Nomenclatural novelties in chroococcalean cyanoprokaryotes

Nomenklatorické změny u chrookokálních sinic

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Recent taxonomic revisions of cyanoprokaryotes have to be respected in preparation of the manuscript of the European monographic review and identification key of chroococcalean cyanoprokaryotes for the compendium Süsswasserflora von Mitteleuropa. Sixty one nomenclatural transfers are needed and five new species have to be defined. Names of ten supraspecific taxa are established.

K e y w o r d s : Cyanoprokaryotes, Cyanobacteria, Cyanophytes, taxonomy, nomenclature, new combinations, new taxa

Preparing the manuscript of the European monographic review of chroococcalean cyanoprokaryotes (Süsswasserflora von Mitteleuropa), several nomenclatural changes are needed in respect of new approaches to the taxonomic classification of this group (Rippka et al. 1979, Anagnostidis et Komárek 1985, 1988, 1990, Komárek et Anagnostidis 1986, 1989, Rippka 1988, Castenholz et al. 1989, Wilmotte et Golubic 1991 and others). The preference of unambiguously defined genera is accepted, respecting wide set of information about phenotypic and ecophysiological variation and all available data derived from experimental studies of isolated strains in culture. On account of newly redefined and revised generic and specific features, the following new combinations within the order Chroococcales are necessary.

Suprageneric taxa

***Aphanothecoideae* Kom. et Anagn., subfamilia nova** familiae *Synechococcaceae*. – Diagnosis: A subfamilia typica (*Synechococcoideae*) absentia formationum pseudofilamentosorum differt; cellulae involutionales irregulares (non filamentosae). – Typus: *Aphanothece* Nägeli Gatt. Einzell. Algen, p. 59, 1849, nomen conservandum.

***Gloeobacteraceae* Kom. et Anagn., familia nova**. – Diagnosis: Cellulae cyanoprokaryoticae solitariae vel in colonias mucilaginosas irregulares dispositae, sphaericae vel elongatae, sine membranis internis thylakoideis; pigmenta photosynthetica in protoplasmate locata. Divisio cellularum transversalis. – Typus: *Gloeobacter* Rippka et al., Arch. Microbiol. 100:435, 1974.

Subfamilia *Podocapsoideae* (Ercegović) Kom. et Anagn., status novus. – Bas.: *Podocapsaceae* Ercegović, Bull. Intern. Acad. Yugosl. Sci. Nat., Cl. Sci. Math.-Nat., 26:140, 1932.

Subfamilia *Siphononematoideae* (Geitler) Kom. et Anagn., status novus. – Bas.: *Siphononemataceae* Geitler, Beih. Bot. Centralbl., Ser. 2, 41:251, 1925.

***Synechococcaceae* Kom. et Anagn., familia nova.** – Diagnosis: Cellulae cyanoprokaryoticae solitariae vel in colonias mucilaginosas plus minusve irregulariter dispositae, subsphaericae vel elongatae; intra cellulas membranae thylakoideae presentes. Cellulae semper in plano unico, secundum axem unum (longitudinalem) transversalem (modo perpendiculari) in generationibus successivis dividuntur. – Typus: *Synechococcus* Nägeli Gatt. Einzell. Algen, p. 56, 1849.

Supraspecific taxa

***Aphanothece* subg. *Anathece* Kom. et Anagn., subgenus novum.** – Diagnosis: A subgenere typico (subg. *Aphanothece*) differt absentia tegumentorum mucilaginosorum circum cellulas singulas; cellulae in mucilagine homogeneo, diffluenti, irregulariter dispositae. – Typus: *Aphanothece clathrata* W. West et G.S. West, Trans. Roy. Irish Acad. 33 (A):111, 1906.

Chamaesiphon subg. *Chamaesiphonopsis* (Fritsch) Kom. et Anagn., comb. nova. – Bas.: *Chamaesiphonopsis* Fritsch, New Phytol. 28:173, 1929. – Typus: *Xenococcus britannicus* Fritsch in West et Fritsch Brit. Freshw. Algae, p. 467, 1927 = *Chamaesiphon (Chamaesiphonopsis) britannicus* (Fritsch) Kom. et Anagn., Preslia 67:17, 1995.

