adana, 17.-20.v.1995, T. Kopecký leg., 1 ♀ (TKHC); ANTALYA prov., E of Alanya, shores of Dim river, 5-500 m a.s.l., 27.-29.vii.1996, P. Bulirsch leg., 3 ♂♂ (ZKDC); HATAY prov., Karacay, Hatay env., Asi Nehri river valley, 6.-8.v.2005, Z. Malinka leg.,

1 ♀ (ZMOC); KAHRAMANMARAŞ prov., Süleymanlı, 15.ix.1996, A. Bezděk leg., 1 ♀ (ZKDC); SIVAS prov., Calti, Calti river, 21.-22.vii.1997, T. Kopecký leg., 1 ♂ 1 ♀ (TKHC). **TURKMENISTAN:** near Ashgabat, Janbash, Old Nisa env., 13.v.1991, Z. Kejval leg., 1 ♂ 1 ♀ (ZKDC).

Distribution. Albania, Bosnia Hercegovina, Bulgaria, Croatia, France, Greece, Italy, Macedonia, Montenegro, Portugal, Serbia, Spain, Switzerland; Algeria, Egypt, Libya, Morocco, Tunisia; Afghanistan, Azerbaijan, Cyprus, Iran, Israel, Lebanon, Pakistan, Saudi Arabia, Turkey, Turkmenistan, United Arab Emirates, Uzbekistan, Yemen (UHMANN et al., in prep.).

Remarks. *Endomia unifasciata unifasciata* varies conspicuously in its colouration and some morphological characters. The dark marking of elytra, usually forming a rather narrow transverse band in the posterior half, may be both reduced to a small spot on the suture or extended and covering most of elytral surface. The specimens from S-SE Iran and SW Pakistan (Baluchestan province) are remarkable not only by the strong tendency toward melanization, but differ also by the posteriorly rather narrowed head, larger eyes, and subapically somewhat less narrowed tegmen of aedeagus (dorsal view).

Stenidius cruciger LaFerté-Sénéctère, 1849

(Figs. 8-10)

Material examined. **CAMBODIA:** NW-Cambodia, Siem Reap, light trap, 7.-11.xi.2002, P. Kočárek leg., 9 ♂♂ 8 ♀♀ (ZKDC). **INDIA:** ORISSA, Ganjam distr., N of Berhampur [= Brahmapur], Kalasandrapur, sandy riverbank, 20.-21.ii.1994, Z. Kejval leg., 1 ♀ (ZKDC); KARNATAKA, Coorg distr., NE of Virajpet, 12°13'N 75°50'E, ca 500 m a.s.l., 4.-8.vi.1999, Z. Kejval & M. Trýzna leg., 5 ♂♂ 6 ♀♀ (ZKDC); Udupi distr., E of Bhatkal, Kollur, 26.-29.v.2006, Z. Kejval leg., 2 ♂♂ (ZKDC). **INDONESIA:** N-SUMATRA, Dolok-Merungir, lux, 1.x.-14.xi.1984, Kern leg., 3 ♂♂ 1 ♀ (ZMHB). **LAOS:** VIENTIANE prov., 35 km NE of Vientiane, Lao Pako, 200 m a.s.l., on light, 1.-4.v.2005, P. Kresl leg., 1 ♂ 1 ♀ (ZKDC). **MYANMAR:** 60 km NNE Yangon, 17°19'N 96°28'E (lux), 22.xi.2003, M. Hornburg leg., 1 ♂ (ZKDC); [Myanmar?], 'MUSEUM PRAG HINTER-JNDIEN Tenasserim? [sic], p] // Coll. Helfer [p] // *cruciger* det. v. Kreckich [p+h] 11 ♂♂ 19 ♀♀ (NMPC); [Myanmar?] '47509 [p] // Ind. or Helfer [h; yellowish label] // Hist.-Coll. (Coleoptera) Nr. 47509 *Stenidius cruciger* Laf. India or., Helf. Zool. Mus. Berlin [p; yellow label, black frame] 1 ♀ (ZMHB); same data, but lacking the 2nd label, the 1st label handwritten, 1 ♀ (ZMHB). **THAILAND:** CHIANG MAI prov., Fang env., 19°55'N 99°12'E, 300 m a.s.l., 25.v.1991, D. Král leg., 23 ♂♂ 14 ♀♀ (ZKDC); CHUMPHON prov., Pha To env., 9°48'N 98°47'E, 1.-11.v.1998, P. Průdek & R. Šigut leg., 3 ♂♂ 4 ♀♀ (ZKDC); same locality, but: 14.iv.1996, P. Průdek leg., 1 ♀ (ZKDC); same locality, but: 27.iii.-14.iv.1996, K. Majer leg., 1 ♂ 1 ♀ (ZKDC); KHON KAEN prov., Khon Kaen, lux, 25.v.1980, S. Saowakontha leg., 2 ♀♀ (ZMHB); MAE HONG SON prov., Ban Si Lang, 1200 m a.s.l., 1.-8.v.1992, J. Horák leg., 1 ♂ (ZKDC); Huai Sua Tao, 9°19'N 97°59'E, 17.v.1992, L. Dembický leg., 2 ♂♂ 1 ♀ (ZKDC); Suai Pu, 9°19'N 97°59'E, 18.v.1992, L. Dembický leg., 1 ♂ 1 ♀ (ZKDC); TAK prov., Umphang riv., 16°07'N 99°00'E, 1000 m a.s.l., 28.iv.-6.v.1991, V. Kubáň leg., 1 ♀ (ZKDC); UTHAI THANI prov., 25 km NW of Lan-Sak, 110 m a.s.l., ix.1990, 3 ♂♂ 14 ♀♀ (ZMHB).

