Phytotaxa 622 (1): 017–041
https://www.mapress.com/pt/

Article

ISSN 1179-3155 (print edition)
PHYTOTAXA
ISSN 1179-3163 (online edition)

https://doi.org/10.11646/phytotaxa.622.1.2

A revision of the Juncaceae with delimitation of six new genera: nomenclatural changes in *Juncus*

JAROSŁAW PROĆKÓW[a*] & LENKA ZÁVESKÁ DRÁBKOVÁ[b*]

[a]*Department of Plant Biology, Institute of Environmental Biology, Wrocław University of Environmental and Life Sciences, ul. Kożuchowska 7a, 51-631 Wrocław, Poland*
jaroslaw.prockow@upwr.edu.pl; *https://orcid.org/0000-0003-4100-3438*

[b]*Institute of Experimental Botany, Academy of Sciences of the Czech Republic, Rozvojová 263, 165 02 Praha 6, Czech Republic*
lenka.zaveska.drabkova@gmail.com; *https://orcid.org/0000-0003-1140-6607*

**Corresponding authors:* *jaroslaw.prockow@upwr.edu.pl,* *lenka.zaveska.drabkova@gmail.com*

Abstract

Phylogenetic relationships within the genus *Juncus* L. remained poorly understood for most groups, and the taxonomic division to two subgenera and ten sections was rather pragmatic. The taxonomic treatment based on the morphology of this group is complicated due to numerous repeated reductions. Continuing the molecular phylogenetic, taxonomic, and nomenclatural studies of the Juncaceae, we propose a nomenclatural revision of *Juncus* and propose 379 new combinations for six newly recognized genera based on combined morphological and molecular data support: *Verojuncus* Záveská Drábková & Proćków, *Juncinella* (Fourr. ex V.I.Krecz. & Gontsch.) Záveská Drábková & Proćków, *Alpinojuncus* Záveská Drábková & Proćków, *Australojuncus* Záveská Drábková & Proćków, *Boreojuncus* Záveská Drábková & Proćków, and *Agathryon* (Raf.) Záveská Drábková & Proćków.

Key words: identification, Juncaceae, new combinations, phylogeny, taxonomy

Introduction

The genus *Juncus* Linnaeus (1753: 325) belongs to the Juncaceae Juss. (1789), a cosmopolitan family of herbaceous monocots widespread in temperate and arctic regions in both hemispheres, quite common in the subtropics and rare in the tropics. Two genera from Juncaceae are almost cosmopolitan: *Juncus* s.l. and *Luzula* de Candolle (1805: 158). The genus *Oreojuncus* Záveská Drábková & Kirschner (2013: 498) occurs in the Northern Hemisphere. The other five genera, *Distichia* Nees & Meyen (1843), *Oxychloë* Philippi (1860), *Patosia* Buchenau (1890: 63), *Marsippospermum* Desv. (1809: 328), *Rostkovia* Desv. (1809: 324), occupy smaller areas and are generally restricted to the Southern Hemisphere, with their highest concentration being in the southern Andes.

Luzula and *Oreojuncus* are monophyletic (Drábková *et al*. 2003, 2004, 2006, Jones *et al*. 2007, Roalson 2005, Záveská Drábková & Vlček 2009, Záveská Drábková 2010, Záveská Drábková & Vlček 2010, Záveská Drábková & Kirschner 2013), while *Juncus* was polyphyletic, with five small Southern Hemisphere genera (so-called SHC, Southern Hemisphere Clade) nested within it: *Distichia*, *Marsippospermum*, *Oxychloë*, *Patosia*, and *Rostkovia* (Drábková *et al*. 2003, 2004, 2006, Drábková & Vlček 2007, Záveská Drábková & Vlček 2009, Záveská Drábková 2010, Záveská Drábková & Vlček 2010, Brožová *et al*. 2022).

An outline of *Juncaceae* classification

Ideas of the systematic position of Juncaceae have changed over time. According to one hypothesis, Juncaceae are related to Liliales and more often placed in the affinity of the family Liliaceae (as summarised by Balslev 1996). This idea was because their floral construction is almost identical to Liliales, although all the floral parts in Juncaceae are reduced in size and tepals are glumaceous (Balslev 1996). The similar flower structure is probably due to convergent

Accepted by Priyanka Agnihotri: 20 Jul. 2023; published: 24 Oct. 2023

evolution (Deyl 1955). Cronquist (1988) pointed out that Juncaceae has a number of features (vessels in all the vegetative organs, paracytic stomata, and starch in the seed), suggesting placement in the Commelinideae (Commeliniflorae). In the 1970s and 1980s, Juncaceae was placed in a separate order Juncales together with Thurniaceae, with sister orders Cyperales, Poales, and Restionales (see, e.g., Dahlgren *et al*. 1982). Molecular analyses place Juncaceae in a clade along with Cyperaceae with the sister family Thurniaceae. They are classified in Poales (APG, 2016).

Previous phylogenetic analyses of the relationships between the Juncaceae (incl. *Prionium*) and Cyperaceae were based exclusively on molecular data, *rbc*L (Plunkett *et al.* 1995), morphology (Simpson 1995), or a combination of both (Munro & Linder 1998). Trees based on *rbc*L sequence data indicated that Juncaceae is paraphyletic (Munro et Linder 1998). The South African genus *Prionium* (L. f.) Drège ex E. Mey. that was traditionally included in the Juncaceae was segregated in the monotypic family Prioniaceae by Munro and Linder (1997) based on both morphological and molecular data. Cutler (1969) first argued in favour of the family rank for *Prionium*. He noted the woody habit and chlorenchymatous air canals in the leaves. Munro & Linder (1997) pointed out that flavone c-glycosides present in the tissues of *Prionium* are absent from the rest of the family. Chase *et al.* (1993) and Duvall *et al.* (1993) showed that *Prionium* is basal in the Juncaceae/Cyperaceae clade. Simpson (1995) found Cyperaceae monophyletic, but Juncaceae remained paraphyletic (unless Thurniaceae is included in the family). Embryology supports the monophyly of Cyperaceae and Juncales, but not Juncaceae (Munro & Linder 1997). However, at that time molecular data for the closely related family Thurniaceae, and especially the genus *Thurnia*, was unavailable. Today, *Prionium serratum* is included within Thurniaceae (see, e.g., Muasya *et al.* 2000; Bremer 2002).

History of *Juncus* alpha-taxonomic classification

Several hypotheses on the structure of the Juncaceae family were established. One of the first was published by Buchenau (1906) in Das Pflanzenreich. Buchenau's classification is based on a lot of family experience and it is very interesting to compare molecular phylogenies with his work. The hypothetic phylogenetic tree from his work shows *Marsippospermum* and *Rostkovia* species in the middle part among the *Juncus* subgenera. The ancestral species (Buchenau's 'der Urtypus der Juncaceen') is a species that *„...muß nach dem Baue der Organe ein flachblätterigen Juncus mit vorblätterigen, rispig-gestellten, sechsmännigen Blüten, dreifächerigem Fruchtknoten und zahlreichen kleinen, nicht geschwänzten Samen gewesen sein, also ein J. poiophyllus"*. Evolutionary tendencies among the subgenera and sections according to Buchenau are: (1) leaves become narrower, (2) the transverse partitions in leaves are formed, (3) complete reduction in all structures, with emphasis of reduction of inner bracts and ovary, (4) development of seeds (systematic significance of seed surface was studied by Kovtonjuk 1999) and (5) a tendency of reduction of branching system of the inflorescence.

The first widely accepted suprageneric division of *Juncus* into eight subgenera was published by Buchenau (1869, 1875, 1880, 1906). Since then, several other classification systems have been suggested (most important reviewed in Kirschner *et al.* 1999). We do not give detailed literature evidence for nomenclatural changes within the taxonomic categories of *Juncus* and *Luzula* and its conception. Just for brief orientation, Buchenau was also the first to hypothesise that *Juncus* is polyphyletic rather than monophyletic and described general pathways of *Juncus* development in three lines: *Junci genuini* (*Juncotypus*)—*J. thalassici* (*Juncus*), *J. alpini* (*Stygiopsis*)—*J. septati* (*Ozophyllum, Iridifolii*), *J. poiophylli* (*Agathryon*) and *J. graminifolii* (**Table 1**).

TABLE 1. Earliest division of *Juncus* with species examples according to Buchenau.

Buchenau's "subgenera"	Taxa
J. subulati	*J. subulatus*
J. poiophylli	*J. bufonius, J. greenei, J. sphaerocarpus, J. tenageia, J. trifidus J. vaseyi*
J. genuini	*J. balticus, J. drumondii, J. effusus, J. filiformis, J hallii, J. jacquinii, J. parryi, J. pallidus, J. procerus*
J. thalassici	*J. maritimus, J. acutus*
J. septati	*J. articulatus*
J. alpini	*J. castaneus*
J. singularis	*J. capensis*
J. graminifolii	*J. capitatus, J. lomatophyllus*

Buchenau (1890) supposed that the 'Urtypus' of Juncaceae has flowers with bracteoles, so he considered *Junci poiophylli* as a basal group in the Juncaceae phylogeny. According to him, from the 'Urtypus' evolved *Junci genuini* (= subg. *Juncotypus*) through the narrowing and flattening of the leaf blade and the formation of groove. According to Buchenau, *Juncus* evolution should have proceeded from *J. tenuis—J. dichotomus—J. chamissonis* (= *J. imbricatus*)—*J. setaceus* (= *J. coriaceus*)—*J. smithii* (= *J. tenuis*)—*J. mexicanus* (= *J. liebmanii*)—*J. effusus.* Additionally, from the ancestral taxon of *J. poiophylli* evolved a species with cylindrical blade—*Junci subulati* (= sect. *Forskalina*). The evolution pathway from *J. poiophylii* (= *Agathryon*)—*genuinii* (=*Juncotypus*) has continued across *J. thalassici* (= *Juncus*) through the agglomeration of flowers to inflorescence. On the other hand, *Junci alpini* (= *Stygiopsis*) evolved from 'Urtypus' by narrowing the leaf blade together with agglomeration of flowers to head-like inflorescences. However, within this group there are substantial differences in leaf structure between closely related species, e.g., *J. castaneus* has flatter leaves and *J. himalensis* forms cylindrical leaves similar to the leaves of *Junci septati* (both = *Ozophyllum* and *Iridifolii*). The general tendency to flatten the leaves is observed in the sect. *Graminifolii* also, but there is no evidence of a link between *J. poiophylii* and *J. graminifolii.* One Buchenau hypothesis shows that species with flat leaves in the '*J. septati* group' should have their descent in *J. graminifolii* (e.g., *J. supinus [= J. bulbosus]* or *J. alpinus [= J. alpinoarticulatus]*). Another direction from *J. castaneus* with leaves considerably flat and broad is shown at *J. minimus, J. regelii* and *J. clarkei* that have similar leaves to those of grasses. Buchenau believed that his *Junci septati* [= *Juncus sect. Ozophyllum*] evolved via *J. alpini [= Juncus castaneus].*

Novikov (1990) published a new system of the genus *Juncus*. He described two subgenera, 14 sections, and 45 subsections, and Kirschner *et al.* (1999) followed his ideas.

The evolution of *Juncus* nowdays is connected with the presence or absence of a pair of bracteoles as shown by Buchenau (subg. *Juncus* and subg. *Agathryon* Raf., respectively). The most recent outline of the supraspecific division of *Juncus* (Kirschner *et al.* 1999; Table 2) represents a generally acceptable compromise summarising the knowledge of specialists in the family for the project Flora of the World (Kirschner *et al.*, 2002a, 2002b, 2002c). Inflorescence cymose with a pair of floral bracteoles below each flower, and flowers usually borne singly or in loose groups characterise subg. *Agathryon*. Representatives of subg. *Juncus* contains racemose inflorescences that lack a pair of floral bracteoles and have flowers usually in heads or clusters.

TABLE 2. Supraspecific division of *Juncus*. After Kirschner *et al*. (1999).

System according to Kirschner *et al.* (1999)	System of Buchenau
Juncus subg. *Juncus*	"eprophyllati"
1. sect. *Juncus*	subg. *Thalassici* Buchenau
2. sect. *Graminei* (Engelm.) Engelm. (1866: 435)	subg. *Graminifolii* Bucheneu (perennials) [subg. *Cephaloxys* Rchn.]
3 sect. *Caespitosi* Cout. (1890: 90&104)	subg. *Graminifolii* Buchennau (annuals) [subg. *Juncinella* V. I. Krecz. et Gontsch.]
4. sect. *Stygiopsis* Kuntze (1903)	subg. *Alpini* Buchenau
5. sect. *Ozophyllum* Dumort. (1827)	subg. *Septati* Buchenau
6. sect. *Iridifolii* Snogerup et Kirschner (1999: 382)	
Juncus subg. *Poiophylii* Buchenau (1875: 406) (=subg *Agathryon* (1840))	"prophyllati"
7. sect. *Tenageia* Dumort. (1827)	subg. *Poiophylli* Buchenau (annuals)
8. sect. *Steirochloa* Griseb. (1844: 407)	subg. *Poiophylli* Buchenau (perennials) [subg. *Pseudotenageia* V. I. Krecz. et Gontsch.]
9. sect. *Juncotypus* Dumort. (1827)	subg. *Genuini* Buchenau
10. sect. *Forskalina* Kuntze (1903)	subg. *Subulati* Buchenau

Juncaceae contains perennial and annual species that are many- or single-flowered. Much of the morphological variation in the family occurs in the leaves (e.g., bifacial, unifacial, reduction of the adaxial surface, different transverse sections, septate, nonseptate) and inflorescence structure (e.g., with or without bracts). Neotropical Juncaceae (*Distichia, Oxychloë* and *Patosia*) are cushion-forming; *Rostkovia, Marsippospermum, Luzula* and *Juncus* are usually erect, cespitose, or solitary herbs. Although the newly established Southern Hemisphere genera within Juncaceae during the nineteenth century were sometimes not immediately accepted (e.g., *Rostkovia*), today there is a general agreement that these genera are well founded.

The structure of inflorescence was studied in the first year of the new millennium (Köbele and Tillich, 2001). They described Juncaceae type of inflorescence as a polytelic synflorescence (many-flowered, terminally open spikelets or small heads). In previous studies (Novara 1976, followed by Snogerup 1993, and Balslev 1996) the inflorescence of *Juncus* subg. *Poiophylii* (= *Agathryon*) was described as a cymose and *Juncus* subg. *Juncus* as racemose. However, these terms suggest a monotelic structure of inflorescence, which would be very unusual among derived monocots (Köbele et Tillich, 2001). Köbele and Tillich described the basic elements of the inflorescence in *Prionium* (Prioniaceae) and *Juncus* subg. *Juncus* as many flowered; terminally open spikelet or small heads, which is undoubtedly a polytelic synflorescence. They showed several tendencies of reduction of the branching system in the Juncaceae.

One of the interesting points is a hypothetical transformation of the inflorescence type of *Juncus* subg. *Agathryon* to the type of *Juncus* subg. *Juncus*, which follows Buchenau's hypothesis about the ancestral position of '*Junci Poiophylii*' (e.g., Buchenau, 1890) was not confirmed. The comparison of Juncaceae inflorescence (Köbele and Tillich, 2001) with closely related sister families Prioniaceae, Cyperaceae, and Restionaceae indicates the many-flowered spikelets of *Eprophylati* (*Juncus* subg. *Juncus*) are basal. Köbele and Tillich (2001) questioned widely used terms "racemose" and "cymose", because these terms suggest among derived monocots very unusual monotelic structure of inflorescence.

