The genus *Lestes* (Odonata: Lestidae) Leach, 1815, in Surinam

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Key words: Lestidae; new taxa; Surinam.
The species of *Lestes* from Surinam are treated. *L. basidens* spec. nov. (♂ holotype: Distr. Nickerie, Sipaliwini, near airstrip), *L. curvatus* spec. nov. (♂ holotype: Distr. Suriname, Coropina creek, Republiek), *L. edentatus* spec. nov. (♂ holotype: Distr. Marowijne, Nassau mountain range) and *L. trichonus* spec. nov. (♀ holotype: Distr. Nickerie, Sipaliwini, near airstrip) are described and illustrated. The types are deposited in the National Museum of Natural History, Leiden. *L. mediorufus* Calvert and *L. tenuatus* Rambur are illustrated and a lectotype for the latter species is designated. The holotype of *L. sublatus* Hagen *in* Selys is redescribed and illustrated. *L. forficula* Rambur, known from the surrounding countries of Surinam, is also illustrated. A key to the Surinam species of *Lestes* is provided.

Introduction

The cosmopolitan genus *Lestes* Leach, 1815, is hitherto represented in South America by about twenty named species. One of these, *Lestes sublatus* Hagen in Selys, 1862, was described from Surinam. Furthermore, two previously named species *Lestes mediorufus* Calvert, 1909, and *Lestes tenuatus* Rambur, 1842, and four unnamed species were collected in Surinam during the explorations of the late Dr D.C. Geijskes and the author in that country. The four unnamed species were first recognized as being new to science by Dr Geijskes and are described in this paper under the specific names *basidens, curvatus, edentatus* and *trichonus*. The occurrence of *Lestes forficula* Rambur, 1842, in Surinam is highly probable, since this species is known from the surrounding countries French Guiana, Brazil and Venezuela. A key to the seven Surinam species is provided.

Most specimens were borrowed from the National Museum of Natural History at Leiden. The holotypes of the new taxa are deposited in that museum. Other reference material came from the Brussels and Berlin museums, and enabled me to select a lectotype for *Lestes tenuatus* and to figure the holotype of *Lestes sublatus* for the first time. *Lestes forficula* is also discussed and some specifically important details are elucidated by figures.

The illustrations are reproductions of original camera lucida drawings (details completed by free hand) but they are not all on the same scale. The Jena oculars used are 12.5 and 6.3; the objectives 2.5 and 0.63. The combination is indicated in figure captions. All dimensions are given in mm. The wing vein term R3 is in the sense of Fraser (1957).

Keys to the species of *Lestes*

The colour pattern of the pterothoracic venter (= pectoral colour pattern of Calvert, 1909: 93) is of great importance for the identification of the Surinam species of *Lestes*. The dark markings of this pattern appear to be identical, or nearly so, in both sexes of the same species. However, aged specimens often have this colour pattern

obscured by pruinosity. If a clean-out is possible, the complete pattern will become discernible. Males of all species are rather easily distinguished by differences in shape of the superior caudal appendages (cerci).

Caution should be taken in using the key since the males of *Lestes sublatus* Hagen in Selys and *Lestes trichonus* spec. nov., and the female of *Lestes basidens* spec. nov. are unknown.

Key to the males

1. Small species: abdomen 26-29.5, hind wing 16-19. Inner side of superior caudal appendages with a strong spine-like basal and subapical tooth and a row of minute teeth between them. Pectoral colour pattern shaped as shown in fig. 2 .... ***L. mediorufus*** Calvert.
- Larger species: abdomen 30-37, hind wing 20-23. Shape of superior caudal appendages different 2

2 (1). Caudal appendages pale; apical half of superior caudal appendages regularly and strongly curving downward (fig. 15). Pectoral colour pattern only consisting of a posterior pair of dark spots (fig. 4) ..... ***L. curvatus*** spec. nov.
- Caudal appendages not pale; apical half of superior caudal appendages not strongly curving downward 3

3 (2). Inner side of superior caudal appendages without spines of any kind. Pectoral colour pattern with three pairs of dark oblong spots close to ventro-lateral carina (fig. 7) ..... ***L. edentatus*** spec. nov.
- Inner side of superior caudal appendages with spines 4

4. Inner side of superior caudal appendages with a truncate basal tooth and a subapical row of minute spines (fig. 18); branch of each inferior caudal appendage reaching backward to a point about one-third the way along superior caudal appendage ..... ***L. tenuatus*** Rambur
- Inner side of superior caudal appendages with a strong acute tooth at base followed by a row of minute spines (fig. 10); branch of each inferior caudal appendage reaching backward to a point about two-thirds the way along superior caudal appendage ..... ***L. basidens*** spec. nov.

Key to the females

1. Small species: abdomen 25-28, hind wing 18-19. Pectoral colour pattern shaped as shown in fig. 2 ..... ***L. mediorufus*** Calvert
- Larger species: abdomen 29-37; hind wing 21-26 2

2 (1). Abdomen 29, hind wing 23. Antehumeral stripes brassy black and conspicuously large, extending over whole length of mesepisternum and breadthways extending from middorsal carina to a distance from humeral suture of one-third its own width. Sides of pterothorax yellow except for a small metepimeral black spot below. Pectoral colour pattern shaped as shown in fig. 9 .... ***L. sublatus*** Hagen in Selys
- Colour pattern of female different; antehumeral stripes narrower and not touching middorsal carina 3

3 (2). Caudal appendages pale, stout, not conical i.e. not regularly tapering from base to apex (fig. 33). Pectoral colour pattern only consisting of a posterior pair of dark spots (fig. 4) ..... ***L. curvatus*** spec. nov.
- Caudal appendages not pale, conical i.e. regularly tapering from base to apex ... 4
4 (3). Caudal appendages slender and about three and a half times as long as it is wide at base. Pectoral colour pattern with three pairs of dark oblong spots close to ventro-lateral carina (fig. 7) ..... ***L. edentatus*** spec. nov.
- Caudal appendages short, thick, conical and twice to two and a half times as long as it is wide at base 5
5 (4). Venter of pterothorax with long pale hairs. Pectoral colour pattern with well-developed dark metasternal spots (fig. 8) ..... ***L. trichonus*** spec. nov.
- Venter of pterothorax glabrous. Pectoral colour pattern without or with weakly developed dark metasternal spots ..... ***L. tenuatus*** Rambur

Treatment of the species

The species are treated in alphabetical order. For each species are given the material studied and a description, a redescription or descriptive notes.

