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The identity of *Corizoneura caucasica* Kröber and
consequent change of name for some
Palearctic species of *Silvius* *)
(Diptera, Tabanidae)

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Abstract

Examination of the syntypes of *Corizoneura* (= *Stonemyia*) *caucasica* KRÖBER, 1921, from "Russian Kurdistan" [now eastern Turkey] revealed that it is not a *Stonemyia* species and is not in the subfamily *Pangoniinae*. It is conspecific with *Silvius* (*Silvius*) *latifrons* OLSUFJEV, 1937. As a result, *latifrons* becomes the junior synonym of *Silvius causicus* (KRÖBER, 1921). *Silvius* (*Nemorius*) *causicus* OLSUFJEV, 1937, is thus preoccupied, and the next oldest available name, *Silvius* (*Nemorius*) *molitor* BOGACHEV & SAMEDOV, 1949, becomes the nominate taxon. A new subspecific name, *Silvius* (*Nemorius*) *molitor olsufjevi* (nom. nov.) is proposed for the old nominate form,

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caucasicus caucasicus sensu OLSUFJEV. A summary of name changes is given, as is an illustration of the male genitalia of *Silvius caucasicus* (KRÖBER, 1921), and the current status of species described in *Corizoneura* in the Palearctic Region is briefly reviewed.

The tabanid taxon *Corizoneura* RONDANI has had a checkered history since RONDANI's description in 1863. It has been variously treated as a distinct, although unplaced, genus (MACKERRAS 1955a), or as a subgenus of *Diatomineura* RONDANI (SHIRAKI 1918) or *Pangonia* RONDANI [lapsus for *Pangonius* LATREILLE] (SURCOUF 1921, KRÖBER 1925, OLSUFJEV 1937). Species originally included in *Corizoneura* have had a turbulent history of movement into various genera of *Pangoniinae*. SURCOUF (1921) included in *Corizoneura* a diverse array of species currently placed in *Philoliche* WIEDEMANN, *Scaptia* WALKER, *Stonemyia* BRENNAN, and other genera. A major problem was the inconsistent use of taxonomic characters to define *Corizoneura*, and subsequent confusion about correct placement of species. The type species of *Corizoneura* is *Pangonia appendiculata* MACQUART (= *aethiopica* THUNBERG), currently in the genus *Philoliche*. Therefore, *Corizoneura*, sensu RONDANI, is a synonym of *Philoliche*. Nearctic and Palearctic species originally assigned to *Corizoneura* have since been transferred to *Stonemyia* and *Pegasomyia* BURGER in the Nearctic Region (BURGER 1985), and to *Stonemyia* in the Palearctic Region.

The genus *Stonemyia* was characterized by BRENNAN (1935) as having eyes bare or hairy, frontal callus absent in the female, ocelli well-developed, maxillary palpi slender and relatively short, and the R (1st posterior) cell of the wing wide open to the hind margin. All known species of *Stonemyia* also have a row of bristles on the ventral surface of the scutellum (BURGER 1985). In the Palearctic Region, two species from Japan also are correctly placed in *Stonemyia*, *S. yezoense* (SHIRAKI) and *S. enokozonoi* (OUCHI). Recently, YONETSU (1987) described a subspecies of *enokozonoi*, *ishizuchiensis* YONETSU, from Ehime and Kochi Prefectures, Japan, and CHEN & CAO (1987)

described *Stonemyia hirticallus* CHEN & CAO from Xinbin (Huoshi) (41°41'N, 124°55'E), Liaoning Province, China. The species described from China was unusual in having a dark band on the wing.

The identity of species originally described in *Corizoneura* from the European part of the Palearctic Region remained uncertain (MACKERRAS 1955a) until recently. They were placed in *Stonemyia* in all recent papers treating the Palearctic fauna (LECLERCQ 1960, CHVALA et al. 1972, LECLERCQ & OLSUFJEV 1975, MOUCHA 1976, OLSUFJEV 1977, CHVALA 1988), without critical analysis of taxonomic characters unique to *Stonemyia*. SCHACHT & PORTILLO (1982) found *Stonemyia hispanica* (KRÖBER) to be a species of *Philoliche* (*Ommatiosteres*) that was mislabelled "Spanien". CHAINEY (1983) found that KRÖBER's specimen represented a species from South Africa.

Another species of doubtful identity is *Stonemyia tigris* (BIGOT). All known *Stonemyia* species have well-developed ocelli, but BIGOT (1880:144) states that "it is placed in *Philoliche*, and thus as a group of *Pangonia*, as indicated by the absence of ocelli and the bare eyes ... notwithstanding the shortness of the proboscis ...". It is highly unlikely that *tigris* is a *Stonemyia*, and its identity should be listed as uncertain, pending reexamination of BIGOT's specimens.

SURCOUF (1922) described *Buplex* (= *Stonemyia*) *bazini* SURCOUF from Kouling in "Indochina". OUCHI (1939) described *Corizoneura chekiangensis* OUCHI from Tienmushan, in Chekiang (Zhejiang) Province, China. OUCHI's species was subsequently synonymized with SURCOUF's. Although its type locality is considerably south of the range of Japanese species of *Stonemyia*, it is quite possible that *bazini* is properly placed in *Stonemyia* since OUCHI compared his specimens with *Stonemyia yezoense*. However, specimens of *bazini*, if they still exist, need to be reexamined.