Molecular phylogeny of the Juncaceae

The monophyly of Juncaceae has been questioned since the first application of molecular data (Chase *et al.* 1993; Duvall *et al.* 1993; Plunkett *et al.* 1995; Muasya *et al.* 1998, 2000) due to the unexpected position of *Oxychloë* outside the family. In the papers of Muasya *et al.* (1998, 2000) Cyperaceae are derived from a juncaceous grade with *Oxychloë* as a sister taxon to the Cyperaceae. The first analysis of the Juncaceae was based on plastome *rbc*L data, which also questioned the position of *Oxychloë* based on the sequences from the GenBank (Drábková *et al.*, 2003). Considering the morphology of this Andean genus, *Oxychloë* generally has been referred to the Juncaceae family (Dahlgren *et al.* 1985; Simpson 1995; Kirschner *et al.* 2002a). All morphological traits of *Oxychloë* are typically juncaceous (spiro- or orthostichous leaves, tepals present, three stamens, pollen tetrads, fruit dehiscent, many ovules, silica bodies absent), and the tree based on morphology (Simpson 1995) placed it inside the juncaceous clade. Simpson's data showed *Oxychloë* in one branch with the other members of this family from the Southern Hemisphere, *Distichia* and *Patosia*, as a sister group to *Marsippospermum* and *Rostkovia*. The only two morphological traits that support a position for *Oxychloë* within Cyperaceae are the absence of a groove and additional subepidermal sclerenchyma girders in the leaf (Cutler 1969). We verified *Oxychloë* position by sequencing a new specimen of *Oxychloë andina*, and the results showed that it is a close relative of *O. bisexualis, O. castellanosii,* and *O. haumaniana* (Drábková et Vlček, 2007). Moreover, we recognised that both previously published sequences are based on dubious sequences and mixed DNA samples (Kristiansen *et al.* 2005). The monophyly of Juncaceae has been supported by molecular and morphological data in recent years.

The *rbc*L sequence data solved part of the supraspecific phylogeny within Juncaceae, but many nodes in the backbone remain polytomic (Drábková *et al.* 2003). A parsimony analysis revealed former *Juncus* non-monophyletic. Two generally accepted subgenera, *Juncus* subg. *Juncus* and subg. *Agathryon*, form a clade, but their circumscription differs from traditional views. The subgenera recognized in *Luzula* remain unresolved. A well-supported clade was represented by an assemblage of representatives of five genera and species distributed in the Southern Hemisphere: section *Graminifolii* (*Juncus capensis* and *J. lomatophyllus*), *Rostkovia*, *Distichia*, *Marsippospermum* and *Patosia* (Drábková *et al.*, 2003). To resolve the polytomy, two noncoding cpDNA regions, the *trn*L intron and *trn*L-*trn*F intergenic spacer, were sequenced (Drábková *et al.* 2006). Phylogenetically informative indels in the *trn*L-F data that are characteristic of different clades have been described (Drábková *et al.*, 2004). The traditionally distinguished genus *Luzula* is monophyletic and *Juncus* is non-monophyletic. Within *Juncus*, both the subgenus *Juncus* and the subgenus *Agathryon* are non-monophyletic, and the clades *Juncus* I and II and *Agathryon* I and II have been recognized (Drábková *et al.* 2006). The Southern Hemisphere Clade (SHC) groups not only with South African *J. lomatophylus* and *J. capensis*, but also together with members of sects. *Juncus, Caespitosi*, and other *Graminifolii*. However, these

sections form a well-separated sister group to the SHC. Monophyly was demonstrated for *Juncus* sect. *Stygiopsis*, but questioned for *Juncus* sect. *Graminifolii*.

To test possible divergent pathways of evolution of the plastome and chondriome, *atp*1, the mitochondrial gene for the alpha subunit of F1-ATP synthase was used for the Juncaceae phylogeny (Záveská Drábková and Vlček 2009). A major result of the analysis of most of *atp*1 was the confirmation of most of the clades revealed by the chloroplast phylogeny. However, the sister relationships between a few groups were questioned. *Juncus* subg. *Agathryon* was unresolved in the polytomy of the main backbone of the MP tree. One of the most important results was confirmation of the separate positions of *Juncus trifidus* and *J. monanthos* based on genes from a genome different from that used for the Juncaceae phylogeny to date. To improve the robustness of the phylogenetic structure within the family, we have also included nuclear genes (ITS1-5.8S-ITS2). According to the molecular data six main clades are recognized: the genus *Luzula*, the subgenera *Juncus* I, *Juncus* II, *Agathryon* I, *Agathryon* II and the Southern Hemisphere Clade (Záveská Drábková, 2010, Záveská Drábková & Vlček, 2010).

In summary, all data supported the monophyly of *Luzula* and the monophyly of *Juncus* was violated mainly by the South Hemisphere Clade (including *Juncus lomatophylus* and *J. capensis*) and the *Juncus trifidus—J. monanthos* group. Nevertheless, racemose inflorescences that lack a pair of floral bracteoles and have flowers that are usually in heads or clusters have evolved independently at least two or three times (compare *Juncus* I, *Juncus* II, and *Juncus* III; Záveská Drábková, 2010). And most members of subg. *Agathryon* form one well-defined clade generally corresponding to the accepted taxonomic idea of the subgenus based on Buchenau (1880), having a pair of floral bracteoles and a cymose inflorescence. However, some species traditionally included in this subgenus occupy isolated positions (*Juncus trifidus* and *J. monanthos*).

Based on all data sources, *Juncus trifidus* and *J. monanthos* were considered monophyletic and most likely placed at the base of Juncaceae. These results were supported by morphology, sequence data from nDNA, cpDNA and mtDNA (*rbc*L, *trn*L, *trn*L-F, ITS, *pbs*A-*trn*H, *rps16* and *atp*1; Do et Záveská Drábková, 2018), chromosome data and host-pathogen interactions. For these reasons *Oreojuncus* was established and delimited from the formal genus *Juncus* (Záveská Drábková and Kirschner, 2013).

Finally, we analyzed the evolutionary relationships of Juncaceae together with Cyperaceae from cpDNA and nDNA by maximum parsimony, maximum likelihood, and Bayesian inference to check relationships within cyperids (Brožová *et al.*, 2022). Four substantial conclusions emerged from the cyperid phylogenetic analyses for the Juncaceae family: (1) after the separation of the genus *Oreojuncus*, there was still non-monophyly within the formal genus *Juncus* based on all data sources; (2) the non-monophyly of *Juncus* subgenera *Juncus* and *Agathryon*; and (3) the non-monophyly of sections *Caespitosi, Graminifolii, Iridifolii, Juncotypus, Ozophyllum, Steirochloa* and *Tenageia*. On the other hand, (4) only two monophyletic groups were inferred, sect. *Juncus* and sect. *Stygiopsis* (Brožová *et al.*, 2022).

Distichia, Oxychloë, Patosia, Marssipospermum, and *Rostkovia* embedded within the *Juncus* clade in all analyses are morphologically distant from *Juncus*. These plants are cushion-forming and occupy peat-accumulating ecosystems at high mountain altitudes. The combination of the other four characteristics supports a separate clade of these typical cushion-forming plants: unisexual flowers, lateral flower position, leaves shorter than 30 mm, and stems with foliage. The five Andean genera form a clade are defined by four morphological synapomorphies: presence of 2–4 cataphylls, solitary flowers, non-lacerate type of auricules, and more than 7 mm long perianth. The *Marsippospermum* clade is supported by a perianth that is more than 10 mm long. There is no doubt about the separate positions of these genera. The taxonomic position of *Oxychloë*, *Distichia*, and *Patosia* needs further attention because in this clade, *Distichia* and *Patosia* are usually embedded within *Oxychloë*; however, their other morphological characteristics support their separate positions (see any determination key). However, these genera violate the monophyly of the former *Juncus*. Thus, the taxonomic treatment that divides it into smaller monophyletic units is the preferred solution against expanding *Juncus* to include the smaller genera. Therefore, to maintain monophyly, we divided *Juncus* into smaller separate genera (Brožová *et al.*, 2022): *Verojuncus* Záveská Drábková & Proćków, *Juncinella* (Fourr. ex V.I.Krecz. & Gontsch.) Záveská Drábková & Proćków, *Alpinojuncus* Záveská Drábková & Proćków, *Australojuncus* Záveská Drábková & Proćków, *Boreojuncus* Záveská Drábková & Proćków and *Agathryon* (Raf.) Záveská Drábková & Proćków. For all these genera, we established a new category, the supragenus *Juncus* (L.) Záveská Drábková & Proćków (Table 3 and Figure 1).

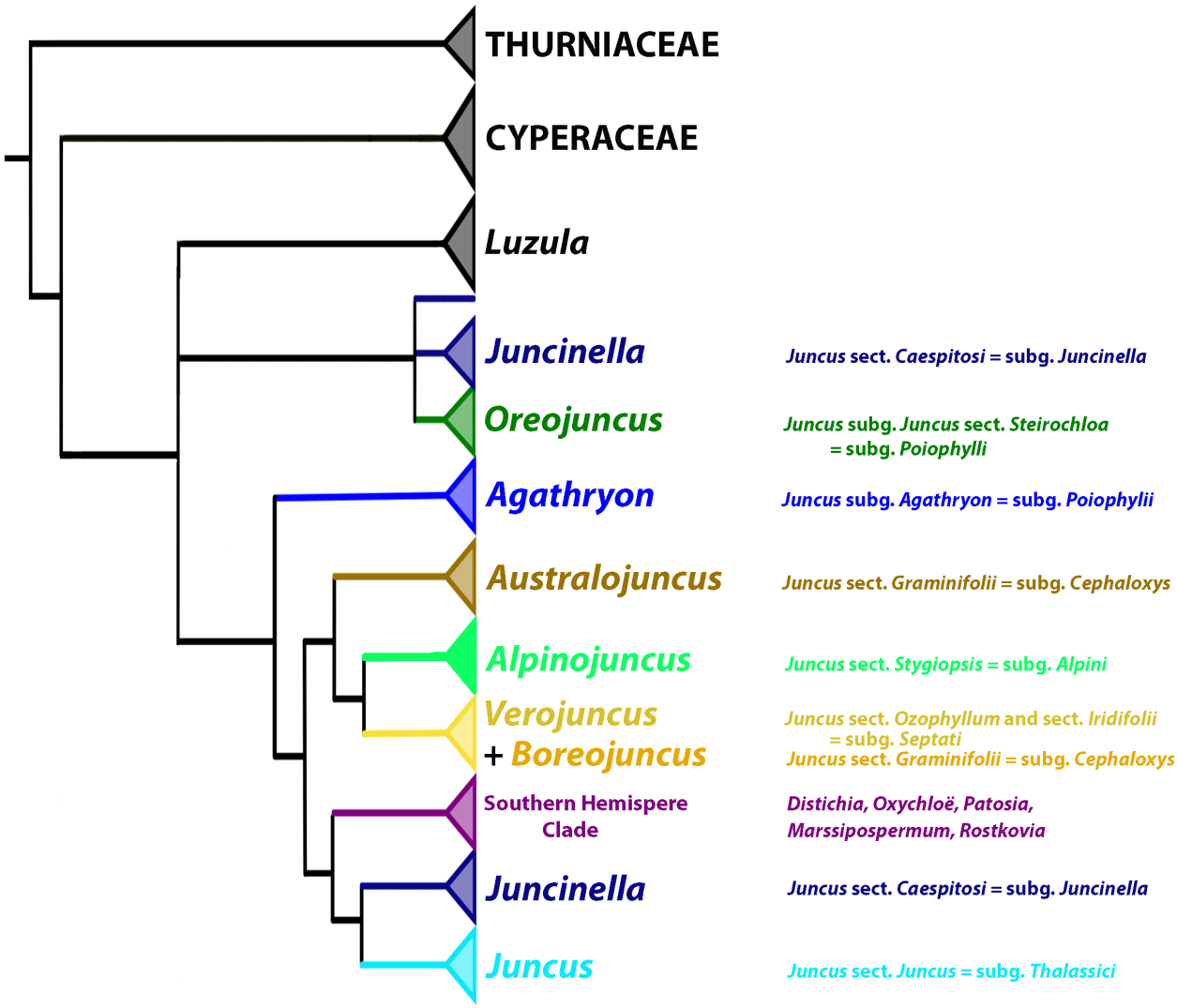

FIGURE 1. The simplified total evidence of the Juncaceae phylogenetic tree depicted new *Juncus* genera with categories described previously (right part).

TABLE 3. Supraspecific division of former *Juncus* L. After Záveská Drábková et Kirschner (2013) and Brožová *et al.* (2022).

Záveská Drábková et Kirschner (2013) and Brožová *et al.* (2022)	System according to Kirschner *et al.* (1999/ 2002b,c)
Supragenus *Juncus* (L.) Záveská Drábková & Proćków	
1. Genus ***Oreojuncus*** Záveská Drábková & Kirschner (2013: 498)	Formal section *Steirochloa* Griseb. (1844: 407)
	Juncus subgenus *Juncus*
2. Genus ***Juncus*** L. (1753: 325)	1. Section *Juncus*
3. Genus ***Australojuncus*** Záveská Drábková & Proćków (species from South hemisphere) (2022: 20–21)	2. Section *Graminei* (Engelm.) Engelm. (1866: 435)/ *Graminifolii* Engelm. (1866: 434)
4. Genus ***Boreojuncus*** Záveská Drábková & Proćków (species from Nord hemisphere) (2022: 21)	
5. Genus ***Juncinella*** (Fourr. ex V.I.Krecz. & Gontsch.) Záveská Drábková & Proćków (2022: 20)	3. Section *Caespitosi* Cout. (1890: 90&104)

...continued on the next page

TABLE 3. (Continued)

Záveská Drábková et Kirschner (2013) and Brožová *et al.* (2022)	System according to Kirschner *et al.* (1999/ 2002b,c)
6. Genus ***Alpinojuncus*** Záveská Drábková & Proćków (2022: 20)	4. Section *Stygiopsis* Kuntze (1903: 303)
7. Genus ***Verojuncus*** Záveská Drábková & Proćków (2022: 19)	5. Section *Ozophyllum* Dumort. (1827: 142)
	6. Section *Iridifolii* Snogerup et Kirschner (1999: 382)
8. Genus ***Agathryon*** (Raf.) Záveská Drábková & Proćków (2022: 21)	*Juncus* subgenus *Poiophylii* Buchenau (1875: 406)/ subg. *Agathryon* Raf. (1840)
	7. Section *Tenageia* Dumort. (1827: 142)
	8. Section *Steirochloa* Griseb. (1844: 407)
	9. Section *Juncotypus* Dumort. (1827: 142)
	10. Section *Forskalina* Kuntze (1903: 303)

Taxonomic treatment

In our previous work (Brožová *et al.*, 2022), we described several new genera segregated from the previous genus *Juncus* L. In the present article, we summarised current Juncaceae studies and propose all new nomenclatural combinations for taxa belonging to these groups. The updated version of the determination key for all genera of Juncaceae is also provided (Brožová *et al.*, 2022, changed). The arrangement of taxa within groups/genera is alphabetical; additionally, the numbering of taxa from Kirschner *et al.* monograph (2002b, c) has been preserved. Taxa described after 2002 and new combinations from that time are also placed, but without any numbers.

