

Cryptogamic nomenclatural notes. 1

I. V. Sokolova¹ (ed.), D. A. Kapustin², D. A. Davydov³,
E. A. Borovichev^{4,5}, A. D. Potemkin¹

¹ Komarov Botanical Institute, Professor Popov Str., 2, St. Petersburg, 197376, Russia

² Papanin Institute for Biology of Inland Waters RAS, Borok, Nekouz District,
Yaroslavl Region, 152742, Russia

³ M. G. Kholodny Institute of Botany NASU, Tereshchenkivska Str., 2, Kyiv, 01601,
Ukraine

⁴ Institute of Industrial Ecology Problems of the North of the Kola Science Centre
of RAS, Akademgorodok Str., 7a, Apatity, Murmansk Province, 184209, Russia

⁵ Forest Research Institute of Karelian Research Centre of RAS, Puschkinskaya Str.,
11, Petrozavodsk, Republic of Karelia, 185910, Russia

Correspondence to: I. V. Sokolova, isokolova@binran.ru

Abstract. Replacement names are proposed for two later homonyms of *Heteronema fusiforme* Skvortsov. The combination *Poterioochromonas malhamensis* (E. G. Pringsh.) D. Kapustin, comb. nov. is validated. The new combination *Marchantia quadrata* Scop. subsp. *hyperborea* (R. M. Schust.) Borovich., comb. nov. is published for the Arctic subspecies of the former *Preissia quadrata*. The lectotype of *Scapania subnimbose* Steph. is designated. The name *Tritomaria quinquedentata* (Huds.) H. Buch var. *grandigemma* Potemkin, var. nov. is validated.

Keywords: *Heteronema fusiforme*, *Heteronema shii*, *Heteronema vetrovae*, *Marchantia quadrata* subsp. *hyperborea*, *Poterioochromonas malhamensis*, *Scapania subnimbose*, *Tritomaria quinquedentata* var. *grandigemma*, *Chrysophyceae*, *Euglenophyceae*, *Marchantiaceae*, *Marchantiophyta*, *Scapaniaceae*, liverworts, lectotype, new combination, nomen novum, typification, validation.

Номенклатурные заметки по водорослям, грибам, лишайникам и мохообразным. 1

И. В. Соколова¹ (ред.), Д. А. Капустин², Д. А. Давыдов³,
Е. А. Боровичев^{4,5}, А. Д. Потемкин¹

¹ Ботанический институт им. В. Л. Комарова РАН, ул. Профессора Попова, д. 2,
Санкт-Петербург, 197376, Россия

² Институт биологии внутренних вод им. И. Д. Папанина РАН, пос. Борок,
Некоузский р-н, Ярославская обл., 152742, Россия

³ Институт ботаники им. Н. Г. Холодного НАН Украины, Терещенковская ул.,
д. 2, Киев, 01601, Украина

⁴ Институт проблем промышленной экологии Севера КНЦ РАН, ул. Ферсмана,
д. 14а, г. Апатиты, Мурманская обл., 184209, Россия

⁵ Институт леса КарНЦ РАН, Пушкинская ул., д. 11, Петрозаводск,
Республика Карелия, 185910, Россия

Автор для переписки: И. В. Соколова, isokolova@binran.ru

Резюме. Для двух поздних омонимов *Heteronema fusiforme* Skvortsov предложены заменяющие названия. Действительно обнаружена комбинация *Poteroiochromonas malhamensis* (E. G. Pringsh.) D. Kapustin. Новая комбинация *Marchantia quadrata* Scop. subsp. *hyperborea* (R. M. Schust.) Borovich. обнаружена для *Preissia quadrata* subsp. *hyperborea* R. M. Schust. Обозначен лектотип *Scapania subnimbosa* Steph. Валидизировано название *Tritomaria quinquedentata* (Huds.) H. Buch var. *grandigemma* Potemkin.

Ключевые слова: *Heteronema fusiforme*, *Heteronema shii*, *Heteronema vetrovae*, *Marchantia quadrata* subsp. *hyperborea*, *Poteroiochromonas malhamensis*, *Scapania subnimbosa*, *Tritomaria quinquedentata* var. *grandigemma*, *Chrysophyceae*, *Euglenophyceae*, *Marchantiaceae*, *Marchantiophyta*, *Scapaniaceae*, печеночники, валидизация, лектотип, новая комбинация, типификация, *nomen novum*.

С настоящего тома в «Новостях систематики низших растений» отдельным разделом, являющимся коллективной публикацией группы авторов с общим резюме и списком литературы, мы начинаем публиковать на английском языке совместную статью «Cryptogamic nomenclatural notes» для кратких сообщений по номенклатуре водорослей, грибов, лишайников и мохообразных, выходящую в соавторстве с ведущим ее редактором. Для более удобного поиска информации все краткие сообщения в статье объединены по группам организмов (водоросли, грибы, включая миксомицеты, лишайники и мохообразные)¹.

