

## WESTERN PALAEARCTIC TRICHOPTEROLOGICAL MISCELLANEA (INSECTA: TRICHOPTERA)

LAZARE BOTOSANEANU

**Abstract.** Original information (on morphology, variability, or distribution) is provided for several Caddisfly species from continental France, Corsica, Tunisia, Italy, etc., including – for instance – the rediscovery, after more than a century, of *Sericostoma mesopotamicum* McL. (Anatolia). *Wormaldia occipitalis vaillantorum* Bots. (Ródhos) is transferred to the Bulgarian species *W. juliani* Kumanski. Interesting teratological cases are illustrated in the genera *Polycentropus* and *Hydropsyche*. For *Allogamus stadleri* Schmid the status of *bona species* – often denied – is firmly confirmed. The unknown females of *A. stadleri* and of *Thremma sardoum* Costa are for the first time illustrated, on specimens from Côte d'Or, and, respectively, from Corsica. Three new synonymies are proposed in the genera *Hydropsyche* and *Limnephilus*. *Hydropsyche contubernalis turkomanica* n. ssp. (Turkmenistan) and *Limnephilus cianficconiae hispaniae* n. ssp. (Spain: Huesca and Teruel) are described – this last case being remarkable, the species having been only known from Sicily and peninsular Italy.

**Résumé.** On fournit une information originelle (sur la morphologie, la variabilité, ou la distribution) pour plusieurs espèces de trichoptères de France continentale, de Corse, d'Italie, de Tunisie, etc. – incluant, entre autres, la redécouverte après plus d'un siècle, de *Sericostoma mesopotamicum* McL. (Anatolie). *Wormaldia occipitalis vaillantorum* Bots. (Rhodes) est transférée à l'espèce *W. juliani* Kumanski (Bulgarie). D'intéressants cas d'exemplaires tératologiques sont signalés dans les genres *Polycentropus* et *Hydropsyche*. Pour *Allogamus stadleri* Schmid le statut de bonne espèce (souvent dénié) est fermement confirmé. Les femelles auparavant inconnues de *A. stadleri* et de *Thremma sardoum* Costa sont figurées sur des exemplaires en provenance de Côte d'Or et, respectivement, de Corse. Trois nouvelles synonymies sont proposées (genres *Hydropsyche* et *Limnephilus*). Deux sous-espèces nouvelles sont décrites: *Hydropsyche contubernalis turkomanica* n. ssp. (Turkmenistan) et *Limnephilus cianficconiae hispaniae* (Espagne: provinces Huesca et Teruel) – ce dernier cas étant remarquable car l'espèce avait été connue uniquement de Sicile et d'Italie péninsulaire.

**Key words:** Trichoptera, Western Palaearctic, new subspecies, new females, new status/synonymies, genitalic morphology, distribution.

During the last more than 25 years original observations and documents accumulating on a number of Western Palaearctic Caddisfly taxa could not find their appropriate place in one or another of my publications. They will be here presented in a succinct manner. All specimens mentioned are preserved in the Zoological Museum of Amsterdam (Z. M. A.), either pinned, or in alcohol.

*Hydoptila vichtaspa* Schmid, 1959  
(Fig. 1)

### *Variability of female genitalia*

In Botosaneanu & Dumont (1987) the female genitalia of this species have been illustrated on a specimen from Massif des Maures. I give here a drawing of the VIII<sup>th</sup> segment and of the vaginal sclerites, prepared from a specimen from Massif de l'Estérel, another small massif of SE France. Comparison will show that there is some slight variability.

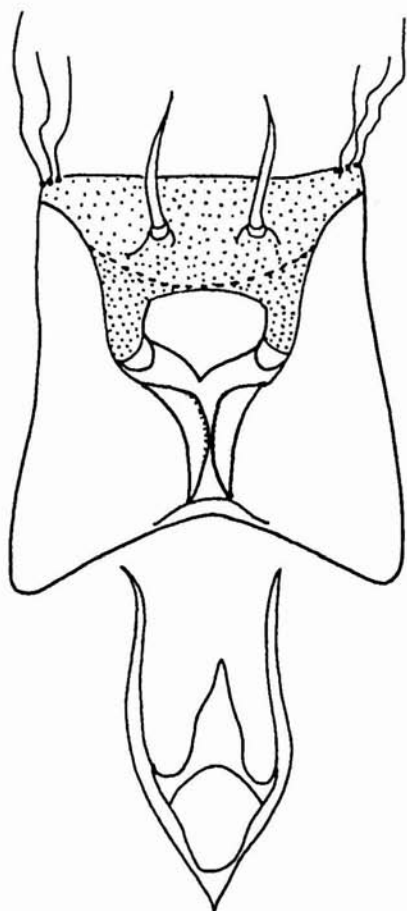


Fig. 1 – *Hydroptila vichtaspa* Schmid, 1959: female VIII<sup>th</sup> segment, ventral, and vaginal sclerites (specimen from Massif de l'Estérel).

*Wormaldia occipitalis vaillantorum*  
Bots., 1980

Subspecies transferred to *W. juliani* Kumanski, 1979

Described from Kérkira (Corfu) as subspecies of *Wormaldia occipitalis* (Botosaneanu, 1980), *vaillantorum* is certainly better placed as subspecies of *W. juliani* Kumanski, 1979 (stat. nov.). *W. juliani* had been described (Kumanski, 1979) from S. Bulgaria; in Kumanski, 1985, also Corfu and other Greek islands are mentioned for the species; this proves to be correct, with the specification that at least on Corfu it is represented by a geographic race (subspecies) clearly distinguished by characters of the male genitalia (superior appendages and especially spinulation of the phallic endotheca).

*Polycentropus* sp.  
(Fig. 2)

*An anomalous specimen.*

From Norway ("Jölster Vassenden, 25-31. VII. 1970, A. D. J. Meeuse") I have seen a specimen of *Polycentropus* sp. with strongly asymmetrical superior appendages and paraproctal processes (Fig. 2 A, B).

*Plectrocnemia alicatai* De Pietro, 1998  
(Fig. 3)

Described from Sicily (De Pietro, 1998) this species appears to be widely distributed in Italy (Cianficconi, 2002). Having seen a specimen from Molise (Larino, 12-21.VII.1980, G.E. Langohr) – a province from which it had not been previously recorded – I give here new drawings of its characteristic genitalia. It is possible that some describable variability will be found in this species.

*Tinodes foedella* McLachlan, 1884  
*Syn. antequeruellus* Schmid, 1952  
(Fig. 4)

A species well known, i.e., from France (Berland & Mosely, 1937; Décamps, 1967). Having prepared, years ago, drawings of male genitalia from a specimen caught on the stream Bouisson (near Mazamet, Département du Tarn; B. Dumont leg.), I take this opportunity for making them known.

