

## NEW TAXA OF LYCIDAE FROM INDONESIA, CHINA AND NEPAL (COLEOPTERA)

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Received September 10, 1999; accepted October 20, 1999

**Key words:** *Taxonomy, Lycidae, new genus, new species, new combination, Oriental region, Australian region*

### Abstract

A new genus *Chinotaphes* gen. n. with new species *Chinotaphes weibaoshanensis* sp. n. from the tribe Erotini is proposed. Following species are classified in the genus *Lobatang* Bocák, 1998: *Lobatang flavohumeralis* sp. n. is described from Japen island, Indonesia and *Lobatang dubitabilis* (Kleine, 1925), comb. n. (Philippines) is transferred from the genus *Leptotrichalus* Kleine, 1925. *Microtrichalus suturalis* sp. n., *Melaneros jageri* sp. n. and *Melaneros annapurnensis* sp. n. are described from New Guinea and Nepal, respectively. Important diagnostic characters are illustrated and differential diagnoses are given.

### Introduction

The recent study of further material of Lycidae from new expeditions and museum collections yielded additional new species from the Oriental region and Papuan subregion. The fauna of these regions is extremely rich and at least concerning Lycidae surprisingly poorly known. Old materials represented in museums were collected mostly in coastal areas at lower elevations and new collecting trips are mostly directed to the mountains due to large scale devastation on lower elevation forests. The new materials often substantially differ from older ones and many yet unknown taxa are represented within them.

## Material and Methods

Male genitalia were examined digesting away nonchitinous tissues in 10 per cent KOH boiled for 3 to 5 minutes. Female genitalia were treated in the same way and then stained in the glycerin solution of chlorazol black. Male genitalia and other selected diagnostic characters were designed using eyes piece grid. Sclerotized structures were mounted in DMHF medium on labels accompanying specimen studied, membranous parts of female internal genitalia were placed in glycerin vials attached to the appropriate dry mounted specimen.

Depositories:

LMBC – Authors' collection, Department of Zoology, Faculty of Sciences UP, Olomouc, Czech Republic

SMNS – Staatliches Museum für Naturkunde, Stuttgart, Germany

SMTD – Staatliches Museum für Tierkunde, Dresden, Germany

ZMPA – Muzeum Zoologii PAN, Warszawa, Poland

## Taxonomy

### Subfamily Erotinae

#### *Chinotaphes* gen. n.

Type species: *Chinotaphes weibaoshanensis* sp. n. (hereby designated).

Differential diagnosis: The genus *Chinotaphes* shares the shape of pronotal median areola with the genus *Taphes*, nevertheless it bears several mutual characters with Erotini as the shape of antennal segments 2 and 3 and male genitalia and therefore it is classified within tribe Erotini together with *Dictyoptera* Mulsant, *Pyropterus* Mulsant and *Benibotarus* Kono. It seems to be related to the genus *Pyropterus* Mulsant, 1838, from which it differs in the presence of secondary elytral costae, in having only 3 primary costae on each elytron, and particularly in the shape of apical portions of paramerae.

Name derivation: The name refers to the similarity to the genus *Taphes* Waterhouse, 1878 and to the type locality.

Description: See description of *Chinotaphes weibaoshanensis* sp. n.

