Eur. J. Entomol. **95**: 417–428, 1998
ISSN 1210–5759

A revision of the genus *Microtrichalus* from the Philippines (Coleoptera: Lycidae)

LADISLAV BOCÁK

Department of Zoology, Palacký University, tř. Svobody 26, 771 46 Olomouc, Czech Republic;
e-mail: ladislav.bocak@upol.cz

Coleoptera, Lycidae, *Microtrichalus*, *Leptotrichalus*, revision, new synonymy, new species, new combinations, key, Philippines

Abstract. The species of the genus *Microtrichalus* Pic, 1921 represented in the Philippines are revised. Six species are placed in the genus; in addition to *M. basipennis* (Pic, 1926), two species are described as new (*M. retractus* sp. n. and *M. salvani* sp. n., both from Mindanao), and three species are transferred from the genus *Trichalus* Waterhouse, 1877: *M. bakeri* (Kleine, 1929) comb. n., *M. costilis* (Kleine, 1926) comb. n. and *M. communis* (Waterhouse, 1879) comb. n. A key to the six Philippine *Microtrichalus* species and illustrations of their important diagnostic characters are provided. *Trichalus nigricauda* Bourgeois, 1886 and *T. longicollis* Bourgeois, 1883 are transferred to the genus *Leptotrichalus* Kleine, 1925. *Leptotrichalus mindorosus* Pic, 1925 is proposed to be a junior subjective synonym of *Leptotrichalus longicollis* (Bourgeois, 1883).

INTRODUCTION

The Philippine fauna of Trichalinina needs a revision at the species level. Using results of the generic revision of this group (Bocák, in press a), the Philippine species which should be classified with *Microtrichalus* Pic, 1921 are revised here.

The Lycid fauna of the Philippine islands contains several groups of presumably Papuan origin. One of them is the genus *Microtrichalus* Pic, 1921, all members of which have been until now placed in different genera. The first Philippine lycids were placed in *Trichalus* by Bourgeois (1883, 1886). Their types were not studied later and they were cited with a question mark in the catalogue of world Lycidae by Kleine (1933). Having studied their types, I hereby transfer them to the genus *Leptotrichalus* Kleine, 1925. Two species hereby transferred to *Microtrichalus* were described as *Trichalus* by Kleine (1926, 1929). Further Philippine species described by Kleine in *Trichalus* have been recently transferred to the genus *Diatrichalus* Kleine, 1926 (Bocák, in press b). Therefore the genus *Trichalus* in fact does not occur in the Philippines. Recently the genus *Falsoenylus* Pic, 1926 (containing single species *F. basipennis*, Pic, 1926) was synonymized with *Microtrichalus* (Bocák, in press a). Two new species have been found in the unidentified material at my disposal and one widespread species is recorded from Palawan for the first time. The material studied is a result of the zoological expedition of the Field Museum of Natural History, Chicago to the Philippines in 1946–47 and of other recent collecting activity in the Mindanao. Consequently, altogether six Philippine species are here classified with *Microtrichalus* and their revision is the aim of the present article.

DEPOSITORIES. The following acronyms indicate depositories for specimens used in this study: FMNH – Field Museum of Natural History, Chicago; MNHN – National Museum of Natural History, Paris; SMNS – State Museum of Natural History, Stuttgart; ZMPA – Museum and Institute of Zoology, Polish

Academy of Sciences, Warszawa; LMBC – author's collection deposited in Department of Zoology, Palacký University, Olomouc.

Genus *Microtrichalus* Pic, 1921

Microtrichalus Pic, 1921: 9, hors texte.
TYPE SPECIES *M. singularis* Pic, 1921, by monotypy.

Falsoenylus Pic, 1926: 29, hors texte; synonymized by Bocák (in press a).
TYPE SPECIES *F. basipennis* Pic, 1926, by monotypy.

DIFFERENTIAL DIAGNOSIS. Pronotum with median areolet only, elytra with four primary costae at humeri, primary costa 1 considerably shortened, secondary costae present in all interspaces between primary costae. Maxillary palpi slender. Apex of phallus narrow, apical part of internal sac free, with two slightly curved spines at base. Membrane of phallobase never sclerotized or considerably pigmented. Vagina with lateral glands inserted dorsally, two lateral pockets present on vagina, spermatheca lemon-shaped.