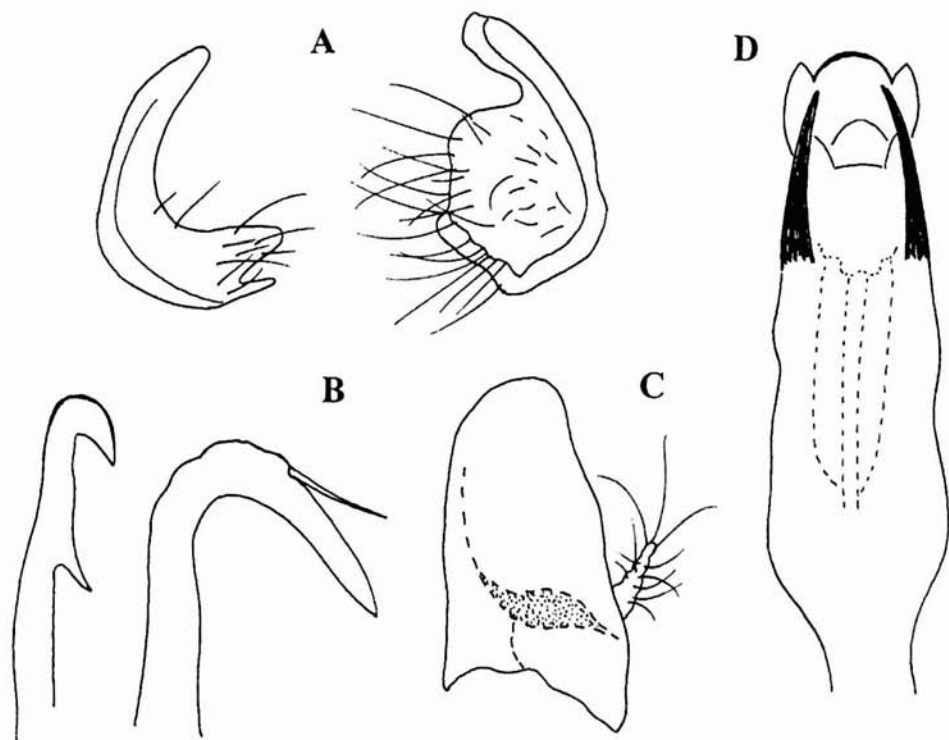


Fig. 2 – Male genitalia of a teratological specimen of *Polycentropus* sp. from Norway. A, left and right superior appendages; B, left and right paraproctal processes; C, right gonopod, lateral; D, phallus, dorsal.

*Hydropsyche siltalai* Döhler, 1963  
(Fig. 5)

*An anomalous specimen*

A teratological male specimen of *H. siltalai* can be illustrated here. It had been caught (together with normal specimens of this species) by W. O. de Prins (15.VII.1983) in Bois de Merles, Département Meuse, France, at 200 m altitude.

*Hydropsyche* spp. in the *instabilis*-group

*On some recently described species*

Botosaneanu (2000 a) has discussed in some detail the status of a Levantine *Hydropsyche* (mainly from Lebanon, but with a rather distinct “variant” from the Dead Sea Depression) wrongly considered in Botosaneanu (1992: 136-138, figs 287-290) as being *H. instabilis* (Curtis, 1834). One of the options emerging from discussion of the matter with several colleagues, was that it may be “a new species needing a name”. This species has been described in Malicky (2001) as *H. yahfufah* n. sp.

In the same publication (Botosaneanu, 2000 a) drawings of male genitalia have been published of a species from Ródhos – at that time no *Hydropsyche* being

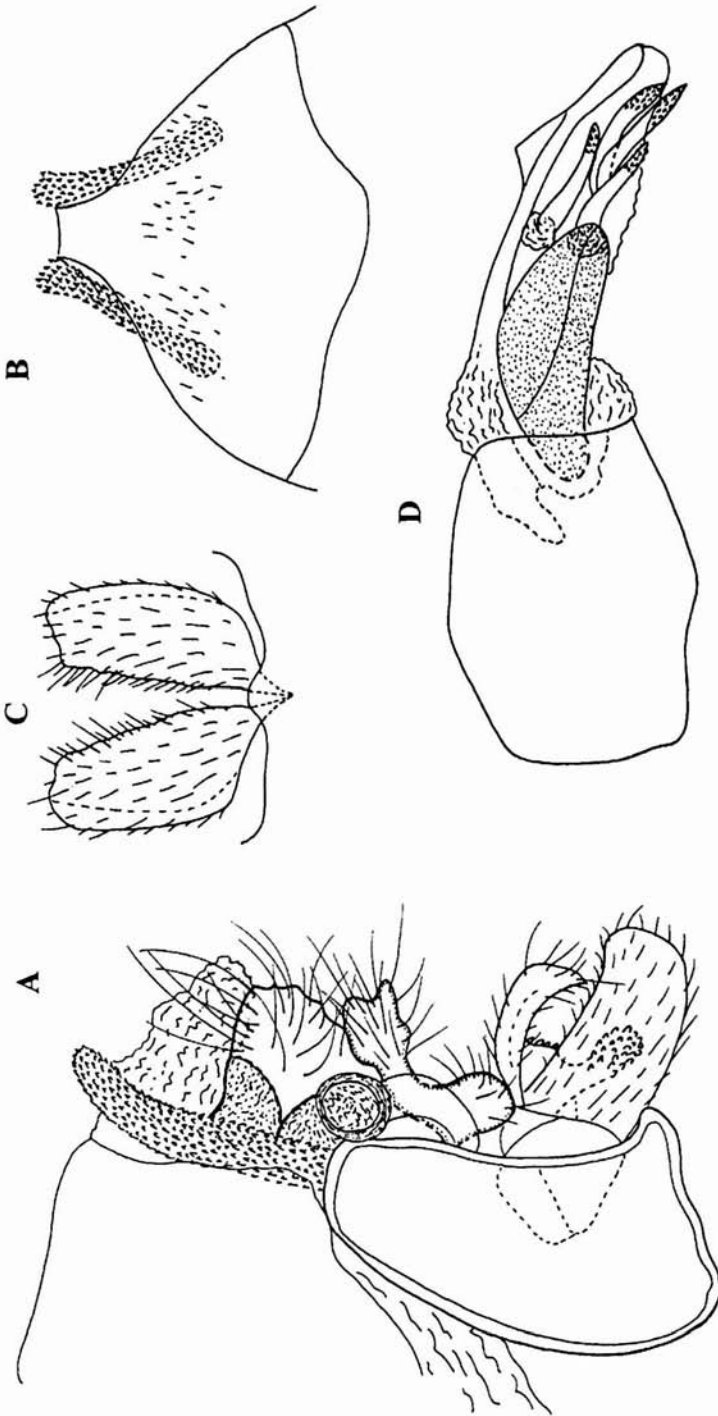


Fig. 3 – Male genitalia of *Plectrocnemia alicatai* De Pietro, 1998, from Molise. A, lateral; B, dorsal; C, gonopods, ventral; D, phallic apparatus, lateral.