#### *Chinotaphes weibaoshanensis* sp. n.

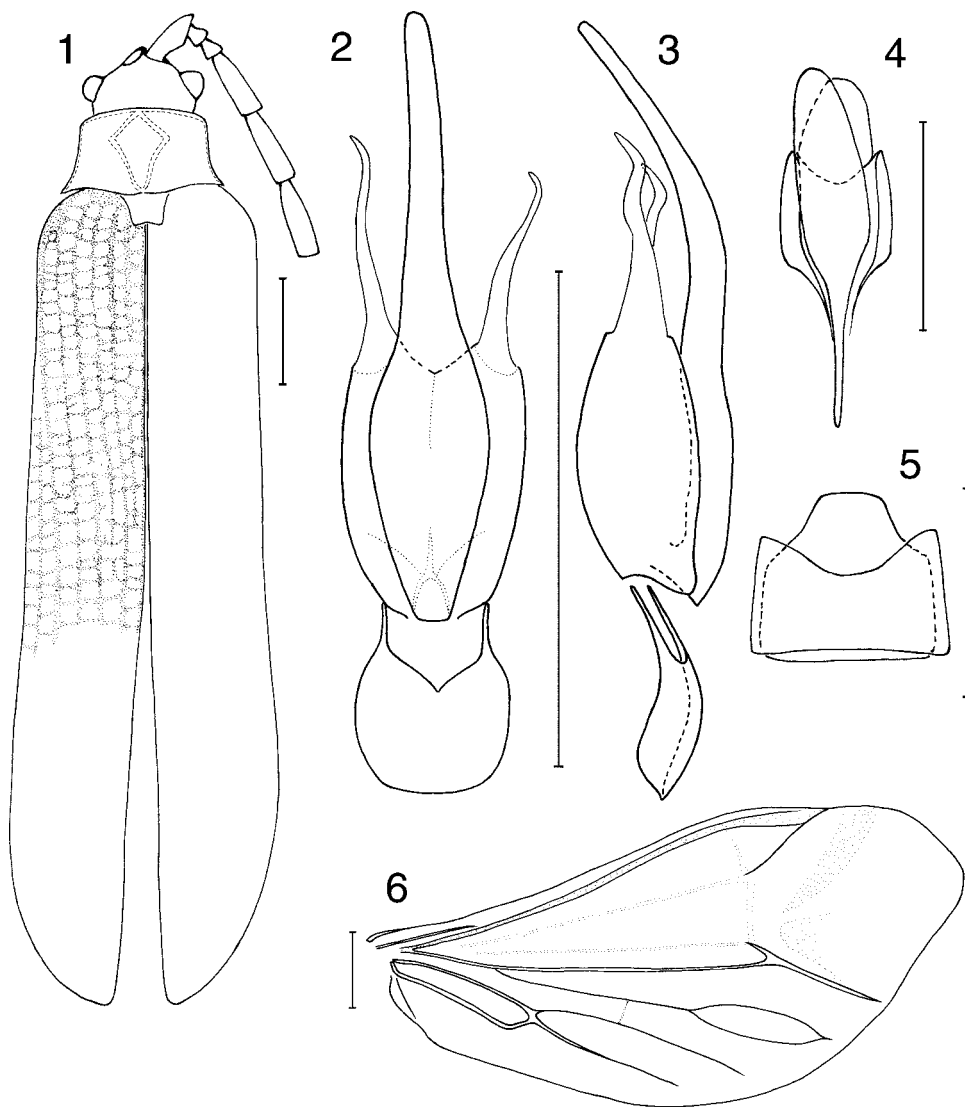
Figs 1–6

Type material: Holotype: Male, China, Yunnan, Weibaoshan, 25.12N, 100.24E, 2800–3000 m, 29–30. VI. 1992 (LMBC).

Name derivation: The specific name refers to the type locality.

Differential diagnosis: *Ch. weibaoshanensis* sp. n. is the only member of this easily recognizable genus and additionally it is very characteristic in for this group unusual body coloration.

Description. ♂. Body medium-sized, dark brown to black, only humeral regions of elytra as well as basal quarter of humeral costae orange red. Head with small eyes,