Key to the genera of Juncaceae

1a Auricles lacerate ..... 1. *Oreojuncus*
1b Auricles absent or entire 2
2a Leaf margin hairy, at least sparsely near the sheath opening; seeds 3 ..... 2. *Luzula*
2b Leaf margin not developed (leaves round, glabrous), or glabrous; seeds many 3
3a Leaf margin minutely serrulate ..... 3. *Patosia*
3b Leaf margin not developed (leaves round) or smooth 4
4a Flowers in inflorescence; anthers connective, not mucronate (if flowers occasionally solitary then tepals shorter than 10 mm) 5
4b Flowers solitary and anthers mucronate (if anthers not mucronate then outer tepals at least 15 mm long) 12
5a Inflorescence racemose, a pair of floral bracteoles absent, flowers usually in heads or clusters, rarely borne ± singly 6
5b Inflorescence cymose, a pair of floral bracteoles present below each flower, flowers usually borne singly or in loose groups ..... 10. *Agathryon*
6a Leaves terete, stem-like, pungent, basal, not septate, vascular bundles scattered over most of the transversal section, the lower bract apparently forming a prolongation of stem ..... 4. *Juncus*
6b Leaves flat, compressed, canaliculate, or if terete, then usually septate, not stem-like, basal or cauline, vascular bundles usually in a subepidermal position, lower bract usually not in a position of stem prolongation 7
7a Leaves unitubulose or plurituBulose, perfectly septate; if plurituBulose and imperfectly septate then terete, flattened or laterally compressed ..... 5. *Verojuncus*
7b Leaves flat or with raised margins, not septate, or bitubulose and septate; if unitubulose and perfectly septate then anthers distinctly exserted 8
8a Annuals ..... 6. *Juncinella*
8b Perennials 9
9a Anthers distinctly to at least partly exserted from the perianth in later stages of flowering ..... 7. *Alpinojuncus* (previously *Juncus* sect. *Stygiopsis*)
9b Anthers not exserted 10
10a Seeds with two distinct appendages. Sino-Himalayan region ..... 7. *Alpinojuncus*
10b Seeds without appendages, if appendages present, then W North America 11
11a Plants with 1–6 (or more) cauline leaves. Dominantly occurring in Northern Hemisphere. If cauline rosette is present, then *B. repens* ..... 9. *Boreojuncus*
11b Plants without cauline leaves, if cauline leaves present, then *A. cyperoides*. Occurring only in Southern Hemisphere ..... 8. *Australojuncus*
12a Plants cushion-forming, upper part of stem densely covered with leaves, flower lateral (subterminal, axillary) 13
12b Plants not cushion-forming, upper part of stem leafless, flower terminal 14
13a Leaves regularly distichous; gynophore developed, elongating during capsule ripening ..... 11. *Distichia*
13b Leaves ± spirally arranged; gynophore absent ..... 12. *Oxychloë*

14a Flower bracts 2, the lower one herbaceous, conspicuously longer than perianth, upper bract ± equalling perianth, capsule suborbicular to obovoid, obtuse, to c. 5 mm long, seeds without conspicuous appendages ..... 13. *Rostkovia*

14b Flower bracts 1 or 2, membranous, much shorter than perianth, capsule oblong to ellipsoidal, trigonous, acuminate, at least 7 mm long, seeds with two distinct appendages ..... 14. *Marsippospermum*

There are no nomenclatural changes in the previous section *Juncus*. The current nomenclature of the species that previously belonged to the section (and are the only species/taxa now included in the genus *Juncus*) is as follows:

1. *Juncus acutus* L., Sp. Pl. 325 (1753)
1b. *Juncus acutus* subsp. *leopoldii* (Parl.) Snogerup, Bot. Not. 130: 187 (1978)
9. *Juncus cooperi* Engelm., Trans. Acad. Sci. St. Louis 2: 590 (1868)
3. *Juncus heldreichianus* T.Marsson ex Parl., Fl. Ital. 2: 315 (1852)
3b. *Juncus heldreichianus* subsp. *orientalis* Snogerup, *in* K.H.Rechinger, Fl. Iranica 75: 7 (1971)
7. *Juncus kraussii* Hochst., *in* C.Krauss, Flora 28: 342 (1845)
7b. *Juncus kraussii* subsp. *australiensis* (Buchenau) Snogerup, Willdenowia 23: 61 (1993)
7c. *Juncus kraussii* subsp. *austerus* (Buchenau) Snogerup, Willdenowia 23: 63 (1993)
2. *Juncus littoralis* C.A.Mey., Verz. Pfl. Casp. Meer. 34 (1831)
5. *Juncus maritimus* Lam., Encycl. 3: 264 (1789)
6. *Juncus rigidus* Desf., Fl. Atlant. 1: 312 (1800)
8. *Juncus roemerianus* Scheele, Linnaea 22: 348 (1849)
4. *Juncus socotranus* (Buchenau) Snogerup, Willdenowia 23: 49 (1993)

In the previous section *Graminifolii* plants with one to six cauline leaves that occur dominantly in the Northern Hemisphere belong to the new genus *Boreojuncus*. Plants without cauline leaves (or if cauline leaves are present, then *A. cyperoides*) that occur only in the Southern Hemisphere belong to the new genus *Australojuncus*.

Boreojuncus **Záveská Drábková & Proćków,** ***Mol. Phylogenet. Evol.*** **177 (107588): 21 (2022)**

27. ***Boreojuncus covillei*** (Piper) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus covillei* Piper, Contr. U. S. Natl. Herb. 11: 182 (1906)
27b. ***Boreojuncus covillei*** **var.** ***obtusatus*** ([Engelm.] C.L.Hitchc.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus covillei* var. *obtusatus* [Engelm.] C.L.Hitchc., *in* C.L.Hitchcock *& al*., Vasc. Pl. Pacif. Northw. 1: 193 (1969)
26. ***Boreojuncus falcatus*** (E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus falcatus* E.Mey., Syn. Luzul. 34 (1823)
26b. ***Boreojuncus falcatus*** subsp. ***sitchensis*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus falcatus* subsp. *sitchensis* (Buchenau) Hultén, Acta Univ. Lund, n.s., sect. 2, 39(2): 427 (1943) ≡ *Juncus falcatus* var. *sitchensis* Buchenau, Bot. Jahrb. Syst. 12: 428 (1890)
24. ***Boreojuncus filipendulus*** (Buckley) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus filipendulus* Buckley, Proc. Acad. Nat. Sci. Philadelphia 1862: 8 (1862)
21. ***Boreojuncus howellii*** (F.J.Herm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus howellii* F.J.Herm., Leafl. W. Bot. 5: 182 (1949)
30. ***Boreojuncus longistylis*** (Torr.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus longistylis* Torr., *in* W.H.Emory, Rep. U.S. Mex. Bound. [Botany of the Boundary] 223 (1859)
31. ***Boreojuncus macrophyllus*** (Coville) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus macrophyllus* Coville, Univ. Calif. Publ. Bot. 1: 65 (1902)
25. ***Boreojuncus marginatus*** (Rostk.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus marginatus* Rostk., De Junco 38 (1801)
29. ***Boreojuncus orthophyllus*** (Coville) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus orthophyllus* Coville, Contr. U. S. Natl. Herb. 4: 207 (1893)
28. ***Boreojuncus prominens*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus prominens* (Buchenau) Miyabe & Kudo, Trans. Sapp. Nat. Hist. Soc. 5: 40 (1913) ≡ *Juncus falcatus* var. *prominens* Buchenau, *in* H.G.A.Engler, Pflanzenr. (iv.36) 25: 247 (1906)
20. ***Boreojuncus regelii*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus regelii* Buchenau, Bot. Jahrb. Syst. 12: 414 (1890)
22. ***Boreojuncus repens*** (Michx.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus repens* Michx., Fl. Bor.-Amer. 1: 191 (1803)
10. ***Boreojuncus sparganiifolius*** (Boiss. & Kotschy ex Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus sparganiifolius* Boiss. & Kotschy ex Buchenau, Krit. Verz. Juncac. 88 (1879)

Australojuncus Záveská Drábková & Proćków, *Mol. Phylogenet. Evol.* 177 (107588): 20–21 (2022)

18. ***Australojuncus antarcticus*** (Hook.f.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus antarcticus* Hook.f., Fl. Antarct. 1: 79, tab. 46 (1844)
16. ***Australojuncus caespiticius*** (E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus caespiticius* E.Mey., *in* J.G.C.Lehmann, Pl. Preiss. 2: 47 (1846)
15. ***Australojuncus capensis*** (Thunb.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus capensis* Thunb., Prodr. Pl. Cap. 1: 66 (1794)
23. ***Australojuncus cyperoides*** (Laharpe) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus cyperoides* Laharpe, Essai Monogr. Jonc. 57 (1825)
13. ***Australojuncus dregeanus*** (Kunth) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus dregeanus* Kunth, Enum. Pl. 3: 344 (1841)

13b. ***Australojuncus dregeanus*** subsp. ***bachitii*** (Hochst. ex Steud.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus dregeanus* subsp. *bachitii* (Hochst. ex Steud.) Hedberg, Symb. Bot. Upsal. 15(1): 61 (1957) ≡ *Juncus bachitii* Hochst. ex Steud., Syn. Pl. Glumac. 2: 305 (1855)

11. ***Australojuncus engleri*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus engleri* Buchenau, *in* H.G.A.Engler, Pflanzenr. (iv.36) 25: 248 (1906)
12. ***Australojuncus lomatophyllus*** (Spreng.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus lomatophyllus* Spreng., Neue Entdeck. Pflanzenk. 2: 108 (1821)
17. ***Australojuncus meianthus*** (L.A.S.Johnson ex K.L.Wilson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus meianthus* L.A.S.Johnson ex K.L.Wilson, *in* J.Kirschner & Z.Kaplan, Taxon 50: 1112 (2001)
19. ***Australojuncus planifolius*** (R.Br.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus planifolius* R.Br., Prodr. 1: 259 (1810)
14. ***Australojuncus sonderianus*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus sonderianus* Buchenau, Monogr. Junc. Cap 476 (1875) [Abh. Naturwiss. Ver. Bremen 4: 476 (1875)]

The species previously belonged to the section *Caespitosi* now belong to the new genus *Juncinella*.

Juncinella (Fourr. ex V.I.Krecz. & Gontsch.) Záveská Drábková & Proćków, *Mol. Phylogenet. Evol.* 177 (107588): 20 (2022)

39. ***Juncinella bryoides*** (F.J.Herm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus bryoides* F.J.Herm., Leafl. W. Bot. 5: 117 (1948)
38. ***Juncinella capillaris*** (F.J.Herm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus capillaris* F.J.Herm., Leafl. W. Bot. 5: 116 (1948)
32. ***Juncinella capitata*** (Weigel) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus capitatus* Weigel, Observ. Bot. 28 (1772)
47. ***Juncinella cephalotes*** (Thunb.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus cephalotes* Thunb., Prodr. Pl. Cap. 66 (1794). ***Juncinella digitata*** (C.W.Witham & Zika) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus digitatus* C.W.Witham & Zika, J. Bot. Res. Inst. Texas 2(2): 775 (–781; figs. 1–3) (2008)
41. ***Juncinella hemiendyta*** (F.J.Herm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus hemiendytus* F.J.Herm., Leafl. W. Bot. 5: 118 (1948)

41b. ***Juncinella hemiendyta*** var. ***abjecta*** (Herm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus hemiendytus* var. *abjectus* (Herm.) Ertter, Mem. New York Bot. Gard. 39: 76 (1986) ≡ *Juncus abjectus* F.J.Herm., Leafl. W. Bot. 5: 120 (1948)

35. ***Juncinella kelloggii*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus kelloggii* Engelm., Trans. Acad. Sci. St. Louis 2: 494 (1868)
34. ***Juncinella leiosperma*** (F.J.Herm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus leiospermus* F.J.Herm., Leafl. W. Bot. 5: 113 (1948)

34b. ***Juncinella leiosperma*** **var. *ahartii*** (Ertter) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus leiospermus* var. *ahartii* Ertter, Mem. New York Bot. Gard. 39: 49 (1986)

36. ***Juncinella luciensis*** (Ertter) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus luciensis* Ertter, Mem. New York Bot. Gard. 39: 58 (1986)
43. ***Juncinella obliqua*** (Adamson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus obliquus* Adamson, J. S. African Bot. 3: 165 (1937)
46. ***Juncinella picta*** (Steud.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus pictus* Steud., Syn. Pl. Glumac. 2: 305 (1855)
45. ***Juncinella rupestris*** (Kunth) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus rupestris* Kunth, Enum. Pl. 3: 344 (1841)

42. ***Juncinella scabriuscula*** (Kunth) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus scabriusculus* Kunth, Enum. Pl. 3: 354 (1841)
44. ***Juncinella stenopetala*** (Adamson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus stenopetalus* Adamson, J. S. African Bot. 8: 273 (1942)
37. ***Juncinella tiehmii*** (Ertter) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus tiehmii* Ertter, Mem. New York Bot. Gard. 39: 60 (1986)
33. ***Juncinella triformis*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus triformis* Engelm., Trans. Acad. Sci. St. Louis 2: 492 (1868)
40. ***Juncinella uncialis*** (Greene) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus uncialis* Greene, Pittonia 2: 105 (1890)

The species previously belonged to the section *Stygiopsis* now belong to the new genus *Alpinojuncus*.

Alpinojuncus Záveská Drábková & Proćków, *Mol. Phylogenet. Evol.* 177 (107588): 20 (2022)

58. ***Alpinojuncus allioides*** (Franch.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus allioides* Franch., Nouv. Arch. Mus. Hist. Nat., ser. 2, 10: 99 (1887)
86. ***Alpinojuncus amplifolius*** (A.Camus) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus amplifolius* A.Camus, Notul. Syst. (Paris) 1(10): 281 (1910)
70. ***Alpinojuncus benghalensis*** (Kunth) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus benghalensis* Kunth, Enum. Pl. 3: 360 (1841)
    Alpinojuncus benghalensis var. ***kyongnoslae*** (Chhetri, Hynn. & A.A.Ansari) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus benghalensis* var. *kyongnoslae* Chhetri, Hynn. & A.A.Ansari, Indian J. Forest. 30(4): 539 (–541; figs.) (2007)
84. ***Alpinojuncus biglumis*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus biglumis* L., Sp. Pl. 328 (1753)
78. ***Alpinojuncus biglumoides*** (H.Hara) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus biglumoides* H.Hara, J. Jap. Bot. 49: 201 (1974)
64. ***Alpinojuncus brachystigma*** (Sam.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus brachystigma* Sam., *in* H.Handel-Mazzetti, Symb. Sin. 7: 1236 (1936)
83. ***Alpinojuncus bryophilus*** (Noltie) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus bryophilus* Noltie, Edinburgh J. Bot. 51: 137 (1994)
92. ***Alpinojuncus castaneus*** (Sm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus castaneus* Sm., Fl. Brit. 1: 383 (1800)
92c. ***Alpinojuncus castaneus*** subsp. ***leucochlamys*** (V.J.Zinger ex V.I.Krecz.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus castaneus* subsp. *leucochlamys* (V.J.Zinger ex V.I.Krecz.) Hultén, *Arktic Bot.* 7(1) (1967): 32 (1968) ≡ *Juncus leucochlamys* V.J.Zinger ex V.I.Krecz., Fl. Transbaic. 2: 141 (1931) [& in Fl. URSS 3: 627 (1935)].
92b. ***Alpinojuncus castaneus*** **subsp. *triceps*** (Rostk.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus castaneus* subsp. *triceps* (Rostk.) Novikov, *Novosti Sist. Vyssh. Rast.* 15: 92 (1979) ≡ *Juncus triceps* Rostk., De Junco 48 (1801)
63. ***Alpinojuncus cephalostigma*** (Sam.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus cephalostigma* Sam., *in* H.Handel-Mazzetti, Symb. Sin. 7: 1233 (1936)
52. ***Alpinojuncus chrysocarpus*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus chrysocarpus* Buchenau, Bot. Jahrb. Syst. 6: 201 (1885)
53. ***Alpinojuncus clarkei*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus clarkei* Buchenau, Bot. Jahrb. Syst. 6: 210 (1885)
48. ***Alpinojuncus concinnus*** (D.Don) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus concinnus* D.Don, Prodr. Fl. Nepal. 44 (1825)
72. ***Alpinojuncus concolor*** (Sam.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus concolor* Sam., *in* H.Handel-Mazzetti, Symb. Sin. 7: 1232 (1936)
55. ***Alpinojuncus crassistylus*** (A.Camus) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus crassistylus* A.Camus, Notul. Syst. (Paris) 1(10): 278 (1910)
94. ***Alpinojuncus deosaicus*** (Noltie) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus deosaicus* Noltie, Edinburgh J. Bot. 55: 41 (1998)
106. ***Alpinojuncus dongchuanensis*** (K.F.Wu) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus dongchuanensis* K.F.Wu, Acta Phytotax. Sin. 32: 457, fig. 5 (1994)
79. ***Alpinojuncus duthiei*** (C.B.Clarke) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus duthiei* (C.B.Clarke) Noltie, Edinburgh J. Bot. 51: 134 (1994) ≡ *Microschoenus duthiei* C.B.Clarke, *in* J.D.Hooker, Fl. Brit. India 6: 675 (1894)
93. ***Alpinojuncus elbrusicus*** (Galushko) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus elbrusicus* Galushko, Novosti Sist. Vyssh.

