

## The genus *Allosetodes* BANKS, 1931, a junior synonym of *Triaenodes* MACLACHLAN, 1865 (Trichoptera: Leptoceridae)

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**Abstract.** *Allosetodes plutonis* BANKS, 1931 from Sabah (Borneo) and *A. assimilis* BANKS, 1937 from the Philippines, are redescribed and figured, based on type material housed in the Museum of Comparative Zoology, Harvard. Both species have an antennal scape with scent organ, lack the stem of M in the forewing, and have an abbreviated basal plate of the inferior appendage with a recurved process extending caudad. It is concluded that both species belong in *Triaenodes* MACLACHLAN, and that *Allosetodes* should be considered a junior synonym of *Triaenodes*. *Triaenodes bulupendek*, n. sp., from Sabah is described, and grouped with the two *Allosetodes* species. The subgeneric placement of the species is briefly discussed. A lectotype for *A. assimilis* is assigned.

**Key words:** Caddisflies, Trichoptera, Leptoceridae, *Triaenodes*, *Allosetodes*, new synonym, new species, Asia.

### Introduction

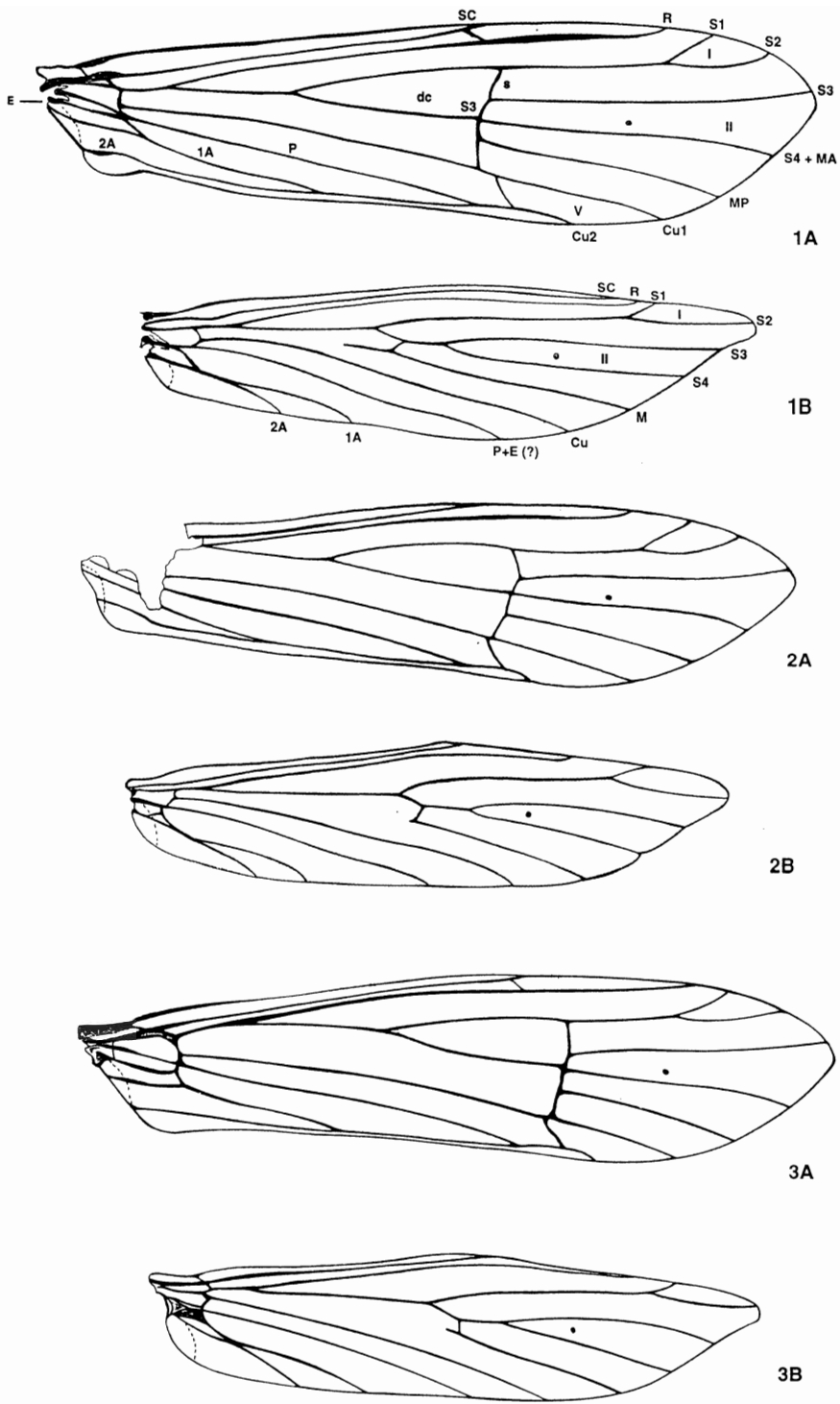
BANKS (1931: 421) erected the genus *Allosetodes* based on *A. plutonis* from Mt. Kinabalu in Sabah (Borneo), and diagnosed it as follows: "A Leptocerid; spurs 1, 2, 2, legs slender; basal joint of antenna long and large. Wings slender, acute at tips, with very long fringes venation reduced in the median area; a large, long discal cell, fork 1 pedicellate; fork 2 from lower apex of discal cell, rather wide at base. Behind this the median vein simple, almost a branch from the discal cell, but extended a little basally where it runs out; the cubitus has a short fork 5, and behind three anals. Hind wings with two forks, fork 1 is fairly long, and other fork is much longer and behind the first, and then three anals." Later, BANKS (1937: 160) described a second species, *A. assimilis*, from the Philippines, and commented on the genus: "When I described this genus (1931) I figured the venation of a denuded wing which proved to be abnormal; I have denuded another wing of *A. plutonis* and find it similar to that of *assimilis*, here figured, and much like that of *Triaenodes*. The anal vein, however, runs in the apical part so close to the hind margin as almost to touch it, and in *A. plutonis* the anal vein runs out at the end of the branch from the cubitus. In *A. plutonis* fork 2 is not so broad at base as in this species and not one-half as broad as the second apical cell; the hind wings are slenderer and more pointed than in *Triaenodes*, thus the name may be retained, at least as a subgenus." ULMER (1951) gave a description of *A. plutonis* in his work on the Trichoptera from the Sunda Islands based on BANK'S (1931, 1937) descriptions and drawings, but stated that no new material was available.