**Figs 1–6:** *Chinotaphes weibaoshanensis* sp. n.: 1 – general appearance; 2, 3 – male genitalia, 4, 5 – terminal abdominal segments; 6 – wing venation

interocular distance twice longer than eye diameter in lateral view. Antennae reaching over elytral midlength, segment 1 stout, 2 and 3 very small (Fig. 1) and of the same length each other. Maxillary palpi slender, their terminal segments apically pointed. Pronotum transverse, anterior angles rounded, lateral margins emarginate. Posterior angles acute, strongly projected laterally. Pronotum with median areola similar to that

of *Taphes* (Fig. 1), but lateral carinae connecting median areola to lateral margins missing. Scutellum large, weakly emarginate distally. Elytra narrow, 3.6 times longer than humeral width. Each elytron only with 3 primary and 4 secondary costae in basal half (Fig. 1), primary costa 1 (next to the suture) reduced in posterior half and therefore, only 2 primary and 3 secondary costae present here. Reticulate cells rather weak, sometimes irregular. Sternum 8 apically emarginate, tergum 8 provided with apical projection (Fig. 5). Male genitalia with phallus widened in proximal half (Fig. 2), paramerae as long as half of phallus, each of them provided with membranous distal projection. Female unknown.

Measurements: body length: 4.05 mm, humeral width: 0.98 mm.

Distribution: China, Yunnan province.

### Subfamily Metriorrhynchinae

#### Genus *Lobatang* Bocák, 1998

##### *Lobatang flavohumeralis* sp. n.

Figs 7, 10, 12

Type material: Holotype, Male, "Irian Jaya, Japen: Serui Mantembo > Ambaidiru 7.-9. 9. 1991, 700–1150 m, leg. A. Riedel" (SMNS).

Name derivation: Named according to the pale coloration of the basal part of elytra.

Differential diagnosis: *Lobatang flavohumeralis* sp. n. is externally very similar to *L. papuensis* Bocák, 1999, which is known from New Guinea. *L. flavohumeralis* sp. n. differs in slightly more yellow light part of elytra and slenderer and longer phallus, which enables sure identification (Fig. 7). These species are closely related and the vicariance of their ranges is very probable.

Description: Male. Body medium sized, moderately slender, dorsoventrally flattened, whole body dark brown to black, only basal half of elytra light yellow to ochre. Head small, partly concealed by pronotum, including eyes as wide as frontal margin of pronotum, without rostrum, with mouthparts directed downward, antennal tubercles well developed, robust, followed by deep transverse depression behind them, eyes relatively large, hemispherically prominent, interocular distance 1.22 times longer than maximum eye diameter. Clypeus widely concave, mandibles short, only slightly curved, frontal margin of labrum simply rounded, palpi slender, apical segment nearly parallel sided, longer than wide, obliquely cut at apex. Antennae surpassing two thirds of elytral length, slightly serrate, considerably flattened, antennal segment 1 pear-like, segment 2 very short, partly hidden in segment 1, segments 3–10 nearly parallel-sided, gradually tapering to apex (Fig. 10), segment 11 simple, slender, four times longer than wide. Cranium shining, covered with dense, short, brownish pubescence. Antennae mat, covered with dense short pubescence. Pronotum flat, anterior angles obtuse, slightly rounded, posterior ones slightly projected, all margins elevated, lateral ones very apparently. Pronotal disc with only one longitudinal central areola, attached directly to the basal margin and connected to frontal one through short weak keel

(Fig. 12), disc slightly shining, but densely pubescent in middle part, punctured at frontal and lateral margins. Pronotum 1.37 times wider than long at midline. Scutellum parallel-sided, longer than wide, slightly depressed in middle, widely emarginate at apex. Elytra parallel to slightly widened posteriorly, each elytron with four longitudinal primary costae at humeri, costa 1 reaching one fourth of elytral length, costae 3 and 4 reaching independently elytral apex, costa 2 connected with costa 3 shortly before apex of elytra, costa 2 slightly weaker in apical half, costae 3 and 4 stout in whole length, secondary costae well developed, transverse costae apparent, dense, elytral cells transverse. Whole elytra with very short fine pubescence. Legs slender, compressed, trochanters slender, slightly triangular. Male genitalia with slender open phallus, only at base closed, internal sac slender (Fig. 7). Female unknown.

Measures: Male, holotype: length of body 8.75 mm, width at humeri 2.06, length of pronotum 1.22, width of pronotum 1.67 mm, interocular distance 0.62 mm, maximum diameter of eyes 0.51 mm

Distribution: Indonesia, Japen Island.