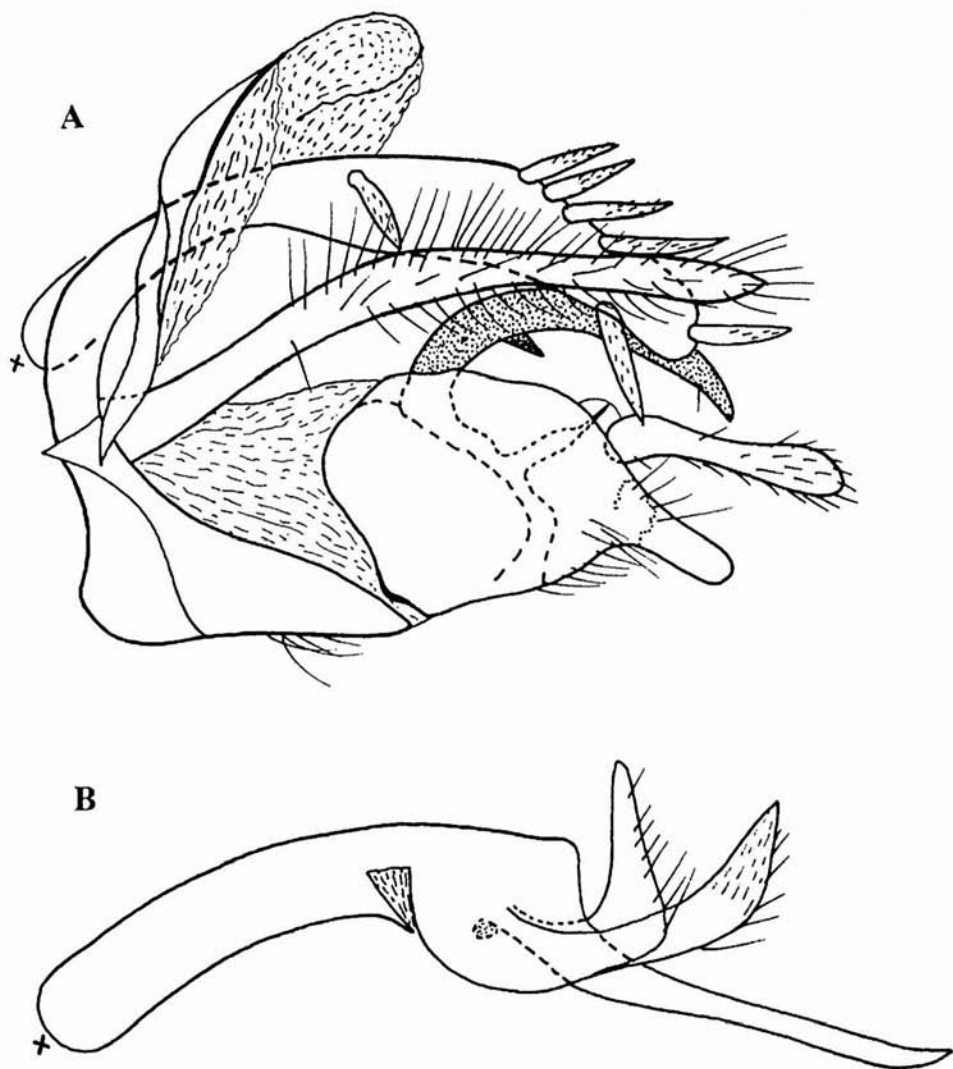


Fig. 4 – Male genitalia of *Tinodes foedella* McL., 1884, from France, Tarn. A, lateral, without phallic – complex; B, phallic – complex, lateral.

specifically identified from that island; despite the fact that no identity had been found with some described species, the conclusion was drawn that “For the time being, it would be imprudent to name the taxon from Ródhos”. This has been subsequently named by Malicky (2001): *H. machaon* n.sp.

Malicky (2001) describes *Hydropsyche jaechi* as new species from 2 males specimens caught on Jordan River. Description and illustration clearly show, in my opinion, that this is a synonym of *H. jordanensis* Tjeder, 1946, a species very well known to me from Israel (Botosaneanu, 1992: 138-141, figs. 291-298): **nov. syn.**

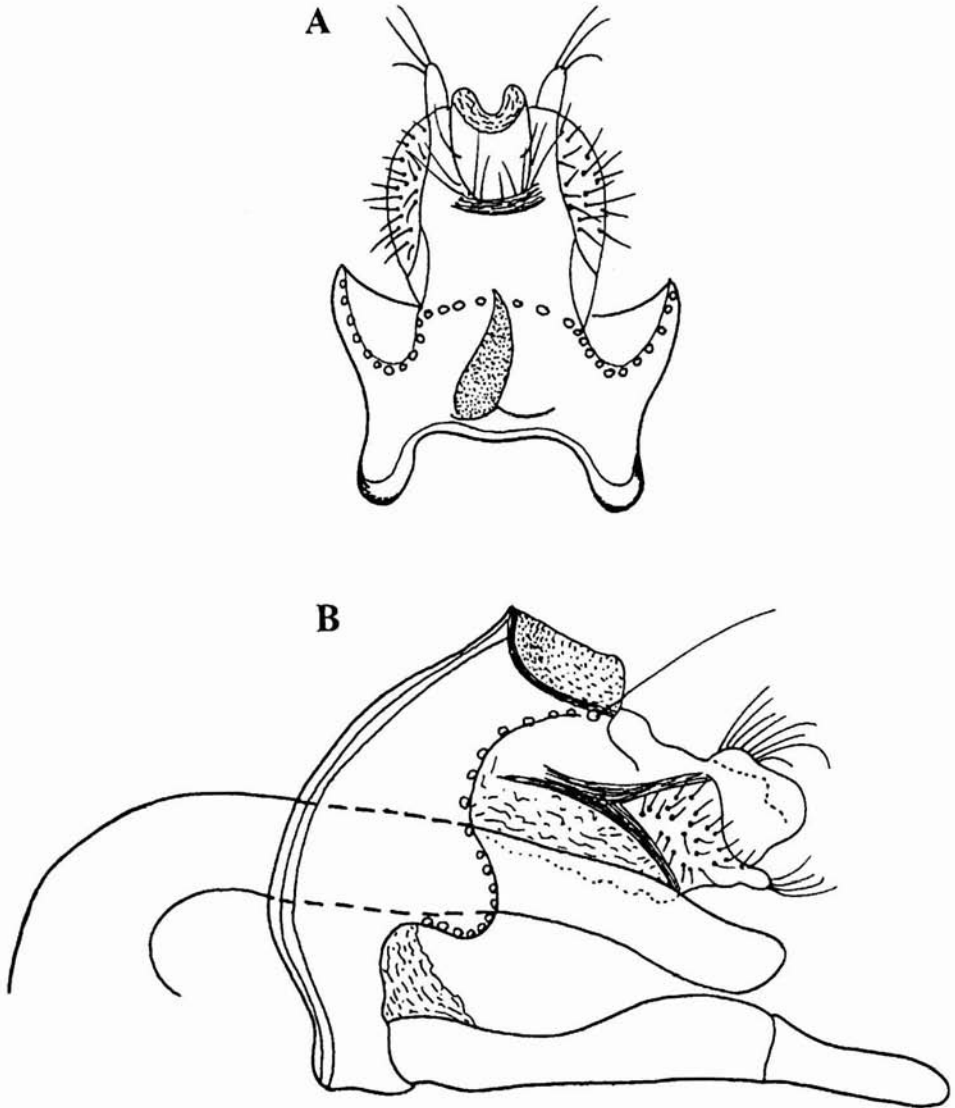


Fig. 5 – Male genitalia of a teratological specimen of *Hydropsyche siltalai* Döhler, 1963, from France, Meuse. A, dorsal; B, lateral.

*Hydropsyche fischeri* Botosaneanu, 1980  
is a synonym of *H. smiljae* Marinković, 1979, *nov. syn.*

Although I am aware of this synonymy since more than 20 years, I have several times missed the opportunity to publish it. Clearly, *smiljae* and *fischeri* were published practically simultaneously from the same locality in Hercegovina, but delay in the publication of *H. smiljae* as well as communication difficulty were responsible for this synonymy.

*Hydropsyche contubernalis* McL., 1865  
 ssp. *turkomanica* nov. ssp.  
 (Fig. 6)

Male *holotype* from "Turkmenistan, W. Kopet – Dagh, Sunt Ghazardagh, Kara-kala; 15.05.1998; Kljutschenko & Targonja". In alcohol, in the Z.M.A. collections.

A clearly distinct form of *H. contubernalis*, characterized, in the male genitalia, by: strongly developed "dorsal keel" of segment IX; elongate dorsal depression of segm. X (lateral view); long harpagones (more than 1/2 of coxopodite's length); phallus in dorso-ventral view with well developed antepical swelling not separated by clear "bottle-neck" from the apical part which has rather long parallel margins.