Lestes basidens spec. nov.
(figs 1, 10-11)

Material.— Surinam: District Nickerie, Sipaliwini (near airstrip, small pool in forest), 11.iii.1961, 4 ♂ (holotype and paratypes), D.C. Geijskes leg.

Male (holotype).— Total length ca. 40; abdomen 30; hind wing 20; costal edge of stigma in fore wing 1.4.

Head.— Labrum dark brown. Top of head black with a very slight blue lustre and small fanciful brown markings. Labium pale brown. Rear of head brown, darker below and slightly pruinosed.

Thorax.— Prothorax brown, brassy black on dorsum and slightly pruinosed. Dorsum of pterothorax with a pair of metallic bluish-green antehumeral stripes on whole length of mesepisternum; these stripes widened laterad at upper end, the lower portion almost parallel-sided and distant from median carina for about half its own width. Sides of pterothorax predominantly yellow-brown, the mesepimeron with a broad metallic green stripe which is suddenly constricted just below mid-height. Mesinfraepisternum brown along mesepisternum. Pectoral colour pattern shaped as shown in fig. 1. Pterothorax largely pruinosed except dorsum.

Legs.— Hind femora brown-yellow with lengthwise a dark brown stripe along inner and anterior sides. Hind tibiae brown-yellow with brown anterior side. First and second femora and tibiae largely dark brown but inner side of femora and outer side of tibiae brown-yellow. Tarsi and claws dark brown.

Wings.— Hyaline. Venation dark brown. Stigma brown. Postnodal cross-veins (Pns) 12-13/10-11 in fore and hind wings, respectively. R3 branching at fourth Pn in left fore wing, at third Pn in left hind wing and between third and fourth Pns in right wings.

Abdomen.— Segments 1-7 with brassy dark brown dorsum, the lower sides of basal segments brown-yellow. Segments 8-10 dark brown and pruinosed. Segment 10 and caudal appendages dark brown, shaped as described in the key and as shown in figs 10-11.

Female unknown.

Variation.— The width of the dark antehumeral stripe varies in the paratypes. In one specimen it is reduced to a rather narrow stripe parallel to the mid-dorsal carina and as far therefrom as the stripe is wide. In another specimen the stripe widens regularly toward its upper end where it attains the mid-dorsal carina and occupies the mesepisternum for about four-fifths its local width.

Etymology.— The specific name *basidens* from "basis" and "dens", in reference of the strong basal tooth on the inner border of the male superior caudal appendages.

Lestes curvatus spec. nov.
(figs 4, 14-15, 26, 33)

Material.— Surinam: District Marowijne, Wia Wia (km 5.8-5.2, swamp in forest), 16.xi.1948, 1 ♀ (no. 2830); same locality (km 12.6, pit in grass at Mauritie), 26.xi.1948, 2 ♂ (nos. 3912, 3914), 1 ♀ (no. 3913); same locality and date (small marsh), 1 ♂ (no. 3907). District Suriname: Coropina Creek, Republiek (swamp Berseba), 23.vi.1957, 1 ♂ (teneral), all specimens paratypes and all D.C. Geijskes leg.; Coropina Creek, Republiek, 26.iii.1957, 4 ♂ (holotype and paratypes), 3 ♀ (paratypes), 31.iii.1959, 1 ♀ (allotype); Para Creek (upper part), 30.i.1960, 1 ♂ (paratype); 13.ii.1960, 2 ♂ , 1 ♀ (paratypes), all J. Belle leg.

Male (holotype).— Total length ca. 40; abdomen 35; hind wing 22.5; costal edge of stigma in fore wing 1.3.

Head.— Brownish-yellow but labrum greenish-white and vertex black.

Thorax.— Prothorax yellowish-brown. Dorsum of pterothorax brown with a pair of large black dorsal spots and two narrow black stripes parallel to median carina, each stripe confluent with inner side of dorsal spot. Lateral sides of pterothorax yellowish-brown but mesepimeron with a black oblong spot about mid-height and a black spot below, and metepisternum black around spiracle. Pectoral colour pattern shaped as shown in fig. 4.

Legs.— Yellowish-brown.

Wings.— Hyaline. Venation dark brown. Stigma brown, its surface granular. Postnodal cross-veins 13-12/12-13 in fore and hind wings, respectively. R3 branching between fourth and fifth Pns or at fifth Pn.

Abdomen.— Segments 1 to 6 yellowish-brown; segment 7 becoming dark brown toward apex; segments 8 and 9 dark brown; segment 10 yellow with brown apical margin. Caudal appendages yellow, shaped as described in the key and as shown in figs 14-15.

Female (allotype).— Total length ca. 41; abdomen 34.5; hind wing 23.5; costal edge of stigma in fore wing 1.5.

Similar to male in characters other than those of sex but labrum brown. Terminal segments of abdomen shaped as described in the key and as shown in figs 26 and 33.

Variation.— The male and female paratypes are very similar to the male holotype and female allotype, respectively. The species is peculiar in not having the usual metallic lustre and in having the aged specimens not or almost not pruinosed.

Etymology.— The specific name *curvatus* alludes to the strongly curved male superior caudal appendages.