Remark: *L. flavohumeralis* sp. n. would be identified as *L. papuensis* using sooner published key of the genus *Lobatang* (Bocák, 1998). The differential diagnosis given above should be used for distinguishing of these species.

***Lobatang dubitabilis* (Kleine, 1925), comb. n.**

Figs 8, 13

*Leptotrichalus dubitabilis* Kleine, 1925: 302.

Material examined: Holotype, male, “Island Sibuyan, Baker” (ZMPA).

Remark: *L. dubitabilis* is transferred to the genus *Lobatang* on the basis of the male genitalia structure. The difference in the shape of pronotum between genera *Lobatang* and *Leptotrichalus* is very apparent comparing Sumatran or Philippine *Leptotrichalus* and Sulawesian or Papuan species of the genus *Lobatang*. But the differences are much less conspicuous on Philippines, where *L. dubitabilis* is very common as well as many species of the genus *Leptotrichalus*. They are engaged in the same mimicry complex and the convergence was found not only in the coloration but also in the shape of pronotum.

*L. dubitabilis* is the only representatives of the genus in the Philippines and it differs from congeneric species from other areas in whole elytra yellow.

**Genus *Microtrichalus* Pic, 1921**

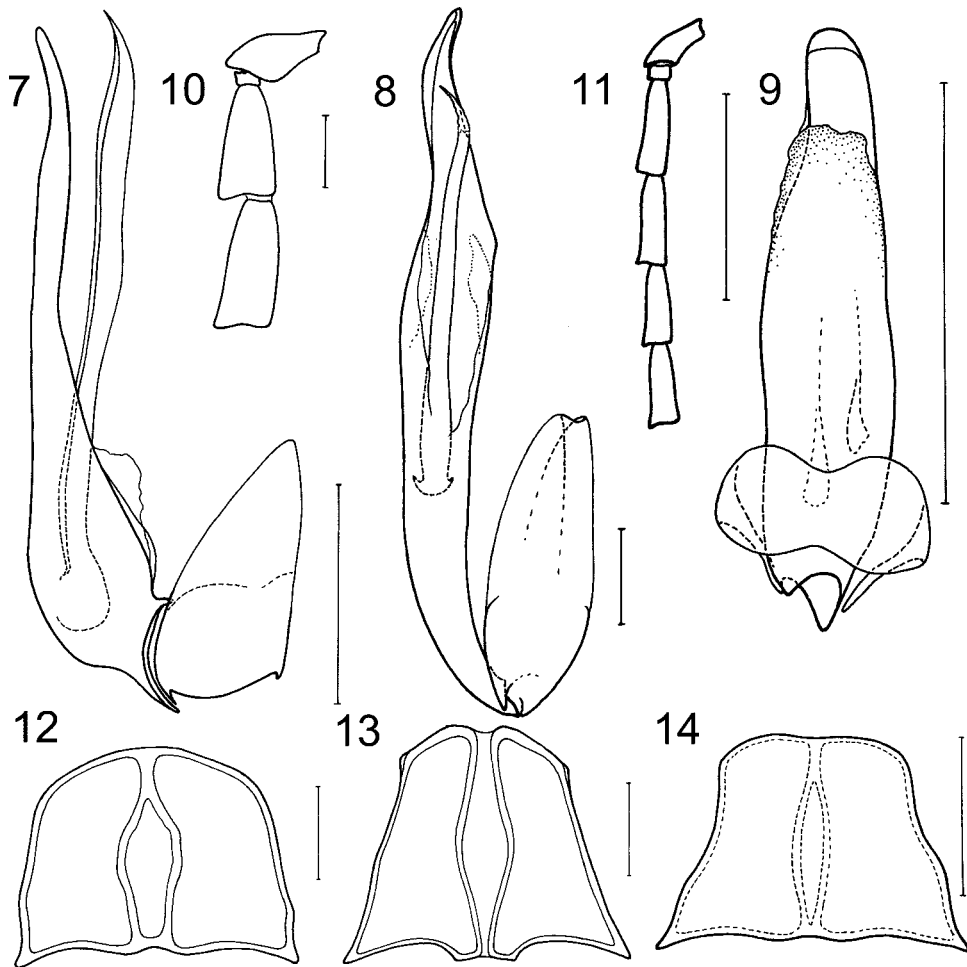
***Microtrichalus suturalis* sp. n.**

Figs 9, 11, 14

Type material: Holotype, male, “Irian Jaya, Jayawijaya Prov., Wamena, Pronggoli, 2000–2400 m, 17.–19. 9. 1991” (SMNS). Paratypes: 2 males, 2 females, same locality data; 1 xxm, Irian Jaya, Baliem Distr., Pass valley, 15.–16. 9. 1990, leg. S. Riedel (SMNS, LMBC).

Name derivation: The specific name refers to the dark colored elytral suture.

Differential diagnosis: *Microtrichalus suturalis* sp. n. is very characteristic in body coloration and it has also unusually short and wide phallus (Fig. 9). This species



**Figs 7–14:** Male genitalia: 7 – *Lobatang flavohumeralis* sp. n., 8 – *Lobatang dubitabilis* (Kleine), 9 – *Microtrichalus suturalis* sp. n.; Basal segments of male antenna: 10 – *Lobatang flavohumeralis* sp. n., 11 – *Microtrichalus suturalis* sp. n.; Pronotum: 12 – *Lobatang flavohumeralis* sp. n., 13 – *Lobatang dubitabilis* (Kleine), 14 – *Microtrichalus suturalis* sp. n.

resembles externally one not yet described species from the genus *Diatrichalus* Kleine, 1926 from the same region.