Rast. 6: 212 (1970)

56. ***Alpinojuncus fimbristyloides*** (Noltie) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fimbristyloides* Noltie, Edinburgh J. Bot. 55: 39 (1998)

Alpinojuncus fugongensis (S.Y.Bao) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fugongensis* S.Y.Bao, Fl. Yunnan. 15: 804 (541, 558; fig. 112) (2003)

98. ***Alpinojuncus ganeshii*** (Miyam. & H.Ohba) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ganeshii* Miyam. & H.Ohba, J. Jap. Bot. 70: 245 (1995)
91. ***Alpinojuncus giganteus*** (Sam.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus giganteus* Sam., Acta Hort. Gothob. 3: 70 (1927)
60. ***Alpinojuncus glaucoturgidus*** (Noltie) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus glaucoturgidus* Noltie, Edinburgh J. Bot. 51: 132 (1994)
75. ***Alpinojuncus gonggae*** (Miyam. & H.Ohba) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus gonggae* Miyam. & H.Ohba, *in* F.Miyamoto *& al*., J. Jap. Bot. 72: 162 (1997)
50. ***Alpinojuncus gracilicaulis*** (A.Camus) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus gracilicaulis* A.Camus, Notul. Syst. (Paris) 1(10): 279 (1910)
51. ***Alpinojuncus grisebachii*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus grisebachii* Buchenau, Abh. Naturwiss. Vereine Bremen 3: 295 (1873)
80. ***Alpinojuncus harae*** (Miyam. & H.Ohba) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus harae* Miyam. & H.Ohba, J. Jap. Bot. 68: 27 (1993)
95. ***Alpinojuncus himalensis*** (Klotzsch) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus himalensis* Klotzsch, *in* J.F.Klotzsch & C.A.F.Garcke, Bot. Ergebn. Reise Waldemar 60, tab. 97 (1862)
54. ***Alpinojuncus hydrophilus*** (Noltie) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus hydrophilus* Noltie, Edinburgh J. Bot. 51: 138 (1994)
49. ***Alpinojuncus khasiensis*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus khasiensis* Buchenau, Bot. Jahrb. Syst. 12: 407 (1890)
65. ***Alpinojuncus kingii*** (Rendle) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus kingii* Rendle, J. Bot. 44: 45 (1906)
61. ***Alpinojuncus leucanthus*** (Royle ex D.Don) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus leucanthus* Royle ex D.Don, Proc. Linn. Soc. London 1: 10 (1839); & Trans. Linn. Soc. London 18: 318 (1840)
69. ***Alpinojuncus leucomelas*** (Royle ex D.Don) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus leucomelas* Royle ex D.Don; Proc. Linn. Soc. London 1: 10 (1839); & Trans. Linn. Soc. London 18: 319 (1840)
100. ***Alpinojuncus longiflorus*** (A.Camus) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus longiflorus* (A.Camus) Noltie, Edinburgh J. Bot. 51: 134 (1994) ≡ *Juncus sikkimensis* Hook.f. var. *longiflorus* A.Camus, Notul. Syst. (Paris) 1(10): 283 (1910)
85. ***Alpinojuncus longirostris*** (Kuvaev) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus longirostris* Kuvaev, Bot. Zhurn. (Moscow & Leningrad) 57: 815 (1972)
104. ***Alpinojuncus longistamineus*** (A.Camus) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus longistamineus* A.Camus, Notul. Syst. (Paris) 1: 277 (1910)
103. ***Alpinojuncus luzuliformis*** (Franch.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus luzuliformis* Franch., Nouv. Arch. Mus. Hist. Nat., ser. 2, 10: 99 (1887)
97. ***Alpinojuncus macrantherus*** (V.I.Krecz. & Gontsch.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus macrantherus* V.I.Krecz. & Gontsch., *in* V.L.Komarov (ed.), Fl. URSS 3: 626 (1935)
105. ***Alpinojuncus maximowiczii*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus maximowiczii* Buchenau, Bot. Jahrb. Syst. 12: 394 (1890)

Alpinojuncus megalophyllus (S.Y.Bao) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus megalophyllus* S.Y.Bao, Fl. Yunnan. 15: 804 (–805, 558–559; fig. 116) (2003)

59. ***Alpinojuncus membranaceus*** (Royle) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus membranaceus* Royle, *in* D.Don, Proc. Linn. Soc. London 1: 10 (1839), & Trans. Linn. Soc. London 18(3): 320 (1840)
87. ***Alpinojuncus milashanensis*** (A.M.Lu & Z.Y.Zhang) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus milashanensis* A.M.Lu & Z.Y.Zhang, Acta Phytotax. Sin. 17: 127 (1979)
89. ***Alpinojuncus minimus*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus minimus* Buchenau, Bot. Zeitung (Berlin) 25: 145 (1867)
77. ***Alpinojuncus modicus*** (N.E.Br.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus modicus* N.E.Br., J. Linn. Soc., Bot. 36: 165 (1903)

Alpinojuncus mustangensis (Miyam. & H.Ohba) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus mustangensis* Miyam. & H.Ohba, J. Jap. Bot. 78(3): 154 (2003)

88. ***Alpinojuncus nepalicus*** (Miyam. & H.Ohba) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus nepalicus* Miyam. & H.Ohba, J. Jap. Bot. 68: 28 (1993)

57. ***Alpinojuncus ochraceus*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ochraceus* Buchenau, Abh. Naturwiss. Vereine Bremen 3: 292 (1873)

71. ***Alpinojuncus perpusillus*** (Sam.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus perpusillus* Sam., *in* H.Handel-Mazzetti, Symb. Sin. 7: 1237 (1936)
Alpinojuncus petrophilus (Miyam.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus petrophilus* Miyam., Bull. Univ. Mus. Univ. Tokyo 42(4): 52 (2006)

102. ***Alpinojuncus potaninii*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus potaninii* Buchenau, Bot. Jahrb. Syst. 12: 394 (1890)

102b. ***Alpinojuncus potaninii*** subsp. ***woroschilovii*** (Nechaev & Novikov) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus potaninii* subsp. *woroschilovii* (Nechaev & Novikov) Novikov, *Byull.* Moskovsk. Obshch. Isp. Prir., Otd. Biol. 95(5): 118 (1990) ≡ *Juncus woroschilovii* Nechaev & Novikov, Byull. Moskovsk. Obshch. Isp. Prir., Otd. Biol. 84(4): 104 (1979)

73. ***Alpinojuncus przewalskii*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus przewalskii* Buchenau, Bot. Jahrb. Syst. 12: 398 (1890)
Alpinojuncus przewalskii* var. *multiflorus (S.Y.Bao) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus przewalskii* var. *multiflorus* S.Y.Bao, Fl. Yunnan. 15: 804 (553) (2003)

81. ***Alpinojuncus rhotangensis*** (Goel & Aswal) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus rhotangensis* Goel & Aswal, Indian J. Forest. 10: 262 (1987)
Alpinojuncus rostocarpus (Miyam.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus rostocarpus* Miyam., Bull. Univ. Mus. Univ. Tokyo 42(4): 58 (2006)

74. ***Alpinojuncus sherei*** (Miyam. & H.Ohba) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus sherei* Miyam. & H.Ohba, J. Jap. Bot. 72: 293 (1997)

99. ***Alpinojuncus sikkimensis*** (Hook.f.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus sikkimensis* Hook.f., Fl. Brit. India 6: 399 (1892)

62. ***Alpinojuncus spectabilis*** (Rendle) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus spectabilis* Rendle, J. Bot. 44: 46 (1906)

96. ***Alpinojuncus sphacelatus*** (Decne.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus sphacelatus* Decne., *in* V.Jacquemont, Voy. Inde 4: 172 (1844)

90. ***Alpinojuncus spumosus*** (Noltie) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus spumosus* Noltie, Edinburgh J. Bot. 51: 139 (ix.1994)

101. ***Alpinojuncus stygius*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus stygius* L., Syst. Natur., ed. 10, 2: 987 (1759)

101b. ***Alpinojuncus stygius* subsp. *americanus*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus stygius* subsp. *americanus* (Buchenau) Hultén, Acta Univ. Lund, ser. nov., sect. 2, 39(2): 430 (1943) ≡ *Juncus stygius* var. *americanus* Buchenau, Bot. Jahrb. Syst. 12: 393 (1890)

67. ***Alpinojuncus thomsonii*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus thomsonii* Buchenau, Bot. Zeitung (Berlin) 25: 148 (1867)

76. ***Alpinojuncus trachyphyllus*** (Miyam. & H.Ohba) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus trachyphyllus* Miyam. & H.Ohba, *in* F.Miyamoto *& al.*, J. Jap. Bot. 72: 164 (1997)

66. ***Alpinojuncus trichophyllus*** (W.W.Sm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus trichophyllus* W.W.Sm., Rec. Bot. Surv. India 6: 103 (1914)

68. ***Alpinojuncus triglumis*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus triglumis* L., Sp. Pl. 328 (1753)

68b. ***Alpinojuncus triglumis* subsp. *albescens*** (Lange) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus triglumis* subsp. *albescens* (Lange) Hultén, Kongl. Svenska Vetenskapsacad. Handl. 8(5): 241 (1962) ≡ *Juncus triglumis* var. *albescens* Lange, Consp. Fl. Groenland. 123 (1880)

82. ***Alpinojuncus uniflorus*** (W.W.Sm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus uniflorus* W.W.Sm., Rec. Bot. Surv. India 6: 104 (1914)
Alpinojuncus yui (S.Y.Bao) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus yui* S.Y.Bao, Fl. Yunnan. 15: 804 (554–555; fig. 115) (2003)

The species previously belonged to the section *Iridifolii* now belong to the new genus *Verojuncus*.

Verojuncus Záveská Drábková & Proćków, *Mol. Phylogenet. Evol.* 177 (107588): 19 (2022)

114. ***Verojuncus alatus*** (Franch. & Sav.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus alatus* Franch. & Sav., Enum. Pl. Jap. 2: 98

(1879)

115. ***Verojuncus diastrophanthus*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus diastrophanthus* Buchenau, Bot. Jahrb. Syst. 12: 309 (1890)
109. ***Verojuncus ensifolius*** (Wikstr.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ensifolius* Wikstr., Kongl. Vetensk. Akad. Handl. 2: [1] (1824)
112. ***Verojuncus macrandrus*** (Coville) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus macrandrus* Coville, *in* L.Abrams, Ill. Fl. Pacific States 1: 367 (1923)
107. ***Verojuncus oxymeris*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus oxymeris* Engelm., Trans. Acad. Sci. St. Louis 2: 483 (1868)
111. ***Verojuncus phaeocephalus*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus phaeocephalus* Engelm., Trans. Acad. Sci. St. Louis 2: 484 (1868)

111b. ***Verojuncus phaeocephalus*** var. ***paniculatus*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus phaeocephalus* var. *paniculatus* Engelm., Trans. Acad. Sci. St. Louis 2: 484 (1868)

113. ***Verojuncus polycephalus*** (Michx.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus polycephalus* Michx., Fl. Bor.-Amer. 1: 192 (1803)
116. ***Verojuncus prismatocarpus*** (R.Br.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus prismatocarpus* R.Br., Prodr. 1: 259 (1810)

116b. ***Verojuncus prismatocarpus*** subsp. ***leschenaultii*** (J.Gay ex Laharpe) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus prismatocarpus* subsp. *leschenaultii* (J.Gay ex Laharpe) Kirschner, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 249 (2002) ≡ *Juncus leschenaultii* J.Gay ex Laharpe, Essai Monogr. Jonc. 49 (1825)

110. ***Verojuncus saximontanus*** (A.Nelson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus saximontanus* A.Nelson, Bull. Torrey Bot. Club 29: 401 (1902)
108. ***Verojuncus xiphioides*** (E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus xiphioides* E.Mey., Syn. Junc. 50 (1822)

The species previously belonged to the section *Ozophyllum* now belong to the new genus *Verojuncus*, that is, together with the species listed above that belonged to the previous section *Iridifolii*.

Verojuncus Záveská Drábková & Proćków, *Mol. Phylogenet. Evol.* 177 (107588): 19 (2022)

168. ***Verojuncus acuminatus*** (Michx.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus acuminatus* Michx., Fl. Bor.-Amer. 1: 192 (1803)
184. ***Verojuncus acutiflorus*** (Ehrh. ex Hoffm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus acutiflorus* Ehrh. ex Hoffm., Deutschl. Fl. 125 (1791)

184b. ***Verojuncus acutiflorus*** subsp. ***rugosus*** (Steud.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus acutiflorus* subsp. *rugosus* (Steud.) Cout., *Fl. Port*. 118 (1913) ≡ *Juncus rugosus* Steud., Syn. Pl. Glumac. 2: 298 (1855)

136. ***Verojuncus alpigenus*** (K.Koch) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus alpigenus* K.Koch, Linnaea 21: 627 (1848)
189. ***Verojuncus alpinoarticulatus*** (Chaix) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus alpinoarticulatus* Chaix, *Pl. Vapinc.* 74 (1785), & Chaix, *in* D.Villars, Hist. Pl. Dauph. 1: 378 (1786)

189c. ***Verojuncus alpinoarticulatus*** subsp. ***alpestris*** (Hartm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus alpinoarticulatus* subsp. *alpestris* (Hartm.) Hämet-Ahti, *Ann. Bot. Fenn.* 17: 342 (1980) ≡ *Juncus alpestris* Hartm., Handb. Skand. Fl. 141 (1820)

189e. ***Verojuncus alpinoarticulatus*** subsp. ***americanus*** (Farw.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus alpinoarticulatus* subsp. *americanus* (Farw.) Hämet-Ahti, *Ann. Bot. Fenn.* 23: 277 (1986) ≡ *Juncus alpinus* var. *americanus* Farw., Amer. Midl. Naturalist 11: 74 (1928)

189b. ***Verojuncus alpinoarticulatus*** subsp. ***fischerianus*** (Turcz. ex V.I.Krecz.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus alpinoarticulatus* subsp. *fischerianus* (Turcz. ex V.I.Krecz.) Hämet-Ahti, *Mem. Soc. Fauna Fl. Fenn.* 56: 97 (1980) ≡ *Juncus fischerianus* Turcz. ex V.I.Krecz., Fl. Transbaic. 2: 142 (1931)