YANG and MORSE (1993: 162), outlining the phylogeny of Triaenodini, considered the forewing venation of the two *Allosetodes* species to be within the scope of *Triaenodes*, but pointed out that only fork I is present in the hindwing. They considered *Allosetodes* to be monophyletic, based on the "uniquely elongated inferior appendages, each with a bristle-like basal process (unique in this tribe)."

### Methods and Material

Methods used in preparing, examining, and illustrating genitalia are those that are commonly used in the study of Trichoptera. The terminology is adopted from SCHMID (1980), and YANG & MORSE (1993), the wing venation follows MORSE (1975).

Type material of *Allosetodes plutonis* and *A. assimilis* was borrowed from the Museum of Comparative Zoology, Harvard University, USA (MCZ). The holotype of *Triaenodes bulupendek*, n. sp., is deposited in the Nationaal Natuurhistorisch Museum (formerly Rijksmuseum van Natuurlijke Historie), Leiden, The Netherlands (RMNH).



**Figs. 1-3.** Male wing venation. Fig. 1. *Triaenodes assimilis* (BANKS), lectotype, Mindanao, the Philippines. A. Forewing. B. Hindwing. Fig. 2. *Triaenodes plutonis* (BANKS), holotype, Mt. Kinabalu, Sabah. A. Forewing. B. Hindwing. Fig. 3. *Triaenodes bulupendek* n. sp., holotype, Kinabalu National Park, Sabah. A. Forewing. B. Hindwing. Abbreviations: A = anal vein; Cu = cubitus; dc = discoidal cell; E = empusal vein; MA = anterior media; MP = posterior media; P = plical vein; R = radius; S = sector, s = sectoral crossvein; SC = subcosta; I, II, V = primary apical cells, or "forks", I, II, and V.

## Systematics

After examining type material of the two *Allosetodes* species, we conclude that they group with *Triaenodes bulupendek*, n. sp., from Borneo, described below. Based on the male genitalia the species also appear to group with *T. mondoanus* described by KIMMINS (1962) from Papua New Guinea. However, we have not examined material of the latter species and thus do not include it in the systematic treatment below.

### Diagnostic characters

Spurs 1,2,2. Coloration reddish brown to black. Antennal scape long with scent organ and brush of long setae. Forewing with forks I, II and IV present; fork I with long stem; fork II basally subrectangular, i.e. crossvein s 1.3 to 2.5 X longer than base of sector 3 (S<sub>3</sub>); stem of median (M) vein absent; anal vein (A2 and A1+2) close to posterior wing margin; arculus (P+E+A1+A2) apparently absent. Hind wing slender, pointed; forks I and II present; fork I with long stem; fork II with short stem; median (M) vein unbranched, stem incomplete or lacking.

Male genitalia: Segment IX with tergum and pleura narrow, well sclerotized to partly membranous; sternum well developed, projecting caudad, apicolateral corners pronounced; mesal surface with thin, sclerotized strip extending to and attached to phallobase. Preanal appendage narrow, about two thirds as long as upper part of tergum X. Upper part of tergum X with median process, basally triangular with short lateral lobes or short dorsomedian lobe or lacking additional lobe(s); distally forked, with long setae. Lower part of tergum X in lateral view thin, triangular, partly membranous, about same length as upper part of tergum X; in dorsal view with apex acute, concave or shallowly cleft. Inferior appendage subtriangular or with broad base and subrectangular distal three fourths, as long as or distinctly shorter than sternum IX, setose, with short, spinelike setae apicomesally, with short or long setose papillae dorsally; lacking apicomasal lobe and mesal basodorsal process; with well developed abbreviated basal plate and recurved, spinelike process; basal plate not articulating with phallobase. Phallus strongly curved, troughlike apically, with apical membranes; lacking or with weakly developed lateral ridges; phallothremal sclerite small or indistinct; paramere spines absent; phallicata not discernible.