Although male genitalia, shape of pronotum and shortened primary costa one show the close relationship to the genus *Microtrichalus*, female genitalia do not have two principal apomorphies known for *Microtrichalus*: unpaired slim gland in the basal part of vagina and two lateral pockets in the middle part of vagina. The absence of these apomorphies shows the basal position in relation to the other members of

*Microtrichalus*. At present, I do not know any closely related species to *M. suturalis* sp. n. and no reliable apomorphy is available for distinguishing of a new generic taxon, therefore I classify *M. suturalis* sp. n. provisionally in the genus *Microtrichalus*.

Description: Male. Body small, slender, flat, very softly sclerotized, elytra nearly parallel-sided, body dark brown to black, mouthparts, lateral margins of pronotum, trochanters, bases of femora, elytral humeri and lateral part of basal part of elytra yellow, clypeus sometimes light brown. Head small, including eyes a bit wider than frontal margin of pronotum, antennal tubercles small, narrow, but well apparent, with deep transverse depression behind them, frons shining, covered by sparse pubescence. Eyes relatively small, but hemispherically prominent, their frontal distance 1.12–1.18 times bigger than their maximum lateral diameter. Clypeus flat to concave, its frontal margin widely emarginate, labrum small, occupying about one half of clypeal width, palpi slender, apical segment of labial palpi acutely pointed. Mandibles stout, their apical part considerably curved. Antennae slender, strongly compressed, serrate (Fig. 11), reaching over elytral two thirds, serrate, gradually tapering to apex. Pronotum flat, trapezoidal, widest at basal margin, 1.42–1.56 times wider at base than long at midline, lateral margins nearly straight, without very weak lateral tubercles, lateral margins only slightly elevated, posterior angles acutely projected. Median areola occupying basal two thirds to three fourths of pronotal midline only, regularly connected with frontal margin by weak costa (Fig. 14). Elytra flat, weakly widened in apical thirds, three primary costae developed in whole length, transversal and secondary longitudinal costae much weaker than primary ones, irregular and very often interrupted. Legs slender, long, compressed. Male genitalia quite robust and short, basal thorns apparently sclerotized in basal part only (Fig. 9). Female. Vagina broad, without lateral pockets and unpaired slim gland.