189f. ***Verojuncus alpinoarticulatus*** subsp. ***fuscescens*** (Fernald) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus alpinoarticulatus* subsp. *fuscescens* (Fernald) Hämet-Ahti, *Ann. Bot. Fenn.* 23: 280 (1986) ≡ *Juncus alpinus* var. *fuscescens* Fernald, Rhodora 10: 48 (1908)

189d. ***Verojuncus alpinoarticulatus*** subsp. ***rariflorus*** (Hartm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus alpinoarticulatus* subsp. *rariflorus* (Hartm.) Holub, *Folia Geobot. Phytotax.* 23: 413 (1988) ≡ *Juncus rariflorus* Hartm., Handb. Skand. Fl. 141 (1820)

137. ***Verojuncus anatolicus*** (Snogerup) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus anatolicus* Snogerup, Bot. Not. 131: 194 (1978)

191. ***Verojuncus anceps*** (Laharpe) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus anceps* Laharpe, Essai Monogr. Jonc. 38 (1825)

148. ***Verojuncus andersonii*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus andersonii* Buchenau, *in* H.G.A.Engler, Pflanzenr. (iv.36) 25: 202 (1906)
Verojuncus andinus (Balslev) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus andinus* Balslev, Phytotaxa 376(2): 98 (2018)

192. ***Verojuncus articulatus*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus articulatus* L., Sp. Pl. 327 (1753)
Verojuncus articulatus f. ***macrocephalus*** (Viv.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus articulatus* f. *macrocephalus* (Viv.) B.Bock, Bull. Soc. Bot. Centre-Ouest 42: 276 (2012) ≡ *Juncus macrocephalus* Viv., Fl. Cors. Prodr. 5 (1824)

192b. ***Verojuncus articulatus*** subsp. ***limosus*** (Worosch.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus articulatus* subsp. *limosus* (Worosch.) Worosch., *in* A.K.Skvortsov, Florist. Issled. Raz. Raion. SSSR 157 (1985) ≡ *Juncus limosus* Worosch., Bjull. Glavn. Bot. Sada 68: 47 (1968)

134. ***Verojuncus atratus*** (Krock.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus atratus* Krock., Fl. Siles. 1: 562 (1787)
Verojuncus austrobrasiliensis (Balslev) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus andinus* Balslev, Phytotaxa 376(2): 100 (2018)

167. ***Verojuncus bolanderi*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus bolanderi* Engelm., Trans. Acad. Sci. St. Louis 2: 470 (1868)

166. ***Verojuncus brachycarpus*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus brachycarpus* Engelm., *in* A.Gray, Manual, ed. 5, 542 (1867)

131. ***Verojuncus brachycephalus*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus brachycephalus* (Engelm.) Buchenau, Bot. Jahrb. Sys. 12: 268 (1890) ≡ *Juncus canadensis* var. *brachycephalus* Engelm., *in* A.Gray, Manual, ed. 5, 544 (1867)

151. ***Verojuncus brasiliensis*** (Breistr.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus brasiliensis* Breistr., Bull. Soc. Sci. Dauphin., ser. 6, 1: 609 (1947)

129. ***Verojuncus brevicaudatus*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus brevicaudatus* (Engelm.) Fernald, Rhodora 6: 35 (1904) ≡ *Juncus canadensis* var. *brevicaudatus* Engelm., Trans. Acad. Sci. St. Louis 2: 436 (1866)

144. ***Verojuncus breviculmis*** (Balslev) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus breviculmis* Balslev, Brittonia 35: 303 (1983)

119. ***Verojuncus bulbosus*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus bulbosus* L., Sp. Pl. 327 (1753)
Verojuncus bulbosus f. ***submucronatus*** (Proćków) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus bulbosus* f. *submucronatus* Proćków, Ann. Bot. Fenn. 47(6): 412 (–417; figs. 1–2A,B,E) (2010)
Verojuncus bulbosus subsp. ***kochii*** (F.W.Schultz) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus bulbosus* subsp. *kochii* (F.W.Schultz) Reichg., Fl. Neerl. 6(1): 189 (1964) ≡ *Juncus kochii* F.W.Schultz, Pollichia 13: 32 (1855)

154. ***Verojuncus burkartii*** (Barros) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus burkartii* Barros, Darwiniana 10 (3): 431 (1953)

126. ***Verojuncus caesariensis*** (Coville) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus caesariensis* Coville, Mem. Torrey Bot. Club 5: 106 (1894)

128. ***Verojuncus canadensis*** (J.Gay ex Laharpe) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus canadensis* J.Gay ex Laharpe, Essai Monogr. Jonc. 46 (1825)

146. ***Verojuncus chiapasensis*** (Balslev) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus chiapasensis* Balslev, Ann. Missouri Bot. Gard. 75: 379 (1988)

174. ***Verojuncus chlorocephalus*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus chlorocephalus* Engelm., Trans. Acad. Sci. St. Louis 2: 485 (1868)

198. ***Verojuncus curtisiae*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus curtisiae* L.A.S.Johnson, *in* M.R.Banks *& al.*, Asp. Tasman. Bot. Trib. W. Curtis 44 (1991)

169. ***Verojuncus debilis*** (A.Gray) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus debilis* A.Gray, Manual 506 (1848)

149. ***Verojuncus densiflorus*** (Humb.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus densiflorus* Humb., Bonpl. & Kunth, Nov. Gen. Sp. 1: 238 [Quarto], 1: 190 [Folio] (1816)

155. ***Verojuncus diemii*** (Barros) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus diemii* Barros, Darwiniana 10(1): 65 (1952)

170. ***Verojuncus diffusissimus*** (Buckley) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus diffusissimus* Buckley, Proc. Acad. Nat. Sci. Philadelphia 14: 9 (1862)

176. ***Verojuncus dubius*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus dubius* Engelm., Trans. Acad. Sci. St. Louis 2: 459 (1868)

147. ***Verojuncus ebracteatus*** (E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ebracteatus* E.Mey., Syn. Junc. 28 (1822)

150. ***Verojuncus echinocephalus*** (Balslev) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus echinocephalus* Balslev, *in* G.Harling, B.Sparre & U.Eliasson, Fl. Ecuador 11: 37 (1979)

143. ***Verojuncus ecuadoriensis*** (Balslev) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ecuadoriensis* Balslev, *in* G.Harling, B.Sparre & U.Eliasson, Fl. Ecuador 11: 36 (1979)

172. ***Verojuncus elliottii*** (Chapm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus elliottii* Chapm., Fl. South. U.S. 494 (1860)

183. ***Verojuncus emmanuelis*** (A.Fern. & J.G.García) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus emmanuelis* A.Fern. & J.G.García, Bol. Soc. Brot. ser. 2, 21: 6 (1947)

156. ***Verojuncus ernesti-barrosi*** (Barros) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ernesti-barrosi* Barros, Darwiniana 10(3): 433 (1953)

125. ***Verojuncus equisetinus*** (Proskur.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus equisetinus* Proskur., Byull. Moskovsk. Obshch. Ispyt. Prir., Otd. Biol., 80(2): 117 (1975)

188. ***Verojuncus exsertus*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus exsertus* Buchenau, Monogr. Juncac. Cap 435 (1875) [Abh. Naturwiss. Vereine Bremen 4: 435 (1875)]

Verojuncus fascinatus (M.C.Johnst.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fascinatus* (M.C.Johnst.) W.M.Knapp, *Phytotaxa* 174(5): 256 (2014) ≡ *Juncus validus* var. *fascinatus* M.C.Johnst., Southw. Naturalist 9: 313 (1968)

133. ***Verojuncus fauriensis*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fauriensis* Buchenau, Notizbl. Königl. Bot. Gart. Berlin 3: 127 (1901)

133b. ***Verojuncus fauriensis*** subsp. ***kamschatcensis*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fauriensis* subsp. *kamschatcensis* (Buchenau) Novikov, Byull. Moskovsk. Obshch. Isp. Prir., Otd. Biol., 95(5): 120 (1990) ≡ *Juncus kamschatcensis* (Buchenau) Kudo, J. Col. Agric. Sapporo 11: 88 (1922) ≡ *Juncus fauriensis* var. *kamschatcensis* Buchenau, *in* H.G.A.Engler, Pflanzenr. (iv. 36) 25: 159 (1906)

140. ***Verojuncus fockei*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fockei* Buchenau, Bot. Jahrb. Syst. 12: 359 (1890)

186. ***Verojuncus fontanesii*** (J.Gay ex Laharpe) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fontanesii* J.Gay ex Laharpe, Essai Monogr. Jonc. 42 (1825)

186d. ***Verojuncus fontanesii*** subsp. ***brachyanthus*** (Trab.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fontanesii* subsp. *brachyanthus* Trab., *in* J.A.Battandier & L.C.Trabut, Fl. Algérie, ed. 2, 86, tab. 2 (1895)

186c. ***Verojuncus fontanesii*** subsp. ***kotschyi*** (Boiss.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fontanesii* subsp. *kotschyi* (Boiss.) Snogerup, *in* K.H.Rechinger, Fl. Iranica 75: 25 (1971) ≡ *Juncus kotschyi* Boiss., *in* K.G.T.Kotschy, Pl. Persiae Austr. [exsiccate series edited by R.F.Hohenacker, printed label description], no. 446 (1845) & Boiss., Diagn. Pl. Orient., ser. 1, 7: 101 (1846)

186b. ***Verojuncus fontanesii*** subsp. ***pyramidatus*** (Laharpe) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fontanesii* subsp. *pyramidatus* (Laharpe) Snogerup, *in* K.H.Rechinger, Fl. Iranica 75: 25 (1971) ≡ *Juncus pyramidatus* Laharpe, Essai Monogr. Jonc. 40 (1825)

132. ***Verojuncus guadeloupensis*** (Buchenau & Urb.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus guadeloupensis* Buchenau & Urb., *in* I.Urban, Symb. Antill. 1: 496 (1900)

182. ***Verojuncus heterophyllus*** (Dufour) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus heterophyllus* Dufour, Ann. Sci. Nat. (Paris) 5: 88 (1825)

139. ***Verojuncus holoschoenus*** (R.Br.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus holoschoenus* R.Br., Prodr. 1: 259 (1810)

Verojuncus hondurensis (Proćków) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus hondurensis* Proćków, Phytotaxa 439(1): 95 (2020)

Verojuncus kochii (F.W.Schultz) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus bulbosus* subsp. *kochii* (F.W.Schultz) Reichg., Fl. Neerl. 6(1): 189 (1964) ≡ *Juncus kochii* F.W.Schultz, Pollichia 13: 32 (1855)

179. ***Verojuncus krameri*** (Franch. & Sav.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus krameri* Franch. & Sav., Enum. Pl. Jap. 2: 99 (1879)

Verojuncus kuohii (M.J.Jung) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus kuohii* M.J.Jung, Phytotaxa 81: 49 (2013)

178. ***Verojuncus leptospermus*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus leptospermus* Buchenau, Bot. Jahrb. Syst. 6: 203 (1885)

145. ***Verojuncus liebmannii*** (J.F.Macbr.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus liebmannii* J.F.Macbr., Field Mus. Nat. Hist., Bot. Ser. 11(1): 9 (1931)

145b. ***Verojuncus liebmannii*** var. ***quitensis*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus liebmannii* var. *quitensis* (Buchenau) Balslev, *in* G.Harling, B.Sparre & U.Eliasson, Fl. Ecuador 11: 40 (1979) ≡ *Juncus brevifolius* var. *quitensis* Buchenau, Bot. Jahrb. Syst. 12: 356 (1890)

145c. ***Verojuncus liebmannii*** var. ***polycephalus*** (Balslev) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus liebmannii* var. *polycephalus* Balslev, Ann. Missouri Bot. Gard. 75: 381 (1988)

157. ***Verojuncus llanquihuensis*** (Barros) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus llanquihuensis* Barros, Darwiniana 10(3):

425 (1953)

160. ***Verojuncus megacephalus*** (M.A.Curtis) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus megacephalus* M.A.Curtis, Boston J. Nat. Hist. 1: 132 (1835)
173. ***Verojuncus mertensianus*** (Bong.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus mertensianus* Bong., Mém. Acad. St. Pétersbourg 6(2): 167 (1833)
152. ***Verojuncus micranthus*** (Schrad. ex E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus micranthus* Schrad. ex E.Mey., Syn. Luzul. 31 (1823)
141. ***Verojuncus microcephalus*** (Humb., Bonpl. & Kunth.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus microcephalus* Humb., Bonpl. & Kunth., Gen. Sp. 1: 237 [Quarto], 1: 190 [Folio] (1816)
158. ***Verojuncus militaris*** (Bigelow) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus militaris* Bigelow, Fl. Boston., ed. 2, 139 (1824)
175. ***Verojuncus nevadensis*** (S.Watson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus nevadensis* S.Watson, Proc. Amer. Acad. 14: 303 (1879)
171. ***Verojuncus nodatus*** (Coville) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus nodatus* Coville, *in* N.L.Britton & A.Brown, Ill. Fl. N U.S., ed. 2, 1: 482 (1913)
163. ***Verojuncus nodosus*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus nodosus* L., Sp. Pl., ed. 2, 1: 466 (1762)
197. ***Verojuncus novae-zelandiae*** (Hook.f.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus novae-zelandiae* Hook.f., Fl. New Zealand 1: 264 (1853)
187. ***Verojuncus oxycarpus*** (E.Mey. ex Kunth) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus oxycarpus* E.Mey. ex Kunth, Enum. Pl. 3: 336 (1841)
142. ***Verojuncus pallescens*** (Lam.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus pallescens* Lam., Encycl. 3: 268 (1789)
Verojuncus paludosus (E.L.Bridges & Orzell) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus paludosus* E.L.Bridges & Orzell, Novon 18(3): 294 (–297; fig. 1) (2008)
180. ***Verojuncus papillosus*** (Franch. & Sav.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus papillosus* Franch. & Sav., Enum. Pl. Jap. 2: 98 & 532 (1876)
120. ***Verojuncus pelocarpus*** (E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus pelocarpus* E.Mey., Syn. Luzul. 30 (1823)
123. ***Verojuncus pervetus*** (Fernald) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus pervetus* Fernald, Rhodora 19: 17 (1917)
124. ***Verojuncus punctorius*** (L.f.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus punctorius* L.f., Suppl. Pl. 208 (1781)
194. ***Verojuncus pusillus*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus pusillus* Buchenau, Junc. S. Amer. 395 (1879)
117. ***Verojuncus pygmaeus*** (Rich. ex Thuill.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus pygmaeus* Rich. ex Thuill., Fl. Env. Paris, ed. 2, 178 (1800)
Verojuncus quartinianus (A.Rich.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus quartinianus* A.Rich., Tent. Fl. Abyss. 2: 339 (1851)
199. ***Verojuncus ratkowskyanus*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ratkowskyanus* L.A.S.Johnson, *in* M.R.Banks *& al.*, Asp. Tasman. Bot. Trib. W. Curtis 43 (1991)
190. ***Verojuncus requienii*** (Parl.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus requienii* Parl., Fl. Ital. 2: 346 (1852)
196. ***Verojuncus sandwithii*** (Lourteig) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus sandwithii* Lourteig, Publ. Comit. Nat. Franc. Rech. Antarct., Biol. 23: 44 (1968)
193. ***Verojuncus scheuchzerioides*** (Gaudich.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus scheuchzerioides* Gaudich., Ann. Sci. Nat. (Paris) 5: 100 (1825)
161. ***Verojuncus scirpoides*** (Lam.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus scirpoides* Lam., Encycl. 3: 267 (1789)
195. ***Verojuncus stipulatus*** (Nees & Meyen) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus stipulatus* Nees & Meyen, *in* F.J.F.Meyen, Observ. Bot. 126, 1843.
195b. ***Verojuncus stipulatus*** var. ***chilensis*** (Gay) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus stipulatus* var. *chilensis* (Gay) Kirschner, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 251 (2002) ≡ *Juncus chilensis* Gay, Fl. Chil. 6: 146 (1854)
138. ***Verojuncus striatus*** (Schousb. ex E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus striatus* Schousb. ex E.Mey., Syn. Junc. 27 (1822)
130. ***Verojuncus subcaudatus*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus subcaudatus* (Engelm.) Coville & S.F.Blake, Proc. Biol. Soc. Wash. 31: 45 (1918) ≡ *Juncus canadensis* var. *subcaudatus* Engelm., *in* A.Gray, Manual, ed. 5, 543 (1867)
122. ***Verojuncus subnodulosus*** (Schrank) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus subnodulosus* Schrank, Baier. Fl. 1: 616 (1789)
121. ***Verojuncus subtilis*** (E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus subtilis* E.Mey., Syn. Luzul. 31 (1823)
153. ***Verojuncus subulitepalus*** (Balslev) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus subulitepalus* Balslev, Fl. Neotrop. Monogr.