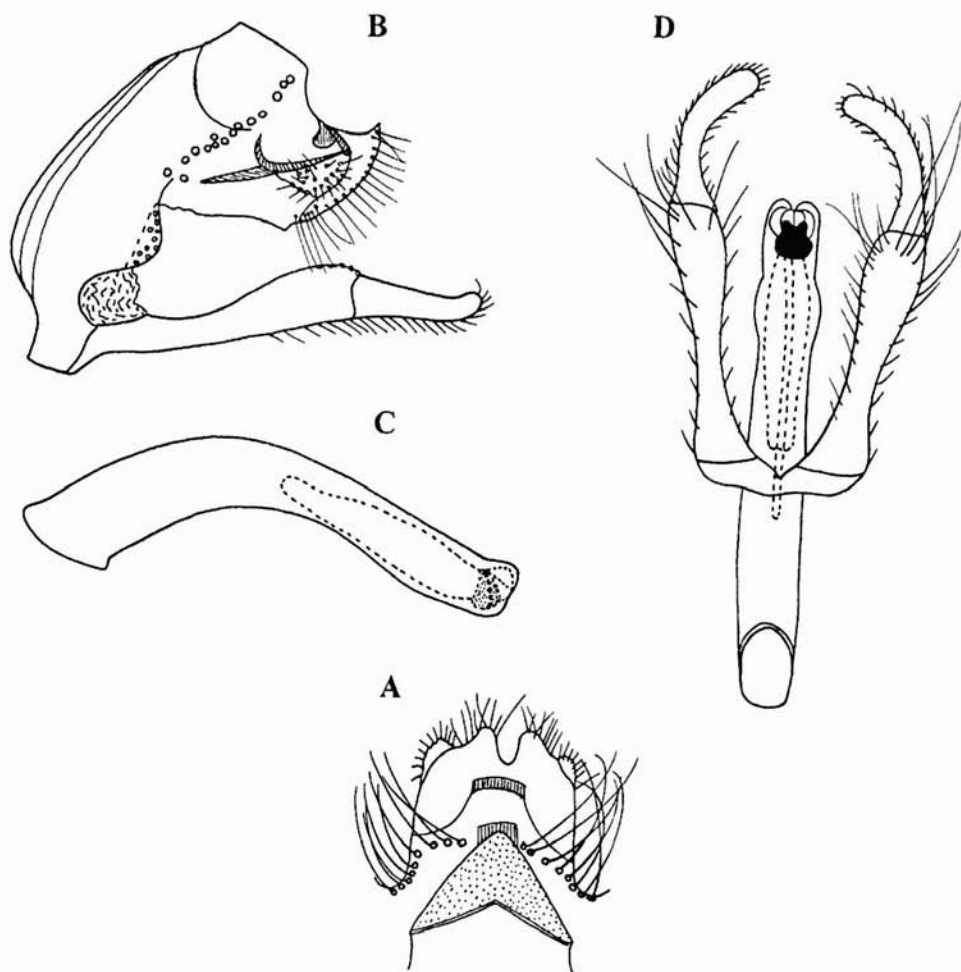


Fig. 6 – Genitalia of male holotype of *Hydropsyche contubernalis turkomanica* n. ssp. A, dorsal; B, lateral; C, phallus, lateral; D, phallus and gonopods, ventral.

It is interesting that the new subspecies is clearly distinct from *H. contubernalis iranica* Malicky, 1977, a "morphological type" considered (Malicky, 1981) as inhabiting a vast area including Iran, the Caucasus, Afghanistan, Asia Minor, Crimea, etc.

*Hydropsyche cornuta* Martynov, 1909  
(Fig. 7)

I have the opportunity to give drawings of the male genitalia of this interesting species, having seen in the Z. M. A. collections specimens from Erzurum, east Anatolia (1850 m a. s. l.; 3.VII. 1996, H. Özbek leg.).

*Ecclisopteryx dalecarlica* Kolenati, 1848

Species new for the fauna of France, although it is quite possible that it has been already published for France under *E. guttulata*. I have seen: 1 male from Cantal, Le Lagnon at 1,010 m., 16.VI.1982, A. Thomas; and 2 females from Cantal, Le Lagnon at 1,280 m., 30.VI.1982, A. Thomas.

*Limnephilus cianficconiae* Malicky, 1980  
ssp. *hispaniae* nov. ssp.  
(Fig. 8)

This species described from Sicily has been subsequently recorded also from Calabria and Emilia Romagna (Cianficconi, op. cit.). I myself have caught it in Sicily: Fiume Cutò – hydrographic basin of Fiume Simeto – at Mazzaporro (19.XI.1985). I have been surprised to find in the Z. M. A. collections 2 males specimens sampled from two different provinces of Spain: "Prov. Huesca, Benasque, 1,500 m., 31.VII-2.VIII, 1981, A. Cox & M. Prick"; and "Prov. Teruel, Albaracin, 1,000-1,250 m., 18-20.X.1993, A. P. J. A. Teunissen". Figure 8 (A, B), prepared from the Benasque specimen, will show that we have here unmistakably *L. cianficconiae*, be it with subtle differences from Sicilian specimens; together with what actually seems to be a wide distributional gap, these enable description of a new subspecies.

Male *holotype* (from Benasque) and male *paratype* (from Albaracin), both pinned, abdomina in glycerin; in the Z. M. A. collections.

Forewing length: 12 mm in the *holotype* (wing with innumerable white dots), 13 mm in the *paratype* (wing of much more uniform colour, indistinct white dots only toward apex).

Only superior appendages more clearly distinct from those of the Sicilian specimens: more squarish and with different shape of the heavily sclerotized, black thickening on their median side. Maybe, too, the characteristic inferior appendages are very slightly shorter than in the nominative ssp.

I know from Dr. M. A. González that *L. cianficconiae* has never previously been seen from the Iberian peninsula.



