

NEW TAXA AND NEW COMBINATIONS IN JUNGERMANNIALES
(HEPATICAЕ)

НОВЫЕ ТАКСОНЫ И НОВЫЕ КОМБИНАЦИИ ПЕЧЕНОЧНИКОВ ИЗ
ПОРЯДКА JUNGERMANNIALES (HEPATICAЕ)

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Abstract

The names of one new family (Hygrobilaceae (Jørg.) Konstant. & Vilnet) and 7 new genera (*Pseudolophozia* Konstant. & Vilnet, *Pseudotritomaria* Konstant. & Vilnet, *Schljakovia* Konstant. & Vilnet, *Schljakovianthus* Konstant. & Vilnet, *Lophozipsis* Konstant. & Vilnet, *Biantheridion* (Grolle) Konstant. & Vilnet, *Heterogemma* (Jørg.) Konstant. & Vilnet) are validated. Correspondingly, 21 new combinations are made in these genera.

Резюме

Обнародованы названия одного нового семейства (Hygrobilaceae (Jørg.) Konstant. & Vilnet) и 7 новых родов (*Pseudolophozia* Konstant. & Vilnet, *Pseudotritomaria* Konstant. & Vilnet, *Schljakovia* Konstant. & Vilnet, *Schljakovianthus* Konstant. & Vilnet, *Lophozipsis* Konstant. & Vilnet, *Biantheridion* (Grolle) Konstant. & Vilnet, *Heterogemma* (Jørg.) Konstant. & Vilnet), а также 21 новая комбинация в этих родах.

KEYWORDS: liverworts, taxonomy, nomenclature, new taxa

The last ten years are characterized by a breathtaking speed of development of molecular study of hepatics. As a result, the ideas about phylogeny of hepatics have changed drastically (Davis et al., 2004; Yatsentyuk et al., 2004; Hennygren et al., 2006; Forrest et al., 2006; Hentschel et al., 2007; De Roo et al., 2007; Crandall-Stotler et al., 2008; Vilnet et al., 2008, 2009). Many genera traditionally accepted as a “good” ones were found to be polyphyletic, which forced to search for new taxonomic solutions for their placement. Our study of Jungermanniales (Vilnet et al., 2008, 2009, unpublished data) is one those, that demonstrate a high level of incongruence between traditional taxonomy and novel ideas of their relationships. This require a certain rearrangement of taxa, a number of new combinations and description of several new

genera and one new family for such recently found groups. These names are needed for the simultaneously published checklist of liverworts of Russia (Konstantinova, Bakalin et al., 2009).

NEW FAMILY

Hygrobilaceae (Jørg.) Konstant. & Vilnet, *stat. nov.* – Based on Cephaloziaceae Mig. subfam. *Hygrobilloideae* (Jørg.) R.M.Schust. ex Grolle, J. Bryol. 7: 210. 1972.

The family includes one genus, *Hygrobilla* Spruce.

NEW GENERA

Pseudolophozia Konstant. & Vilnet, *gen. nov.* – *Genus hoc generi Lophoziae s. str. affine sed foliis trilobatis frequenter alatis, cellulis caulium saepiuscule homogeneis in sectione transversali, gemmis rubello-fuscis vel ferrugineis et ITS1-2 nrDNA et trnL-F cpDNA sequentiae differt.*

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Typus: Pseudolophozia sudetica (Nees ex Huebener) Konstant. & Vilnet. (*Jungermannia sudetica* Nees ex Huebener).

Species: Pseudolophozia sudetica (Nees ex Huebener) Konstant. & Vilnet, *comb. nov.* – *Jungermannia sudetica* Nees ex Huebener, Hepaticol. Germ. 142 Mannheim. 1834.

Pseudolophozia sudetica var. *anomala* (Schljakov) Konstant. & Vilnet, *comb. nov.* – *Lophozia alpestris* (F.Weber) Evans var. *anomala* Schljakov, Novosti Syst. Nizh. Rast. 11: 352. 1974.