68: 136 (1996)

159. ***Verojuncus supiniformis*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus supiniformis* Engelm., Trans. Acad. Sci. St. Louis 2: 461 (1868)
165. ***Verojuncus texanus*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus texanus* (Engelm.) Coville, *in* J.K.Small, *Fl. SE U.S.* 259 (1903) ≡ *Juncus nodosus* var. *texanus* Engelm., Trans. Acad. Sci. St. Louis 2: 471 (1868)
135. ***Verojuncus thomasii*** (Ten.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus thomasii* Ten., App. Ind. Sem., sine pag. (1827)
200. ***Verojuncus thompsonianus*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus thompsonianus* L.A.S.Johnson, *in* M.R.Banks *& al.*, Asp. Tasman. Bot. Trib. W. Curtis 45 (1991)
118. ***Verojuncus tingitanus*** (Maire & Weiller) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus tingitanus* Maire & Weiller, *in* R.Maire, Fl. Afr. Nord 4: 284 (1957)
164. ***Verojuncus torreyi*** (Coville) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus torreyi* Coville, Bull. Torrey Bot. Club 22: 303 (1895)
127. ***Verojuncus trigonocarpus*** (Steud.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus trigonocarpus* Steud., Syn. Pl. Glumac. 2: 308 (1855)
177. ***Verojuncus wallichianus*** (J.Gay ex Laharpe) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus wallichianus* J.Gay ex Laharpe, Essai Monogr. Jonc. 51 (1825)
162. ***Verojuncus validus*** (Coville) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus validus* Coville, Bull. Torrey Bot. Club 22: 305 (1895), nom. cons.

162b. ***Verojuncus validus*** var. ***fascinatus*** (M.C.Johnst.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus validus* var. *fascinatus* M.C.Johnst., Southw. Naturalist 9: 313 (1968)

185. ***Verojuncus valvatus*** (Link) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus valvatus* Link, *in* H.A.Schrader, J. Bot. 1799(2): 316 (1800)
181. ***Verojuncus virens*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus virens* Buchenau, *in* H.G.A.Engler, Pflanzenr. (iv.36) 25: 220 (1906)

The species previously belonged to the subgenus *Agathryon* (that are from former sections *Tenageia, Steirochloa, Juncotypus*, and *Forskalina*) now belong to the new genus *Agathryon*. It should be also remembered that two species from the former section *Steirochloa* belong to the genus *Oreojuncus* described earlier (i.e., *Oreojuncus monanthos* (Jacq.) Záveská Drábková & Kirschner and *Oreojuncus trifidus* (L.) Záveská Drábková & Kirschner).

Agathryon (Raf.) Záveská Drábková & Proćków, *Mol. Phylogenet. Evol.* 177 (107588): 21 (2022)

The species from the previous section *Tenageia* are listed here:

204. ***Agathryon amuricum*** (Maxim.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus amuricus* (Maxim.) V.I.Krecz. & Gontsch., *in* V.L.Komarov, Fl SSSR 3: 623 (1935) ≡ *Juncus bufonius* var. *amuricus* Maxim., Mem. Sav. Etr. Petersb. 9: 294 (1859)
Agathryon batrachium (Veldkamp) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus batrachium* Veldkamp, Blumea 59(2): 142 (2014)
206. ***Agathryon bufonium*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus bufonius* L., Sp. Pl. 328 (1753)
Agathryon fernandez-carvajaliae (Romero Zarco & Arán) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fernandez-carvajaliae* Romero Zarco & Arán, Nordic J. Bot. 31(2): 190 (2013)
202. ***Agathryon foliosum*** (Desf.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus foliosus* Desf., Fl. Atlant. 1: 315, tab. 92 (1798)
208. ***Agathryon hybridum*** (Brot.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus hybridus* Brot., Fl. Lusit. 1: 513 (1804)
Agathryon maroccanum (Kirschner) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus maroccanus* Kirschner, Preslia 76(4): 372 (371–376; figs.) (2004)
207. ***Agathryon minutulum*** (Albert & Jahand.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus minutulus* (Albert & Jahand.) Prain, Index Kew. Suppl. 5: 143 (1921) ≡ *Juncus bufonius* f. *minutulus* Albert & Jahand., Cat. Pl. Vasc. Dép. Var 501 (1908)
Agathryon mogadorense (H. Lindb.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus bufonius* subsp. *mogadorensis* H.Lindb., Acta Soc. Sci. Fenn., ser. nov., B1(2): 31, tab. 11a (1932) ≡ *Juncus mogadorensis* (H.Lindb.) A.W.Hill, Index Kew., Suppl. 9 (1931.1935): 281 (1938)
211. ***Agathryon ranarium*** (Songeon & E.P.Perrier) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ranarius* Songeon & E.P.Perrier, *in* P.C.Billot, Annot. Fl. France Allemagne 192 (1859)
201. ***Agathryon rechingeri*** (Snogerup) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus rechingeri* Snogerup, *in* K.H.Rechinger, Fl. Iranica 75: 19 (1971)

210. ***Agathryon sorrentinii*** (Parl.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus sorrentinii* Parl., Fl. Ital. 2: 356 (1857)
205. ***Agathryon sphaerocarpum*** (Nees) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus sphaerocarpus* Nees, *in* H.C.Funck, Flora 1(1): 521 (1818)
203. ***Agathryon tenageia*** (Ehrh. ex L.f.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus tenageia* Ehrh. ex L.f., Suppl. Pl. 208 (1781)

203b. ***Agathryon tenageia*** subsp. ***perpusillum*** (Fern.-Carv. & Navarro) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus tenageia* subsp. *perpusillus* Fern.-Carv. & Navarro, Publ. Dep. Bot. Fac. Farmac. Salamanca 1: 28 (1979)

209. ***Agathryon turkestanicum*** (V.I.Krecz. & Gontsch.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus turkestanicus* V.I.Krecz. & Gontsch., *in* V.L.Komarov, Fl. SSSR 3: 625 (1935)

The species from the previous section *Steirochloa* are listed here:

225. ***Agathryon anthelatum*** (Wiegand) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus anthelatus* (Wiegand) R.E.Brooks & Whittem., Novon 9: 11 (1999) ≡ *Juncus tenuis* var. *anthelatus* Wiegand, Bull. Torrey Bot. Club 27: 523 (1900)
Agathryon baekdusanense (M.Kim) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus baekdusanensis* M.Kim, Korean J. Pl. Taxon. 44(4): 239 (2014)
219. ***Agathryon brachyphyllum*** (Wiegand) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus brachyphyllus* Wiegand, Bull. Torrey Bot. Club 27: 519 (1900)
213. ***Agathryon capillaceum*** (Lam.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus capillaceus* Lam., Encycl. 3: 266 (1789)
234. ***Agathryon compressum*** (Jacq.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus compressus* Jacq., Enum. Stirp. Vindob. 60, 235 (1762)
220. ***Agathryon confusum*** (Coville) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus confusus* Coville, Proc. Biol. Soc. Wash. 10: 127 (1896)
214. ***Agathryon cordobense*** (Barros) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus cordobensis* Barros, Lilloa 28: 279 (1957)
216. ***Agathryon coriaceum*** (Mack.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus coriaceus* Mack., Bull. Torrey Bot. Club 56: 28 (1929)
223. ***Agathryon dichotomum*** (Elliott) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus dichotomus* Elliott, Sketch Bot. S. Carol. 1: 406 (1817)
228. ***Agathryon dudleyi*** (Wiegand) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus dudleyi* Wiegand, Bull. Torrey Bot. Club 27: 524 (1900)
221. ***Agathryon georgianum*** (Coville) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus georgianus* Coville, Bull. Torrey Bot. Club 22: 44 (1895)
239. ***Agathryon gerardii*** (Loisel.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus gerardii* Loisel., J. Bot. [Desvaux] 2: 284 (1809)

239b. ***Agathryon gerardii*** subsp. ***atrofuscum*** (Rupr.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus gerardii* subsp. *atrofuscus* (Rupr.) Printz, Veg. Sib.-Mong. Front. 177 (1921) ≡ *Juncus atrofuscus* Rupr., Beitr. Pflanzenk. Russ. Reiches 2: 59 (1845)

239c. ***Agathryon gerardii*** subsp. ***montanum*** (Snogerup) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus gerardii* subsp. *montanus* Snogerup, Bot. Not. 131: 185 (1978)

235. ***Agathryon gracillimum*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus gracillimus* (Buchenau) V.I.Krecz. & Gontsch., *in* V.L.Komarov, Fl. SSSR 3: 627, 528 (1935) ≡ *Juncus compressus* var. *gracillimus* Buchenau, *in* H.G.A.Engler, Pflanzenr. (iv.36) 25: 112 (1906) [or Buchenau ex Matsum., Ind. Pl. Japon. 2: 183 (1905), n.v.]
218. ***Agathryon greenei*** (Oakes & Tuck.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus greenei* Oakes & Tuck., *in* E.Tuckerman, Amer. J. Sci. Arts 45: 37 (1843)
240. ***Agathryon heptopotamicum*** (V.I.Krecz. & Gontsch.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus heptopotamicus* V.I.Krecz. & Gontsch., *in* V.L.Komarov, Fl. SSSR 3: 628 (1935)
230. ***Agathryon homalocaule*** (F.Muell. ex Benth) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus homalocaulis* F.Muell. ex Benth., Fl. Austral. 7: 128 (1878)
212. ***Agathryon imbricatum*** (Laharpe) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus imbricatus* Laharpe, Essai Monog. Jonc. 61 (1825)
227. ***Agathryon interior*** (Wiegand) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus interior* Wiegand, Bull. Torrey Bot. Club 27: 516 (1900)
243. ***Agathryon jaxarticum*** (V.I.Krecz. & Gontsch.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus jaxarticus* V.I.Krecz. & Gontsch., *in* V.L.Komarov, Fl. SSSR 3: 628 (1935)
226. ***Agathryon occidentale*** ([Coville] Wiegand) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus occidentalis* [Coville] Wiegand,

Bull. Torrey Bot. Club 27: 523 (1900)

238. ***Agathryon orchonicum*** (Novikov) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus orchonicus* Novikov, Bjull. Moskovsk. Ob.č. Prir., Odt. Biol. 90(5): 110 (1985)

242. ***Agathryon persicum*** (Boiss.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus persicus* Boiss., Diagn. Pl. Orient., ser. 1, 7: 101 (1846)

242b. ***Agathryon persicum*** subsp. ***libanoticum*** (Thiébaut) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus persicus* subsp. *libanoticus* (Thiébaut) Novikov & Snogerup, *in* S.Snogerup, P.F.Zika & J.Kirschner, *Preslia* 74: 252 (2002) ≡ *Juncus libanoticus* Thiébaut, Bull. Soc. Bot. France 95: 20 (1948)

229. ***Agathryon revolutum*** (R.Br.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus revolutus* R.Br., Prodr. 1: 259 (1810)

236. ***Agathryon salsuginosum*** (Turcz. ex E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus salsuginosus* Turcz. ex E.Mey., *in* C.F.Ledebour, Fl. Ross. 4: 230 (1853)

222. ***Agathryon secundum*** (Beauv. ex Poir.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus secundus* Beauv. ex Poir., *in* J.B.A.P.M. de Lamarck, Encycl., Suppl. 3: 160 (1813)

237. ***Agathryon soranthum*** (Schrenk) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus soranthus* Schrenk, Bull. Cl. Phys.-Math. Acad. Imp. Sci. Saint-Pétersbourg 2: 193 (1843)

231. ***Agathryon squarrosum*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus squarrosus* L., Sp. Pl. 327 (1753)

241. ***Agathryon taonanense*** (Satake & Kitag.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus taonanensis* Satake & Kitag., Bot. Mag. (Tokyo) 48 (no. 573): 610 (1934)

224. ***Agathryon tenue*** (Willd.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus tenuis* Willd., Sp. Pl. 2: 214 (1799)

Agathryon tenue subsp. ***anthelatum*** (Wiegand) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus tenuis* subsp. *anthelatus* (Wiegand) Verloove & Lambinon, New J. Bot. 1(1): 39 (2011) ≡ *Juncus tenuis* var. *anthelatus* Wiegand, Bull. Torrey Bot. Club 27: 523 (1900)

Agathryon tenue subsp. ***dichotomum*** (Elliott) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus tenuis* subsp. *dichotomus* (Elliott) Verloove & Lambinon, New J. Bot. 1(1): 40 (2011) ≡ *Juncus dichotomus* Elliott, Sketch Bot. S. Carol. 1: 406 (1817)

Agathryon triloculare (Zika) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus trilocularis* Zika, Rhodora 114(959): 310 (figs. 1A–F, H, J–K; 2A–C, 3) (2012)

217. ***Agathryon vaseyi*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus vaseyi* Engelm., Trans. Acad. Sci. St. Louis 2: 448 (1866)

215. ***Agathryon venturianum*** (Castillón) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus venturianus* Castillón, Revista Univ. Tucumán 7: 24, fig. 5.7 (1926)

232. ***Oreojuncus monanthos*** (Jacq.) Záveská Drábková & Kirschner, Preslia 85: 499 (2013) ≡ *Juncus monanthos* Jacq., Enum. Stirp. Vindob. 61, 236 (1762)

233. ***Oreojuncus trifidus*** (L.) Záveská Drábková & Kirschner, Preslia 85: 499 (2013) ≡ *Juncus trifidus* L., Sp. Pl. 326 (1753)

The species from the previous section *Juncotypus* are listed here:

Predominantly North American, European and Far Eastern species.