Chamaesiphon subg. *Godlewskia* (Janczewski) Kom. et Anagn., comb. nova. – Bas.: *Godlewskia* Janczewski, Ann. Sci. Nat. Bot., Ser. 6, 16:227, 1883. – Typus: *Godlewskia aggregata* Janczewski, Ann. Sci. Nat. VI. Bot. 16:229, 1925 = *Chamaesiphon aggregatus* (Janczewski) Geitler Süsswasserfl. Mitteleur. 12:157, 1925.

***Chroococcus* subg. *Limnococcus* Kom. et Anagn., subgenus novum.** – Diagnosis: A subgenere typico (subg. *Chroococcus*) differt cellulis in muco homogeneo diffluenti dispositis; cellulae post divisionem crescunt in forma originali (sphaericae), q. e. ante divisionem secundam. – Typus: *Chroococcus limneticus* Lemmermann, Bot. Centralbl. 76:153, 1898.

Microcrocis subg. *Beckia* (Elenkin) Kom. et Anagn., status novus et comb. nova. – Bas.: *Beckia* Elenkin Monogr. Alg. Cyanoph. URSS, Pars Spec. 1:71, 1938; a subgenere typico (subg. *Microcrocis*) differt forma cellularum. – Typus: *Microcrocis bella* (Beck-Mannagetta) Kom. et Anagn., Preslia 67:21, 1995; bas.: *Holopedium bellum* Beck-Mannagetta, Arch. Protistenk. 66:10, 1929; *Beckia bella* (Beck-Mannagetta) Elenkin Monogr. Alg. Cyanoph. URSS, Pars Spec. 1:71, 1938.

Species

Aphanocapsa litoralis (Hansgirg) Kom. et Anagn., comb. nova. – Bas.: *Polycystis litoralis* Hansgirg in Foslie Contr. Knowl. Mar. Alg. Norway 1:169, 1890.

Aphanocapsa orae (Kosinskaja) Kom. et Anagn., comb. nova. – Bas.: *Microcystis orae* Kosinskaja Opred. Morsk. Sinezel. Vodorosl., p. 44, 1948.

Aphanocapsa parasitica (Kützing) Kom. et Anagn., comb. nova. – Bas.: *Microcystis parasitica* Kützing Phycol. Gener., p. 170, 1843.

Aphanocapsa planctonica (G. M. Smith) Kom. et Anagn., status novus. – Bas.: *Aphanocapsa elachista* var. *planctonica* G. M. Smith, Bull. Wisconsin Geol. Nat. Hist. Surv. 57:42, 1920.

Aphanocapsa protea (Copeland) Kom. et Anagn., comb. nova. – Bas.: *Microcystis protea* Copeland, Ann. New York Acad. Sci. 36:20–21, 1936.

Aphanocapsa reinboldii (Richter) Kom. et Anagn., comb. nova. – Bas.: *Anacystis reinboldii* Richter in Reinbold, Schrift. Naturwiss. Ver. Schleswig-Holstein 7 (2):180, 1889.

Aphanothece cylindracea (Gardner) Kom. et Anagn., comb. nova. – Bas.: *Anacystis cylindracea* Gardner, Mem. New York Bot. Garden 7:19–20, 1927.

Aphanothece marina (Ercegović) Kom. et Anagn., comb. nova. – Bas.: *Synechococcus marinus* Ercegović, Rad Jugosl. Akad. 244 (Razr. Mat.-Prir. 75):138, 1932.

Bacularia vermicularis (Fedorov) Kom. et Anagn., comb. nova. – Bas.: *Rhabdoderma vermiculare* Fedorov, Novosti Syst. Nižš. Rast. 6:15, 1969.

Chamaecalyx algarvensis (Ardré) Kom. et Anagn., comb. nova. – Bas.: *Dermocarpella algarvensis* Ardré, Rev. Géner. Bot. 67:8, 1969.

Chamaesiphon britannicus (Fritsch) Kom. et Anagn., comb. nova. – Bas.: *Xenococcus britannicus* Fritsch in West et Fritsch Brit. Freshw. Algae, p. 467, 1927.