Pseudolophozia debiliformis (R.M.Schust. & Damsh.) Konstant. & Vilnet, *comb. nov.* – *Lophozia debiliformis* R.M.Schust. & Damsh., Phytologia 63(5):326. 1987.

Pseudolophozia debiliformis var. *concolor* (R.M.Schust. & Damsh.) Konstant. & Vilnet, *comb. nov.* – *Lophozia debiliformis* var. *concolor* R.M.Schust. & Damsh., Phytologia 63: 326. 1987.

Pseudotritomaria Konstant. & Vilnet, *gen. nov.* – *Planta minima*, 1.0-1.4(-1.6) mm lata, foliis subsymmetricis, trilobatis, parietibus cellularum in angulis perincrassatis. Genus hoc genera *Tritomaria* et *Saccobasis* appropinquat sed ab eis marginibus foliorum perichaetialium undulato-crispatis, spinuloso-dentatis vel spinuloso-ciliatis et ITS1-2 nrDNA et trnL-F cpDNA sequentia differt.

Typus: Pseudotritomaria heterophylla (R.M.Schust.) Konstant. & Vilnet (*Tritomaria heterophylla* R.M.Schust.).

Pseudotritomaria heterophylla (R.M.Schust.) Konstant. & Vilnet, *comb. nov.* – *Tritomaria heterophylla* R.M.Schust., Canad. J. Bot. 36: 172. 1958.

Schljakovia Konstant. & Vilnet, *gen. nov.* – Genus hoc generi *Orthocauli* simile sed foliis profunde bilobatis, caulibus gemmiferis haud modificatis et ITS1-2 nrDNA et trnL-F cpDNA sequentia recedit.

Typus: Schljakovia kunzeana Konstant. & Vilnet (*Jungermannia kunzeana* Huebener).

Schljakovia kunzeana Konstant. & Vilnet, *comb. nov.* – *Jungermannia kunzeana* Huebener Hepaticol. Germ.: 115. 1834.

Schljakovianthus Konstant. & Vilnet, *gen. nov.* – Genus hoc generi *Orthocauli* simile sed

foliis quadrilobatis ad 0.6 laminae partitis, marginibus sinuum distincte revolutis, cuticula per papillosa, gemmis nullis et ITS1-2 nrDNA et trnL-F cpDNA sequentia differt.

Typus: Schljakovianthus quadrilobus (Lindb.) Konstant. & Vilnet (*Jungermannia quadriloba* Lindb.).

Schljakovianthus quadrilobus (Lindb.) Konstant. & Vilnet, *comb. nov.* – *Jungermannia quadriloba* Lindb., Meddeland Soc. Fauna Fl. Fenn. 9: 162, 1889 (nom. subnud.) et in Arnell & Lindb., Kongl. Svenska Vetenskapsakad. Handl. 23 (5): 55. 1889.

Schljakovianthus quadrilobus var. *glareosa* (Jurg.) Konstant. & Vilnet, *comb. nov.* – *Jungermannia quadriloba* var. *glareosa* Jurg., Bergens Mus. Erbok 18. s. p. 1895.

Schljakovianthus quadrilobus var. *collenchymatica* (R.M. Schust.) Konstant. & Vilnet, *comb. nov.* – *Lophozia quadriloba* (Lindb.) A. Evans var. *collenchymatica* R.M. Schust. Hepat. Anthocer. N. Amer. 2: 281. 1969.

Lophoziopsis Konstant. & Vilnet, *gen. nov.* – Genus hoc generi *Lophoziae* s. str. simile sed ab eo gemmis rubris ad purpurascensibus vel rubello-fuscis, cellulis leptodermaticis, bracteis femineis saepe dentatis et ITS1-2 nrDNA et trnL-F cpDNA sequentia recedit.

Typus Lophoziopsis excisa (Dicks.) Konstant. & Vilnet (*Jungermannia excisa* Dicks.). *Lophoziopsis excisa* (Dicks.) Konstant. & Vilnet, *comb. nov.* – *Jungermannia excisa* Dicks., Pl. Crypt. Brit. Fasc. 3: 11. 1793.