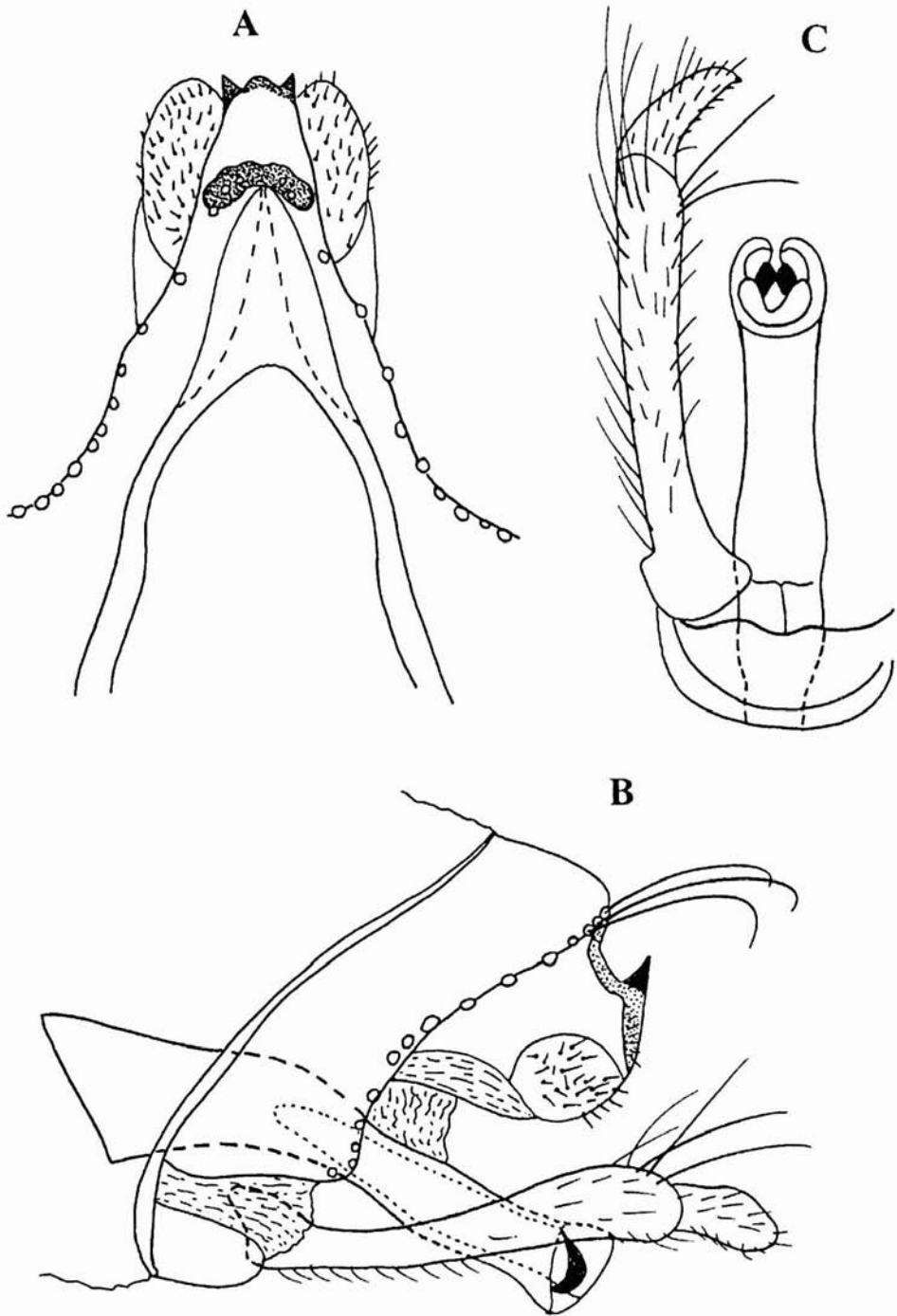


Fig. 7 - Male genitalia of *Hydropsyche cornuta* Martynov, 1909. A, dorsal; B, lateral; C, left inferior appendage with phallus, ventral.

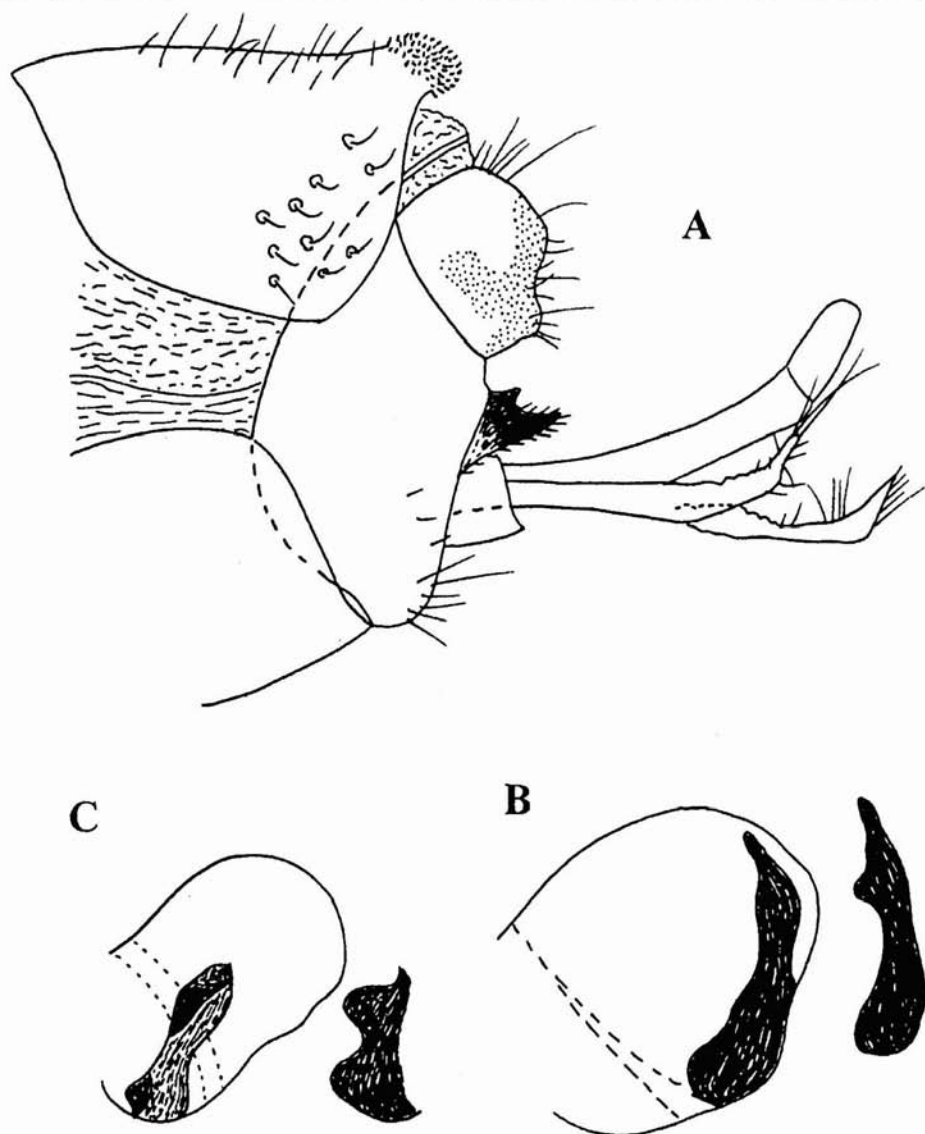


Fig. 8 - Genitalia of male holotype of *Limnephilus cianficconiae hispaniae* n. ssp. A, lateral; B, internal face of superior appendage, and its "black thickening" seen from behind; C, the same, specimen of *L. cianficconiae cianficconiae* from Sicily.

*Limnephilus centralis* Curtis, 1834

(Fig. 9)

The extraordinary variability of size and wing pattern of *L. centralis* is well known, whereas that of its male genitalia has not made the object of much comment. Recent examination of rather numerous specimens of this species from various European countries has convinced me that there is a similarly conspicuous variability in the male genitalia. Figure 9, representing the gonopod apex of 3 specimens

from the same French locality (Vosges: Charmes, VI.1981, G. E. Langohr) – drawings prepared from macerated abdomina, under identical observational angle, and at the same scale – will give an idea of the amplitude of this variability (illustration resembling one or another of these 3 figures can be found in several publications; but in some – for instance: Kumanski, 1988: fig. 36 A we find a gonopod illustration considerably different. To this should be added that slightly different observational angles will lead to a radically different shape of the intermediate appendages in dorsal view.

When describing *L. audeus* (Botosaneanu, 2000 b) I should have compared it especially with species like *centralis* Curtis, 1834, *hirsutus* (Pictet, 1834), or *tauricus* Schmid, 1964 – something which I neglected to do. But I believe that I have been right when comparing it with *L. petri* Marinkovic, 1966. I have actually drawn with some hesitation the conclusion that *L. audeus* is a synonym of *L. centralis* (**nov. syn.**). And I believe that the only character enabling more or less sure identification of the above mentioned species is the shape of the parameres (excellent figures in Svensson, 1971). It is not impossible that an exhaustive study of the variability of *L. centralis* will invalidate the idea that *L. audeus* is a synonym.

*Stenophylax crossotus* McL., 1884  
and  
*Stenophylax curvidens* Schmid, 1957  
(Fig. 10)

*Stenophylax crossotus* is a species with variable male genitalia, this variability not having been described in a sufficiently detailed manner - despite valuable information in Schmid (1949: 399, figs 170-174). Variable is the shape of the superior appendages, and especially that of the gonopods: width, especially at apex; depth of the apical concavity; development of the disto-median angle; a detail not remarked by Schmid (1949) is the fact that the apical marginal "rib" of the gonopods, well distinct in dry specimens, completely disappears after maceration in KOH.

