
Validation of *Dinobryon korschikovii* Matvienko (*Dinobryaceae*, *Chrysophyceae*)

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The non-colonial species, *Dinobryon elegans* Korshikov, was described based upon material from a pond close to the Zvenigorod Biological Station, near Moscow, Russia (Korshikov 1926). This taxon has an undulate lorica. In the same publication, an organism with a smooth lorica was named *Dinobryon elegans* f. *glabrum* Korshikov (Korshikov 1926, ‘*glabra*’). The species name, however, was illegitimate as it is a later homonym of *Dinobryon elegans* Reverdin (1919). To avoid homonymy, Bourrelly proposed a replacement name, *Dinobryon elegantissimum* Bourrelly, and described a second form, *D. elegantissimum* f. *gallicum* Bourrelly (Bourrelly 1957:166, ‘*gallica*’). Unfortunately, this replacement species name was a later homonym of *Dinobryon elegantissimum* G.S.West (West 1909) and thus is also illegitimate.

In her treatment on Ukrainian chrysophytes, Matvienko (1965) proposed another replacement name and named this species after Korshikov, *Dinobryon korschikovii* Matvienko. However, Matvienko did not give the full and direct reference to the place of valid publication of the replaced synonym and this name is invalid Art. 41.5 of the ICN (Turland *et al.* 2018). Accordingly, I here validate the replacement names for *Dinobryon elegans* Korshikov f. *elegans* and *D. elegans* f. *glabrum* Korshikov and propose a new combination for *D. elegantissimum* f. *gallicum* Bourrelly.

Dinobryon korschikovii* Matvienko ex Kapustin, *nom. nov.

Replaced synonym: *Dinobryon elegans* Korshikov. *Russkii Arkhiv Protistologii* 5(3-4): 265, 268, pl. XX: fig. 11 (‘10’), 1926, *nom. illeg.*, *non Dinobryon elegans* Reverdin. *Archives des Sciences Physiques et Naturelles*, Ser. 5 1: 413, 414, pl. I: fig. h, 1919, *nec Dinobryon elegantissimum* Bourrelly, *Revue Algologie, Mémoire Hors-Série* 1: 165, 1957, *nom. illeg.*, *non Dinobryon elegantissimum* G.S.West, *The Journal of the Linnean Society, Botany*, 39: 82, fig. 10 K, 1909.

Holotype: pl. XX: fig. 11 in Korshikov (1926).

Remark: Unfortunately, the figure captions in Korshikov (1926) are confused: the figure which represents *Dinobryon elegans* f. *glabrum* was indicated as *Dinobryon elegans* and vice versa.

Dinobryon korschikovii* f. *glabrum* (Korshikov) Matvienko ex Kapustin, *comb. nov.

Basionym: *Dinobryon elegans* f. *glabrum* Korshikov. *Russkii Arkhiv Protistologii* 5(3-4): 265, 268, pl. XX: fig. 10 (‘11’ as ‘*glabra*’).

Holotype: pl. XX: fig. 10 in Korshikov (1926).

Dinobryon korschikovii* f. *gallicum* (Bourrelly) Kapustin, *comb. nov.

Basionym: *Dinobryon elegantissimum* f. *gallicum* Bourrelly *Revue Algologie, Mémoire Hors-Série* 1: 166, pl. II: fig. 13 (as ‘*gallica*’), 1957.

Holotype: pl. II: fig. 13 in Bourrelly (1957).

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Bourrelly, P. (1957) Recherches sur les Chrysophycées: morphologie, phylogénie, systématique. *Revue Algologie, Mémoire Hors-Série* 1: 1–412.

- Korshikov, A.A. (1926) Protistological Notes III. *Russkii Arkhiv Protistologii* 5(3–4): 259–268 [In Russian].
- Matvienko, O.M. (1965) *Vyznachnyk prysnovodnykh vodorostei Ukrainskoi RSR. III (1) Zolotysti vodorosti – Chrysophyta* [Identification manual on freshwater algae of the Ukrainian SSR. III(1) Golden algae – Chrysophyta], pp. 1–367. Kyiv: Naukova Dumka [In Ukrainian].
- Reverdin, L. (1919). Étude phytoplantonique expérimentale et descriptive des eaux du Lac de Genève. *Archives des Sciences Physiques et Naturelles, Ser. 5* 1: 302-345, 403-451.
- Turland, N.J., Wiersema, J.H., Barrie, F.R., Greuter, W., Hawksworth, D.L., Herendeen, P.S., Knapp, S., Kusber, W.-H., Li, D.-Z., Marhold, K., May, T.W., McNeill, J., Monro, A.M., Prado, J., Price, M.J. & Smith, G.F., editors (2018). *International Code of Nomenclature for algae, fungi, and plants (Shenzhen Code)* adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. *Regnum Vegetabile*, Vol. 159. pp. [i]-xxxviii, 1-253. Glashütten: Koeltz Botanical Books.
- West, G.S. (1909) The Algae of the Yan Yean Reservoir, Victoria: a Biological and Ecological Study. *The Journal of the Linnean Society, Botany* 39: 1–88.