Distribution. India (West Bengal) (UHMANN 1983), Thailand (UHMANN 1989 as *S. longitarsis*; UHMANN 1996, 2000), Vietnam (UHMANN 1994b; TELNOV 1998). Another record from India (West Bengal: Sukna) by UHMANN (1987) was based on a misidentified specimen of *Stenidius aulicus* (LaFerté-Sénéctère, 1849) (KEJVAL 2002). The first reliable records from Myanmar, Cambodia, Laos and Indonesia are presented here.

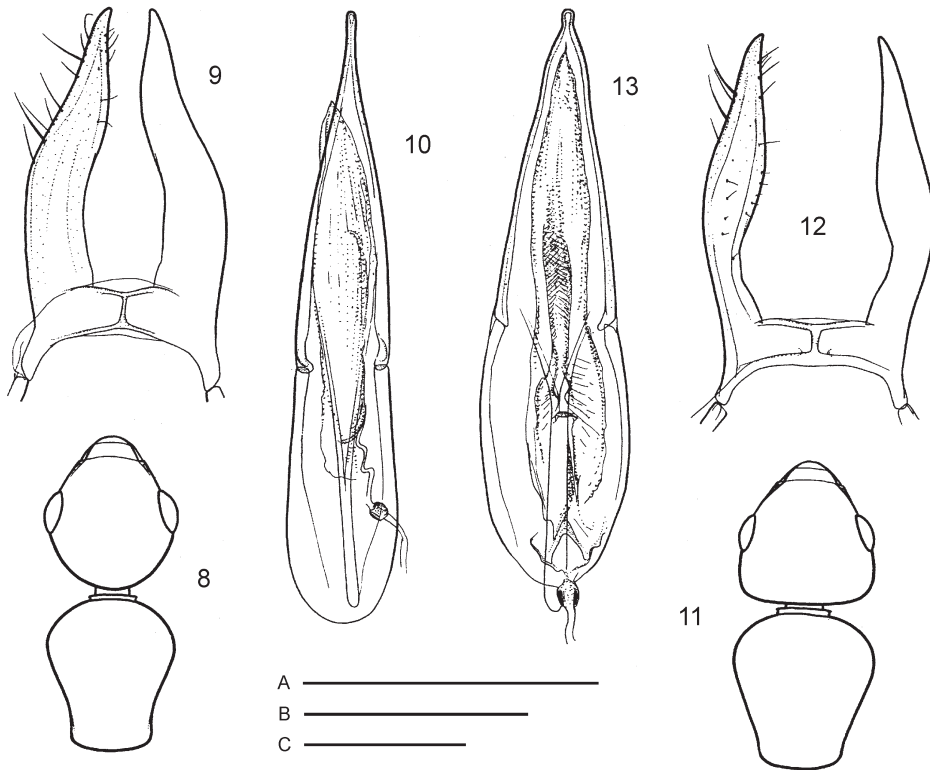
Remarks. LAFERTÉ-SÉNECTÈRE (1849a) described *S. cruciger* based on a series of specimens collected by J. V. Helfer in 'India Orientalis' (probably Tenasserim in southern Myanmar). For the reasons given by KEJVAL (1999), all specimens from the Helfer collection in NMPC listed above probably do not belong to the type series but can be regarded as topotypic.