Having examined in recent years many specimens from Corsica, Sicily, Spain and France, I have been puzzled especially by some male specimens from Spain or from the Pyrénées Orientales, apparently looking like in the reputedly N. African *S. curvidens*. The Pyrénées Orientales specimens in the Z. M. A. are from Argelès – sur – Mer (Fig. 10 A) and from Banyuls-sur-Mer. But having submitted my

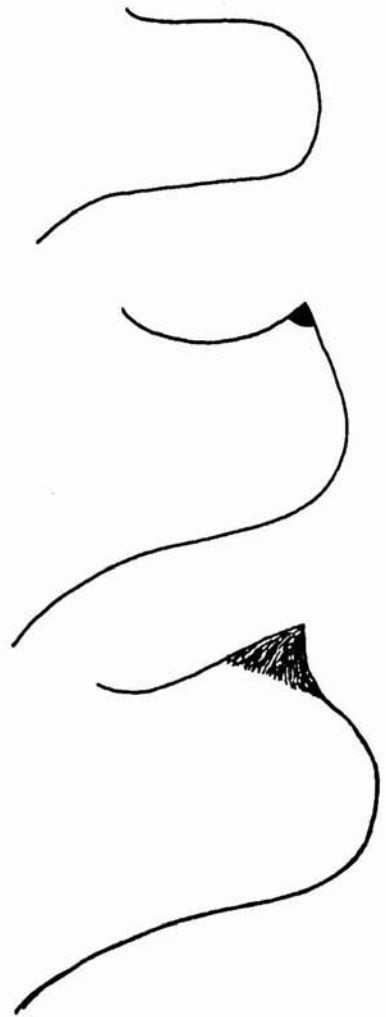


Fig. 9 – Apical part of inferior appendage, lateral, of three male specimens of *Limnephilus centralis* Curtis, 1834, from the same locality in the Vosges.

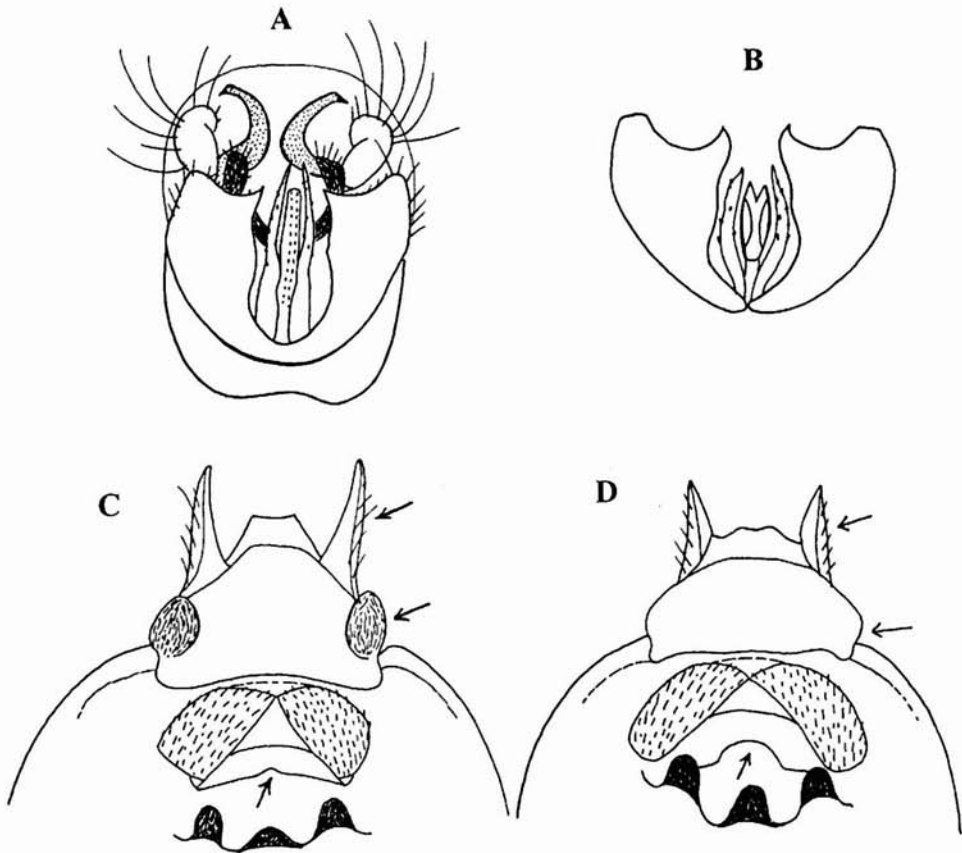


Fig. 10 – A, male genitalia in apical view of *Stenophylax crossotus* McL., 1884 from Argelès-sur-Mer; B, gonopods and phallic apparatus of *Stenophylax curvidens* Schmid, 1957 from Tunisia. Female genitalia, ventral: C, *S. curvidens* from Tunisia; D, *S. crossotus* from Alpes de Haute Provence.

observations to Dr. M. A. González, he informed me that these specimens conform to the pattern of variability of *S. crossotus* known to him from the Iberian peninsula.

Turning now to *S. curvidens*, a species described from Algeria, I have examined in the Z.M.A. collections several specimens from Tunisia: 1 male, 2 females from “Oued el Demene, 7 km S of Ain Draham, along brook, 600 m, 24.IV.1980”; 1 male from “Ain Draham”; all sampled by E. v. Nieuwkerken, G. Bryan & P. Oosterbroek. Gonopods and phallic apparatus of one of these males: see fig. 10 B.

In Botosaneanu (1974) the female of *S. curvidens* has been described on material from Algeria, the hope being expressed that it will be possible to distinguish it from that of *crossotus*. An additional effort is made here in this direction: fig. 10 C, D represent the female genitalia in ventral view of a specimen of *S. curvidens* from Tunisia, and of one of *S. crossotus* from France (Château

Arnoux, Alpes de Haute Provence, 11.X.1988, G. E. Langohr), the arrows pointing to what seems to be the most useful distinctive characters.

*Allogamus mendax* (McL., 1876)

and

*A. stadleri* (Schmid, 1951)

(Fig. 11)

The presence in the Z. M. A. collection (pinned specimens) of one pair of each of these species *caught together in the same French locality* ("Tanay, Côte d'Or, 1.X.1986"; leg. ?) has allowed me:

- to demonstrate that *stadleri* is a good species perfectly distinct from *mendax* – something having been doubted or even explicitly or implicitly denied in several publications;
- to give for the first time an illustration of the female genitalia of *A. stadleri*.

*A. mendax*. Male: forewing length 19 mm; head + thorax entirely anthracite – black; antenna dark brown, scapus black; genitalia exactly like excellently illustrated by Schmid (1951 b: figs 25-29). Female: forewing length 12.5 mm, colour of head and thorax like in the male; genitalia like in Schmid (1951 a: figs 164, 165, 168, 169).

*A. stadleri*. Male: forewing length 15 mm; head and warts of pronotum dark brown; remaining parts of the thorax anthracite – black; antennae incl. scapus brown, not very dark; genitalia exactly matching the excellent illustration in Schmid (1951 b: figs 1-7). Female: forewing length 13 mm; head and thorax entirely anthracite-black; antennae dark brown, scapus almost black; genitalia here illustrated for the first time (Fig. 11 A-C). In Tobias & Tobias (1981: Taf. 221, figs 6-9) are illustrated as being those of *A. stadleri* the female genitalia of another *Allogamus*. I have seen also a male of this species, preserved in alcohol: "Affluent du Ruisseau de Cros, ca 1,300 m alt., Cantal; A. Thomas"; in all respects identical with the male from Tanay.

Differences in size and colour between male and female of *A. mendax* and between male and female of *A. stadleri* well matching the observations made by F. Schmid about sexual dimorphism in certain *Allogamus* species.

That these two species are perfectly distinct in the two sexes is incontestable. How to explain the myth of the synonymy of *stadleri*? Maybe the evil comes from the 2<sup>nd</sup> edition of *Limnofauna Europaea* (Botosaneanu & Malicky, 1978) – whereas in the 1<sup>st</sup> edition (Botosaneanu, 1967) the situation had been correctly appreciated.