Chlorogloea minutissima (Geitler) Kom. et Anagn., status novus. – Bas.: *Chlorogloea purpurea* var. *minutissima* Geitler, Arch. Hydrobiol., Suppl. 12, 4:623, 1933.

Chlorogloea rivularis (Hansgirg) Kom. et Anagn., comb. nova. – Bas.: *Cyanoderma rivulare* Hansgirg, Notarisia 4:658, 1889.

Chondrocystis dermochroa (Nägeli) Kom. et Anagn., comb. nova. – Bas.: *Gloeocapsa dermochroa* Nägeli Gatt. Einzell. Algen, p. 51, 1849; sec. Nägeli in Kützing Spec. Alg., p. 224, 1849.

Chondrocystis sarcinoides (Elenkin) Kom. et Anagn., comb. nova. – Bas.: *Oncobyrsa sarcinoides* Elenkin, Not. Syst. Inst. Crypt. Horti Bot. Petropol. 2:11, 1923.

Chroococcidiopsis fissurarum (Ercegović) Kom. et Anagn., comb. nova. – Bas.: *Pleurocapsa fissurarum* Ercegović, Rad Jugosl. Akad. 244 (Razr. Mat.– Prir. 75):140, 1932.

Chroococcopsis chroococcoides (Fritsch) Kom. et Anagn., comb. nova. – Bas.: *Xenococcus chroococcoides* Fritsch, New Phytol. 28: 186, 1929.

Chroococcopsis fluviatilis (Lagerheim) Kom. et Anagn., comb. nova. – Bas.: *Pleurocapsa fluviatilis* Lagerheim, Notarisia 3:430, 1888.

***Chroococcus ercegovicii* Kom. et Anagn., spec. nova.** – Diagnosis: Coloniae microscopicae, (1–) 2–4 (–8)–cellulares, irregulariter globulosae. Cellulae ovales, post divisionem hemisphaericae, paucim lunatae vel rotundato-subglobosae, contentu plus minusve homogeneo, pallide vel vivide aerugineo–viridi vel olivaceo–viridi, 4.5–8 (–11) × (2.2–) 2.5–8 µm. Tegumenta mucilaginosa, dilatata, intense lamellosa, incolorata vel rarissime paucim luteola. Divisio cellularum in partes duas. – Typus: Specimen typicum in BRNM depositum (holotypus); figura nostra 1. – Habitatio: Aerophytice ad rupes calcareas prope Koněprusy, Bohemia centralis, Europa centralis (locus classicus); aerophytice ad rupes calcareas prope Plitvice, Croatia. – Syn.: *Chroococcus schizodermaticus* f. *pallidus* Ercegović 1925 (the specimens of the synonymized *C. schizodermaticus* f. *pallidus* Ercegović, which would represent the holotype, are not available). – Etymologia: Species ad honorem Dr. Ante Ercegović nominata. (Fig. 1, 3).

Coelosphaeriopsis chlamydocystis (Skuja) Kom. et Anagn., comb. nova. – Bas.: *Coelosphaerium chlamydocystis* Skuja, Nova Acta Reg. Soc. Sci. Upsal., Ser. 4, 18(3):39, 1964.

Cyanocystis croatica (Pevalek) Kom. et Anagn., comb. nova. – Bas.: *Krkia croatica* Pevalek, Acta Bot. Inst. Bot. Zagreb. 4:55, 1929.

Cyanocystis flahaultii (Sauvageau) Kom. et Anagn., comb. nova. – Bas.: *Dermocarpa flahaultii* Sauvageau, Bull. Soc. Bot. France, Ser. 2, 14:119, 1892; sec. sensu Starmach 1928.

Cyanocystis tatrensis (Starmach) Kom. et Anagn., status novus et comb. nova. – Bas.: *Dermocarpa aquae-dulcis* var. *tatrensis* Starmach, Spraw. Kom. Fizjogr. Pol. Akad. Umiej. 62:10, 1928.

Cyanoderma laminariae (Setchell et Gardner) Kom. et Anagn., comb. nova. – Bas.: *Radaisia laminariae* Setchell et Gardner in Gardner, Univ. Calif. Publ. Bot. 6:444, 1918.