### Systematic position

In their outline of the phylogeny of Triaenodini genera and subgenera YANG & MORSE (1993) mainly applied characters of wing venation and structures of male genitalia. Oecetini was used as outgroup and *Adicella* + *Erotesis* were found to form the sistergroup of *Ylodes* + *Allosetodes* + *Triaenodes*; synapomorphies for the latter group are (as numbered by YANG & MORSE): (11) Forewing with fork II subtriangular, vs. subtruncate in other Leptoceridae; (12) Forewing with stem of M incomplete or weak, vs. conspicuous and complete in other Leptoceridae; (13) Basal plate of inferior appendages with pair of long, recurved processes, these processes foliaceous and setose in *Ylodes*, long and slender and with at most only few subapical seta in *Triaenodes*, vs. basal plate without processes in other Leptoceridae. The two *Allosetodes* species definitely have a subtruncate base of fork II in the forewing, although crossvein s is longer than the base of S<sub>3</sub> in all three species, particularly in *A. plutonis*. Other *Triaenodes* species, i.e. *T. ustulata* KIMMINS, 1962 and *T. tafanus* KIMMINS, 1962 to some degree also have a subtruncate base of fork II in the forewing. For separating *Adicella* and *Triaenodes* YANG & MORSE (1993: 162) state: "...; in another words, in *Adicella*, crossvein s (closing the discoidal cell) and the apparent second crossvein (actually the base of S<sub>4</sub>) are equal in length, but in *Triaenodes* the latter usually is much shorter than the former, at most about half as long as the former." As both *A. assimilis* and *T. bulupendek*, n. sp., have a base of S<sub>3</sub> ("base of S<sub>4</sub>") which is more than half the length of crossvein s, the character apparently should be modified when used to separate the two sistergroups of genera. The *Allosetodes* species, however, lack the stem of M in the forewing and the basal plate of the inferior appendage has a long, slender, recurved process, as found in *Triaenodes*.

YANG & MORSE (1993) characterized the genus *Ylodes* by: (14) One paramere spine from dorsomesal apex of phallobase, vs. two paramere spines (or some derivative number) not fused with phallobase in other Leptoceridae. (15) Phallobase secondarily very short, phallicata not retractile, vs. much longer than tall in other Triaenodini. (16) Apex of long, curved basal plate rod hidden in lateral view, vs. not hidden in other Triaenodini. The *Allosetodes* species do not group with *Ylodes* as they do not possess a single paramere spine, have a long phallobase, and the apex of the process of the basal plate is visible in lateral view.

According to YANG & MORSE (1993) the autapomorphy for *Allosetodes* is: (17) Inferior appendages simple, distinctly elongated, as long as or longer than sternum IX, vs. inferior appendages not so long and simple in other

Triaenodini. However, after examining type material of the two described *Allosetodes* species, we conclude that *A. assimilis*, in lateral view, has an inferior appendage of approximately the same length as sternum IX, while the inferior of *A. plutonis* is definitely shorter than sternum IX. On the other hand, some *Triaenodes* species, like *T. taenius* ROSS, 1938 from North America and *T. longispinus* KIMMINS, 1962 from Papua New Guinea, both have very long inferior appendages, definitely longer than sternum IX. Both *A. assimilis* and *A. plutonis* lack both the apicomeral lobe and the mesal basodorsal process on the inferior appendage, but *A. assimilis* has a digitate lateral basodorsal lobe with one strong seta apically. Other *Triaenodes* species, like *T. mondoanus*, also have an equally simple inferior appendage as *A. plutonis*, and the inferior appendage of *A. assimilis* bears some resemblance to West African species like *T. tofanus* GIBBS, 1973 and *T. trouhati* GIBON, 1982. We are not sure if the digitate basodorsal lobe found in *A. assimilis* is what YANG & MORSE (1993: 164) call "a setose lateral baso-dorsal process." Both the *Allosetodes* species as well as many other leptocerids have papillae apparently formed at the base of strong setae, and we believe the lobe in *A. assimilis* to be a strong papilla supporting the strong apical seta, thus homologous with the shorter, seta-bearing papillae found in the two other species. Considering the wide variation in size and shape of the inferior appendages in *Triaenodes*, we are not able to delimit *Allosetodes* based on characters of the inferior appendage.