REDESCRIPTION. Body small to medium-sized, flattened dorso-ventrally. Head small, partly concealed by pronotum, antennae inserted in frontal part of cranium on antennal tubercles. Mouth parts directed downwards, inserted on small short rostrum. Antennae 11 segmented, considerably flattened; segment 1 stout, segment 2 very small, partly hidden in apical part of segment 1, wider than long, segments 3–10 serrate, more acutely in male, segment 11 elliptic. Pronotum flat, rounded anteriorly, with more or less projected posterior angles, with lentil-shaped median areolet. Lateral margins usually elevated. Scutellum flat, apical margin regularly emarginate. Elytra flat, parallel-sided to more or less widened backwards, with strengthened lateral and sutural margin, four strong longitudinal costae present in basal part of elytra, costa 1 reaching at most one sixth of elytral length, costae 2 to 4 reaching at least five sixths of elytral length. Secondary costae developed in all interspaces, generally much weaker than primary ones, sometimes irregularly interrupted. Secondary and primary costae connected by small transverse costae (Fig. 16). Abdomen flat, with eight visible segments in male and seven segments in female. Male genitalia consist of phallus and phallobase only, parameres absent. Phallus slim, internal sac visible, partially pigmented, with two basal spines at base, sometimes two apically connected rods observable in apical part of internal sac. Phallobase ring-shaped, with hole covered with membrane. Female genitalia with well separated styli, coxites and valvifers, valvifers sometimes partly fused at base (Fig. 23). Vagina slim, with two lateral pockets and dorsally inserted lateral glands. Spermathecal duct of medium length, only slightly curved, spermatheca well marked, lemon-shaped, spermathecal gland y-shaped (Figs 17–20). Legs moderately strong to slim, always considerably flattened.

DISTRIBUTION. Most representatives of the genus *Microtrichalus* are known from the Australian region and within this region mostly from rain forests of the Papuan subregion. Some species occur in Moluccas, Lesser and Great Sundas. Several specimens belonging to unidentified species are known from Malaysia, southernmost Thailand and southern Vietnam. Most of the Philippine species are very similar to the Papuan members of this genus, only *M. communis* widely-distributed in South East Asia shows higher similarity to the Australian representatives.

BIOLOGY. Little information on the biology of *Microtrichalus* is available. The immature stages are unknown and all that is known about adults is that they are usually slowly

moving inhabitants of the lowest stratum of tropical rain forests. Only the widespread species *Microtrichalus communis* occurs in secondary habitats. This species was collected in grasslands not only in the Palawan island but also in the remaining parts of its range.

Key to males of the genus *Microtrichalus* from the Philippines

1 Diameter of eyes smaller than their frontal distance, apical part of labrum sometimes slightly emarginate 2
– Diameter of eyes bigger than their frontal distance, apical part of labrum always simply rounded ... 4
2 Prothorax and mesothorax yellow, basal part of elytra yellow, only apical quarter of elytra dark brown, the border between dark and light part of elytra rather sharp, aedeagus as in Fig. 6 ..... *Microtrichalus communis* (Waterhouse)
– Whole elytra dark brown or at most basal one tenth of elytra light 3
3 Whole body brown, frontal distance between eyes over 1.3 times their maximum diameter ..... *Microtrichalus retractus* sp. n.
– Pronotum, trochanters and bases of femora light yellow, frontal distance between eyes less than 1.2 times their maximum diameter ..... *Microtrichalus salvani* sp. n.
4 Whole elytra yellow 5
– Apical quarter of elytra dark brown to black, the transition between dark and light part of elytra gradual 6
5 Head yellow, over half of femora light yellow, remaining part of legs infuscate, light brown, meso- and metasternum yellow to light brown, maximum eye diameter 1.29 times longer than their distance ..... *Microtrichalus bakeri* (Kleine)
– Most part of cranium black, only antennal tubercles sometimes lighter, only basalmost parts of femora lighter, meso- and metasternum black, maximum eye diameter 1.18 times longer than their distance ..... *Microtrichalus basipennis* (Pic) (pale form)
6 Body slender, elytra 6.2 times longer than pronotum length in the middle, lateral margins of pronotum nearly straight (Fig. 30), legs long, slender, aedeagus as in Fig. 2 ..... *Microtrichalus basipennis* (Pic) (dark form)
– Body more robust, elytra 5.7 times longer than pronotum in the middle, lateral margins of pronotum with conspicuous tubercles (Fig. 32), legs moderately robust, aedeagus as in Fig. 3 ..... *Microtrichalus costilis* (Kleine)

NOTE. Single females are nearly impossible to identify due to the variability of body coloration.

Microtrichalus bakeri (Kleine, 1929), comb. n.