Lestes edentatus spec. nov.
(figs 7, 12-13, 24)

Material.— Surinam: District Marowijne, Nassau mountains range (km 18.7, small pool in forest), 22.iii.1949, 4 ♂ (paratypes, nos 9440, 9441, 9443; holotype, no. 9444), 1 ♀ (allotype, no. 9442), D.C. Geijskes leg. District Brokopondo (formerly belonging to District Suriname): Brownsberg (mountain top, at midday, in sun shine), 22.iii.1981, 1 ♂ (paratype), T. Keukelaar leg.

Male (holotype).— Total length ca. 45; abdomen 36; hind wing 21.5; costal edge of stigma in fore wing 1.4.

Head.— Labrum brown. Top of head brassy blackish-brown. Labium pale brown. Rear of head brown-yellow but cheeks largely blackish-brown and pruinosed.

Thorax.— Prothorax brown-yellow. Dorsum of pterothorax brown with a pair of metallic green antehumeral stripes on whole length of mesepisternum; these stripes two-thirds as wide as mesepisternum and not attaining mid-dorsal carina. Mesepimeron largely metallic dark green (or brown due to post-mortem changes) but brown-yellow along humeral suture. Mesinfraepisternum largely brown, pale yellow near coxae. Metepi sternum, metepimeron and coxae pale yellow but metepisternum dark brown along femoral suture, and metepimeron with a dark brown spot below. Pectoral colour pattern shaped as shown in fig. 7. Pterothorax slightly pruinosed on ventral side.

Legs.— Pale yellow, the following dark brown: outer side of first femur, outer side of basal half of second and third femora, anterior side of femora and tibiae. Tarsi and claws entirely dark brown.

Wings.— Hyaline. Venation dark brown. Stigma brown. Postnodal cross-veins 14-13/13-13 in fore and hind wings, respectively. R3 branching between fourth and fifth Pns and between third and fourth Pns in fore and hind wings, respectively.

Abdomen.— Dorsum of segments brassy dark brown with greenish lustre. Lower sides of segments 1-7 pale brownish-yellow. Side spots on seg ments 8 and 9 and most of segment 10 yellowish-brown. Caudal appen dages brown and shaped as shown in figs 12-13.

Female (allotype).— Total length ca. 40; abdomen 32; hind wing 21.5; costal edge of stigma in fore wing 1.5.

Similar in coloration to male but outer side of third femur pale and that of second and first femora brownish instead of dark brown. Terminal segments of abdomen shaped as described in the key and as shown in fig. 24.

Etymology.— The specific name *edentatus* from "e" and "dentatus", in reference to the complete lack of teeth on the inner border of the male superior caudal appendages.

Lestes mediorufus Calvert, 1909
(figs 2, 16-17, 23)

Literature.— Calvert, 1909: 97. De Marmels, 1990: 336.

Type depository.— Male holotype in The Academy of Natural Sciences of Philadelphia, USA.

Descriptive notes.— The Surinam representatives of this species fit fairly well the original description of Calvert. The pectoral colour pattern of a Surinam repre sentative is shaped as shown in fig. 2. The dimensions of the Surinam specimens illustrated in this paper are: Male.— Total length ca. 32; abdomen 26.5; hind wing 16; costal edge of stigma in fore wing 1.1. Female.— Total length ca. 31; abdomen 25.5; hind wing 18; costal edge of stigma in fore wing 1.2.

Range.— Brazil (with the State of São Paulo as type locality), Venezuela and Surinam. In Surinam mainly encountered at pools and ponds in the savanna zone.

Lestes sublatus Hagen in Selys, 1862
(figs 9, 28-30)

Literature.— Selys, 1862: 307-308 (pp. 23-24 of reprint).

Type depository.— Female holotype in the Institut für Systematische Zoologie und Zoologisches Museum, Berlin.

Notes on the female holotype.— *Lestes sublatus* has been described on the basis of a single female originated from Surinam. No new material of this species has been collected since its description in 1862. In the Selysian collection at Brussels I found in a box with many species of *Lestes* (box 9 of cabinet 8) the label "*Lestes sublata* Hagen" in Selys' handwriting but there was no specimen placed under that heading.

The female holotype, borrowed from the Berlin Museum, is a pinned specimen in rather good condition. Attached to the pin are the printed labels "2837", "Typus" and "Zool. Mus. Berlin", and the written labels "Surinam. Cord." (probably in Hagen's writing) and "*L. sublata* Hag. ♀" (probably in Selys' writing). The extreme tip of the left fore wing and the caudal appendages are broken away. The apical half of the right fore wing and the abdomen are broken off, the tip of the wing being glued on a pin label and the abdomen put in a triangular cellophane envelope attached to the pin. I have added to the pin the written label "*Lestes sublatus* Hag. in Sel., 1862 HOLOTYPE ♀ Rev. Jean Belle, 1996".

Redescription of the specimen follows below:

Female (holotype).— Total length ca. 37; abdomen (excl. cerci) 29; hind wing 23; costal edge of stigma in fore wing 1.4, in hind wing 1.8.

Head.— Brownish yellow but superior surface of frons, vertex, top of head (except middle of rear margin) and upper part of cheeks brassy black.

Thorax.— Brownish yellow but superior surface of prothorax brassy black and pterothorax coloured as described in the identification key. Pectoral colour pattern shaped as shown in fig. 9.

Wings.— Faintly smoky. Venation brown. Stigma brownish yellow, the one in hind wings longer than the one in fore wings (figs 29 and 30). Postnodal cross-veins 13:13/12:12 in fore and hind wings, respectively. R3 branching at fourth Pn in left fore wing, between third and fourth Pns in right fore wing, at third Pn in left hind wing and between second and third Pns in right hind wing.

Legs.— Femora yellow with longitudinal dark brown stripes at outer sides, the

stripes becoming wider toward knees. Tibiae yellow but anterior surface very dark brown. Tarsi and claws almost black.