***Stenidius peplifer* sp. nov.**

(Figs. 3, 11-13)

Type locality. India, Madhya Pradesh, ca 130 km SE of Bhopal, Pachmarhi env., 22°28'N 78°26'E.**Type material.** HOLOTYPE: ♂, 'INDIA, Madhya Pradesh, ca 130 km SE of Bhopal, PACHMARHI env., 22°28'N 78°26'E, ca 1050 m, 26.-29.vi.2006, Z. Kejval lgt.' (NMPC). PARATYPES: 8 ♂♂ 8 ♀♀, same data as holotype (ZKDC; 1 specimen each in BMNH, DCDC, HHNM, and NHMW).**Description** (male, holotype). Head brown black; pronotum rufous; elytra pale rufous brown, darkened laterally in apical third, with paired, rounded, brown-black spot dorso-laterally at about midlength (Fig. 3), not touching lateral margins; antennae, legs and palpi rufous, distal antennomeres rather brownish.

Head 1.2 times as long as wide, widely rounded to angulate posteriorly (Fig. 11); tempora parallel, their posterior angles prominent. Eyes small, at most moderately convex. Dorsal surface less glossy, smooth but very densely punctured; punctation distinct, evenly developed. Setation short, fine, appressed; erect setae absent or quite inconspicuous. Antennae slightly



Figs. 8-13. 8-10 – *Stenidius cruciger* LaFerté-Sénéctère, 1849, Thailand, Pha To (ZKDC). 8 – head and pronotum, outline in dorsal view; 9 – male sternite VIII; 10 – aedeagus in ventral view. 11-13 – *S. peplifer* sp. nov., holotype. 11 – head and pronotum, outline in dorsal view; 12 – male sternite VIII; 13 – aedeagus in ventral view. Scale = 0.2 mm: A – Figs. 9, 12; B – Figs. 10, 13. Scale = 0.5 mm: C – Figs. 8, 11.

enlarged in distal third; antennomere 10 as long as wide, antennomere 11 1.6 times as long as wide.

Pronotum 1.2 times as long as wide, as wide as head including eyes, widely rounded anteriorly in dorsal view, nearly straightly narrowing posteriorly, only very slightly impressed laterally before base in dorsal view. Pronotal disc rather evenly shaped, moderately convex, somewhat flattened in posterior half. Dorsal surface less glossy, densely, evenly punctured (as on head). Setation as on head.

Elytra elongate, 1.9 times as long as wide, conjointly rounded apically; humeri rounded, indistinct; postscutellar impression indistinct. Surface less glossy, densely punctured; punctation slightly finer than on head, especially posteriorly. Setation somewhat more conspicuous than on head, mostly pale, with whitish setae forming X-shaped marking, appressed, with a few, sparsely scattered, short, erect setae, especially subapically.

All legs simple; profemora normally developed (not swollen); protarsi somewhat stronger (if compared with female); penultimate tarsomere narrow, with terminal tarsomere articulated subapically in metatarsi. Setation very short, fine, appressed.

Abdominal sternum VII simple, evenly rounded posteriorly. Sternite VIII (Fig. 12); paired prongs simple, narrow, moderately sinuous, pointed apically, with several longer setae in apical third. Tergite VIII simple, evenly rounded posteriorly.

Aedeagus (Fig. 13); apical portion of tegmen 1.2 times as long as basal-piece, simple, somewhat sinuously narrowing subapically and terminating in short, narrow and rounded apex.

Female. Differing from male by slightly narrower protarsi.

Body length (♂♀). 1.8-2.2 mm (holotype 1.8 mm).

Variability. Insignificant.

Differential diagnosis. *Stenidius peplifer* sp. nov. is similar to *S. cruciger*, *S. signatus* (Pic, 1922), and *S. saigonensis* (Pic, 1921) in sharing a similar, slender body form and the same colouration and setation of elytra (paired dark spots, X-shaped marking of whitish setae). It differs from the widespread and probably sympatric *S. cruciger* by the widely rounded base of head and posteriorly less narrowed pronotum (head nearly evenly rounded, sometimes slightly angulately produced postero-medially in *S. cruciger*; cf. Figs. 8, 11), prongs of sternite VIII distinctly narrowed in basal half (wider and rather parallel-sided in *S. cruciger*; cf. Figs. 9, 12) and apex of tegmen terminating in a short, narrow apex (tegmen evenly narrowing and with a long, narrow apex in *S. cruciger*; cf. Figs. 10, 13). *Stenidius signatus* shares these distinguishing external characters with *S. cruciger* and displays another conspicuous differences in male sternite VIII and tegmen; for their description see KEJVAL (2002). *Stenidius saigonensis* is unknown to me. However, based on Pic's description (PIC 1921), mainly with respect to the form of head: 'tête moins grosse, rétrécie et arquée derrière les yeux' [= head less large, narrowed and arcuate posteriorly to eyes], this species is close to or even identical with *S. cruciger*.