263. ***Agathryon aemulans*** (Liebm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus aemulans* Liebm., Vidensk. Meddel. Dansk Naturhist. Foren. Kjøbenhavn 1850: 38 (1850)

244. ***Agathryon arcticum*** (Willd.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus arcticus* Willd., Sp. Pl. 4th edn, 2: 206 (1799)

244b. ***Agathryon arcticum*** subsp. ***alaskanum*** (Hultén) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus arcticus* subsp. *alaskanus* Hultén, Acta Univ. Lund., ser. nov., sect. 2, 39(2): 441 (1943)

244c. ***Agathryon arcticum*** subsp. ***grubovii*** (Novikov) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus arcticus* subsp. *grubovii* (Novikov) Novikov, Kirschner & Snogerup, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 252 (2002) ≡ *Juncus grubovii* Novikov, Bjull. Moskovsk. Ob.č. Prir., Odt. Biol. 86(5): 103 (1981)

245. ***Agathryon balticum*** (Willd.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus balticus* Willd., Ges. Naturf. Freunde Berlin Mag. Neuesten Entdeck. Gesammten Naturk. 3: 298 (1809)

245g. ***Agathryon balticum*** subsp. ***andicola*** (Hook.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus balticus* subsp. *andicola* (Hook.) Snogerup, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 258 (2002) ≡ *Juncus andicola* Hook., Icon. Pl., ser. 2, 8: pl. 714 (1848)

245f. ***Agathryon balticum*** subsp. ***atrum*** (Rydb.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus balticus* subsp. *ater* (Rydb.) Snogerup, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 258 (2002) ≡ *Juncus ater* Rydb., Fl. Rocky Mts. 151, 1060 (1917)

245c. ***Agathryon balticum*** subsp. ***cantabricum*** (T.E.Díaz, Fern.-Carv. & Fern.Prieto) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus*

balticus subsp. *cantabricus* (T.E.Díaz, Fern.-Carv. & Fern.Prieto) Snogerup, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 256 (2002) ≡ *Juncus cantabricus* T.E.Díaz, Fern.-Carv. & Fern.Prieto, Trab. Dep. Bot. Univ. Oviedo 2: 13 (1977)

245d. ***Agathryon balticum*** subsp. ***littorale*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus balticus* subsp. *littoralis* (Engelm.) Snogerup, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 256 (2002) ≡ *Juncus balticus* Willd. var. *littoralis* Engelm., Trans. Acad. Sci. St. Louis 2: 442 (1866)

245e. ***Agathryon balticum*** subsp. ***mexicanum*** (Willd. ex Schult. & Schult.f.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus balticus* subsp. *mexicanus* (Willd. ex Schult. & Schult.f.) Snogerup, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 257 (2002) ≡ *Juncus mexicanus* Willd. ex Schult. & Schult.f., Syst. Veg. 7(1): 178 (1829)

245b. ***Agathryon balticum*** subsp. ***pyrenaeum*** (Timb.-Lagr. & Jeanb.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus balticus* subsp. *pyrenaeus* (Timb.-Lagr. & Jeanb.) Fourn., Quatre Fl. France 146 (1946) ≡ *Juncus pyrenaeus* Timb.-Lagr. & Jeanb., Bull. Soc. Sci. Phys. Nat. Toulouse 6: 232 (1884)

273. ***Agathryon beringense*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus beringensis* Buchenau, Bot. Jahrb. Syst. 12: 226 (1890)

272. ***Agathryon brachyspathum*** (Maxim.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus brachyspathus* Maxim., Mém. Acad. Petersb. 9: 293 (1859)

246. ***Agathryon breweri*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus breweri* Engelm., Trans. Acad. Sci. St. Louis 2: 440 (1866)

257. ***Agathryon conglomeratum*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus conglomeratus* L., Sp. Pl. 326 (1753)

274. ***Agathryon curvatum*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus curvatus* Buchenau, *in* H.G.A.Engler, Pflanzenr. (iv.36) 25: 128 (1906)

264. ***Agathryon decipiens*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus decipiens* (Buchenau) Nakai, Veg. Kamikochi 35 (1928) ≡ *Juncus effusus* var. *decipiens* Buchenau, Bot. Jahrb. Syst. 12: 229 (1890)

264b. ***Agathryon decipiens*** subsp. ***medianum*** (L.A.S.Johnson & K.L.Wilson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus decipiens* subsp. *medianus* L.A.S.Johnson & K.L.Wilson, Telopea 9: 377 (2001)

264c. ***Agathryon decipiens*** subsp. ***sundaicum*** (Ridl.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus decipiens* subsp. *sundaicus* (Ridl.) L.A.S.Johnson & K.L.Wilson, *Telopea* 9: 378 (2001) ≡ *Juncus sundaicus* Ridl., J. Bot. 73: 342 (1935)

252. ***Agathryon drummondii*** (E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus drummondii* E.Mey., *in* C.F. von Ledebour, Fl. Ross. 4: 235 (1853)

266. ***Agathryon durum*** (L.A.S.Johnson & K.L.Wilson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus durus* L.A.S.Johnson & K.L.Wilson, Telopea 9: 380 (2001)

259. ***Agathryon effusum*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus effusus* L., Sp. Pl. 326 (1753)

259e. ***Agathryon effusum*** subsp. ***austrocalifornicum*** (Lint ex Zika) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus effusus* subsp. *austrocalifornicus* Lint ex Zika, Brittonia 55(2): 152 (–156; figs. 1–2) (2003)

259b. ***Agathryon effusum*** subsp. ***laxum*** (Robyns & Tournay) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus effusus* subsp. *laxus* (Robyns & Tournay) Snogerup, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 259 (2002) ≡ *Juncus laxus* Robyns & Tournay, Bull. Jard. Bot. Etat 25: 252 (1955)

259d. ***Agathryon effusum*** subsp. ***pacificum*** (Fernald & Wiegand) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus effusus* subsp. *pacificus* (Fernald & Wiegand) Zika, Brittonia 55(2): 152 (2003) ≡ *Juncus effusus* var. *pacificus* Fernald & Wiegand, Rhodora 12: 89 (1910)

259c. ***Agathryon effusum*** subsp. ***solutum*** (Fernald & Wiegand) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus effusus* subsp. *solutus* (Fernald & Wiegand) Hämet-Ahti, Ann. Bot. Fenn. 17: 188 (1980) ≡ *Juncus effusus* var. *solutus* Fernald & Wiegand, Rhodora 12: 90 (1910)

260. ***Agathryon exiguum*** (Fernald & Wiegand) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus exiguus* (Fernald & Wiegand) Lint ex Snogerup & P.F.Zika, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 260 (2002) ≡ *Juncus effusus* var. *exiguus* Fernald & Wiegand, Rhodora 12: 87 (1910)

249. ***Agathryon fauriei*** (Lév. & Vaniot) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus fauriei* Lév. & Vaniot, Bull. Soc. Bot. France 51: 292 (1904)

271. ***Agathryon filiforme*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus filiformis* L., Sp. Pl. 326 (1753)

269. ***Agathryon gubanovii*** (Novikov) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus gubanovii* Novikov, Bjull. Moskovsk. Ob.č. Prir., Odt. Biol. 80(3): 130 (1975)

256. ***Agathryon gymnocarpum*** (Coville) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus gymnocarpus* Coville, Mem. Torrey Bot. Club 17: 106 (1894)

247. ***Agathryon haenkei*** (E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus haenkei* E.Mey., Syn. Junc. 10 (1822)

253. ***Agathryon hallii*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus hallii* Engelm., Trans. Acad. Sci. St. Louis 2: 433

(1866)

262. ***Agathryon hesperium*** (Piper) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus hesperius* (Piper) Lint, *in* S.Snogerup, P.F.Zika & J.Kirschner, Preslia 74: 262 (2002) ≡ *Juncus effusus* subsp. *hesperius* Piper, Contr. U.S. Natl. Herb. 11: 180 (1906)
270. ***Agathryon inflexum*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus inflexus* L., Sp. Pl. 326 (1753)
270b. ***Agathryon inflexum*** subsp. ***brachytepalum*** (Trautv. ex V.I.Krecz. & Gontsch.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus inflexus* subsp. *brachytepalus* (Trautv. ex V.I.Krecz. & Gontsch.) Novikov, Nov. Sist. Vyssh. Rast. 15: 86 (1979) ≡ *Juncus brachytepalus* Trautv. ex V.I.Krecz. & Gontsch., *in* V.L.Komarov, Fl. SSSR 3: 547 & 630 (1935)
254. ***Agathryon jacquinii*** (L.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus jacquinii* L., Mant. Pl. 1: 63 (1767)
Agathryon jinpingense (S.Y.Bao) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus jinpingensis* S.Y.Bao, Fl. Yunnan. 15: 804 (537–538; fig. 110) (2003)
277. ***Agathryon kleinii*** (Barros) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus kleinii* Barros, Sellowia 14: 27 (1962)
261. ***Agathryon laccatum*** (P.F.Zika) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus laccatus* P.F.Zika, *in* S.Snogerup, P.F.Zika & Kirschner, Preslia 74: 261 (2002)
248. ***Agathryon lesueurii*** (Bol.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus lesueurii* Bol., Proc. Acad. Sci. Calif. 2: 179 (1863)
250. ***Agathryon nupela*** (Veldkamp) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus nupela* Veldkamp, Blumea 23: 415 (1977)
251. ***Agathryon parryi*** (Engelm.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus parryi* Engelm., Trans. Acad. Sci. St. Louis 2: 446 (1866)
255. ***Agathryon patens*** (E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus patens* E.Mey., Syn. Luzul. 28 (1823)
258. ***Agathryon pylaei*** (Laharpe) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus pylaei* Laharpe, Essai Monogr. Jonc. 31 (1825)
275. ***Agathryon ramboi*** (Barros) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ramboi* Barros, Darwiniana 11: 283 (1957)
275b. ***Agathryon ramboi*** subsp. ***colombianum*** (Balslev) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ramboi* subsp. *colombianus* Balslev, Brittonia 35: 305 (1983)
265. ***Agathryon setchuense*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus setchuensis* Buchenau, Bot. Jahrb. Syst. 37, Beibl. 82: 17 (1905)
267. ***Agathryon textile*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus textilis* Buchenau, Abh. Naturwiss. Vereine Bremen 17: 336 (1903)
268. ***Agathryon tobdeniorum*** (Noltie) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus tobdeniorum* Noltie, Edinburgh J. Bot. 55: 42 (1998)
276. ***Agathryon uruguense*** (Griseb.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus uruguensis* Griseb., Abh. Königl. Ges. Wiss. Göttingen 24: 317 (1879)

Predominantly Australasian species.

278. ***Agathryon alexandri*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus alexandri* L.A.S.Johnson, *in* M.R.Banks *& al*., Asp. Tasman. Bot. Trib. W. Curtis 37 (1991)
278b. ***Agathryon alexandri*** subsp. ***melanobasis*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus alexandri* subsp. *melanobasis* L.A.S.Johnson, *in* M.R.Banks *& al*., Asp. Tasman. Bot. Trib. W. Curtis 38 (1991)
279. ***Agathryon amabile*** (Edgar) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus amabilis* Edgar, New Zealand J. Bot. 2: 186 (1964)
280. ***Agathryon aridicola*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus aridicola* L.A.S.Johnson, *in* J.M.Black, Fl. S. Australia, 3rd edn, 1: 322 (1978)
281. ***Agathryon astreptum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus astreptus* L.A.S.Johnson, *in* M.R.Banks *& al*., Asp. Tasman. Bot. Trib. W. Curtis 41 (1991)
282. ***Agathryon australe*** (Hook.f.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus australis* Hook.f., Fl. Tasm. 2: 66, tab. 134a (1858)
283. ***Agathryon bassianum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus bassianus* L.A.S.Johnson, *in* M.R.Banks *& al*., Asp. Tasman. Bot. Trib. W. Curtis 40 (1991)
284. ***Agathryon brevibracteum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus brevibracteus* L.A.S.Johnson, Telopea 5: 309 (1993)
285. ***Agathryon continuum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus continuus* L.A.S.Johnson, *in* J.M.Black, Fl. S. Australia, 3rd edn, 1: 325 (1978)
286. ***Agathryon distegum*** (Edgar) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus distegus* Edgar, New Zealand J. Bot. 2: 183 (1964)

287. ***Agathryon dolichanthum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus dolichanthus* L.A.S.Johnson, Telopea 5: 310 (1993)

292. ***Agathryon edgariae*** (L.A.S.Johnson & K.L.Wilson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus edgariae* L.A.S.Johnson & K.L.Wilson, Telopea 9: 399 (2001)

288. ***Agathryon filicaule*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus filicaulis* Buchenau, Proc. Linn. Soc. New South Wales 28: 913 (1904)

289. ***Agathryon firmum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus firmus* L.A.S.Johnson, Telopea 5: 311 (1993)

290. ***Agathryon flavidum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus flavidus* L.A.S.Johnson, *in* J.M.Black, Fl. S. Australia, 3rd edn, 1: 325 (1978)

291. ***Agathryon gregiflorum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus gregiflorus* L.A.S.Johnson, Contr. New South Wales Natl Herb. 3: 243 (1963)

294. ***Agathryon ingens*** (N.A.Wakef.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ingens* N.A.Wakef., Vict. Nat. 73: 211 (1957)

295. ***Agathryon laeviusculum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus laeviusculus* L.A.S.Johnson, *in* M.R.Banks *& al*., Asp. Tasman. Bot. Trib. W. Curtis 38 (1991)

295b. ***Agathryon laeviusculum*** subsp. ***illawarrense*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus laeviusculus* subsp. *illawarrensis* L.A.S.Johnson, *in* M.R.Banks *& al*., Asp. Tasman. Bot. Trib. W. Curtis 40 (1991)

296. ***Agathryon molle*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus mollis* L.A.S.Johnson, Telopea 5: 311 (1993)

297. ***Agathryon ochrocoleum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus ochrocoleus* L.A.S.Johnson, Telopea 5: 312 (1993)

298. ***Agathryon pallidum*** (R.Br.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus pallidus* R.Br., Prodr. 1: 258 (1810)

293. ***Agathryon pauciflorum*** (R.Br.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus pauciflorus* R.Br., Prodr. 1: 259 (1810)

299. ***Agathryon phaeanthum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus phaeanthus* L.A.S.Johnson, Telopea 5: 313 (1993)

300. ***Agathryon polyanthemum*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus polyanthemus* Buchenau, Bot. Jahrb. Syst. 20: 261 (1895)

301. ***Agathryon procerum*** (E.Mey.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus procerus* E.Mey., Linnaea 3: 367 (1828)

302. ***Agathryon psammophilum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus psammophilus* L.A.S.Johnson, Telopea 5: 314 (1993)

303. ***Agathryon radula*** (Buchenau) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus radula* Buchenau, Krit. Verz. Juncac. 92 (1880)

304. ***Agathryon remotiflorum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus remotiflorus* L.A.S.Johnson, Telopea 5: 315 (1993)

305. ***Agathryon sarophorum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus sarophorus* L.A.S.Johnson, Contr. New South Wales Natl Herb. 3: 242 (1963)

306. ***Agathryon semisolidum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus semisolidus* L.A.S.Johnson, Telopea 5: 316 (1993)

307. ***Agathryon subglaucum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus subglaucus* L.A.S.Johnson, Telopea 5: 317 (1993)

308. ***Agathryon subsecundum*** (N.A.Wakef.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus subsecundus* N.A.Wakef., Vict. Nat. 73: 211 (1957)

310. ***Agathryon usitatum*** (L.A.S.Johnson) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus usitatus* L.A.S.Johnson, Contr. New South Wales Natl Herb. 3: 241 (1963)

309. ***Agathryon vaginatum*** (R.Br.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus vaginatus* R.Br., Prodr. 1: 258 (1810)

The species from the previous section *Forskalina* is listed here:

311. ***Agathryon subulatum*** (Forssk.) Záveská Drábková & Proćków, ***comb. nov.*** ≡ *Juncus subulatus* Forssk., Fl. Aegypt.-Arab. 75 (1775)

Conclusion

The main aim of this article is complete nomenclature revision and proposal of 379 new species combinations for six newly recognized genera from previous formal *Juncus*: *Verojuncus* Záveská Drábková & Proćków, *Juncinella* (Fourr. ex V.I.Krecz. & Gontsch.) Záveská Drábková & Proćków, *Alpinojuncus* Záveská Drábková & Proćków, *Australojuncus* Záveská Drábková & Proćków, *Boreojuncus* Záveská Drábková & Proćków and *Agathryon* (Raf.) Záveská Drábková & Proćków.

