

**On the occurrence of *Gomphus vulgatissimus* (Linnaeus, 1758) and *G. schneiderii* Selys, 1850 in Azerbaijan – a brief discussion of the known status
– a reply**

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The unfair, disloyal and discourteous paper published by Schorr & Snegovaya (2022) in IDF report 168, proves, upon reading, to have no sound basis and to rely on a superficial look only.

The minimum to criticize a paper is to read it instead to just looking at the images, and I will list hereafter the wrong statements it contains.

- (1) Contrarily to your statements, the reasons of the omission of *Gomphus vulgatissimus* and other doubtful taxa in the area covered are perfectly explicated in the atlas. Just read the taxonomy section page 10. It is not the place in such Atlas to discuss more and to resolve systematic and taxonomic uncertainties.
- (2) Your statement that Bartenev was able to differentiate *G. vulgatissimus* from *G. schneiderii* is far from being convincing as Bartenev is known to have described many species and subspecies which don't actually exist in terms of distinct taxa (*Aeshna juncea atshischgho*, *A. undulata*, *Leucorrhinia circassica*, *L. ussuriensis*, *Lindenia inkiti*, *Sympetrum matrix*, *S. verum*...etc.), confounding intraspecific variability and interspecies differences. Prior to Morton's paper on the Odonata of Constantinople (1915) these two *Gomphus* were mostly separated by colour characters of strong variability as the structural characters we can use now, which originate from Selys (1850, 1857, 1887) had never been published with drawings, making likely that Bartenev could not use them reliably. Three years after Bartenev's papers, Morton (1915) published drawings of the male abdominal appendages of one *G. vulgatissimus* and two *G. schneiderii* to allow a reliable identification of these two taxa. However the two *G. schneiderii* specimens were so different that one is equally different of the other than it is different from the drawing of *G. vulgatissimus*. Natural variability of each taxon was not accounted for by this paper, raising the issue of how representative actually they are and making their use unreliable.
- (3) Claiming that larval determination of *Gomphus vulgatissimus* by Kasymov (1965) is correct is particularly naive as anybody know that a large part of purely larval papers

published by general limnologists include basic aberrations (can we accept because that has been published that *Macromia splendens* and *Boyeria irene* reproduce in Oman, that *Somatochlora arctica* and *Coenagrion armatum* reproduce in temporary wadi in Algeria, that *Ophiogomphus cecilia* and *Coenagrion lunulatum* are plentiful in the rivers of Central Anatolia, and that New World Odonata species are common in Iran ?). Any identification of a species out of its known range basing on only larvae or exuviae should be carefully evaluated and often rejected. Prior to Seidenbusch (1995), Suhling & Müller (1996) and Brochard & Van Ploeg (2013) there was no way to separate the exuviae/larvae of *G. vulgatissimus* and *G. schneiderii* and the proposed criteria remain still to be validated at the continental scale throughout the range of both taxa (the same criteria of the occurrence or the absence of lateral spines on the 6th segment of the larvae or the exuviae has been proved to fail to separate reliably the larvae/exuviae of *Onychogomphus f. forcipatus* and *O. f. unguiculatus*, due to a number of exceptions (Julian & Julian; 1994)). Kasymov's work could not therefore separate reliably these *Gomphus* species at the larval stage.

- (4) Claiming that Skvortsov's book (2010) is the gold standard to study Odonata and their larvae in the Caucasus is a dream, being the number of basic errors it contains besides useful information (*Cordulegaster princeps* doesn't live in the Caucasus but in Morocco; etc).
- (5) The apparent absence or rarity of *Gomphus vulgatissimus* from the North Caucasus countries can hardly be due to a gap of field investigation, as Ciscaucasia had been enough covered in the past to take the absence or rarity of this species in Ciscaucasia for true, and consequently, Azerbaijan, as geographically the easternmost part of Anatolia, is clearly out of the range of *G. vulgatissimus* sensu stricto. This is the reason for which Skvortsov (2010) mapped *G. schneiderii* (p. 583) and not *G. vulgatissimus* (p. 557) in Azerbaijan, adopting with care the most reasonable point of view as possible in this respect. This is now confirmed by the emendation of a former record of *Gomphus vulgatissimus* by Snegovaya (2020) from Northeast Azerbaijan, which is now turned into *G. schneiderii* (Snegovaya, 2022). Being the obvious difficulty of the local odonatologists to separate both taxa (and the same is true for anybody in Northern Greece), a previous record of *G. vulgatissimus* by Skvortsov & Snegovaya (2014) in the Northwest of the country cannot be accepted as reliable any more.
- (6) Ketenchiev's (e.g. Ketenchiev 2021) papers are no help as their taxonomic nomenclature is largely obsolete and ignore nearly all recent updates
- (7) Any paper can be criticized, but critics published with the aim to destroy by people which described previously (Skvortsov & Snegovaya 2015) two so-called new species which were actually known since a long time as *C. charpentieri* don't agree with the usual standard of scientific behaviour, courtesy and politeness.
- (8) Rather than publishing such an unpleasant paper full of false claims, missing of substantiated statements and attacking slyly authors' Atlas It would have been more correct to e-mail to the first author at the valid e-mail address indicated in the work incriminated.