Measurements: Length 5.10–6.20 mm, width at humeri 0.97–1.20 mm, holotype: length of pronotum 0.61 mm, width of pronotum 0.95 mm, distance of eyes 0.35 mm, maximum interocular distance 0.30 mm.

Distribution: New Guinea, Wamena region.

## Subfamily Platerodinae

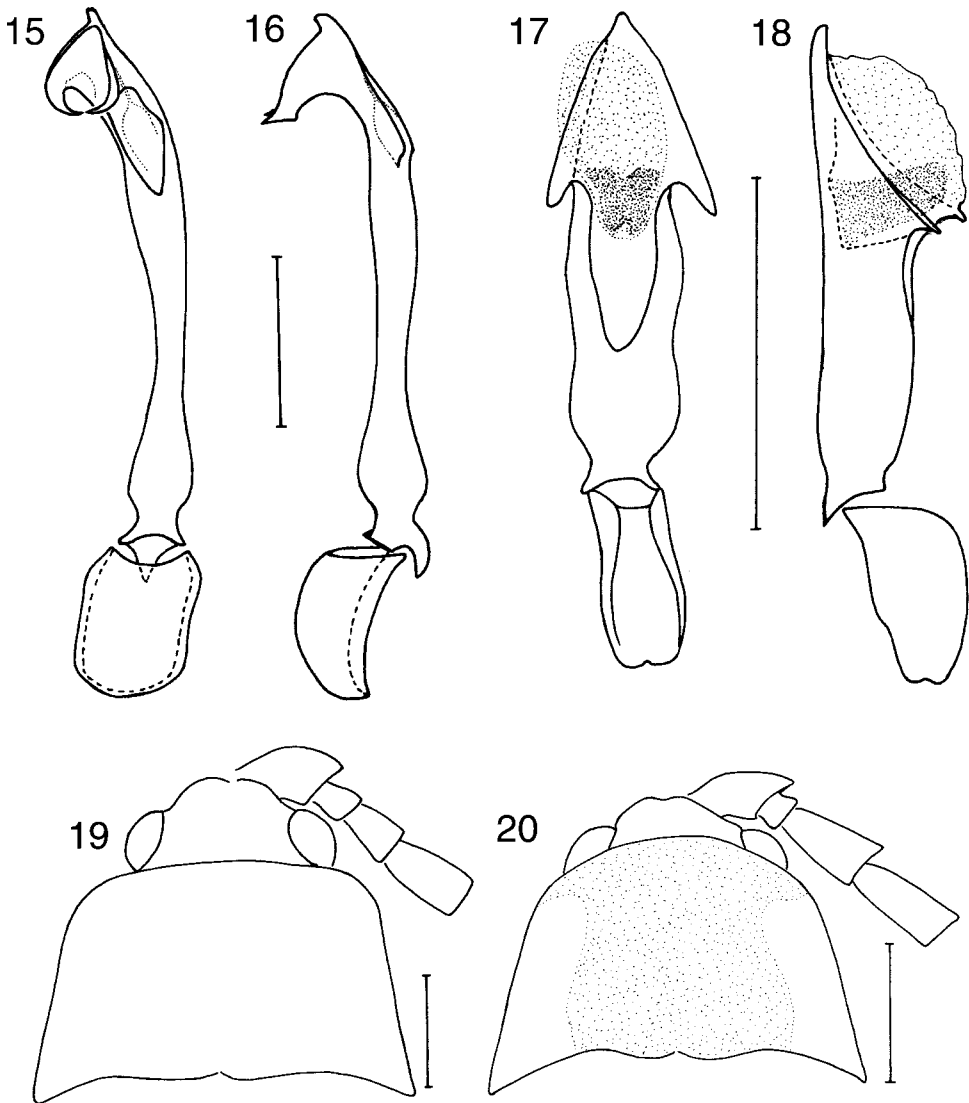
### Genus *Melaneros* Fairmaire, 1877

#### *Melaneros jageri* sp. n.

Type material: Holotype: Male, Nepal, Annapurna Mts., N Pokhara, Garlang, 1500 m, 25. VII. 1995, leg. O. Jäger (SMTD). Paratypes: 4 female, the same data 1 female, Annapurna Mts., Marsyandi-vall., Syange, 1100 m, 25. viii. 1995, leg. O. Jäger (SMTD, LMBC).