YANG & MORSE (1993) give four autapomorphies for *Triaenodes*: (18) Male antennal scapes each with hairy scent organ, covered with a long flap, vs. this organ and flap absent in other Triaenodini. (19) Basal plate not articulating with phallobase, vs. articulating in other Triaenodini. (20) Paramere spines absent, vs. present in other Triaenodini. (21) Phallicata absent or fused with phallobase, vs. distinct in other Triaenodini. *Allosetodes* species have the male antennal scape with a hairy scent organ covered with a long flap, the basal plate of the inferior appendage does not articulate with the phallobase, paramere spines are lacking in the phallus, and the phallicata is not discernible. The autapomorphies used to characterize *Triaenodes* thus also cover *Allosetodes*.

We are therefore unable to find characters which justify retaining *Allosetodes* as a separate genus and conclude that *Allosetodes* should be regarded as a junior synonym of *Triaenodes*. In our opinion, the inferior appendage, with its strong, spinelike seta apicomerally and the abbreviated basal plate with a long, recurved process is well within the scope of *Triaenodes*. Both forks I and II are present in the hind wings, and the hind wings are very similar to the hind wings of other *Triaenodes* species with the stem of M absent or incomplete. In the forewing the stem of M is absent, but fork II is subtruncate rather than subtriangular. However, we agree with YANG & MORSE (1993) that the forewing venation of the *Allosetodes* species are still within the scope of *Triaenodes*. The male scape also has a hairy scent organ, covered with a long flap, typical of *Triaenodes*.

## ***Triaenodes* MACLACHLAN**

*Triaenodes* MACLACHLAN, 1865a: 110. [Type species *Leptocerus bicolor* CURTIS, 1834, subsequent selection of ROSS 1944].

*Triaena* MACLACHLAN, 1865b: 34 [preoccupied]. [Type species *Leptocerus bicolor* CURTIS, 1834, subsequent selection of FISCHER 1965: 78].

*Allosetodes* Banks, 1931: 421. [Type species *Allosetodes plutonis* BANKS, 1931, monobasic]. NEW SYNONYM.

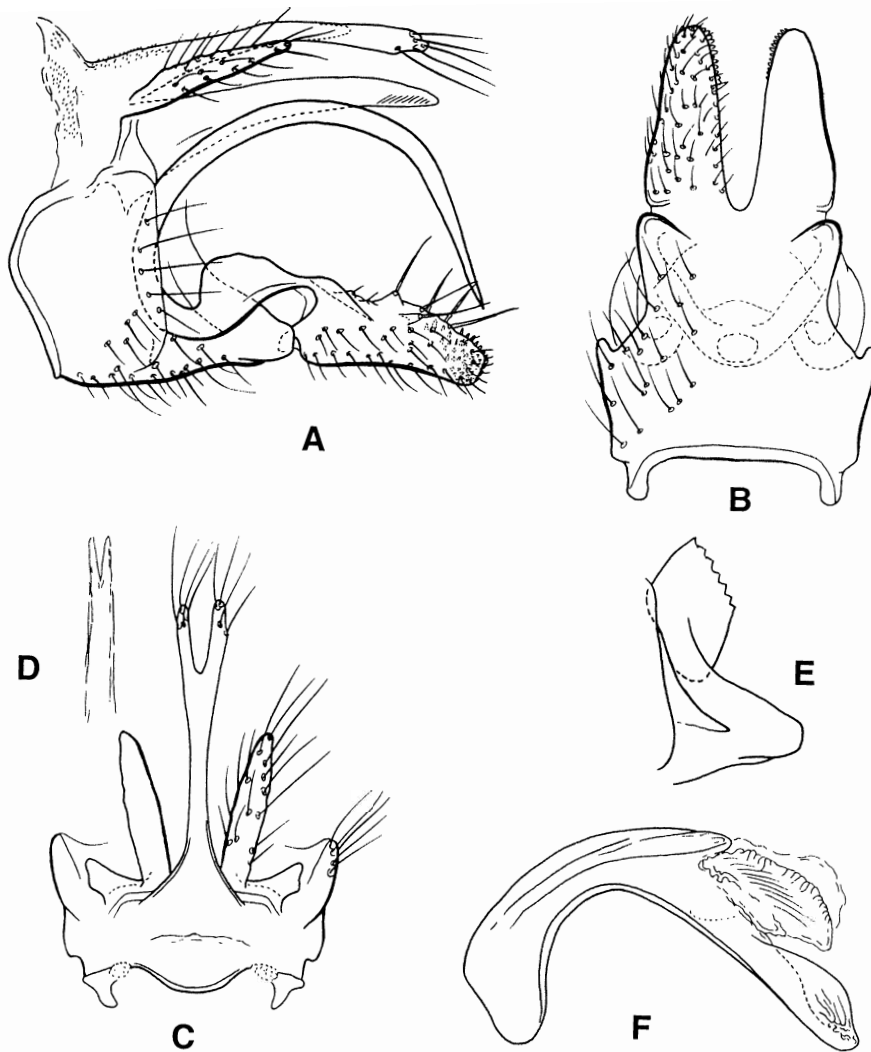
*Triaenodella* MOSELY, 1932: 308. [Type species *Triaenodella chelifera* MOSELY, 1932, original designation]. - ROSS 1944: 244 [as subgenus]. - YANG & MORSE 1993: 162 [redefined as a valid subgenus].