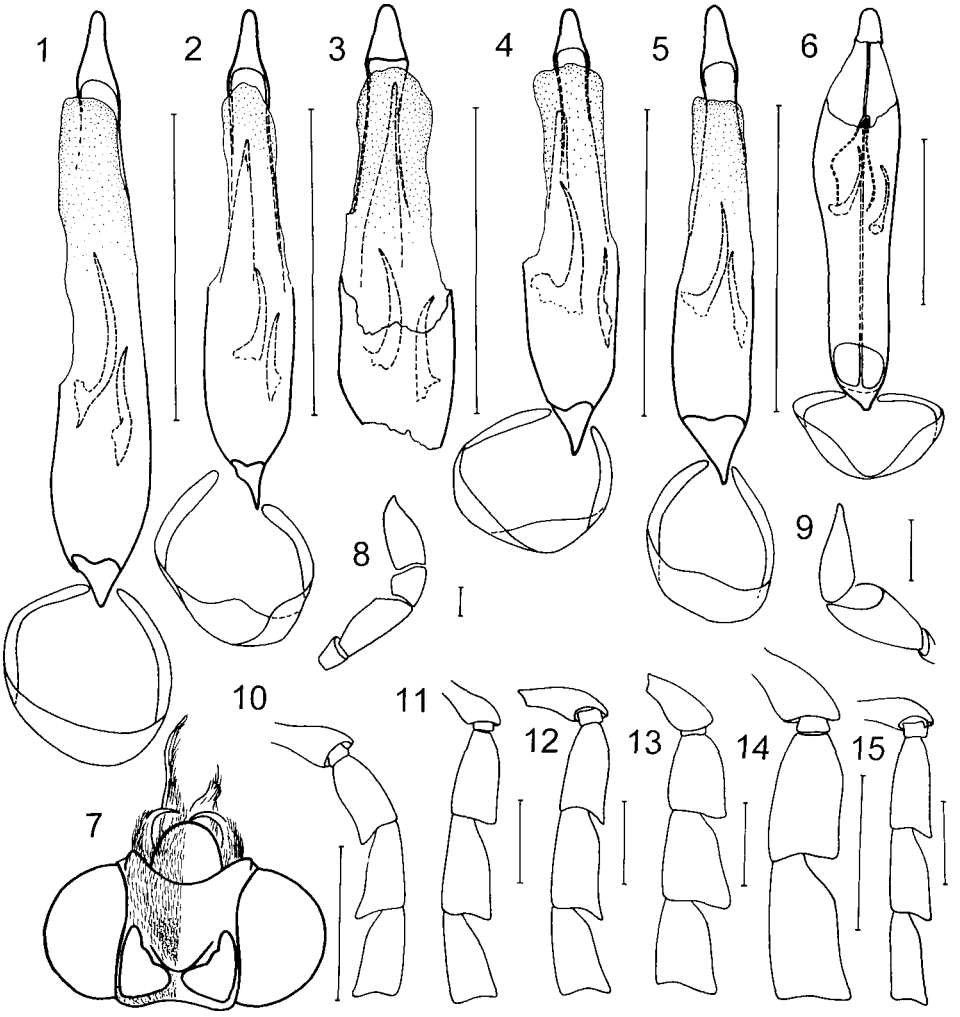
Trichalus bakeri Kleine, 1929: 479.

REDESCRIPTION

MALE. Body small, slender, flat, very soft, elytra nearly parallel-sided, body light yellow, only abdomen brown. Antennae and apical parts of tibiae and tarsi slightly infuscate. Head small, including eyes a bit wider than frontal margin of pronotum, antennal tubercles small, with deep transverse depression behind them. Eyes large, hemispherically prominent, 1.29 times bigger than their minimum frontal distance. 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. Antennae surpass elytral midlength, strongly compressed, serrate, gradually tapering to apex (Fig. 14). Pronotum trapezoidal, flat, widest at basal margin, lateral margins nearly straight, without lateral tubercles, only slightly elevated. Median areola occupying basal two thirds of pronotal

midline only, connected with frontal margin by weak inconspicuous costa (Fig. 31). Elytra flat, slightly widened backwards, 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 slender, basal spines well pigmented and sclerotized (Fig. 4).

FEMALE. Ovipositor as figured (Fig. 26). Vagina broad, with quite long lateral pockets (Fig. 18).



Figs 1–15. 1–6: Male genitalia. 1 – *Microtrichalus retractus* sp. n.; 2 – *M. basipennis*; 3 – *M. costilis*; 4 – *M. bakeri*; 5 – *M. salvani* sp. n.; 6 – *M. communis*. 7 – head of *M. costilis*; 8 – maxillary palpus of *M. communis*; 9 – labial palpus of *M. communis*. 10–15: Basal antennal segments of male. 10 – *M. costilis*; 11 – *M. salvani* sp. n.; 12 – *M. basipennis*; 13 – *M. communis*; 14 – *M. bakeri*; 15 – *M. retractus* sp. n. Scales: 1–7, 10–15 – 0.5 mm; 8–9 – 0.1 mm.

MEASUREMENTS. Length 5.35–7.15 mm, width at humeri 1.26–1.92 mm, length of pronotum 0.73–0.99 mm, width of pronotum 1.08–1.62 mm, distance of eyes in male 0.32 mm, maximum diameter of eyes in male 0.42 mm.

DIFFERENTIAL DIAGNOSIS. *Microtrichalus bakeri* differs from other representatives of the genus in the Philippines in body coloration and the extraordinarily big eyes of the male. This species has been known from the type series only.

TYPE MATERIAL: Holotype ♂, "Island of Basilan, Baker", Type No. 906 (ZMPA). Allotype and paratype: Same locality data, Types Nos 907 and 908 (ZMPA).

DISTRIBUTION. Basilan Island.

Microtrichalus basipennis (Pic, 1926)

Falsoenylus basipennis Pic, 1926: 30.
Microtrichalus basipennis (Pic, 1926): Bocák (in press a).