Abdomen.— Brownish yellow but superior surface of all segments brassy black except for proximal half of segment 1 and more or less at articulations. Apical segments shaped as shown in fig. 28. Hind dorsal margin of segment 10 semicircularly excised in middle.

Remarks.— It is unfortunate that the specifically important caudal appendages are broken away. According to Selys' description these appendages are shorter than abdominal segment 10, brown, subcylindric, bluntly pointed and denticulate. *Lestes sublatus* is also peculiar in having the stigma on the hind wings notably longer than that on the fore wings.

Range.— Surinam (type locality).

Lestes tenuatus Rambur, 1842
(figs 5-6, 18-19, 22)

Literature.— Rambur, 1842: 245 (as *Lestes tenuata*). Calvert, 1909: 102. Paulson, 1982: 250. De Marmels, 1990: 336.

Type depository.— Male lectotype in the Institut Royal des Sciences Naturelles de Belgique, Brussels.

Lectotype designation of *Lestes tenuata* Rambur.— This species was described on the basis of males only. It is known that the Rambur types were deposited in the Muséum National d'Histoire Naturelle at Paris but Dr Jean Legrand of that museum, in a letter to me dated 23 September 1996, kindly informed me that he could not find them. However, in the Selysian collection at Brussels I found two specimens of the original series. One of the specimens is a male in rather good condition but the apical halves of the right wings, the left hind leg, the right middle leg and both fore legs are broken away. This male is here designated as the lectotype of *Lestes tenuata* Rambur, 1842. It has the written pin labels "5.", "martinique", "*Lestes tenuata*" (probably in Rambur's writing) and "*L. tenuata* R ♂" (in Selys' writing), and the printed pin label "80.". To this specimen I have added the written yellow pin label "Lectotype. Det. Jean Belle, 1996".

The paralectotype is a male in very poor condition lacking the head, the abdominal segments 4 to 10, the right hind leg, both fore legs and the apical half of the right fore wing while the thorax has completely been eaten out by tropical scavangers. Attached to the pin of this specimen are a written label "*Lest. tenuata*", a written label which reads like "Testhamel" and a printed label "(Martinique)".

Variation.— The Surinam males of *Lestes tenuatus* have caudal appendages which are in perfect conformity with those of the lectotype but their pectoral colour pattern differs slightly by the lack of a pair of weakly developed metasternal spots (figs 5-6). The males from Surinam have roughly the same dimensions as the lectotype. The dimensions of the Surinam specimens illustrated in this paper: Male.— Total length ca. 44; abdomen 37; hind wing 22.5; costal edge of stigma in fore wing 1.6. Female.— Total length ca. 44; abdomen 37; hind wing 26; costal edge of stigma in fore wing 1.7.

Range.— USA, West Indies (with the island of Martinique as type locality), Cen-

tral America, the northern countries of South America and Ecuador. In Surinam mainly occurring in the swampy areas of the coastal region.

Lestes trichonus spec. nov.
(figs 8, 27)

Material.— District Nikerie: Sipaliwini (near airstrip), 15.ii.1961, 1 ♀ (holotype), D.C. Geijskes leg.

Female (holotype).— Total length ca. 42; abdomen 33.5; hind wing 21.5; costal edge of stigma in fore wing 1.6.

Head.— Labrum glossy brown. Top of head yellowish-brown. Labium pale brown. Rear of head pale yellow.

Thorax.— Prothorax brown-yellow. Dorsum of pterothorax brown with a pair of narrow dark brown antehumeral stripes parallel to the mid-dorsal carina; these stripes attain anteriorly the mesothoracic margin but dorsally they do not attain the antealar sinus. Mesepimeron with a dark brown stripe, narrow dorsally, becoming wider below where it attains the humeral suture; this stripe continued on mesinfraepisternum. Metathorax largely pale green. Venter of pterothorax with long pale hairs. Pectoral colour pattern shaped as shown in fig. 8.

Legs.— Brownish-yellow but anterior side of first and second femora brown.

Wings.— Hyaline. Venation and stigma dark brown. Postnodal cross-veins 13-14/13-12 in fore and hind wings, respectively. R3 branching between fourth and fifth Pns in right fore wing, between third and fourth Pns in left wings, and between second and third Pns but close to third Pn in right hind wing.

Abdomen.— Segments 1-7 brown on dorsum, the lower sides of basal segments pale yellow. Segments 8-10 and anal appendages brown. Terminal segments shaped as described in the key and as shown in fig. 27.

Remarks.— It is with some hesitation that I have named this species on the basis of one single female only. But the presence of long pale hairs on the venter of the pterothorax is very distinctive. The corresponding male may at once be recognizable by this character, and furthermore in having a more or less similar pectoral colour pattern and in having legs with the same colour design.

Etymology.— The specific name *trichonus* is a Latin transliteration with ending *-us* of the Greek name *trichon*, in reference to the hairs on the pterothoraic venter.

Remarks on *Lestes forficula* Rambur, 1842
(figs 3, 20-21, 25, 31-31)

Lestes forficula Rambur is known from the surrounding countries French Guiana (Selys, 1862; Machet, 1989 as *Lestes forficulus*), Brazil (Selys, 1862) and Venezuela (Racenis, 1958; De Marmels, 1990). A male of this species has also been collected by me during a trip through Brazil (State of Bahia, Santo Amoro, 31.vii.1992, 1 ♂). It is highly probable that the species occurs in Surinam.

Lestes forficula is somewhat similar to the newly described species *Lestes basidens*, but the former is characterized by having the inner side of the male superior caudal appendages with a median dilatation and in having the pectoral colour pattern only

with a pair of metepimeral spots. In this respect the pectoral colour pattern of *Lestes forficula* resembles that of *Lestes bipupillatus* Calvert, 1909, which seems to be its nearest ally. Some specimens of *Lestes forficula* have a weakly developed mid-ventral posterior metasternal spot (fig. 3).