KRÖBER (1921) described *Corizoneura caucasica* KRÖBER from an unspecified number of males and females from Kasikoporan *), "Russian Kurdistan" ("Turkish Armenia", now

*) Kasikoporan is now spelled Kazkoparan (Kars, 40°02'N, 43°26'E).

part of eastern Turkey). The syntype male and female were from the collection of Bernhard LICHTWARDT, now in the Institut für Pflanzenschutzforschung, Eberswalde, DDR (East Germany). These syntypes were examined by JFB, courtesy of the Institut für Pflanzenschutzforschung. The female specimen now consists only of fragments of the thorax and abdomen, one wing and the legs, and was apparently damaged by museum pests. The male is in good condition, except the head is missing. A male "cotype" (syntype) was also found in the National Museum of Natural History, Washington, D.C. by JFB and examined by us. The NMNH specimen is labelled "Russ. Kurdist., Kasikoporan, E. KÖNIG", and bears KRÖBER's determination label, "*Corizoneura caucasica* ♂ KRÖB., det. O. KRÖBER, 1918."

Examination of the above syntypes revealed that they are not a *Stonemyia* species, and examination of the genitalia of the NMNH specimen showed that it is not a *Pangoniinae*, since the 9th tergite is divided. The sharply pointed aedeagus and style (Fig. 1) suggested that *caucasica* was in the subfamily *Chrysopsinae*, and closely resembled the illustration by MACKERRAS (1955b) of the male genitalia of *Silvius (Silvius) vituli* (F.) (= *alpinus* (SCOPOLI)). Comparison of *caucasica* with Palearctic species of *Silvius* by LLP revealed that KRÖBER's syntypes are conspecific with *Silvius (Silvius) latifrons* OLSUFJEV. KRÖBER's original description of *caucasica* closely matches *Silvius latifrons* males and females. Furthermore, KRÖBER's illustration of *caucasica* shows a large, triangular frontal callus and strongly divergent eyes that are characteristic of *Silvius latifrons*. The description of *Silvius latifrons* by OLSUFJEV (1937) is similar to that of KRÖBER's *caucasica*. The syntypes are very similar to specimens of *Silvius latifrons* in the collection of JFB, except the hairs of the face and pleura are more whitish. There is no doubt that these taxa are conspecific.

Several name changes of *Silvius* species in the Palearctic Region are necessary as a result of the discovery of the identity of *Corizoneura caucasica*. *Silvius (Silvius) causicus* (KRÖBER) becomes the valid name for the species described as *latifrons* by OLSUFJEV. The name for

another species, *Silvius (Nemorius) caucasicus* OLSUFJEV, is preoccupied by KRÖBER's name. The next oldest available name, *molitor* BOGACHEV & SAMEDOV, becomes the name for the nominate taxon. In addition, a new name, *olsufjevi* (**nom.nov.**), is proposed for the subspecific taxon of *molitor*, in honor of the eminent Russian entomologist and parasitologist, Nikolai Grigorievich OLSUFJEF, a major contributor to our knowledge of Palearctic *Tabanidae*. The name changes proposed in the genus *Silvius* are summarized as follows:

Silvius (Silvius) caucasicus caucasicus (KRÖBER, 1921) (*Corizoneura*) **comb.nov.** = *latifrons latifrons* OLSUFJEV, 1937, **syn.nov.**

Silvius (Silvius) caucasicus graecus CHVALA, LYNEBORG & MOUCHA, 1972, **comb.nov.** = *latifrons graecus* CHVALA, LYNEBORG & MOUCHA, 1972.

Silvius (Nemorius) molitor molitor BOGACHEV & SAMEDOV, 1949, **comb.nov.** = *caucasicus molitor* BOGACHEV & SAMEDOV, 1949. Nominate taxon preoccupied by *caucasica* KRÖBER, 1921.

Silvius (Nemorius) molitor olsufjevi BURGER & PECHUMAN, **nom.nov.** = *caucasicus caucasicus* OLSUFJEV, 1937. Preoccupied by *caucasica* KRÖBER, 1921.

The identities of only two "*Corizoneura*" species from the Palearctic Region remain to be clarified, *tigris* BIGOT, and *bazini* SURCOUF (= *chekiangensis* OUCHI). The former is almost certainly not a *Stonemyia* but its identity remains unclear. The latter is possibly *Stonemyia* despite its southern distribution.

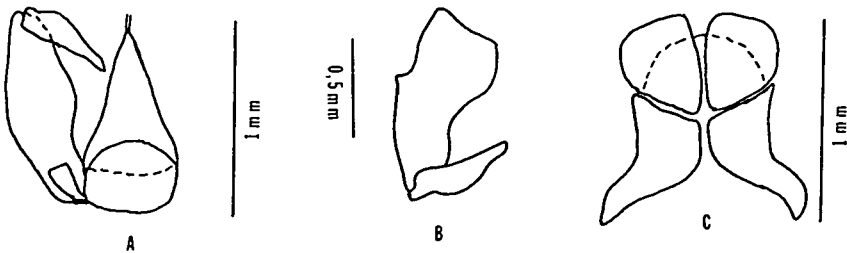


Fig.1: Male genitalia of "*Corizoneura*" *caucasica* (= *Silvius*) - a) Aedeagus, gonocoxite and style; b) Gonocoxite and style; c) 9th tergite and cerci.

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