References

- Bartenev A.N., 1912a. Über eine Kollektion von Odonaten des kaukasischen Museums in Tiflis. Mitteilungen des Kaukasischen Museums Tiflis 7(1): 107-116.
- Bartenev A.N., 1912b. Odonatenausbeute in Transkaukasien im Sommer 1911. Raboty iz laboratoru zoologicheskago kabinetu Imperatorskago warshavskago universiteta, 1912 (1): 132-157.
- Brochard C. & E. van der Ploeg., 2013. Searching for exuviae of endemic Odonata species in Greece. Brachytron 15 (2): 83-101.
- Boudot J.-P , Borisov S , De Knijf G., Van Grunsven R., Schröter A. & Kalkman V.J., 2021. Atlas of the dragonflies and damselflies of West and Central Asia. Brachytron 22, Supplement. 244 pp.
- Juliand C. & Juliand P., 1994. Sur l'identification des exuvies d'*Onychogomphus forcipatus forcipatus* (L., 1758). et d'*Onychogomphus forcipatus unguiculatus* (Vander Linden, 1820). Martinia 10 (1): 3-5.
- Kasymov A.G. 1965. Gidrofauna Nizhnei Kury i Mingechaurskogo vodokhranilistcha. Otryad Odonata. Baku, ELM: 265-271 [Russian].
- Ketenchiev Kh. A., 2021. Comparative study on the fauna of dragonflies (Insecta: Odonata) in the Armenian, Iranian and Asia Minor highlands as part of the Asiatic Mediterranean (Mediterranean faunal subregion, Paleosubtropical region, Boreal kingdom). 9th International Symposium "Steppes of Northern Eurasia". IOP Conference Series: Earth and Environmental Science, 817. <https://www.proquest.com/docview/2555413134>
- Morton K.J., 1915. Notes on Odonata from the environs of Constantinople. The Entomologist 48 (625):129-134.
- Schorr M. & Snegovaya N.Y., 2022. On the occurrence of *Gomphus vulgatissimus* (Linnaeus, 1758) and *G. schneiderii* Selys, 1850 in Azerbaijan – a brief discussion of the known status. International Dragonfly Fund-Report 168: 25-32.
- Seidenbusch R. 1995. Comparison of the last instar larvae of *Gomphus vulgatissimus* Linnaeus, 1758, *Gomphus schneideri* Selys, 1850, *Gomphus epophthalmus* Selys, 1872. Sulzbach-Rosenberger Libellenrundbrief 2: 11-14.
- Selys-Longchamps E. (de), 1850. Revue des Odonates ou Libellules d'Europe. Roret, Paris, 408 p + 11 plates.
- Selys Longchamps E. (de), 1858. Monographie des Gomphines. Mémoires de la Société Royale des Sciences de Liège, 11: 257-720, pls 1-5.
- Selys Longchamps E. (de), 1887. Odonates de l'Asie Mineure et révision de ceux des autres parties de la faune dite Européenne. Annales de la Société Entomologique de Belgique 31: 1-85.
- Skvortsov V.E., 2010. The dragonflies of Eastern Europe and Caucasus: An illustrated guide. KMK Scientific Press Ltd. Moscow. ISBN: 9785873176571. 623 pp.
- Skvortsov V.E. & Snegovaya N.Y., 2014. Additions to the knowledge of the Odonata fauna of Azerbaijan, with six new records. Notulae odonatologicae 8 (3): 37-76.
- Skvortsov V.E. & N.Y. Snegovaya 2015. Two new species of *Cordulegaster* Leach, 1815 from Azerbaijan (Odonata, Cordulegasteridae). IDF Report 85: 1-22.

- Snegovaya N.Y., 2020. A progress study of the Odonata from Azerbaijan in summer 2019. International Dragonfly Fund-Report 142: 1-20.
- Snegovaya, N.Y., 2022. Odonata collected in 2021 in Azerbaijan, including new data on *Gomphus schneiderii* Selys, 1850 and *Libellula pontica* Selys, 1887. International Dragonfly Fund-Report 168: 1-23.
- Suhling F. & Müller O., 1996. Die Flußjungfern Europas. Gomphidae. Die Neue Brehm-Bücherei 628.