I add illustrations of some specifically important details of the male and female of *Lestes forficula*. The dimensions of the specimens studied by me are: Male.— Total length ca. 37; abdomen 29-31; hind wing 19-20; costal edge of stigma in fore wing 1.2-1.4. Female.— Total length ca. 37; abdomen 29-30; hind wing 21-22; costal edge of stigma in fore wing 1.3-1.5.

Acknowledgments

I wish to express my warmest thanks to Dr Patrick Grootaert of the Institut Royal des Sciences Naturalles de Belgique at Brussels for giving me access to the Selysian collection to study Rambur's type material of *Lestes tenuatus*, to Dr Kurt K. Günther of the Institut für Systematische Zoologie und Zoologisches Museum at Berlin for the important loan of the holotype of *Lestes sublatus*, to Dr Jean Legrand of the Muséum National d'Histoire Naturelle at Paris for the valuable information with regard to Rambur's type specimens, and to Mr Jan van Tol of the National Museum of Natural History at Leiden who most generously complied with my request to loan me the specimens of the new and other species of *Lestes* for description and inquiry.

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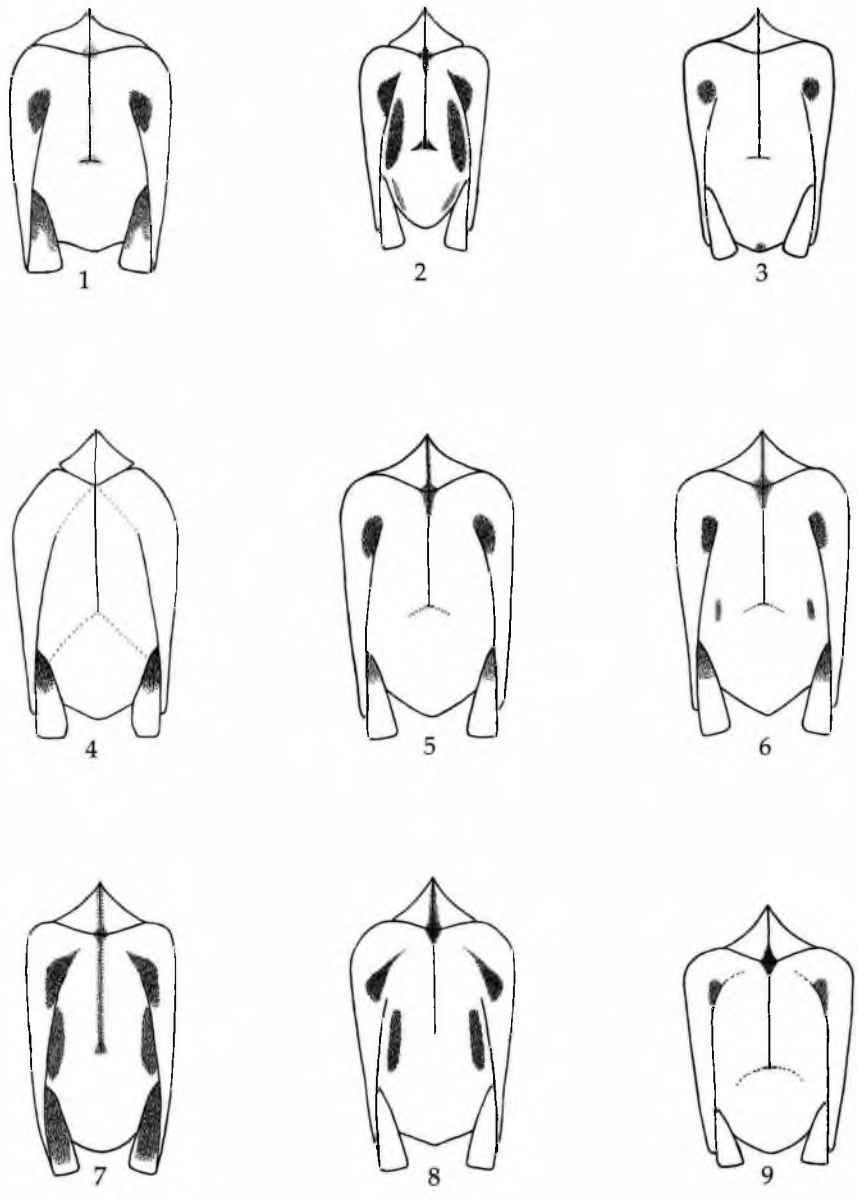
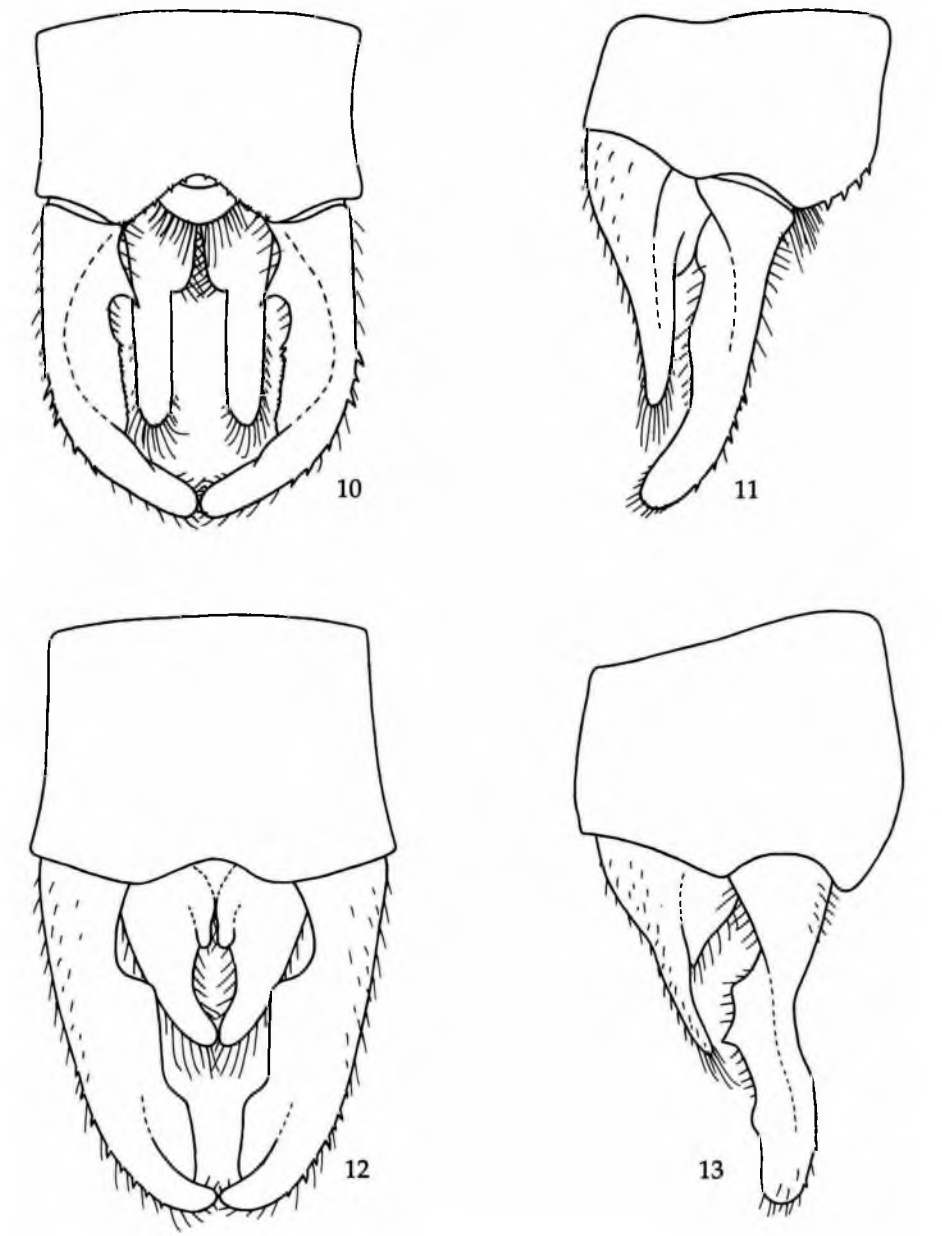
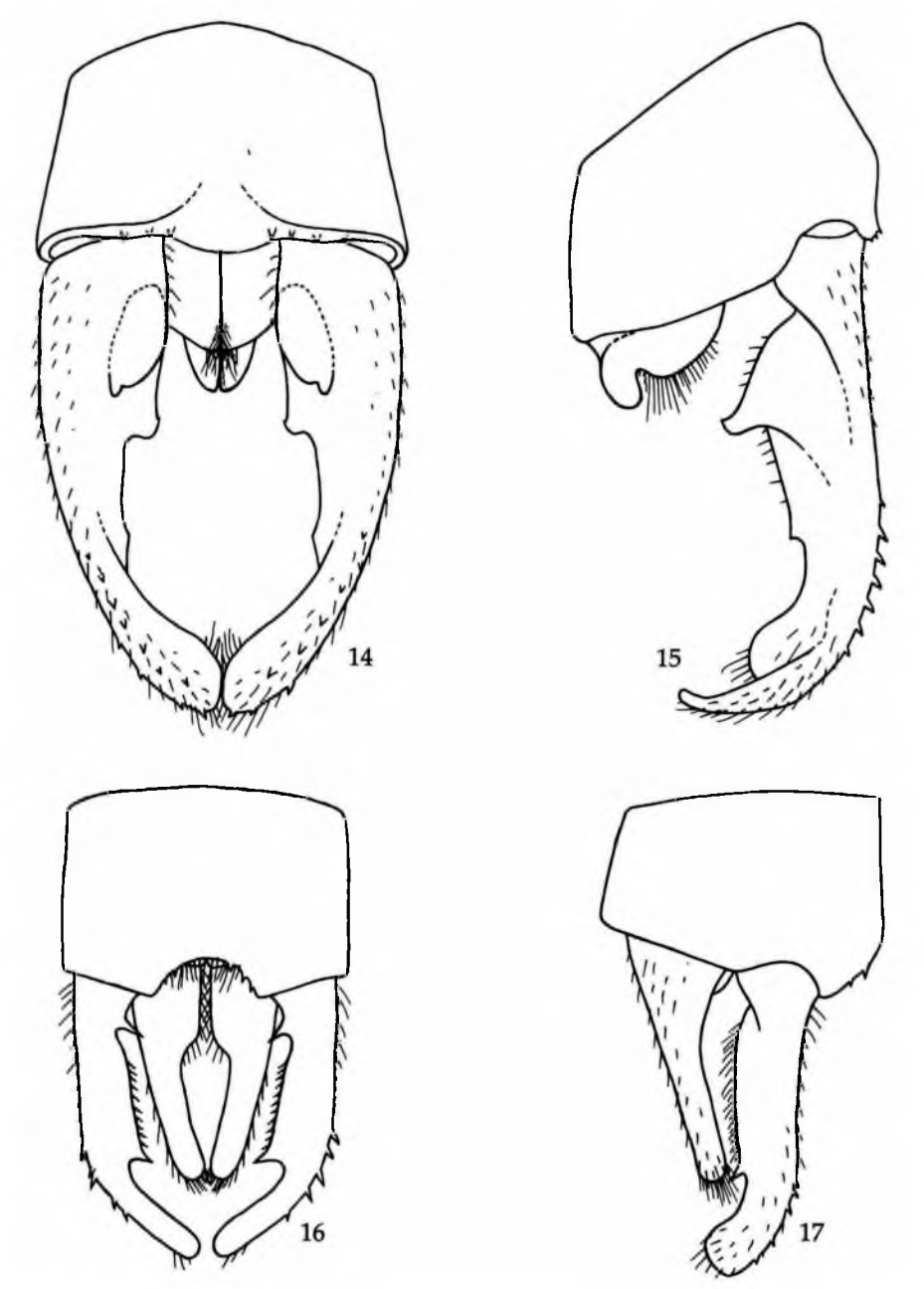