*Austrotriaena* YANG & MORSE, 1993: 164. [Type species *Triaenodes trifida* KIMMINS, 1957, original designation, as a subgenus].

## ***Triaenodes plutonis* (BANKS) new combination**

(Figs. 2, 4)

*Allosetodes plutonis* BANKS, 1931: 421, figs. 5, 7, 14; BANKS 1937: 160; ULMER 1951: 410, 449; FISCHER 1965: 108 [catalogue]; FISCHER 1972: 78 [catalogue]; KIMMINS 1955: 402; YANG & MORSE 1993: 162.



**Fig. 4.** Male genitalia. *Triaenodes plutonis* (BANKS), holotype, Mt. Kinabalu, Sabah. A. Lateral. B. Ventral. C. Dorsal. D. Apex of lower part of tergum X, dorsal. E. Sclerotized strip of sternum IX extending to and attached to phallobase. F. Phallus, lateral.

Material examined. Holotype: ♂. " B.N. BORNEO, Mt. Kinabalu, Pakka, 10.000 ft., 25th Mar. 1929., H.M. Pendlebury coll., F.M.S. Museums [printed / handwritten on both sides of pink, unbordered label]; HOLOTYPE ♂ *Allosetodes plutonis* BANKS 1932 [printed / handwritten on dark red, unbordered label]; Type. 16501 [printed / handwritten on dark red, unbordered label, underside with printing]; *Allosetodes plutonis* Bks type [handwritten on double-red-bordered label]; Genitalia illus K. Manuel 1980 [printed / handwritten on unbordered label]; *Triaenodes plutonis* (Banks) Andersen & Holzenthal [handwritten on white, bordered label]".

Specimen on micro-pin; one pair of wings mounted between two coverslips held between red sheets of thin carton, labeled "*Allosetodes plutonis* Bks. Holotype Wings" [handwritten on unbordered label]; abdomen and scape in micro-vial. Specimen lacking head, most legs and one pair of wings.

Redescription. Male (n=1). Forewing length 6.3 mm, hind wing length 5.5 mm. Scape 0.38 mm long, with scent organ. In the forewing (Fig. 1A) discoidal cell 1.67 mm long, 0.39 mm wide apically, crossvein s 0.30 mm long, base of S3 0.12 mm long, ratio s/S3 2.50, fork I (S2) 0.82 mm long, stem of fork I (S1+S2) 1.13 mm long, fork II (S3) 2.33 mm long. In the hind wing (Fig. 1B) fork I (S2) 1.04 mm long, stem of fork I (S1+S2) 1.85 mm long, fork II (S3) 1.91 mm long, stem of fork II (S3+S4) 0.37 mm long.

Coloration according to BANKS (1931: 421): "Black; antennae, palpi, and legs brown; fore-wings black, but with several large brown spots, two along the costa, reaching backward some distance, several in the apical parts of the apical cells, and one at the base of wing behind; these brown spots in the proper light show golden

reflections; outer fringe largely brown, but with several black patches, one of them particularly prominent is at the extreme tip. Hind wings black, with long black fringe."

Male genitalia (Fig. 4). Abdominal segment IX with tergum and pleura narrow, semimembranous; sternum wide, basally subrectangular, expanded anteriorly, distally subtriangular, strongly produced posteriorly; in ventral view with basal one half wider than distal part, with rounded, posterolateral corners and emarginate posterior margin. Preanal appendage narrowly triangular, setose, about half as long as upper part of tergum X. Upper part of tergum X with digitate, slightly curved, median process, apex irregularly rounded, setose; in dorsal view with triangular, finely setose base, narrow subbasally, widening in distal one half, forked in distal one fourth. Lower part of tergum X narrowly triangular with rounded, membranous apex; in dorsal view narrow, cleft in distal one fifth. Inferior appendage subtriangular with broadly rounded apex; apicomesally with strong, spinelike seta; with few strong seta along dorsal margin, two of which on short papilla; abbreviated basal plate prominent, extending anteroventrad, with strong, recurved, pointed process projecting caudad. Phallus strongly curved, with subapical and apical membranes, apex with lateral flanges, phallothremal sclerite indistinct.

### ***Triaenodes assimilis* (BANKS) new combination**

(Figs. 1, 5)

*Allosetodes assimilis* BANKS, 1937: 421, figs. 5, 7, 14; FISCHER 1965: 108 [catalogue]; YANG & MORSE 1993: 162.

Material examined. Lectotype: ♂. "Sibulan Riv. 31. VIII 7-8,000 ft. {6 sept. [crossed out]} [printed / handwritten on unbordered label]; Mt. Apo, Mindanao Phil. Islds, C. S. Clagg [printed on unbordered label]; M. C. Z. Type 22054 [printed / handwritten on dark red, unbordered label]; LECTOTYPE ♂ *Allosetodes assimilis* Bks., K. Manuel 1980 [handwritten on dark red, unbordered label]; Genitalia illus K. Manuel 1980 [printed / handwritten on unbordered label]; *Allosetodes assimilis* Bks type [handwritten on double-red-bordered label]; LECTOTYPE ♂ *Triaenodes assimilis* (Banks), Andersen & Holzenthal [printed / handwritten on yellow, bordered label]."