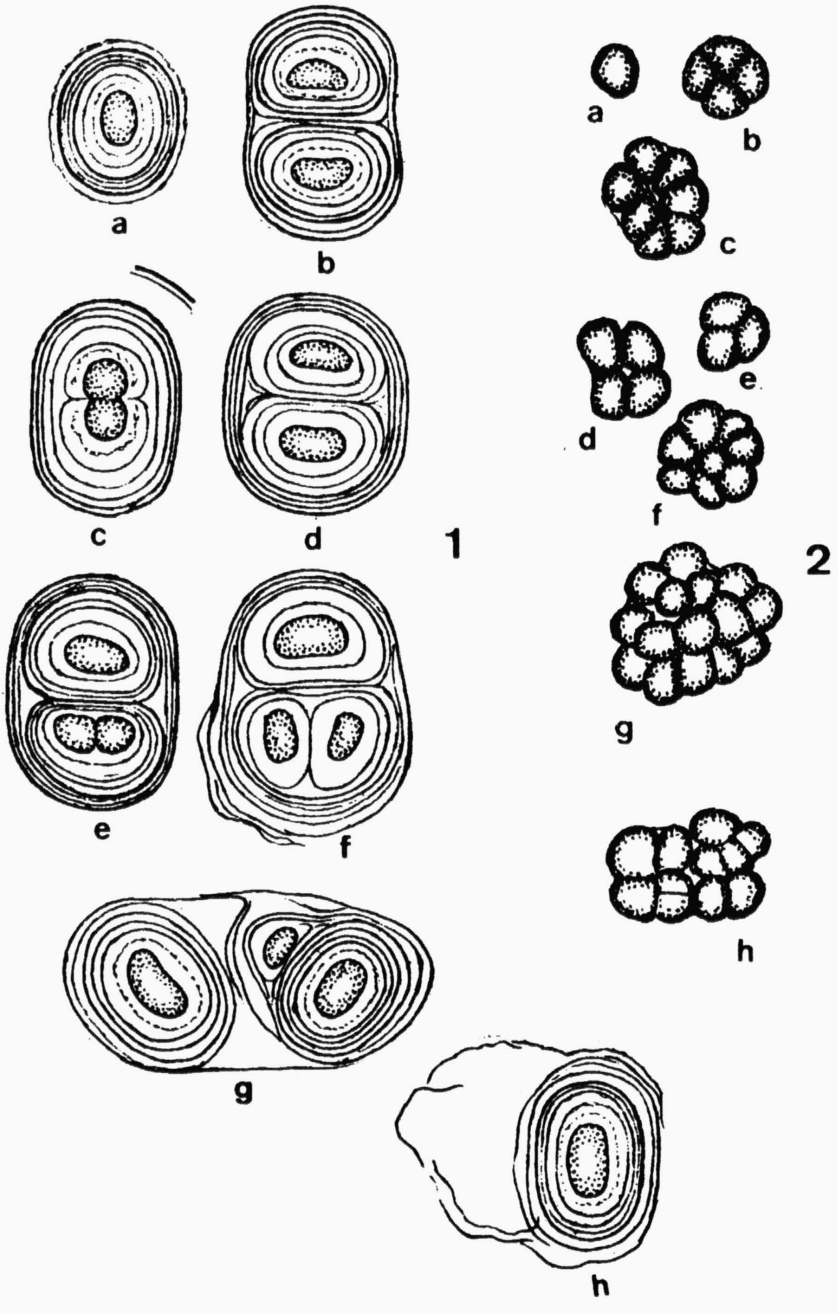


Fig. 1. – *Chroococcus ercegovicii* Kom. et Anagn., species nova [iconotypus]. – All specimens are from one population (one sample) from shadowed limestone rocks (aerophytic) in Bohemian Karst near Koněprusy, Czech Republic (original locality). (Orig.).

Fig. 2. – *Cyanosarcina huebeliorum* Kom. et Anagn., species nova [iconotypus]. – Specimens from the type culture. (Orig.).