REDESCRIPTION

MALE. Body medium-sized, slender, nearly parallel-sided (Fig. 16), black, pronotum and elytra yellow or partly infuscated; scutellum, trochanters, bases of femora, prosternum and antennal tubercles lighter than the rest of dark colored body parts. Head small, including eyes slightly wider than frontal margin of pronotum. Eyes large, hemispherically prominent, 1.18 times larger than their minimum dorsal distance. Clypeus widely emarginate, labrum wide, occupying over half of clypeal margin. Maxillary palpi slender, long, labial palpi with apical segment pointed. Antennae slightly reaching over middle of elytra, slightly serrate, strongly compressed (Fig. 12). Pronotum trapezoidal, widest at basal margin, lateral margins distinctly elevated, without or only with weak tubercles at basal third, nearly straight, frontal margin at most slightly projected forward. Median areola occupying basal two thirds of longitudinal midline, connected with frontal margin by distinct longitudinal costa (Fig. 30). Scutellum flat, widely emarginate. Elytra with three complete longitudinal primary costae (costae 2–4), costa 1 short, reaching about one sixth of elytral length, secondary costae very weak, nearly interrupted at some places. Legs very slender, long, strongly compressed. Male genitalia slender, internal sac with tiny rods (Fig. 2).

FEMALE. Ovipositor with fused valvifers (Fig. 23). Spermatheca small (Fig. 21).

MEASUREMENTS. Length 6.6–8.3 mm, width at humeri 1.40–1.91 mm, length of pronotum 0.80–0.90 mm, width of pronotum 1.16–1.40 mm, distance of eyes in male 0.41 mm, maximum diameter of eyes in male 0.48 mm.

REMARKS. *M. bakeri* is the other Philippine *Microtrichalus* species with light yellow pronotum and elytra. The light yellow specimens of *M. basipennis* differ in dark brown substantial part of cranium, black antennae and legs (except bases) and dark brown meso- and metasternum. Minor differences were found in the structure of the internal sacs and female genitalia of these species (Figs 2, 4 and 18, 21). The specimens with the infuscated apical part of elytra and pronotum are not similar to any known *Microtrichalus* species from the Philippines. *Microtrichalus costilis* differs by the shape of body, much stouter legs and coloration of thorax.

VARIABILITY. Altogether 14 specimens were examined, two of them had the apical half of elytra and disc of pronotum infuscated, the remaining specimens had the elytra yellow and only one of them had a very narrow lateral margin in apical half of elytra very slightly

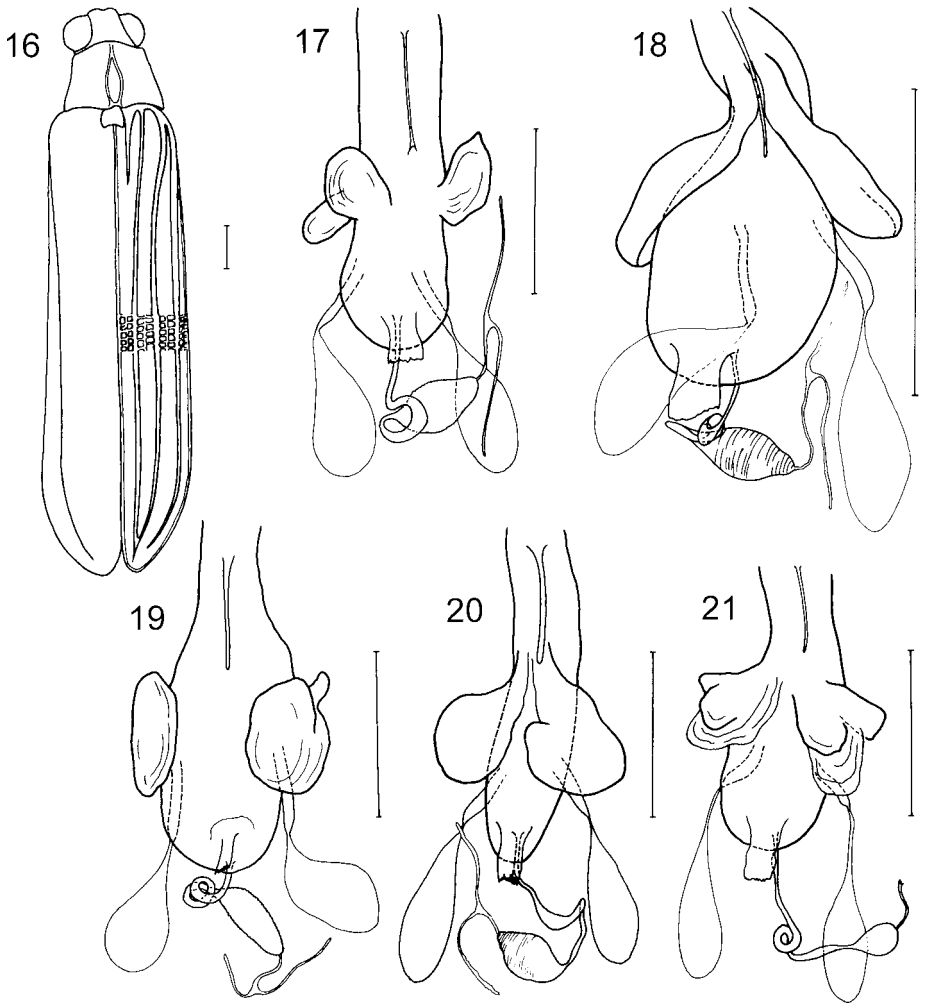
darker than the rest; this specimen also had a much darker pronotum (as in the specimens with the dark apical part of elytra).