*A. stadleri* is known from Schwarzwald, the Vosges (Vogesen), Côte d'Or, and the French Pyrénées (Schmid, 1951 b, 1955; Décamps, 1967).

*Allogamus corsicus* (Ris, 1897)

(Fig. 12)

New figures are here given of the male genitalia of this Corsican endemite, made from one of the specimens caught (L. Botosaneanu & J. Giudicelli,

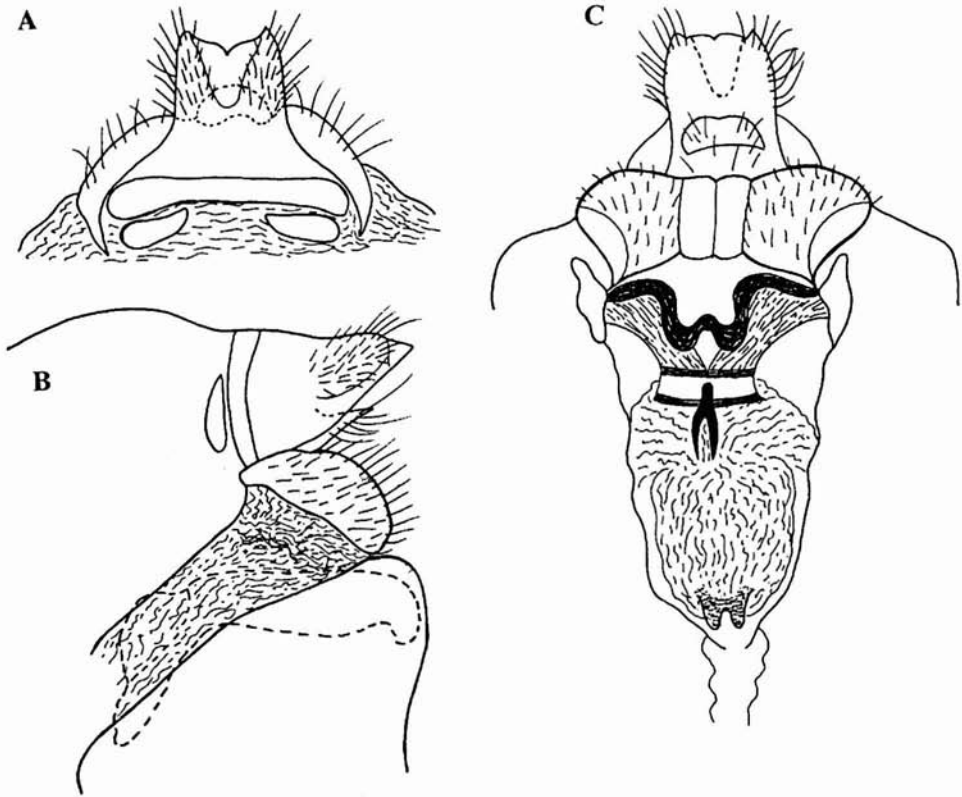


Fig. 11 – Female genitalia of *Allogamus stadleri* (Schmid, 1951). A, dorsal; B, lateral; C, ventral – with the vaginal complex.

13.XI.1986) on snow along the shore of Lac Melo, Restonica. They will serve for comparison with its sister-species, the Sardinian endemite *A. illiesorum* (Botosaneanu, 1980: fig. 3 B, D, E).

*Annitella thuringica* Ulmer, 1909

This westernmost element of a remarkable orthoselective phyletic series (Botosaneanu, 1973) is new for the French fauna. I have examined two males caught (4.XI.1982) by A. Thomas in the Cantal: Le Lagnon at 1,010 m. This represents a very considerable extension of the known distribution, the most approximate known localities being in Germany.

*Thremma sardoum* Costa, 1884  
(Fig. 13)

The female of this Corsican – Sardinian endemite has never been described. Here are genitalia drawings made from a Corsican specimen (Vizzavona, 1,000-1,100 m, 7/8. VIII. 1971, A. C. & W. N. Ellis).

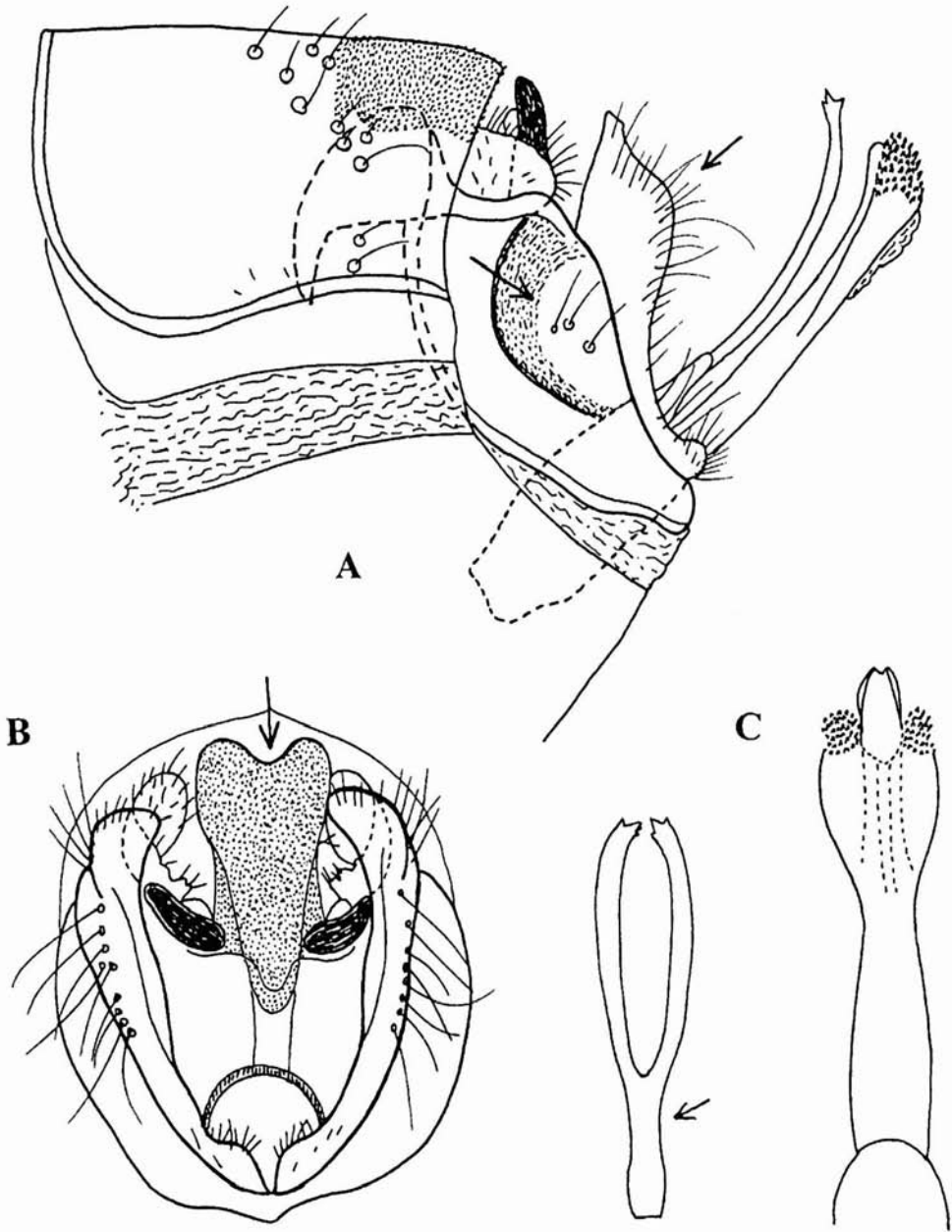


Fig. 12 – Male genitalia of *Allogamus corsicus* (Ris, 1897). A, lateral; B, apical; C, phallus with its parameres.