Algae — Водоросли

Replacement names for two *Heteronema* species (*Euglenophyceae*). D. A. Kapustin, D. A. Davydov. — Заменяющие названия для двух видов рода *Heteronema* (*Euglenophyceae*). Д. А. Капустин, Д. А. Давыдов.

Heteronema fusiforme was described by Skvortsov (1958) from a pond near Harbin City. Two later homonyms were published subsequently by Assaul-Vetrova (1981) and Shi (Shi *et al.*, 1999). Below we propose the replacement names for them.

Heteronema vetrovae D. Kapustin et Davydov, nom. nov.

Replaced synonym: *Heteronema fusiforme* Assaul-Vetrova, 1981, *Novosti Sist. Vyssh. Nizsh. Rast.* 1979: 236, fig. 3, non Skvortsov, 1958.

¹ Библиографическую ссылку на статью следует приводить следующим образом, с указанием полного диапазона страниц, для корректного распознавания в библиографических базах данных.

Sokolova I. V. (ed.), Kapustin D. A., Davydov D. A., Borovichev E. A., Potemkin A. D. 2017. Cryptogamic nomenclatural notes. I. *Novosti Sist. Nizsh. Rast.* 51: 382–385.

Etymology: the epithet is dedicated to the Ukrainian phycologist Zinaida I. Vetrova (b. 1931; née Assaul) for her contribution to the study of euglenophytes in Ukraine.

Heteronema shii D. Kapustin et Davydov, nom. nov.

Replaced synonym: *Heteronema fusiforme* Z. X. Shi, 1999, in Shi *et al.*, Flora Algarum Sinicarum Aquae Dulcis 6: 254, pl. 5: figs. 8–13, non Skvortsov, 1958.

Etymology: the epithet is dedicated to the Chinese phycologist Zhi-Xin Shi (b. 1940) for his contribution to the study of euglenophytes in China.

Validation of *Poterioochromonas malhamensis* (*Chrysophyceae*).

D. A. Kapustin. — Валидизация *Poterioochromonas malhamensis* (*Chrysophyceae*). Д. А. Капустин.

Pringsheim (1952) described a new species *Ochromonas malhamensis* E. G. Pringsh. from the mountain lake Malham Tarn (Yorkshire, England). The species was then transferred to the genus *Poterioochromonas* Scherff. by Péterfi (1969), but the combination was published without a full and direct reference to the author and place of valid publication of its basionym as provided by ICN (International..., 2012: Art. 41.5). So, the combination was not validly published by Péterfi, and is validated herein.

Poterioochromonas malhamensis (E. G. Pringsh.) D. Kapustin, comb. nov. — Péterfi, 1969, Nova Hedwigia, 17: 100, comb. inval., sine ref.

Basionym: *Ochromonas malhamensis* E. G. Pringsh., 1952, Quart. J. Microsc. Soc. 93: 95.

Bryophytes — Мохообразные

New combination *Marchantia quadrata* subsp. *hyperborea* (*Marchantiaceae*, *Marchantiophyta*). E. A. Borovichev. — Новая комбинация *Marchantia quadrata* subsp. *hyperborea* (*Marchantiaceae*, *Marchantiophyta*). E. A. Боровичев.

A recent phylogenetic study of the complex thalloid liverworts (Villarreal *et al.*, 2015) has discovered that the type species of the genera *Preissia* Corda and *Bucegia* Radian are nested within a well-supported monophyletic genus *Marchantia* L. The new subgenus *Marchantia* L. subg. *Preissia* (Corda) D. G. Long, Crandall-Stotler, L. L. Forrest et Villarreal was described (Long *et al.*, 2016) with two species: *M. quadrata* Scop. and *M. romanica* (Radian) D. G. Long, Crandall-Stotler, L. L. Forrest et Villarreal.

Preissia quadrata (Scop.) Nees included two subspecies, subsp. *quadrata* and subsp. *hyperborea* R. M. Schust. The latter is a poorly known Arctic taxon described from Greenland (Schuster, 1985). Since Long *et al.* (2016) did not provide a new combination for *Preissia quadrata* subsp. *hyperborea*, it is published here.

Marchantia quadrata* subsp. *hyperborea (R. M. Schust.) Borovich., comb. nov.

Basionym: *Preissia quadrata* subsp. *hyperborea* R. M. Schust., 1985, *Phytologia*, 57(6): 410.

Lectotypification of *Scapania subnimbosa* Steph. (*Scapaniaceae*, *Marchantiophyta*). A. D. Potemkin. — Лектотипификация *Scapania subnimbosa* Steph. (*Scapaniaceae*, *Marchantiophyta*). А. Д. Потемкин.

When publishing data on the lectotype specimen of *Scapania subnimbosa* Steph., Potemkin (2002) provided no phrase «designated here» or its equivalent, which is required since 1 January 2001 to achieve designation of a type (International..., 2012: Art. 7.10). So, the lectotype is designated here.