Etymology. From Latin *peplum* (= brightly embroidered garment) and *ferre* (= carry, wear); named in reference to the brightly coloured body.

Bionomics. Unknown. The type specimens were collected near the shore of a small empty artificial lake on a stream flowing through the town centre. They were running on the ground as I looked closely through the plant debris beneath sparse small bushes, and were found

together with *Anthelephila consul* (LaFerté-Sénéctère, 1849), *A. barbipes* (Krekich-Strassoldo, 1931), and several other species of Anthicidae.

Distribution. India (Madhya Pradesh).

Acknowledgements

My sincere thanks are due to Maxwell V. Barclay (BMNH), Lech Borowiec (DBET), Josef Jelínek and Jiří Hájek (NMPC), Tomáš Kopecký (Hradec Králové, Czech Republic), Sergey Kurbatov and Sergey Murzin (Moscow, Russia), Zdeněk Malinka (Opava, Czech Republic), Ottó Merkl (HNHM), Wolfgang Schawaller (SMNS), Manfred Uhlig and Bernd Jäger (ZMHB), and Jiří C. Vávra (Ostrava, Czech Republic), either for the loan of specimens in their care or their help with loan arrangements, to Petr Kment (NMPC), Donald S. Chandler (Durham, New Hampshire, U.S.A) and Vladimír Švihla (NMPC) for valuable comments on the manuscript of this paper, and to David S. Boukal (Bergen, Norway) for corrections of my English.

References

- BONADONA P. 1986: Anthicidae (Coleoptera) de Sri Lanka. *Entomologica Scandinavica, Supplement* **30**: 55-75.
- BONADONA P. 1989: Anthicidae (Coleoptera) nouveaux des collections du Muséum d'histoire naturelle de Genève. *Revue Suisse de Zoologie* **96**: 253-276.
- HOBERLANDT L. 1974: Results of the Czechoslovak-Iranian Entomological Expedition to Iran 1970. No. 1: Introduction. *Acta Entomologica Musei Nationalis Pragae, Supplementum* **6**: 9-20.
- HOBERLANDT L. 1981: Results of the Czechoslovak-Iranian Entomological Expeditions to Iran. Introduction to the Second expedition 1973. *Acta Entomologica Musei Nationalis Pragae* **40**: 5-32.
- HOBERLANDT L. 1983: Results of the Czechoslovak-Iranian Entomological Expeditions to Iran. Introduction to the Third expedition 1977. *Acta Entomologica Musei Nationalis Pragae* **41**: 5-24.
- KEJVAL Z. 1998: Review of Oriental and some Palaearctic species of the genus *Endomia* (Coleoptera: Anthicidae). *European Journal of Entomology* **95**: 99-131.
- KEJVAL Z. 1999: Revisional notes on Oriental Formicomus La Ferte-Sénéctère, 1848 (Coleoptera: Anthicidae). *Annalen des Naturhistorischen Museum Wien* **101B**: 309-347.
- KEJVAL Z. 2002: Contribution to the knowledge of the genus *Stenidius* (Coleoptera: Anthicidae). *Klapalekiana* **38**: 185-212.
- KEJVAL Z. 2004: New species and records of *Stenidius* LaFerté-Sénéctère, 1847 (Coleoptera, Anthicidae). *Acta Musei Moraviae, Scientiae Biologicae* **89**: 105-116.
- KEJVAL Z. 2006: Two new species of *Stenidius* (Coleoptera: Anthicidae) from India and Laos. *Acta Entomologica Musei Nationalis Pragae* **46**: 127-132.
- KREKICH-STRASSOLDO H. VON 1928: Beiträge zur Kenntnis indischer Anthiciden. *Archiv für Naturgeschichte A* **92(5)** (1926): 67-105.
- LAFERTÉ-SÉNÉCTÈRE F. T. DE 1849a: Anthicus, Troisième Division. Livraison 8, No. 29. Pp. 85-132, 1 pl. In: GUÉRIN-MÉNEVILLE F.-E. (ed.): *Species et iconographie générique des Animaux Articulés ou représentation des genres, avec leur description et celle de toutes les espèces de cette grande division du règne animal. Première Partie: Insectes Coléoptères*. Fain et Thunot, Paris.
- LAFERTÉ-SÉNÉCTÈRE F. T. DE 1849b: Ochthenomus. Livraison 9, No. 31, 9 pp., 1 pl. In: GUÉRIN-MÉNEVILLE F.-E. (ed.): *Species et iconographie générique des Animaux Articulés ou représentation des genres, avec leur description et celle de toutes les espèces de cette grande division du règne animal. Première Partie: Insectes Coléoptères*. Fain et Thunot, Paris.
- MOTSCHULSKY M. V. DE 1863: Essai d'un catalogue des insectes de l'île Ceylan. *Bulletin de la Société Impériale des Naturalistes de Moscou* **36(2)**: 421-453.