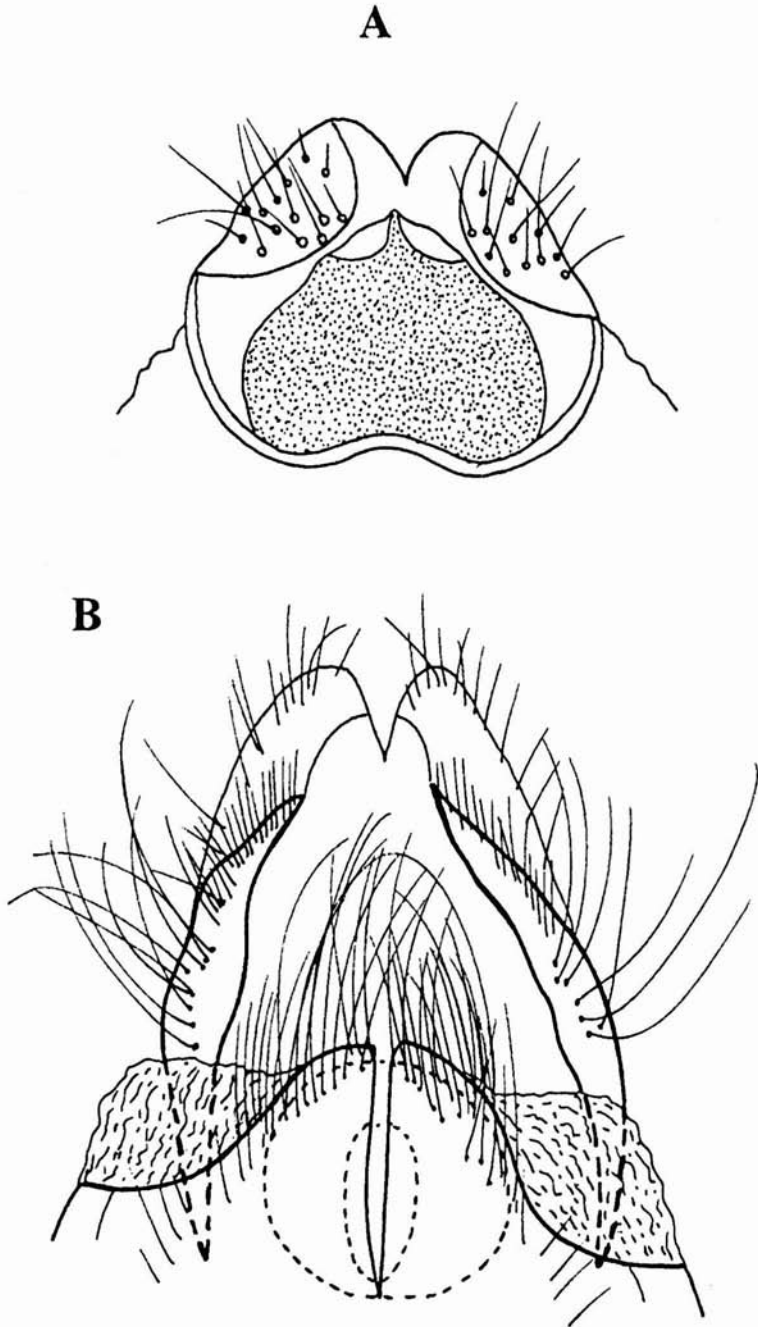


Fig. 13 – Female genitalia of *Thremma sardoum* Costa, 1884. A, dorsal; B, ventral.



*Sericostoma mesopotamicum* Mc Lachlan, 1898  
(Fig. 14)

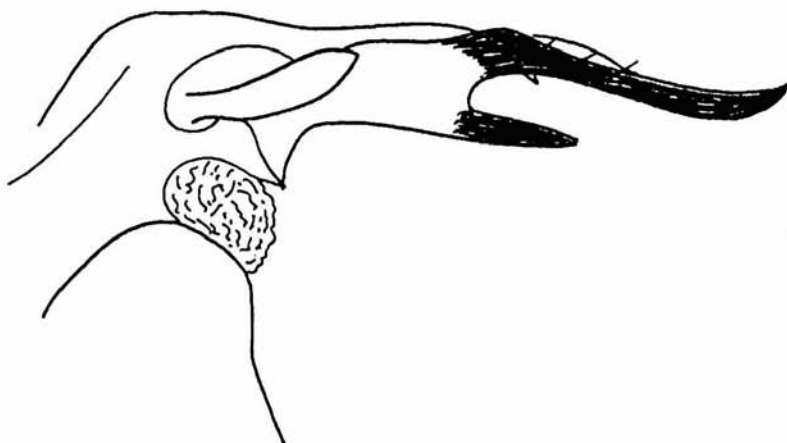


Fig. 14 – *Sericostoma mesopotamicum* McL, 1898, male, segment X, lateral (also superior appendage represented).

*Rediscovered after more than a century.*

Mc Lachlan (1898) described and illustrated this species from a specimen caught in “Mesopotamia (Malatia)”; Malatia is in central-eastern Anatolia. No subsequent recording of *S. mesopotamicum* is known, and in Botosaneanu (1992: 266) the opinion is expressed that this is unlikely a good species. Most to my surprise I have found in the Z. M. A. collections 4 males and 1 female of *S. mesopotamicum* sampled in Anatolia by Dutch entomologists and perfectly matching Mc Lachlan’s description and illustration. The sampling data are as follows: 1 male “Nigde, 10 km S of Camardi, 1,300 m., 30.VI.1982, H. v. Oorschot & H. v. d. Brink”; 1 male “Sivas, Env. Gökpınar, 10 km, S of Gürün, 1,500–1,700 m, 30.VII.–2.VIII.1983, H. v. Oorschot, H. v. d. Brink & H. Wiering”; 2 males, 1 female “Hakkari, W. side and E. side Suvarihalil Gecidi, 1,900–2,250 m, 14.VI.1985, H. v. Oorschot & H. v. d. Brink”.

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TRICHOPTERE VEST-PALEARCTICE: O SELECȚIE DE EXEMPLARE  
INTERESANTE (INSECTA: TRICHOPTERA)

REZUMAT

Observații originale și documente acumulate în mai bine de 25 de ani asupra unui număr de taxoni vest-palearctici de Trichoptere, dar care nu și-au putut găsi locul în vreo publicație, sunt prezentate în această lucrare. Pentru mai multe specii din Franța continentală, Corsica, Italia, Tunisia,

etc. sunt prezentate date originale (morfologie, variabilitate, distribuție) – incluzând, de pildă, redescoperirea după mai bine de un secol, a speciei *Sericostoma mesopotamicum* McL (Anatolia). Subspecia *Wormaldia occipitalis vaillantorum* Bots. (Rodos) e transferată la *W. juliani* Kumanski (Bulgaria). Sunt ilustrate cazuri de exemplare teratologice în genurile *Polycentropus* și *Hydropsyche*. Statutul de *bona species* (adesea contestat în literatură) e confirmat pentru *Allogamus stadleri* Schmid. Femelele de *A. stadleri* și de *Thremma sardoum* Costa sunt pentru prima dată ilustrate, pe baza unor exemplare din Côte d'Or și, respectiv, din Corsica. Sunt propuse trei noi sinonimii (în genurile *Hydropsyche* și *Limnephilus*). Două noi subspecii sunt descrise: *Hydropsyche contubernalis turkomanica* (Turkmenistan) și *Limnephilus cianficconiae hispaniae* (Spania: Huesca și Teruel) – acest din urmă caz remarcabil din punctul de vedere al distribuției, specia fiind până în prezent cunoscută doar din Sicilia și Italia peninsulară.

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