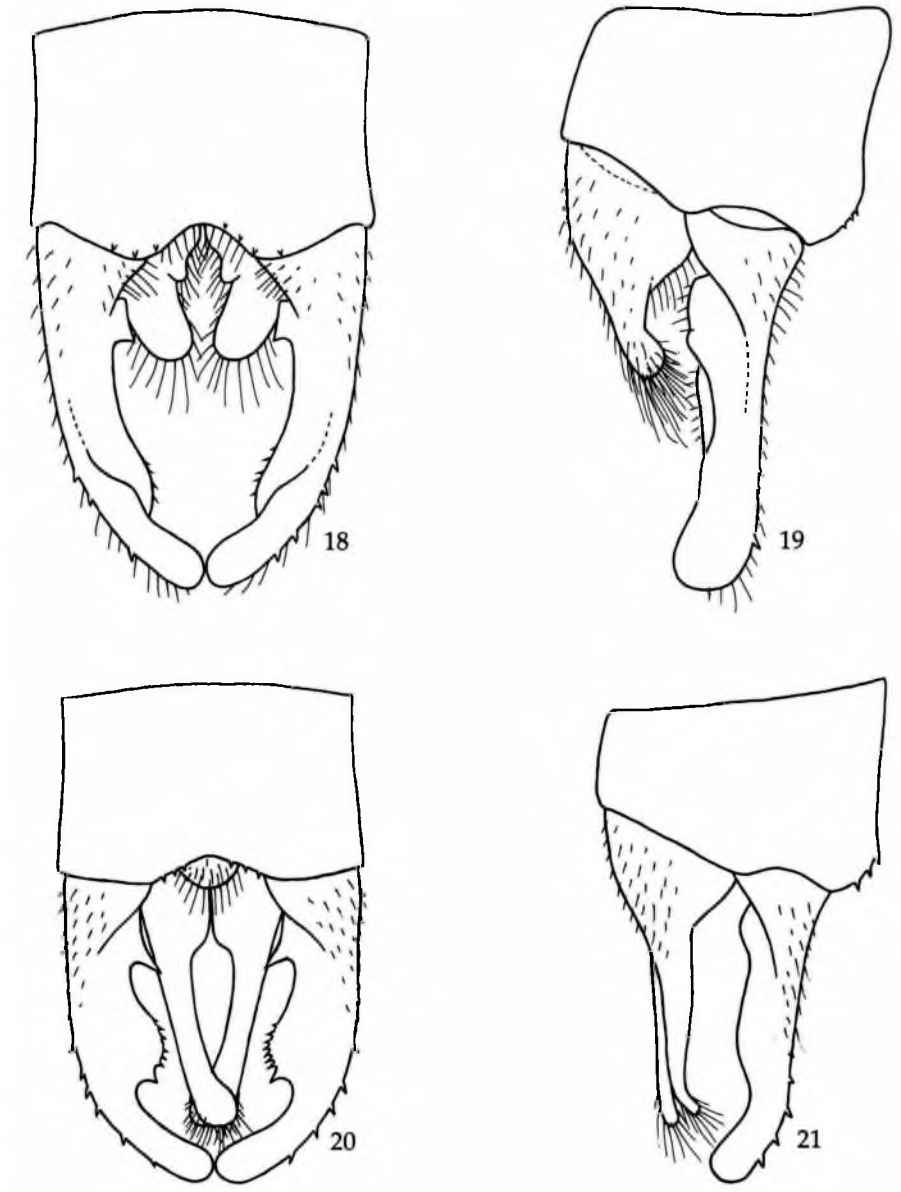
Fig. 1, *Lestes basidens* spec. nov.; 2, *Lestes mediorufus* Calvert; 3, *Lestes forficula* Rambur; 4, *Lestes curvatus* spec. nov.; 5, *Lestes tenuatus* Rambur; 6, *Lestes tenuatus* Rambur, lectotype; 7, *Lestes edentatus* spec. nov.; 8, *Lestes trichonus* spec. nov.; 9, *Lestes sublatus* Hagen in Selys. 1-9, pectoral colour pattern [12.5 × 0.63].



Figs 10-11, *Lestes basidens* spec. nov.; 12-13, *Lestes edentatus* spec. nov. 10, 12, tenth abdominal segment and caudal appendages of male, dorsal aspect [12.5 × 2.5]; 11, 13, the same, left lateral aspect [12.5 × 2.5].



Figs 14-15, *Lestes curvatus* spec. nov.; 16-17, *Lestes mediorufus* Calvert. 14, 16, tenth abdominal segment and caudal appendages of male, dorsal aspect [12.5 × 2.5]; 15, 17, the same, left lateral aspect [12.5 × 2.5].



Figs 18-19, *Lestes tenuatus* Rambur; 20-21, *Lestes forficula* Rambur. 18, 20, tenth abdominal segment and caudal appendages of male, dorsal aspect [12.5 × 2.5]; 19, 21, the same, left lateral aspect [12.5 × 2.5].