TYPE MATERIAL: Holotype ♀, "Baguio, Luzon" (MNHN).

OTHER MATERIAL EXAMINED: 7♂, 6♀, "Philippines, Mindanao, 30 km W of Maramag, 1600 m, 28.–30. 12. 1990, Bolm lgt." (LMBC).

DISTRIBUTION. Luzon, Mindanao.

BIOLOGY. *M. basipennis* occurs in mountain tropical forests of the Philippines. The specimens collected in central Mindanao were swept in the lowest stratum of the forest and beaten from the moist dead leaves of ferns.



Figs 16–21. 16 – *Microtrichalus basipennis*; dorsal view. 17–21: Female genitalia. 17 – *M. salvani* sp. n.; 18 – *M. bakeri*; 19 – *M. retractus* sp. n.; 20 – *M. communis*; 21 – *M. basipennis*. Scales: 0.5 mm.

Microtrichalus retractus sp. n.

DESCRIPTION

MALE. Body medium-sized, flat, slightly widened posteriorly, brown. Head small, covered with sparse lighter pubescence, including eyes approximately as wide as frontal margin of pronotum, eyes small, widely separated in upper part of head, distance between them 1.36 times longer than maximum eye diameter, antennal tubercles flat, less prominent, depression behind them shallow, clypeus flat, widely emarginate, labrum much narrower than frontal margin of clypeus, maxillary palpi slender, apical segment parallel-sided, apical segment of labial palpi pointed. Antennae surpassing midlength of elytra, strongly compressed, segments 3–10 nearly parallel-sided, very weakly serrate (Fig. 15). Pronotum trapezoidal, much wider at basal margin than anteriorly, basal margin nearly straight, lateral margins with weak lateral tubercles, frontal margin slightly projected forward. Median areola moderately wide, occupying basal two thirds of pronotal midline, attached to frontal margin by a distinct costa (Fig. 33). Scutellum depressed in middle, slightly emarginate at apex, apical projections rounded. Elytra widest in apical fifth, flat, primary costa 1 reaching one sixth of elytral length, costae 2 and 4 equal in strength, costae 2 and 3 join each other before apex, secondary costae very weak. Legs moderately long and very slender, compressed. Internal sac without apparent structures, basal spines well developed (Fig. 1).

FEMALE. Ovipositor with slender, simple coxites and styli widest in apical third (Fig. 25). Female genitalia as figured (Fig. 19).

MEASUREMENTS. Length 5.8–10.3 mm, width at humeri 1.43–2.10 mm, length of pronotum 0.76–0.98 mm, width of pronotum 1.24–1.74 mm, distance of eyes in male 0.48 mm, maximum diameter of eyes in male 0.35 mm.

DIFFERENTIAL DIAGNOSIS. *M. retractus* is the only known Philippine species with completely brown body. Moreover, male has much smaller eyes than other species in the region. Species with similar body coloration live in Sumatra, Malaysia and Indochina. They differ in the shape of pronotum, the size of eyes and minute differences are also in the male and female genitalia.

TYPE MATERIAL: Holotype ♂, "Mindanao, Lake Linau, N slope Mt. Apo, Davao Prov. xi-1-1946, Elev. 7900 ft., mossy forest, CMHN – Philippine Zool. Exped. (1946–47), F.G. Werner leg." (FMNH). Paratype ♀, same locality data (FMNH).

ETYMOLOGY. The name *retractus* means distant in Latin, referring to the isolated position of this species among the Philippine representatives of the genus *Microtrichalus*.

DISTRIBUTION. Southern Mindanao.

Microtrichalus salvani sp. n.