Specimen glued to triangular piece of carton; one pair of wings mounted between two coverslips held between red sheets of thin carton, labeled "*Allosetodes assimilis* Bks. Lectotype Wings" [handwritten on unbordered label]; abdomen and scape in micro-vial.

Apparently, the designation by K. Manuel of this specimen as a lectotype was never published; we do so here.

Redescription. Male (n=1). Forewing length 5.4 mm, hind wing length 4.3 mm. Eyes 0.39 mm wide. Antennae broken, scape 0.42 mm long, with scent organ. Maxillary palp segment lengths (in mm) approximately: 0.35, 0.40, 0.49, 0.33, 0.47. In the forewing (Fig. 2A) discoidal cell 1.33 mm long, 0.33 mm wide apically, crossvein s 0.20 mm long, base of S3 0.15 mm long, ratio s/S3 1.33, fork I (S2) 0.70 mm long, stem of fork I (S1+S2) 1.13 mm long, fork II (S3) 2.23 mm long. In the hind wing (Fig. 2B) fork I (S2) 0.87 mm long, stem of fork I (S1+S2) 1.78 mm long, fork II (S3) 1.96 mm long, stem of fork II (S3+S4) 0.26 mm long.

Coloration according to BANKS (1937: 160): "Head with gray hair below, yellowish on vertex; antennae pale, very plainly annulate with brown; palpi with brown hair, legs pale, tibiae and tarsi brown. Forewings largely black, more uniformly so than in *A. plutonis*, with long black hair and small iridescent scales which appear golden in certain views; fringe black; hind wings dark, with black hair, and brown to black fringes."

Male genitalia (Fig. 5). Abdominal segment IX with tergum and pleura narrow; sternum subtriangular, produced posteriorly; in ventral view with distal one third narrower than basal two thirds, posterior margin with square, posterolateral corners, shallowly emarginate medially. Preanal appendage narrow, setose; in dorsal view triangular; about three fifth as long as upper part of tergum X. Upper part of tergum X with median, narrow process, setose in distal one third, apex bluntly triangular; with median, rounded lobe basally; in dorsal view with triangular base, forked in distal one half. Lower part of tergum X with basal three fourth triangular, semimembranous, distal one fourth narrow, slightly curved posterodorsad, with pointed apex; in dorsal view triangular with slightly sinuous lateral margins and acute apex. Inferior appendage with broad base, distal three fourths subrectangular, slightly curved ventrad, apicomesally with short, spinelike seta; with short, subapical papilla, with one apical seta, and basodorsal, strong, digitate papilla bearing strong, apical seta; abbreviated basal

plate projecting anteriad, with long, narrow, recurved process projecting posteroventrad, these processes lying lateral to segment IX. Phallus strongly curved, narrow subbasally, apicolaterally with fine striations and apical membranes, phallothremal sclerite small.