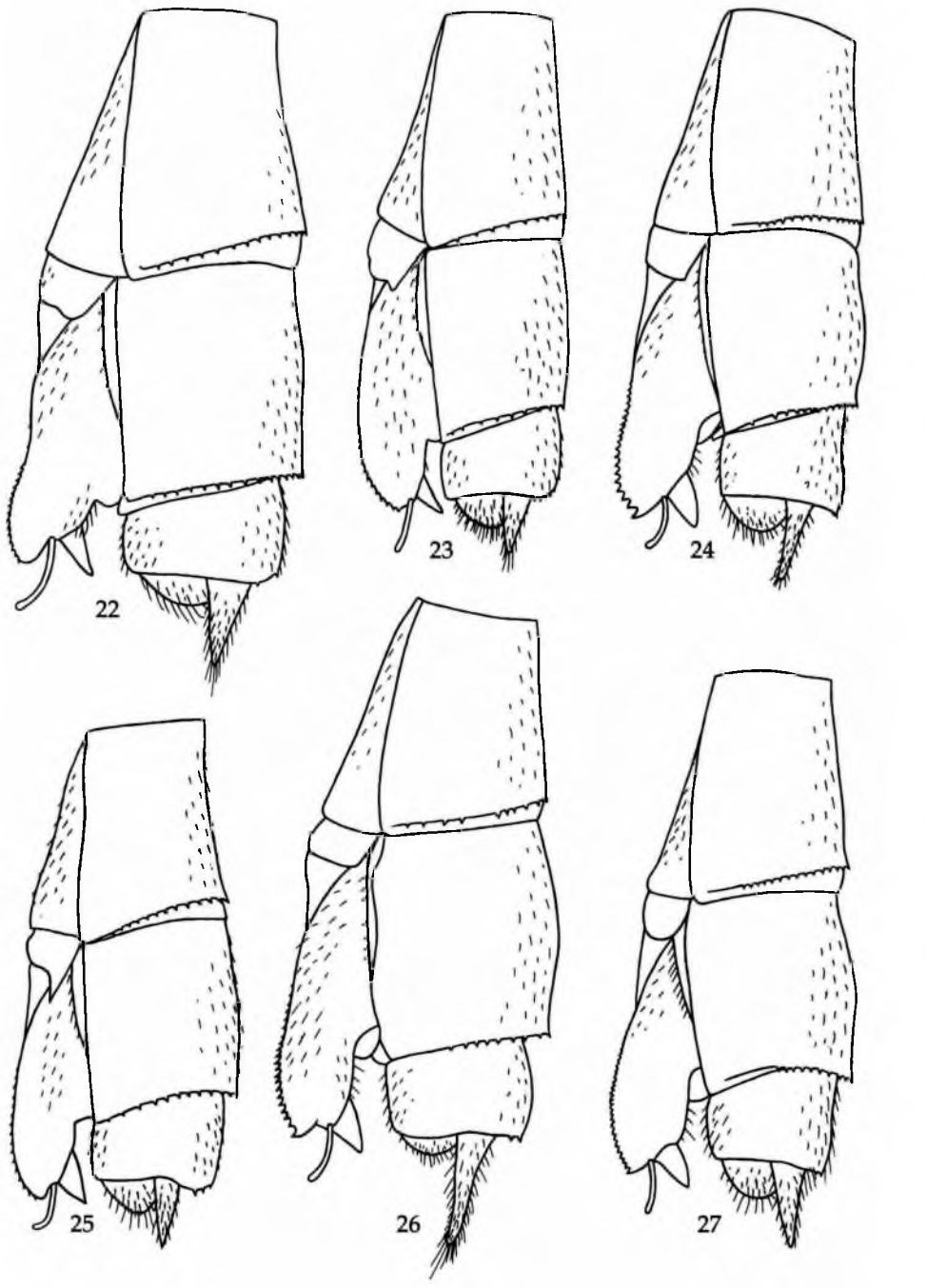


Fig. 22, *Lestes tenuatus* Rambur; 23, *Lestes mediorufus* Calvert; 24, *Lestes edentatus* spec. nov.; 25, *Lestes forficula* Rambur; 26, *Lestes curvatus* spec. nov.; 27. *Lestes trichonus* spec. nov. 22-27, terminal segments of female abdomen, left lateral aspect [6.3 × 2.5].

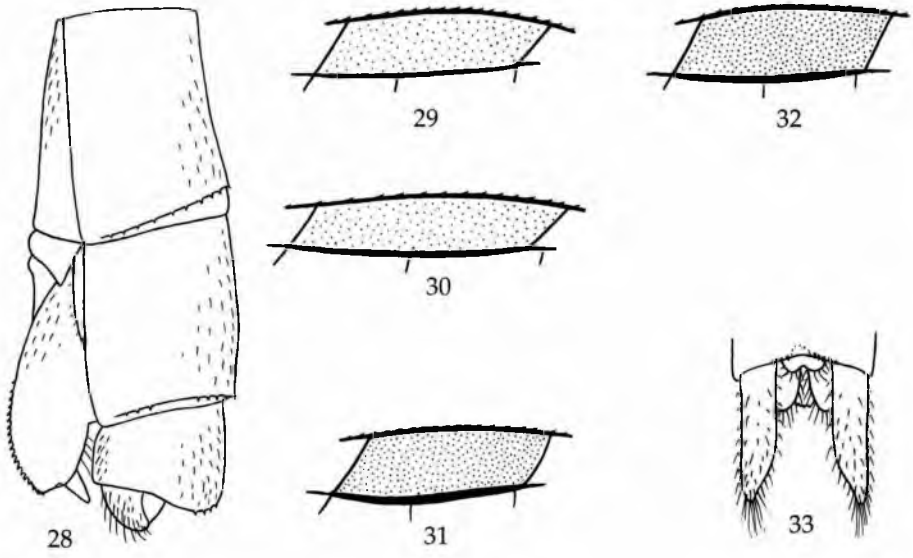


Fig. 28-30, *Lestes sublatus* Hagen *in* Selys; 31-32, *Lestes forficula* Rambur; 33, *Lestes curvatus* spec. nov. 28, terminal segments of female abdomen, left lateral aspect [6.3 × 2.5]; 29, 31, stigma of right fore wing [6.3 × 2.5]; 30, 32, stigma of right hind wing [6.3 × 2.5]. 33, caudal appendages of female, dorsal aspect [6.3 × 2.5].