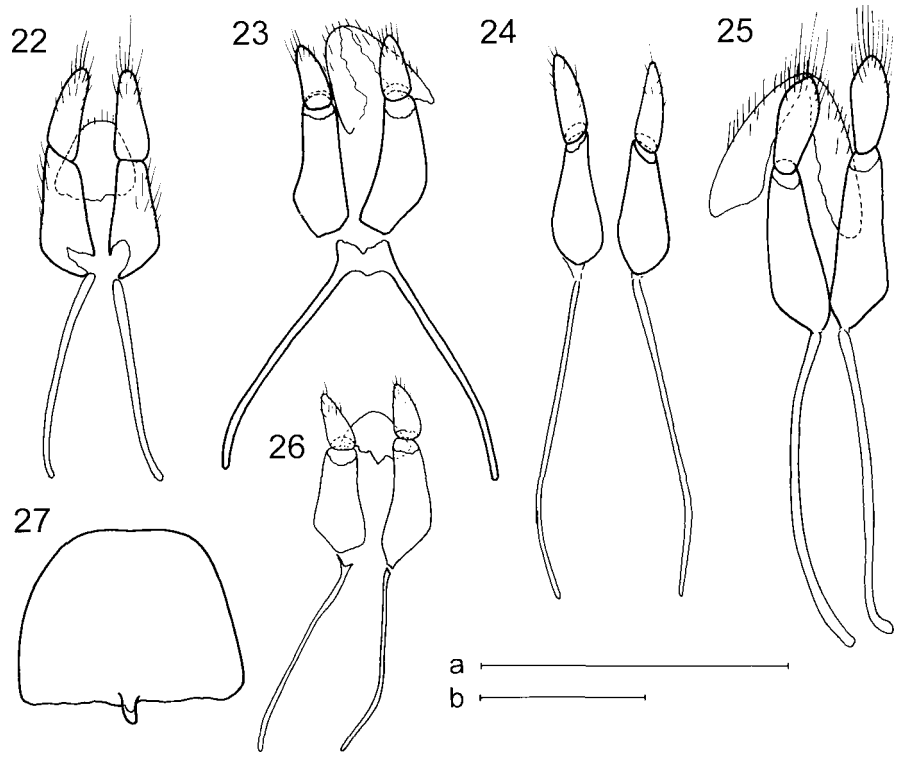
DESCRIPTION

MALE. Body small to medium-sized, flat, parallel-sided to slightly widened backward, brown; pronotum, trochanters and basalmost parts of femora light yellow, prosternum and sometimes mesosternum lighter, scutellum at least partly light brown. Elytra with humeri slightly lighter than remaining area. Head small, covered with sparse light pubescence, eyes relatively small, their frontal distance 1.16 times longer than maximum diameter, antennal tubercles moderately prominent, frontal depression shallow. Antennae serrate,

strongly compressed (Fig. 11). Clypeus emarginate, labrum distinctly narrower than clypeus, apical part of clypeus emarginate. Maxillary palpi slender, apical segment approximately parallel-sided, apical segment of labial palpi pointed. Pronotum trapezoidal, only moderately narrower at frontal margin than at base, posterior angles acutely projected, lateral margins nearly straight, tubercles weak (Fig. 28). Scutellum shallowly depressed in middle, widely emarginate at apex. Elytra slightly widened backward, widest in apical fifth. Primary costa 1 reaches one sixth of elytral length, primary costae 2–4 equal in strength, costae 2 and 3 join each other before apex. Secondary costae very weak, in some places lacking. Legs moderately long, very slender, compressed. Male genitalia with simple internal sac, without any special structures (Fig. 5).

FEMALE. Coxites emarginate at bases (Fig. 22). Female genitalia with slender vagina (Fig. 17).

MEASUREMENTS. Length 6.25–8.65 mm, width at humeri 1.43–1.96 mm, length of pronotum 0.84–1.18 mm, width of pronotum 1.12–1.23 mm, distance of eyes in male 0.46 mm, maximum diameter of eyes in male 0.40 mm.



Figs 22–27. 22–26: Ovipositor. 22 – *Microtrichalus salvani* sp. n.; 23 – *M. basipennis*; 24 – *M. communis*; 25 – *M. retractus* sp. n.; 26 – *M. bakeri*; 27 – female sternum 8 of *M. salvani* sp. n. Scales: 0.5 mm. Scale a for Figs 22–26; b for Fig. 27.

DIFFERENTIAL DIAGNOSIS. The only similar species in coloration in the Philippine islands is *M. costilis*. The extent of lighter humeral part of the elytra in *M. salvani* is negligible, but the lighter elytral part in *M. costilis* occupies nearly whole basal half. Besides, these species differ in the relative size of eyes, the latter being much larger in *M. costilis*.

TYPE MATERIAL: Holotype ♂, "Philippines, Mindanao, 30 km W of Maramag, 1600 m, 28.–30. Dec. 1990, Bolm lgt." (LMBC). Paratypes: 2♂, same locality data (LMBC); 1♂, 2♀, "Mindanao, Davao Province, E slope Mt McKinley, elev. 3300 m, ix. 24. 46, CMHN – Philippine Zool. Exped. (1946–47), H. Hoogstraal" (FMNH).

ETYMOLOGY. The name "*salvani*" is a patronym in honor of Mr. Eugene V. Salvan from Bagong Silang (Mindanao).

DISTRIBUTION. Central Mindanao.

Microtrichalus costilis (Kleine, 1926), comb. n.

Trichalus costilis Kleine, 1926: 108; 1929: 484.

REDESCRIPTION

MALE. Body small, but not very slender, head, metasternum, abdomen, apical half of elytra, most part of legs and antennae piceous dark brown, remaining part of body yellow. Head including eyes slightly wider than frontal pronotal margin, partly hidden by pronotum, antennal tubercles moderately prominent, lighter than rest of cranium, frontal depression present, eyes large, hemispherically prominent, 1.16 times bigger than frontal distance between them. Clypeus flat to concave, widely emarginate, labrum small, narrow (Fig. 7), maxillary palpi short, small. Labial palpi slender, apical segment acutely pointed. Antennae reaching to elytral midlength, strongly compressed, acutely serrate (Fig. 10). Pronotum widest at basal margin, posterior angles slightly projected, lateral margins with weak tubercles, frontal margin projecting forward. Median areola nearly reaching frontal margin, attached to it by a very short costa (Fig. 32). Scutellum flat, narrowly but deeply emarginate at apex. Elytra nearly parallel-sided, costa 1 reaching one seventh of elytral length, other costae stout, equal in strength, costae 2 and 3 joined before apex. Transversal and secondary longitudinal costae well developed, longitudinal costae continuous, without any interruption. Legs very strongly compressed, moderately long. Male genitalia with very slender longitudinal rods inside internal sac. Basal spines well developed (Fig. 3). Aedeagus of holotype was damaged probably by R. Kleine and its basal part is missing. Female unknown.