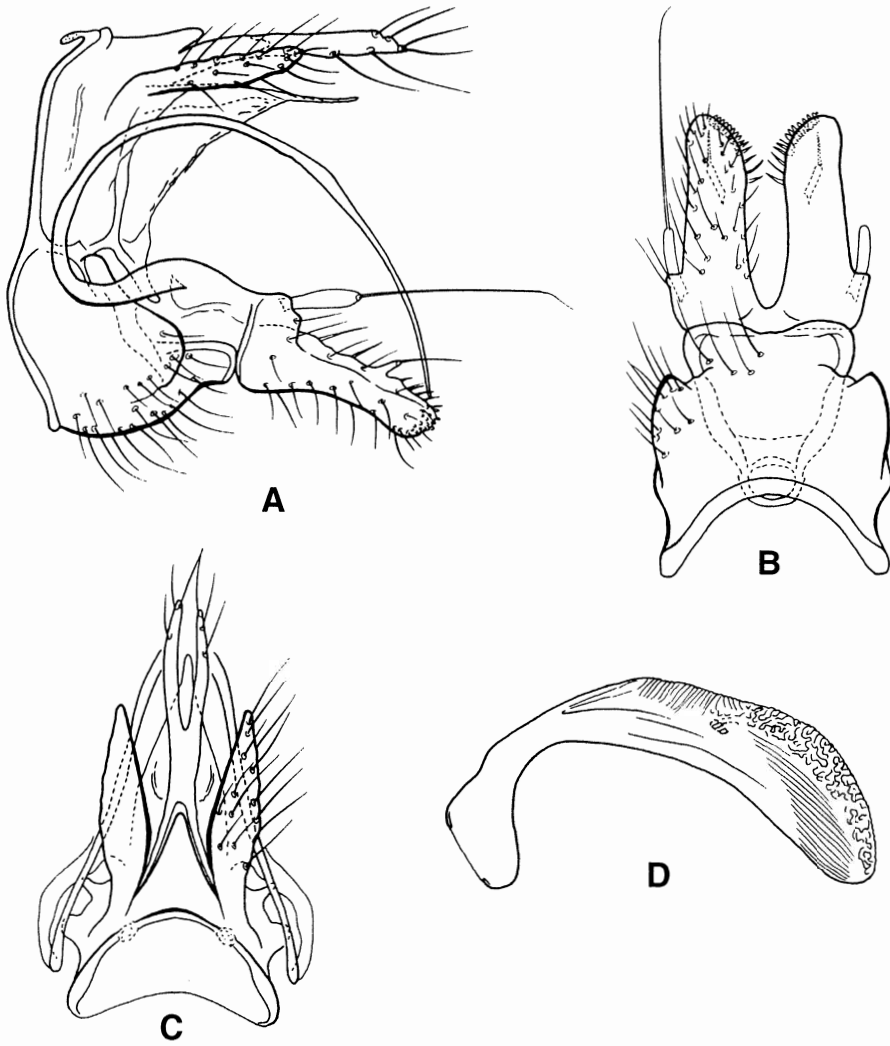


Fig. 5. Male genitalia. *Triaenodes assimilis* (BANKS), lectotype, Mindanao, the Philippines. A. Lateral. B. Ventral. C. Dorsal. D. Phallus, lateral.

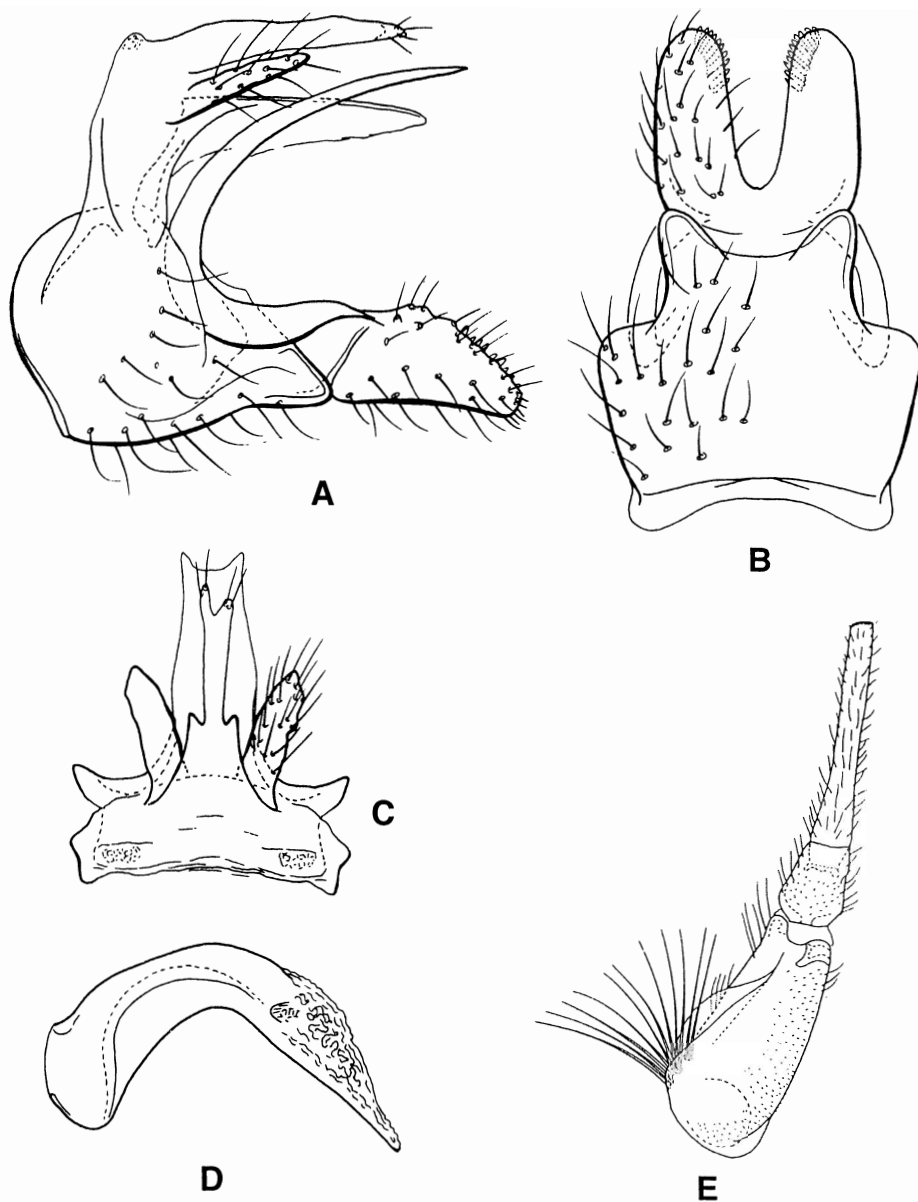
***Triaenodes bulupendek*, new species**

(Figs. 3, 6)

Material. Holotype: ♂, MALAYSIA: Sabah: Kinabalu National Park, roadside, 06°00'N 116°32'E, 1500 m a.s.l., 12.v.1987, at light, J. Huisman (RMNH).

