



## New combinations for East European species of *Sabulina* (Caryophyllaceae)

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Recent molecular studies (Greenberg & Donoghue 2011, Dillenberger & Kadereit 2014) clearly demonstrated that the genus *Minuartia* Linnaeus (1753: 89) (Caryophyllaceae Juss.) is highly polyphyletic and the taxa previously placed in that genus (e.g., McNeill 1962, Halliday 1993) represent several distinct phylogenetic lineages less related to each other than to some other readily recognized Caryophyllaceae genera. As a consequence, many taxa, which were earlier treated in *Minuartia*, should be now placed in several distinct genera. Dillenberger & Kadereit (2014) proposed to recognize within the former *Minuartia* s.l. several genera which are supported by both morphological and molecular characters. Three genera, *Mcneillia* Dillenberger & Kadereit (2014: 83), *Minuartiella* Dillenberger & Kadereit (2014: 84), and *Pseudocherleria* Dillenberger & Kadereit (2014: 84), were described as new ones. Resurrection and re-circumscription was proposed for previously neglected genera *Cherleria* Linnaeus (1753: 425), *Facchinia* Reichenbach (1841: 63), *Mononeuria* Reichenbach (1841: 118), *Rhodalsine* J. Gay (1845: 25), *Sabulina* Reichenbach (1832: 24), and *Triplateia* Bartling (1830: 305), as well as re-circumscription of *Minuartia sensu stricto* and *Eremogone* Fenzl (1833: 13). A key to the new proposed classification and a nomenclatural synopsis of the currently recognized species were provided as well (Dillenberger & Kadereit 2014). Accordingly other authors already validated additional nomenclatural combinations in *Eremogone* (Rabeler & Wagner 2015), *Mcneillia* (Bartolucci *et al.* 2015), and *Sabulina* (Iamónico 2014).

Dillenberger & Kadereit (2014) did not mention or recognize some species occurring in Eastern Europe. These species are recognized (in *Minuartia*) in recently published East European treatments and checklists (e.g., Mosyakin & Fedoronchuk 1999, Fedoronchuk & Didukh 2002, Tzvelev 2004, 2012, Ostapko *et al.* 2010, Yena 2011), and thus new combinations are required for them to be included in the forthcoming volume of the *Flora of Ukraine* and the new edition (in preparation) of the nomenclatural checklist of Ukrainian vascular plants (Mosyakin & Fedoronchuk 1999).

Here we provide five new combinations for names concerning *Sabulina* species occurring in Eastern Europe (mainly in Ukraine and adjacent countries), also providing information about their types (if available), distribution and habitats, and taxonomic notes.

***Sabulina birjuczensis*** (Klokov) Mosyakin & Fedoronchuk, *comb. nov.*

Basionym: *Minuartia birjuczensis* Klokov (1947: 67).

Type:—not designated (probably lost or destroyed?).

Ind. Loc.:—UKRAINE: RSS Ucr., insula maeotica Birjuczij, V.1936. Leg. T. Cziza; in Herb. Universit. Charcov. conservatur (according to the protologue).

**Note:**—*Sabulina birjuczensis* seems to be closely related to *S. hypanica* (Klokov 1947: 66) Mosyakin & Fedoronchuk, *comb. nov.* (see below). The species was described from Biryuchiy (Birjuczij) Island in the Sea of Azov (Genichesk District, Kherson Region, Ukraine). Type specimens of this species are absent in herbaria CWU, KW and LE (probably lost or destroyed). According to the protologue, *S. birjuczensis* differs from *S. hypanica* only in having twisted and curved stems and small obtuse tubercles on the seed surface, while the tubercles are acutely pointed in *S. hypanica* (however the latter character is reliably observable only in mature seeds). This taxon needs further studies, although it was accepted as a species by Klokov (1952), Mosyakin & Fedoronchuk (1999), Fedoronchuk & Didukh (2002), Tzvelev (2002, 2004, 2012), and Ostapko *et al.* (2010).