Acknowledgments

The authors gratefully acknowledge the financial support from the Czech Science Foundation (grants no. 206/07/P147 and P506/11/ 0774). The finalization of this study would not be possible without grant CSF no. 19–02699S. L.Z.D. is grateful to the European Commission for the following grant support: SYS-RESOURCE 2001, COBICE 2001, SYNTHESYS DK-TAF 1295 and SYNTHESYS GB-TAF 2052 during the years 2001-2008. J.P. is grateful to the European Commission for the following FPVI grants: SYNTHESYS FR-TAF-1128, SYNTHESYS GB-TAF-2923 and SYNTHESYS ES-TAF-4207 in the years 2005–2008. We are grateful to Christian Köbele for his drawing of the transition from Prophyllati to Eprophyllati according to Buchenau.

References

Angiosperm Phylogeny Group IV (2016) An update of the Angiosperm Phylogeny Group classification for the orders and families of flowering plants: APG IV". *Botanical Journal of the Linnean Society* 181 (1): 1–20. https://doi.org/10.1111/boj.12385

Balslev, H. (1996) Juncaceae. *Flora Neotropica Monograph* 68: 1–168.

Bremer, K. (2002) Gondwanan evolution of the grass alliance of families (Poales). *Evolution* 56 (7): 1374–1387. https://doi.org/10.1111/j.0014-3820.2002.tb01451.x

Brožová, V., Proćków, J. & Záveská Drábková, L. (2022) Toward finally unraveling the phylogenetic relationships of the Juncaceae with respect to another cyperid family, Cyperaceae. Molecular Phylogenetics and Evolution. *Molecular Phylogenetics and Evolution* 177: 107588. https://doi.org/10.1016/j.ympev.2022.107588

Buchenau, F. (1869) Uebersicht der in den Jahren 1855–1857 in Hochasien von den Brüdern Schlagintweit gesammelten Butomaceen, Alismataceen, Juncaginaceen und Juncaceen. *Nachrichten von der Königlichen Gesellschaft der Wissenschaften und von der Georg-Augusts-Universität* 13: 241–258.

Buchenau, F. (1875) Monographie der Juncaceen vom Cap. *Abh. Naturwiss. Vereine Bremen* 4: 393–512, Plate V–XI.

Buchenau, F. (1880) Die Verbreitung der Juncaceen über die Erde. *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 1: 104–141.

Buchenau, F. (1890) Monographia Juncacearum. *Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie* 12: 1–495.

Buchenau, F. (1906) Juncaceae. *In*: Engler, A. (Ed.) *Das Pflanzenreich IV, 36 (Heft 25).* Wilhelm Engelmann, pp. 1–284.

Chase, M.W., Soltis, D.E., Olmstead, R.G., Morgan, D., Les, D.H., Mishler, B.D., Duvall, M.R., Price, R.A., Hills, H.G., Qiu, Y.L., Kron, K.A., Rettig, J.H., Conti, E., Palmer, J.D., Manhart, J.R., Sytsma, K.J., Michaels, H.J., Kress, W.J., Karol, K.G., Clark, W.D., Hedren, M., Gaut, B.S., Jansen, R.K., Kim, K.J., Wimpee, C.F., Smith, J.F., Furnier, G.R., Strauss, S.H., Xiang, Q.Y., Plunkett, G.M., Soltis, P.S., Swensen, S.M., Williams, S.E., Gadek, P.A., Quinn, C.J., Eguiarte, L.E., Golenberg, E., Learn, G.H. Jr., Graham, S.W., Barrett, S.C.H., Dayanandan, S. & Albert, V.A. (1993) Phylogenetics of seed plants: an analysis of nucleotide sequences from the plastid gene *rbc*L. *Annals of the Missouri Botanical Garden* 80: 528–580.

Cronquist, A. (1988) *The evolution and classification of flowering plants. 2nd ed.* New York Botanical Garden, pp. 555.

Cutler, D.F. (1969) *Anatomy of the Monocotyledons. IV. Juncales.* Oxford, At the Clarendon Press, pp. 357.

Dahlgren, R.M.T. & Clifford, H.T. (1982) *The monocotyledons: A comparative study.* Academic Press, 378 pp.

Deyl, M. (1955) The evolution of the plants and the taxonomy of Monocotyledons. *Sborník Nár. Muzea v Praze* 11 B (6, Botanica no. 3): 143.

Do, D. & Záveská Drábková, L. (2018) Herbarium tale: The utility of dry specimens for DNA barcoding Juncaceae. *Plant Systematics and Evolution* 304: 281–294.
https://doi.org/10.1007/s00606-017-1476-x

Drábková, L., Kirschner, J., Seberg, O., Petersen, G. & Vlček, Č. (2003) Phylogeny of the Juncaceae based on rbcL sequences, with special emphasis on *Luzula* DC. and *Juncus* L. *Plant Systematics and Evolution* 240: 133–147.
https://doi.org/10.1007/s00606-003-0001-6

Drábková, L., Kirschner, J. & Vlček, Č. (2006) Phylogenetic relationships within *Luzula* DC. and *Juncus* L. (Juncaceae): A comparison of phylogenetic signals of *trn*L-*trn*F intergenic spacer, trnL intron and *rbc*L plastome sequence data. *Cladistics* 22: 132–143.
https://doi.org/10.1111/j.1096-0031.2006.00095.x

Drábková, L., Kirschner, J., Vlček, Č. & Pačes, V. (2004) trnL-trnF intergenic spacer and trnL intron define major clades within *Luzula* and *Juncus* (Juncaceae): Importance of structural mutations. *Journal of Molecular Evolution* 59: 1–10.
https://doi.org/10.1007/s00239-004-2598-7

Drábková, L. & Vlček, Č. (2007) The phylogenetic position of *Oxychloë* (Juncaceae): Evidence from morphology, nuclear and plastid DNA regions. *Taxon* 56: 95–102.
https://doi.org/10.2307/25065739

Duvall, M.R., Clegg, M.T., Chase, M.W., Clark, W.D., Kress, W.J., Hills, H.G., Eguiarte, L.E., Smith, J.F., Gaut, B.S., Zimmer, E.A. & Learn, G.H. Jr. (1993) Phylogenetic hypotheses for the monocotyledons constructed from *rbc*L sequence data. *Ann. Missouri Bot. Gard.* 80: 607–619.
https://doi.org/10.2307/2399849

Faltyn, A., Jakubska-Busse, A., Jarzembowski, P. & Proćków, J. (2017) *Juncus quartinianus* (Juncaceae, sect. *Ozophyllum*): A Neglected Species from the Horn of Africa and Its Re-Description Based on Morphological SEM Studies. *PLOS ONE* 12 (1): e0167838.
https://doi.org/10.1371/journal.pone.0167838

Jones, E., Simpson, D.A., Hodkinson, T.R., Chase, M.W. & Parnell, J.A. (2007) The Juncaceae–Cyperaceae interface: A combined plastid sequence analysis. *Aliso* 23 (1): 55–61.
https://doi.org/10.5642/aliso.20072301.07

Kirschner, J., Novara, L.J., Novikov, V.S., Snogerup, S. & Kaplan, Z. (1999) Supraspecific division of the genus *Juncus* (Juncaceae). *Folia Geobotanica* 34: 377–390.
https://doi.org/10.1007/BF02912822

Kirschner, J. & Kaplan, Z. (2001) Taxonomic and nomenclatural notes on *Luzula* and *Juncus* (Juncaceae). *Taxon* 50: 1107–1113.
https://doi.org/10.2307/1224727

Kirschner, J. *et al.* (2002a) Juncaceae 1: *Rostkovia* to *Luzula*. *In: Species Plantarum: Flora of the World Part 6.* ABRS, Canberra, Australia. pp. 1–237.

Kirschner, J. *et al.* (2002b) Juncaceae 2: *Juncus* subg. *Juncus*. *In: Species Plantarum: Flora of the World Part 7.* ABRS, Canberra, Australia. pp. 1–237.

Kirschner, J. *et al.* (2002c) Juncaceae 3: *Juncus* subg. *Agathryon*. *In: Species Plantarum: Flora of the World Part 8.* ABRS, Canberra, Australia. pp. 1–192.

Kristiansen, K., Cilieborg, M., Drábková, L., Jørgensen, T., Petersen, G. & Seberg, O. (2005) DNA taxonomy—the riddle of *Oxychloë*. *Systematic Botany* 30 (2): 284–289.
https://doi.org/10.1600/0363644054223710

Köbele, C.P. (2000) *Die Infloreszenzen der Juncaceae. Diplomarbeit.* Institüt für systematische Botanica der Ludwig-Maximilians-Universität München, pp. 45.

Köbele, C.P. & Tillich, H.-J. (2001) Die Infloreszenzen der Juncaceae. *Sendtnera* 7: 137–161.

Kovtonjuk, N.K. (1999) Systematic significance of seed surface in some Juncaceae and Caryophylaceae. *In*: Kurmann, M.H. & Hemsley, A.R. (Eds.) *The evolution of plant architecture.* Royal Botanical Gardens, Kew, pp. 367–374.

Muasya, A.M., Bruhl, J.J., Simpson, D.A., Culham, A. & Chase, M.W. (2000) Suprageneric phylogeny of Cyperaceae: a combined analysis. *In*: Rudall, P.J., Cribb, P.J., Cutler, D.F. & Humpries, C.J. (Eds.) *Monocotyledons: systematics and evolution.* Royal Botanic Gardens, Kew, pp. 593–601.

Muasya, A.M., Simpson, D.A., Chase, M.W. & Culham, A. (1998) An assessment of suprageneric phylogeny in Cyperaceae using *rbc*L DNA sequences. *Plant Systematics and Evolution* 211: 257–271.
https://doi.org/10.1007/BF00985363

Munro, S.L. & Linder, H.P. (1997) The embryology and systematic relationships of *Prionium serratum* (Juncaceae: Juncales). *American Journal of Botany* 84 (6): 850–860.
https://doi.org/10.2307/2445821

Munro, S.L. & Linder, H.P. (1998) The phylogenetic position of *Prionium* (Juncaceae) within the order Juncales based on morphological

and sequence data. *Systematic Botany* 23 (1): 43–55.
https://doi.org/10.2307/2419573

Novara, L.J. (1976) Contribucion al conocimiento de las inflorescencias de *Juncus* y su significacion taxonomica. *Kurtziana* 9: 41–61.

Novikov, V.S. (1990) Konspekt sistemy roda *Juncus* L. (Junaceae). (Synopsis of the genus *Juncus* L. (Juncaceae)). *Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, biologicheskaya seriya* 95 (5): 111–125.

Plunkett, G.M., Soltis, D.E., Soltis, P.S. & Brooks, R.E. (1995) Phylogenetic relationships between Juncaceae and Cyperaceae: Insights from *rbc*L sequence data. *American Journal of Botany* 82 (4): 520–525.
https://doi.org/10.1002/j.1537-2197.1995.tb15673.x

Proćków, J. (2002) A more precise lectotypification of *Juncus bulbosus* L. (*Juncaceae*). *Taxon* 51 (3): 551–552.
https://doi.org/10.2307/1554872

Proćków, J. (2006a) Lectotypification of *Juncus kochii* and *Juncus supinus* var. *nigritellus* (Juncaceae). *Taxon* 55 (3): 788–790.
https://doi.org/10.2307/25065654

Proćków, J. (2006b) Rejection of some original material of *Juncus kochii* (Juncaceae) as useless for typification. *Acta Societatis Botanicorum Poloniae* 75 (4): 297–300.
https://doi.org/10.5586/asbp.2006.036

Proćków, J. (2006c) Nomenclatural notes on *Juncus welwitschii* (Juncaceae). *Annales Botanici Fennici* 43 (4): 307–309.

Proćków, J. (2007) Nomenclatural notes on *Juncus supinus* var. *nigritellus*—a new synonym of *Juncus bulbosus* L. subsp. *kochii* (*Juncaceae*). *Annales Botanici Fennici* 44 (1): 68–71.

Proćków, J. (2008a) What is *Juncus bulbosus* subsp. *kochii* (Juncaceae) and does it really exist? A taxonomic revision of bulbous rush subspecies. *Botanical Journal of the Linnean Society* 156 (4): 501–512.
https://doi.org/10.1111/j.1095-8339.2007.00769.x

Proćków, J. (2008b) How really extensive is the original material of *Juncus kochii* (Juncaceae)?—a taxonomic and nomenclatural revision. *Acta Societatis Botanicorum Poloniae* 77 (4): 317–322.
https://doi.org/10.5586/asbp.2008.041

Proćków, J. (2008c) *Juncus bulbosus* (Juncaceae), a species new to South America (Chile). *Acta Societatis Botanicorum Poloniae* 77 (3): 225–227.
https://doi.org/10.5586/asbp.2008.028

Proćków, J. (2010) *Juncus bulbosus* f. *submucronatus* (Juncaceae), a new taxon from Europe, Australia, Canada, Chile, Azores and Morocco. *Annales Botanici Fennici* 47 (6): 409–424.
https://doi.org/10.5735/085.047.0601

Proćków, J. (2020) *Juncus hondurensis* (Juncaceae), an endemic rush species new from Honduras. *Phytotaxa* 439 (1): 93–101.
https://doi.org/10.11646/phytotaxa.439.1.7

Proćków, J., Faltyn-Parzymska, A., Jarzembowski, P., Proćków, M. & Jakubska-Busse, A. (2020) How many type specimens can be stored in old lesser-known herbaria with turbulent histories?—A *Juncus* case study reveals their importance in taxonomy and biodiversity research. *PhytoKeys* 153: 85–110.
https://doi.org/10.3897/phytokeys.153.50735

Roalson, E.H. (2005) Phylogenetic relationships in the Juncaceae inferred from nuclear ribosomal DNA internal transcribed spacer sequence data. *International Journal of Plant Sciences* 166: 397–413.
https://doi.org/10.1086/428757

Simpson, D. (1995) Relationships within Cyperales. *In*: Rudall, P.J., Cribb, P.J., Cutler, D.F. & Humpries, C.J. (Eds.) *Monocotyledons: systematics and evolution*. Royal Botanic Gardens, Kew, pp. 497–509.

Snogerup, S. (1993) A revision of *Juncus* subgen. *Juncus* (Juncaceae). *Willdenowia* 23 (1–2): 23–73.

Vierhapper, F. (1930) Juncaceae. *In*: Engler, A. & Prantl, K. (Eds.) *Die Natürl. Pflanzenfamilien 2. Aufl. Bd. 15a.* Leipzig.

Záveská Drábková, L. (2010) Phylogenetic relationships within Juncaceae: Evidence from five regions of plastid, mitochondrial and nuclear ribosomal DNA, with notes on morphology. *In*: Seberg, O., Petersen, G., Barfod, A.S. & Davis, J.I. (Eds.) *Diversity, phylogeny, and evolution in the monocotyledons*. Aarhus University Press, Aarhus, Denmark, pp. 389–416. [ISBN: 978-87-7934-398-6]

Záveská Drábková, L. & Kirschner, J. (2013) *Oreojuncus*, a new genus in the Juncaceae. *Preslia* 85: 483–503.

Záveská Drábková, L. & Vlček, Č. (2009) DNA variation within Juncaceae: comparison of impact of organelle regions on phylogeny. *Plant Systematics and Evolution* 278: 169–186.
https://doi.org/10.1007/s00606-008-0135-7

Záveská Drábková, L. & Vlček, Č. (2010) Molecular phylogeny of the genus *Luzula* DC. (Juncaceae, Monocotyledones) based on plastome and nuclear ribosomal regions: A case of incongruence, incomplete lineage sorting and hybridisation. *Molecular Phylogenetics and Evolution* 57: 536–551.
https://doi.org/10.1016/j.ympev.2010.07.022