- PIC M. 1894: Anthicidae du Bengale. *Annales de la Société Entomologique de Belgique* **38**: 181-184.
- PIC M. 1921: Coléoptères nouveaux des Collections du Muséum. *Bulletin du Muséum d'Histoire Naturelle de Paris* **27**: 338-340.
- PIC M. 1929: Nouveautés diverses. *Mélanges Exotico-entomologiques* **53**: 1-36.
- TELNOV D. 1998: Anthicidae (Coleoptera) der Sammlung Sergej Kurbatov, mit Beschreibung von sechs neuen Arten aus der Orientalis. *Bulletin et Annales de la Société Royale Belge d'Entomologie* **134**: 81-100.
- TELNOV D. 1999: Weitere Anthicidae verschiedener Regionen aus dem Zoologischen Museum Kopenhagen (Insecta Coleoptera). *Bulletin de la Société Royale Belge d'Entomologie* **135**: 72-81.
- TELNOV D. 2001: Zur Kenntnis asiatischer Anthicidae (Coleoptera), II. *Entomologische Zeitschrift* **111**: 182-186.
- TELNOV D. 2003. Trictenotomidae und Anthicidae (Insecta: Coleoptera) des Himalayas und angrenzender Regionen, Teil I. Systematik, Faunistik, Zoogeographie. Pp. 279-303. In: HARTMAN M. & BAUMBACH H. (eds.): *Biodiversität und Naturlandschaft im Himalaya*. Verein der Freunde und Förderer des Naturkundemuseums, Erfurt e. V., 389 pp + 16 pls.
- TELNOV D. 2005: Anthicidae (Coleoptera) aus der Sammlung des Naturhistorischen Museums in Basel. Teil II: Bemerkwerte und neue Notoxini, Endomiini und Anthicini (Anthicinae) aus der paläarktischen und orientalischen Region. *Entomologica Basiliensia et Collectionis Frey* **27**: 161-180.
- UHMANN G. 1983: Anthiciden der orientalischen Region (Coleoptera, Anthicidae). *Annales Historico-Naturales Musei Nationalis Hungarici* **75**: 185-206.
- UHMANN G. 1987: Anthiciden der orientalischen Region aus dem Museum in Genf (Coleoptera, Anthicidae). *Revue Suisse de Zoologie* **94**: 687-701.
- UHMANN G. 1989: Anthicidae (Coleoptera der orientalischen Region aus dem Naturhistorischen Museum in Genf, II. *Revue Suisse de Zoologie* **96**: 243-252.
- UHMANN G. 1993: Anthicidae aus Sibirien und der Orientalischen Region (Insecta: Coleoptera). *Reichenbachia* **30**: 51-55.
- UHMANN G. 1994a: Die von Rudolf Schuh in Asien gefundenen Anthiciden (Insecta, Coleoptera, Anthicidae). *Entomofauna* **15**: 405-416.
- UHMANN G. 1994b: Südasiatische Anthiciden aus dem Naturhistorischen Museum in Genf, 4 (Coleoptera Anthicidae). *Revue Suisse de Zoologie* **101**: 655-676.
- UHMANN G. 1995: Neue Anthicidae aus Irian Jaya und Thailand (Coleoptera). *Entomologische Zeitschrift* **105**: 492-496.
- UHMANN G. 1996: Anthiciden aus dem Naturhistorischen Museum in Wien (Coleoptera, Anthicidae). *Entomologische Blätter* **92**: 19-36.
- UHMANN G. 2000: Anthicidae (Coleoptera) aus verschiedenen Regionen. *Annales Historico-Naturales Musei Nationalis Hungarici* **92**: 145-160.
- UHMANN G., CHANDLER D. S., NARDI G. & TELNOV D. (in prep.): Anthicidae. In: LÖBL I. & SMETANA A. (eds.): *The Catalogue of Palaearctic Coleoptera. Vol. 5*. Apollo Books, Stenstrup.
- WERNER F. G. & CHANDLER D. S. 1995: *Anthicidae (Insecta: Coleoptera). Fauna of New Zealand 34*. Manaaki Whenua Press, Lincoln, 59 pp.