MEASUREMENTS. Length 6.2 mm, width at humeri 1.69 mm, length of pronotum 0.94 mm, width of pronotum 1.39 mm, distance of eyes in male 0.42 mm, maximum diameter of eyes in male 0.49 mm.

DIFFERENTIAL DIAGNOSIS. *M. costilis* resembles in many characters the following species *M. communis* (coloration of thorax, shape of elytral costae, forwardly projecting frontal margin of pronotum and shape of legs and antennae). However, the eyes of *M. costilis* are relatively much larger and in the holotype the extent of dark apical parts of elytra is much greater and the border between dark and light parts of elytra is more gradual. Moreover, the elytral suture is darker than discal infuscate elytron in *M. costilis* whereas it is lighter in *M. communis*. These patterns were found to be stable in species of the genus *Microtrichalus*. Specimens collected in Luzon differ from the holotype from Mindanao in the much smaller extent of the dark part of elytra and lighter metathorax. The shape of male

genitalia shows closer relationship of *M. costilis* to the other Philippine species than to *M. communis* (Figs 1–6).

TYPE MATERIAL: Holotype ♂, " Tangeolan, Bukidnon, Baker" (central Mindanao) (ZMPA).

OTHER MATERIAL EXAMINED: 1♂, Philippines, "Luzon, Quezon N. P., Lucena, 8.–10. Jan 1991, 250 m, Bolm. lgt." (LMBC); 1♂, "Luzon, Lagunas, Mt. Makiling, abov. Mad Springs, 400–700 m, degrad. rain forest, 19.–22. xi. 1995, J. Kodada lgt." (LMBC).

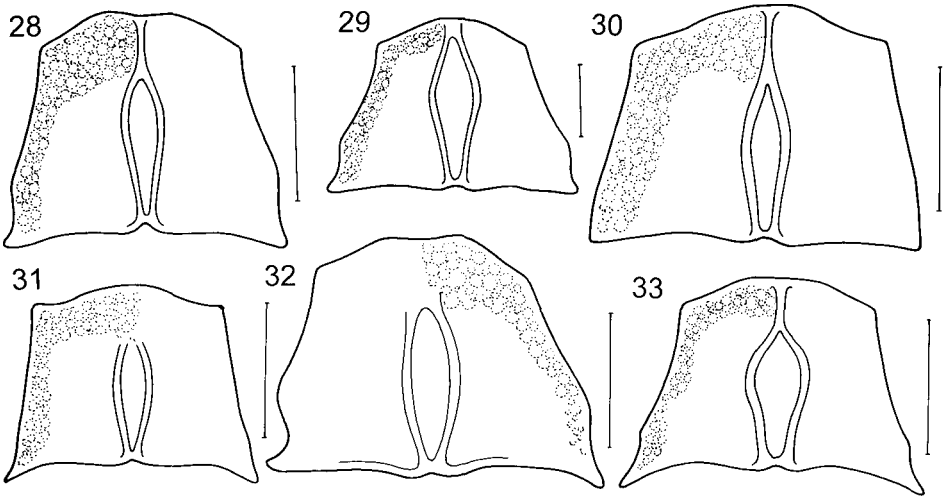
DISTRIBUTION. Luzon, Mindanao.

Microtrichalus communis (Waterhouse, 1879), comb. n.

Trichalus communis Waterhouse, 1879: 71.

REDESCRIPTION

MALE. Medium-sized, flat, slightly widened backward, body piceous brown to black, prothorax and mesothorax lighter brown, pronotum, scutellum and elytra except apical fifth yellow. Head small, partly hidden by pronotum, slightly shining, covered with sparse pubescence, antennal tubercles distinct, clypeus widely and quite deeply emarginate, labrum occupying seven tenths of width of clypeal frontal margin. Mandibles short, stout, maxilla with long lacinia, maxillary palpi slender, labial palpi short, apical segment acutely pointed (Figs 8, 9). Antennae reach slightly over elytral midlength, serrate, strongly compressed (Fig. 13). Pronotum flat, trapezoidal, widest at basal margin, median areola attached directly to both frontal and basal margins, lateral tubercles at basal third, weak (Fig. 29). Scutellum flat, approximately as wide as long, widely emarginate at apex. Elytra widest at apical fifth, with three costae developed along whole length, costa 1 occupies basal fifth of elytral length. Costae 2 and 3 join each other before apex. All primary costae of equal strength, much stouter than secondary ones. Legs very strongly compressed, moderately long. Male genitalia with well developed spines and rods of internal sac, phallus tubular, internal sac retracted into phallus, unpigmented. Phallus dorsally with conspicuous keel (Fig. 6).