***Scapania subnimbosa* Steph.**, 1910, *Species Hepaticarum* 4: 150.

Lectotype (designated here): 011475 Norikura August 1905 [Faurie] 1800 (G). Barcode: G00069958. Image: <http://www.ville-ge.ch/musinfo/bd/cjb/chg/adetail.php?id=130538&lang=en>

Validation of *Tritomaria quinquedentata* var. *grandigemma* (*Scapaniaceae*, *Marchantiophyta*). A. D. Potemkin. — Валидизация *Tritomaria quinquedentata* var. *grandigemma* (*Scapaniaceae*, *Marchantiophyta*). А. Д. Потемкин.

Tritomaria quinquedentata var. *grandigemma* was published without designation of a holotype, only with a citation of 3 gatherings (syntypes) in the protologue. The holotype was labelled among the original material, but not published (Potemkin, 1990). Thus the name was not validly published (International Code..., 2012: Art. 40), and is validated herein by designating its holotype.

***Tritomaria quinquedentata* (Huds.) H. Buch var. *grandigemma* Potemkin var. nov.** — Potemkin, 1990, *Bot. Zhurn.* 75(12): 1749, nom. in-val., sine holotypo.

Holotype: «Polyostrov Yamal, r. Laptayakha, okr. pos. Mys Kamenny. Ernikovo-osokovaya mokhovaya zapadinno-bugorkovaya zabolochennaya tundra, 23.07.1979, *O. Rebristaya*, LE» (label in Russian). In Potemkin (1990) it is cited as «peninsula Yamal, regio ripae sisnistræ fl. Laptajaha adjacens (68°20' lat. bor., 73°15' long. orient.), in tundra

Nanobetuloso-caricosa muscosa, paludosa tumulis et demissinibus tecta, 23 VIII 1979, *O. V. Rebristaja...* (LE)».

Acknowledgements. The work of E. A. Borovichev was partially supported by the Russian Foundation for Basic Research (grants no. 15-04-03479, 15-34-20101). The study of A. D. Potemkin on validation of *Tritomaria quinquedentata* var. *grandigemma* was carried out within the framework of the institutional research project 01201255616 of the Komarov Botanical Institute of the Russian Academy of Sciences, and was supported in part by the Russian Foundation for Basic Research (research project 16-04-01156). The study of A. D. Potemkin on lectotypification of *Scapania subnimbosa* was supported by project of Program of Presidium RAS «Wildlife: Current Status and Problems of Development» (Subprogram: «Biodiversity: state and dynamics»).

References

- Assaul-Vetrova Z. I. 1981. Euglenophytorum species novae ex aquariis Carpathorum necnon Tauriae. *Novosti Sist. Nizsh. Vyssh. Rast.* 1979: 233–237. (In Russ.).
- International Code of Nomenclature for algae, fungi, and plants (Melbourne Code) adopted by the Eighteenth International Botanical Congress Melbourne, Australia, July 2011.* <http://www.iapt-taxon.org/nomen/main.php?page=title>
- Long D. G., Forrest L. L., Villarreal J. C., Crandall-Stotler B. J. 2016. Taxonomic changes in Marchantiaceae, Corsiniaceae and Cleveaceae (Marchantiidae, Marchantiophyta). *Phytotaxa*. 252(1): 77. doi: 10.11646/phytotaxa.252.1.9
- Péterfi L. S. 1969. The fine structure of *Poterioochromonas malhamensis* (Pringsheim) comb. nov. with special reference to the lorica. *Nova Hedwigia*. 17: 93–103.
- Potemkin A. D. 1990. The genus *Tritomaria* (Lophoziaceae, Hepaticae) in Yamal. *Bot. Zhurn.* 75(12): 1742–1753. (In Russ.).
- Potemkin A. D. 2002. Phylogenetic system and classification of the family Scapaniaceae Mig. emend. Potemkin (Hepaticae). *Ann. Bot. Fennici*. 39(4): 309–334.
- Pringsheim E. G. 1952. On the nutrition of *Ochromonas*. *Quart. J. Microscop. Sci.* 93(1): 71–96.
- Schuster R. M. 1985. Some new taxa of Hepaticae. *Phytologia*. 57: 408–414.
- Shi Z., Wang Q., Xie Sh., Dai J., Chen L. 1999. *Flora Algarum Sinicarum Aquae Dulcis. T. 6. Euglenophyta*. Beijing: 414 p. (In Chinese).
- Skvortsov B. V. 1958. New and rare Flagellatae from Manchuria, Eastern Asia. *Philipp. J. Sci.* 86: 139–202.
- Villarreal J. C., Crandall-Stotler B. J., Hollingsworth M. L., Long D. G., Forrest L. L. 2015. Divergence times and the evolution of morphological complexity in an early land plant lineage (Marchantiopsida) with a slow molecular rate. *New Phytol.* 209(4): 1734–1746. doi: 10.1111/nph.13716