Name derivation: Named in honour of the collector.

Differential diagnosis: This species differs from all known *Melaneros* species in the shape of aedeagus, which is extremely short, provided with lateral projections in apical third.



**Figs 15–20:** Male genitalia: 15, 16 – *Melaneros annapurnensis* sp. n.; 17, 18 – *Melaneros jageri* sp. n.; Head and pronotum: 19 – *Melaneros annapurnensis* sp. n.; 20 – *Melaneros jageri* sp. n.

**Description:** Male. Body entirely black, only pronotum with orange-red lateral belts (Fig. 20). Head with small eyes, interocular distance 1.6 times longer than eye diameter, antennae filiform, reaching over elytral midlength, mandibles arcuate. Pronotum trapezoidal, transverse, widest at basal margin, sides elevated, posterior



angles acute (Fig. 20). Scutellum with a shallow arcuate apical notch. Elytra elongate, subparallel-sided, only weakly widened posteriorly, 3 times longer than humeral width, primary costa 4 elevated in humeral portion. Reticulate cells irregular. Legs rather slender, compressed, tibiae straight, their spurs small, slender. Male genitalia very short, each side of phallus provided with a lateral projection in apical third, distal orifice reaching basal third of phallus (Fig. 17, 18). Female: Antennae reaching basal  $\frac{2}{5}$  of elytra.

Measures: body length: 4.4–5.9 mm, humeral width: 1.2–1.6 mm.

Remark: Holotype, the only male in the type series, has strongly damaged elytra (nearly whole right elytron and posterior half of left elytron are missing).

### ***Melaneros annapurnensis* sp. n.**

Type material: Holotype: male, Nepal, Annapurna Mts., 15 km N-Pokhara, ober Chipli, 2500 m, 31. VII. 1995, leg. O. Jäger (SMTD). Paratypes: 1 female, the same data, 1 female, Annapurna Mts., Marsyandi-tal, Bagarchap, 2100 m, 22. VIII, 1995, leg. Jäger (LMBC, SMTD).

Name derivation: Named in reference to the type locality.

Differential diagnosis: It is related to *M. nepalensis* (Kasantsev, 1991) and even more closely to *M. manaliensis* Bocáková, 1997 from which it differs in the shape of ventro-distal projection of aedeagus.

Description: Male. Body black, only posterior  $\frac{1}{5}$  of elytra and at least  $\frac{3}{4}$  of elytral margins and suture red. Head with small eyes, interocular distance 1.7 times longer than eye diameter. Antennae reaching elytral midlength, segment 2 small, 3 shorter than 4 and only 1.5 times longer than 2, segment 4 is 1.6 times longer than 3 (Fig. 19). Pronotum with anterior margin slightly produced anteriorly (Fig. 19), lateral margins nearly straight. Elytra broad, widened backwards, primary costa 4 strongly elevated in humeral portion. Male genitalia stout (Fig. 15, 16), provided with a ventro-distal projection, apically pointed. Female: Antennae shorter than in male, reaching basal quarter of elytra.

Measures: body length: 6.5–6.8 mm, humeral width: 1.7–2.0 mm.

### **Acknowledgments**

We are very grateful to Dr. W. Schawaller (Stuttgart), Dr. O. Jäger (Dresden) and Mr. T. Huflejt (Warszawa) who enabled us to study the rich material deposited in their institutions. The study of Oriental Lycidae was partially supported by grant from Grant Agency of Czech Republic number 206/98/0539 (L. Bocák) and by a grant from the Ministry of Culture of the Czech Republic 97P01OMG79 (M. Bocáková). The support of both the institutions is gratefully acknowledged.

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Acta Univ. Palacki. Olomuc.  
Fac. rer. nat. (1999)  
Biol. 37, 47–56