Lophoziopsis excisa var. *elegans* (R.M. Schust.) Konstant. & Vilnet, *comb. nov.* – *Lophozia excisa* (Dicks.) Dumort. var. *elegans* R.M. Schust., Hepat. Anthocer. N. Amer. 2: 522. 1969.

Lophoziopsis excisa var. *infuscata* (R.M. Schust. & Damsh.) Konstant. & Vilnet, *comb. nov.* – *Lophozia excisa* (Dicks.) Dumort. var. *infuscata* R.M. Schust. & Damsh., Meddel. Gr?nland 199: 94. 1974.

Lophoziopsis excisa var. *succulenta* (R.M. Schust. & Damsh.) Konstant. & Vilnet, *comb. nov.* – *Lophozia excisa* (Dicks.) Dumort. var. *succulenta* R.M. Schust. & Damsh., Meddel. Gr?nland 199: 96. 1974.

Lophoziopsis longidens (Lindb.) Konstant. & Vilnet, *comb. nov.* – *Jungermannia longidens*

Lindb., Helsingfors Dagblad 1876 (323): 2. 1876. et Bot. Not. 27. 1877.

Lophoziaopsis pellucida (R.M.Schust.) Konstant. & Vilnet, *comb. nov.* – *Lophozia pellucida* R.M.Schust., Canad. J. Bot. 39: 978. 1961.

Lophoziaopsis perssonii (H.Buch & S.W.Arnell) Konstant. & Vilnet, *comb. nov.* – *Lophozia perssonii* H.Buch & S.W.Arnell in Buch, Bot. Not. 1944: 382, figs. 1-2. 1944.

Lophoziaopsis polaris (R.M.Schust.) Konstant. & Vilnet, *comb. nov.* – *Lophozia alpestris* (Schleich ex F. Weber) A.Evans ssp. *polaris* R.M.Schust., Hepat. Anthocer. N. Amer. 2: 614, New-York, 1969.

Lophoziaopsis polaris var. *sphagnorum* (R.M.Schust.) Konstant. & Vilnet, *comb. nov.* – *Lophozia alpestris* (Schleich ex F. Weber) A.Evans ssp. *polaris* R.M. Schust. f. *sphagnorum* R.M.Schust., Hepat. Anthocer. N. Amer. 2: 619, fig. 218: 15-19. 1969.

Lophoziaopsis propagulifera (Gottsche) Konstant. & Vilnet, *comb. nov.* – *Jungermannia propagulifera* Gottsche, Int. Polarforsch., Deutsch. Exped. 2: 451, 1890.

Lophoziaopsis rubrigemma (R.M.Schust.) Konstant. & Vilnet, *comb. nov.* – *Lophozia rubrigemma* R.M.Schust., Hepat. Anthocer. N. Amer. 2: 621. 1969.

Biantheridion (Grolle) Konstant. & Vilnet, *stat. nov.* – *Jamesoniella* sect. *Biantheridion* Grolle, Trans. Brit. Bryol. Soc. 4, 4: 662. 1964

Biantheridion undulifolium (Nees) Konstant. & Vilnet, *comb. nov.* – *Jungermannia schraderi* var. *undulifolia* Nees, Naturgesch. Eur. Leberm. 1: 306, 1833.

Heterogemma (Jørg.) Konstant. & Vilnet, *stat. nov.* – *Lophozia* sect. *Heterogemma* Jørg., Bergens Mus. Skr. 16: 1959, 1934.

Heterogemma laxa (Lindb.) Konstant. & Vilnet, *comb. nov.* – *Jungermannia laxa* Lindb., Acta Soc. Sci. Fenn. 10: 539. 1875.

Heterogemma capitata (Hook.) Konstant. & Vilnet, *comb. nov.* – *Jungermannia capitata* Hook., Brit. Jungermann.: Tab. 80. 1816.

ACKNOWLEDGEMENTS

We thank M.S. Ignatov, J. Váňa, L. Söderström, A. Hagborg for numerous comments and suggestions. Dr. R. Ochyra is cordially thanked for trans-

lation of Latin diagnoses. This work was partly supported by RFBR 09-04-00281, 06-05-64137.

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