

***Paragus gorgus* Vujić & Radenković, 1999: a junior synonym of *P. majoranae* Rondani, 1857, and reinstatement of *P. pecchiolii* Rondani, 1857 (Diptera, Syrphidae)**

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Sommaggio, D. (2002): *Paragus gorgus* Vujić & Radenković, 1999: a junior synonym of *P. majoranae* Rondani, 1857, and reinstatement of *P. pecchiolii* Rondani, 1857 (Diptera, Syrphidae). – Volucella 6, 53-56. Stuttgart.

Re-examination of the type material demonstrates that *Paragus gorgus* Vujić & Radenković, 1999 is a junior synonym of *majoranae* of Rondani, 1857 **syn.nov.**, and that *pecchiolii* of Rondani, 1857 is the valid name for *P. majoranae* Rondani, 1857, sensu Goeldlin de Tiefenau (1976), **syn.nov.** and *P. tarsatus* Rondani, 1857, **syn.nov.** A lectotype is designated for *P. tarsatus*.

Zusammenfassung

Nach Untersuchung des Typenmaterials erwies sich *Paragus gorgus* Vujić & Radenković, 1999 als jüngeres Synonym von *majoranae* Rondani, 1857 **syn.nov.** *P. pecchiolii* Rondani, 1857 ist der gültige Name für *P. majoranae* Rondani, 1857, sensu Goeldlin de Tiefenau (1976), **syn.nov.** und *P. tarsatus* Rondani, 1857, **syn.nov.** Für *P. tarsatus* wurde ein Lectotypus designiert.

The genus *Paragus* Latreille, 1804 has been recognised as a separate genus within the Syrphidae since the very beginning of the nineteenth century. Although *Paragus* is well defined at generic level, the taxonomy of *Paragus* species is still very complicated. The studies by Stuckenberg (1954), Goeldlin de Tiefenau (1976) and Vockeroth (1985) have contributed greatly to knowledge of the genus. These authors indicate the need to primarily use the male genitalia for the classification of *Paragus* species. In particular, the work by Goeldlin de Tiefenau (1976) can be considered a landmarks for the Palaearctic region; the author studied the type material of many species and clarified their systematic position. Goeldlin de Tiefenau (1976) recognized 14 species and 45 synonyms in the West Palaearctic region.

Since Goeldlin de Tiefenau's (1976) work, several new species have been described from western parts of the Palaearctic. One closely related group of species has emerged clearly, on the basis of both general adult morphology and features of the male genitalia.

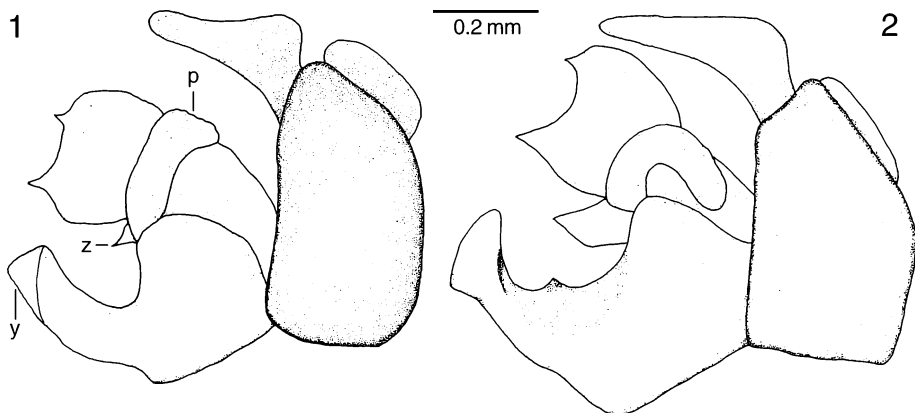
P. majoranae Rondani, 1857, *P. albifrons* (Fallén, 1817) and *P. flammaeus* Goeldlin de Tiefenau, 1971, were recognised by Goeldlin de Tiefenau (1976). In 1981 three new species in this group were described; namely *P. hermonensis* Kaplan, 1981, *P. bradescui* Stănescu, 1981 and *P. antoinettae* Goeldlin de Tiefenau & Lucas, 1981 and *P. sexarcuatus* Bezzi, 1924 (previously considered by Goeldlin de Tiefenau (1976) as a junior synonym of *P. strigatus* Meigen, 1822) was re-instated (Goeldlin de Tiefenau & Lucas 1981). Claussen (1989) subsequently described *P. atlasi* from Morocco, another new species belonging to the *P. majoranae* group. More recently, Vujić et al. (1999) revised this group of species, also clarifying the much debated position of *P. bradescui* and *P. hermonensis*, which they recognise as separate taxa. Also, Vujić et al. (1999) synonymised *P. antoinettae* Goeldlin de Tiefenau & Lucas, 1981 under *P. bradescui* Stănescu, 1981. In the same work an additional new species was described: *P. gorgus* Vujić & Radenković, 1999. Even if some doubt has been expressed about the identity of *P. gorgus* (Speight 2001), several features, both in adult morphology and male genitalia, allow separation of *P. gorgus* from the other species of the genus. In particular, *P. gorgus* can be separated from *P. majoranae* sensu Vujić et al. (1999) by the following characters:

- ventral spine on posterior end of aedeagal apodeme much smaller than in *P. majoranae* (z in figs. 1 and 2; see also fig. 1 in Vujić et al. 1999);
- aedeagal guide convex in lateral view, concave in *P. majoranae* (y in figs. 1 and 2; see also fig. 1 in Vujić et al. 1999);
- paramere shallowly arcuate (p in figs. 1 and 2; see also fig. 1 in Vujić et al. 1999);
- pollinose submedial vittae on mesonotum long, extending beyond transverse suture (see figs. 18, 19, 22 and 23 in Vujić et al. 1999).

The Rondani collection ("La Specola" Zoological Museum Florence) includes four specimens (three males and one female) numbered "338", which corresponds to *P. majoranae*. Goeldlin de Tiefenau (1976) mentions only two specimens. He labeled and designated one as lectotype of *P. majoranae* and the other as paralectotype (Goeldlin de Tiefenau 1976: 96). Unfortunately Goeldlin de Tiefenau could not examine the male genitalia because, at that time, the museum authorities did not allow the preparation of the terminalia (Goeldlin de Tiefenau pers. comm.).

Re-examination of the lectotype and paralectotype of *P. majoranae*, carried out by the present author, demonstrates that the lectotype is the species described by Vujić et al. (1999) as *P. gorgus*, and the paralectotype is *P. bradescui* (fig. 1 shows the male genitalia of the lectotype). Comparison between the lectotype of *P. majoranae* and the holotype of *P. gorgus* similarly shows that they clearly belong to the same species.

Rondani (1857) described five species of Paragus: *P. coadunatus* belonging to *Paragus* subg. *Pandasyophthalmus*. *P. ebracatus* considered a synonym of *P. cinctus* Schiner et Egger, 1853, by Sack (1935) and Goeldlin de Tiefenau (1976); *P. majoranae*, formerly considered a synonym of *P. albifrons* (Fallén, 1817) (e.g. Bezzi and Stein 1907; Sack 1932), but reinstated as a valid species by Goeldlin de Tiefenau (1976); *P. pecchiolii*



Figs. 1-2: Male genitalia. – 1. *Paragus majoranae*. Lateral view of lectotype genitalia; – 2. *Paragus pecchiolii*. Lateral view of holotype genitalia. – p = paramere; z = posterior end of aedeagal apodeme; y: aedeagal guide.

and *P. tarsatus* considered by Goeldlin de Tiefenau (1976) as synonyms of *P. majoranae* Rondani, 1857. In Rondani's collection, there is one male of *P. pecchiolii* and two males of *P. tarsatus*; only one male was mentioned by Goeldlin de Tiefenau (1976).

Fig. 2 shows the male genitalia of *P. pecchiolii*. The species agrees with *P. majoranae* as described by Goeldlin de Tiefenau (1976) and most subsequent authors. Only one male is preserved in the Rondani collection, as also stated by Rondani (1857: 192), and has been designated as the holotype. The specimen is pinned and well preserved; there are three labels: (1) white: "336", (2) white: "= *P. majoranae* Rondani P. Goeldlin det 1971", (3) red: "*P. pecchiolii* HOLOTYPE".

Rondani (1857: 191) states that he studied only two males of *P. tarsatus*. In his collection there are two males: one male of *P. tarsatus* is *P. coadunatus* while the other has genitalia corresponding with those of *P. pecchiolii*; the latter has been selected as lectotype in order to fix its taxonomic status. The specimen is pinned and well preserved; there are three labels: (1) white: "345", (2) white: "= *P. majoranae* Rondani P. Goeldlin det 1971", (3) red: "*P. tarsatus* LECTOTYPE".

I therefore propose here to reinstate *P. pecchiolii* as a valid taxon and to consider *P. gorgus* as a junior synonym of *P. majoranae*.

The nomenclatural changes proposed here may be summarised as follows:

P. majoranae Rondani, 1857

= *P. gorgus* Vujić & Radenković, 1999, new synonymy

P. pecchiolii Rondani, 1857

= *P. tarsatus* Rondani, 1857, new synonymy

= *P. majoranae* Rondani, 1857 sensu Goeldlin (1976) and following authors.

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