Description. Male (n= 1). Forewing length 5.1 mm, hind wing length 4.2 mm. Eyes 0.39 mm wide. Antennae broken, scape 0.39 mm long, with scent organ and brush of long seta (Fig. 6E). Maxillary palp segment lengths (in mm): 0.31, 0.37, 0.42, 0.27, 0.43. In the forewing (Fig. 3A) discoidal cell 1.17 mm long, 0.29 mm wide apically, crossvein s 0.21 mm long, base of S3 0.12 mm long, ratio s/S3 1.75, fork I (S2) 0.72 mm long, stem of fork I (S1+S2) 0.69 mm long, fork II (S3) 1.73 mm long. In the hind wing (Fig. 3B) fork I (S2) 0.67 mm long, stem of fork I (S1+S2) 1.54 mm long, fork II (S3) 1.40 mm long, stem of fork II (S3+S4) 0.33 mm long. Color in alcohol overall reddish brown.

Male genitalia (Fig. 6 A-D). Abdominal segment IX with tergum and pleura narrow, lightly sclerotized; sternum basally semicircular, expanded anteriad, distally subtriangular, produced posteriorly; in ventral view with basal one half wider than distal part, posterior margin concave with prominent, rounded posterolateral corners.



**Fig. 6.** Male genitalia and antennal segments. *Triaenodes bulupendek* n. sp., holotype, Kinabalu National Park, Sabah. A. Lateral. B. Ventral. C. Dorsal. D. Phallus, lateral. E. Scape, pedicel, and 1st flagellar segment.

Preanal appendage narrowly triangular, setose. Upper part of tergum X digitate, with few setae apically; in dorsal view triangular basally, with short, triangular, lateral lobes subbasally; shallowly forked apically. Lower part of tergum X triangular, semimembranous; in dorsal view narrowly subrectangular, with sinuous lateral margins and shallowly concave apex. Inferior appendage subtriangular, with bluntly rounded posteroventral apex, setose; apicomeresally with short, spinelike seta; basodorsally with small papillae, each bearing one seta; abbreviated basal plate projecting anteriorly, with strong, curved pointed process projecting posterodorsad. Phallus curved, cylindrical, with pointed, membranous apex and weak, dorsolateral flanges, phallothremal sclerite small.

Female and immatures. Unknown.

Remarks. The species is very similar to *T. plutonis*, but can be separated on the smaller size, and on the male genitalic features, particularly the shape of the lower part of tergum X and the shorter, less curved process of the abbreviated basal plate of the inferior appendage.

Etymology. Malay - *pendek* - short and - *bulu* - spine, referring to the relatively short process of the abbreviated basal plate of the inferior appendage.

Habitat. The specimen was collected at 1500 m a.s.l. in the most frequented area of Kinabalu National Park. The vegetation, wet submontane oak forest, is slightly disturbed. There are no streams in the direct vicinity of the collection site, but Sungai Silau-Silau, a small, rapid stream, about 5 m wide with rocky bed, runs at a distance of about 2 km.

## Discussion

The genus *Triaenodes*, with more than a hundred described species, has a cosmopolitan distribution. YANG & MORSE (1993) recognized three subgenera. In addition to *Triaenodes* sensu stricto, they redefined the subgenus *Triaenodella* MOSELY, and erected the subgenus *Austrotriaena* YANG & MORSE for eight species from the Oriental and Australian biogeographical regions. By possessing a basal plate on the inferior appendage with a long, recurved process the species treated here belong in the subgenus *Triaenodes* sensu stricto as defined by YANG & MORSE (1993). However, the autapomorphy they use for *Triaenodes* sensu stricto: "phallus with distinctive ridges for resting or guiding slender processes of basal plate", apparently do not apply, at least if they mean sclerotized lateral flanges as found in many Afrotropical species.

The splitting of *Triaenodes* into three subgenera by YANG & MORSE (1993) was challenged by NEBOISS & WELLS (1997), who separated the Australian species into seven distinct species groups. Recently Neboiss & Wells (1998) described 44 new *Triaenodes* species from Australia. The authors are presently reviewing the West African and the Neotropical species, which will add at least another 25 new species. The review of the West African species also adds a new species which does not fit the current division of subgenera. Further, YANG & MORSE (1993) apparently did not consider the Neotropical *Triaenodes* species when outlining the phylogeny of the genus, which seem to share several characters with *Ylodes*.

*Triaenodes* is a morphologically very diverse genus, and we agree with NEBOISS & WELLS (1997) that a thorough revision of the genus from a world-wide perspective is highly appropriate. A phylogenetic analysis of the genus might reveal that the species treated here constitute a monophyletic unit deserving the status as a separate subgenus, thus retaining the name *Allosetodes* as a subgenus name as suggested by BANKS (1937).

## Acknowledgments

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