Figs 28–33: Pronotum. 28 – *Microtrichalus salvani* sp. n.; 29 – *M. communis*; 30 – *M. basipennis*; 31 – *M. bakeri*; 32 – *M. costilis*; 33 – *M. retractus* sp. n. Scales: 0.5 mm.

FEMALE. Genitalia with slender vagina (Fig. 20). Ovipositor very slender, with long valvifers and styli (Fig. 24).

MEASUREMENTS. Length 6.3–7.8 mm, width at humeri 1.40–2.07 mm, length of pronotum 0.94–1.15 mm, width of pronotum 1.37–1.72 mm, distance of eyes in male 0.62 mm, maximum diameter of eyes in male 0.49 mm (male measurements from a specimen collected in Java, Indonesia).

MATERIAL EXAMINED: 1 ♀, Philippines, Palawan I., Cleopatra Needle N. P. Tanabank Riv. valley, 300 m, 20.–22. 12. 1990, Bolm lgt.; 1 ♀, Palawan I. Bahile, 10 m, 25. 12. 1990, Bolm lgt. (LMBC).

DISTRIBUTION. *M. communis* is a widespread and quite common lycid species in southeast Asia. Here it is recorded for the first time from Palawan, which belongs to the Philippines, but its fauna is zoogeographically closely related to the fauna of Borneo.

Philippine species transferred from *Trichalus* to *Leptotrichalus*

Leptotrichalus nigricauda (Bourgeois, 1886), comb. n.

Trichalus nigricauda Bourgeois, 1886: 181.

TYPE MATERIAL: Holotype ♂, "I. Philipp.", no further data (coll. Bourgeois, MNHN).

Leptotrichalus longicollis (Bourgeois, 1883), comb. n.

Trichalus longicollis Bourgeois, 1883: 646.
Trichalus mindorosus Pic, 1925: 10, syn. n.
Leptotrichalus mindorosus (Pic, 1925): Kleine, 1933: 76.

TYPE MATERIAL: Holotype of *T. longicollis* Bourgeois, ♂, "Manille, M. R. Belg." (MNHN); holotype of *T. mindorosus* Pic, ♂, "Margarin, Mindoro" (MNHN).

The genera with shortened elytral primary costa 1 were revised by Bocák (in press a). The subtribe Trichalinina was restricted to the genera with dorsally attached accessory vaginal glands and uniform characteristic male genitalia (Figs 1–6). The genus *Microtrichalus* belongs to this subtribe. *Leptotrichalus* does not and it is at present classified with Metriorrhynchini incertae sedis. *Leptotrichalus* has laterally inserted vaginal glands, different male genitalia and conspicuously prolonged pronotum. Both species given above are transferred to the genus *Leptotrichalus* on the basis of these characters. Kleine had not seen their types and they were hereby studied for the first time since the original description. *Leptotrichalus mindorosus* (Pic, 1925) is proposed to be a junior subjective synonym of *L. longicollis* (Bourgeois, 1883).

ACKNOWLEDGEMENTS. I would like to express my sincere thanks to J.J. Ménier (MNHN, Paris), A.F. Newton, Jr. (FMNH, Chicago), W. Schawaller (SMNS, Stuttgart) and S.A. Ślipiński (ZMPA, Warszawa) for the loans of the material necessary for this study.

REFERENCES

BOCÁK L. (in press a): A generic revision and phylogenetic analysis of the subtribe Trichalinina (Coleoptera, Lycidae, Metriorrhynchini). *Acta Soc. Zool. Bohem.*

BOCÁK L. (in press b): A revision of the genus Diatrichalus Kleine from the Philippines (Coleoptera, Lycidae). *Raffl. Bull. Zool.*

BOURGEOIS M.J. 1883: Lycides nouveaux ou peu connus. *Ann. Mus. Civ. Stor. Nat. Genova* **43**: 646.

BOURGEOIS M.J. 1886: Descriptions d'espèces nouvelles (1). *Ann. Soc. Entomol. Fr.* **6**(6): 181–182.

KLEINE R. 1926: Die Lyciden der Philippinen-Inseln. *Philipp. J. Science* **1926**: 33–114.
KLEINE R. 1929: Bestimmungstabelle der Gattung Trichalus. *Treubia* **10**: 471–493.
KLEINE R. 1933: Lycidae. Pars 128. In Junk W. & Schenkling S. (eds): *Coleopterorum Catalogus*. W. Junk, Berlin, 145 pp.
PIC M. 1921: Contribution à l'étude des Lycides. *L'Echange* **406**: 9, hors texte.
PIC M. 1925: Notes diverses, descriptiones et diagnoses. *L'Echange* **420**: 10.
PIC M. 1926: Contribution à l'étude des Lycides. *L'Echange* **425**: 29–30, hors texte.
WATERHOUSE C.O. 1877: A monograph of the Australian species of the coleopterous family Lycidae. *Trans. Entomol. Soc. Lond.* **1877**(2): 73–86.
WATERHOUSE C.O. 1879: Illustration of the typical specimens of Coleoptera in the collection of the British Museum. Part I. – Lycidae. British Museum (Natural History), London, 93 pp.

Received February 2, 1998; accepted June 6, 1998