Cyanoderma lineare (Setchell et Gardner) Kom. et Anagn., comb. nova. – Bas.: *Hyella linearis* Setchell et Gardner in Gardner, Univ. Calif. Publ. Bot. 6:442, 1918.

Cyanoderma subimmersum (Setchell et Gardner) Kom. et Anagn., comb. nova. – Bas.: *Radaisia subimmersa* Setchell et Gardner in Gardner, Univ. Calif. Publ. Bot. 6:446, 1918.

Cyanodermatium gigas (Geitler) Kom. et Anagn., comb. nova. – Bas.: *Radaisia gigas* Geitler, Arch. Hydrobiol., Suppl. 12, 4:626, 1933.

Cyanodermatium fluminense (Fritsch) Kom. et Anagn., comb. nova. – Bas.: *Pseudoncobyrsa fluminensis* Fritsch, New Phytol. 28:181, 1929.

***Cyanosarcina huebeliorum* Kom. et Anagn., spec. nova.** – Diagnosis: Cellulae solitariae vel in coloniis plus minusve rectangularibus, irregularibus vel irregulariter sarcinoidalibus, 2–4–32 – cellularibus; coloniae aliquando in strata mucilaginosa, granulosa, aeruginosa aggregatae. Tegumenta coloniarum tenua, firma, incolorata, haud lamellosa; tegumenta interdum fatiscentia, postea cellulas internas liberatur. Cellulae sphaericae, subsphaericae vel irregulariter globosae, intense caeruleo-virides, 3.5–5.4 µm in diametro, cum contentu homogeneo. Nanocyta carentia. – Typus: Cultura Greifswald/149 (AKUG–149 Greifswald, CCALA–110 Třeboň /holotype/); figura nostra 2. – Habitatio: E cultura recognita (subaerophytice in tepidariis). – Etymologia: Species ad honorem Doctorum Marianne et Helmut Hübel nominata. (Fig. 2, 4).

Cyanosarcina regularis (De Toni) Kom. et Anagn., status novus et comb. nova. – Bas.: *Myxosarcina spectabilis* f. *regularis* Geitler in Geitler et Ruttner, Arch. Hydrobiol., Suppl. 14:388, 1935, sine diagn. lat.; Geitler ex De Toni Diagn. Alg. Nov., 1 Myxoph. 9:849, 1946.

Cyanothece crassiuscula (Skuja) Kom. et Anagn., status novus et comb. nova. – Bas.: *Synechococcus diachloros* var. *crassiusculus* Skuja, Nova Acta Reg. Soc. Sci. Upsal., Ser. 4, 16(3):48, 1956.

Cyanothece shiloi (Campbell et Golubic) Kom. et Anagn., comb. nova. – Bas.: *Aphanothece shiloi* Campbell et Golubic, Algolog. Studies 38/39:324, 1985.

Dermocarpella prasina (Reinsch) Kom. et Anagn., comb. nova. – Bas.: *Sphaenosiphon prasinus* Reinsch Contr. Algol. Fungol. 1:17, 1874.

***Gloeocapsa novacekii* Kom. et Anagn., spec. nova**. – Diagnosis: Coloniae micro- vel macroscopicae, gelatinosae, granulosae, ferruginosae vel nigricanto-brunneolae, irregulariter compositae. Tegumenta mucilaginosa, dilatata, paucim lamellosa vel non lamellosa, incolorata vel rubeola, ad 5 µm lata. Cellulae sphaericae vel ovatae, 3.5–9 µm in diametro, pallide olivaceo-virides, caeruleo-virides vel luteolae. Nanocyta et sporae quiescentes cum tegumentis firmis, ferrugineis, quasi not transparentibus praesentes. – Typus (holotypus): Exsicc. BRNM no. 13380/39; fig. 1–7 in Nováček (1930). – Habitatio: Aerophytice ad rupes serpentinicas prope Mohelno, Moravia occidentalis, Europa centralis (locus classicus). – Etymologia: Species ad honorem Dr. František Nováček nominata. – Syn.: *Gloeocapsa sanguinea* sensu Nováček 1930, 1934, non *Gloeocapsa sanguinea* (Agardh) Kützing Phyc. Gener., p. 175, 1843.

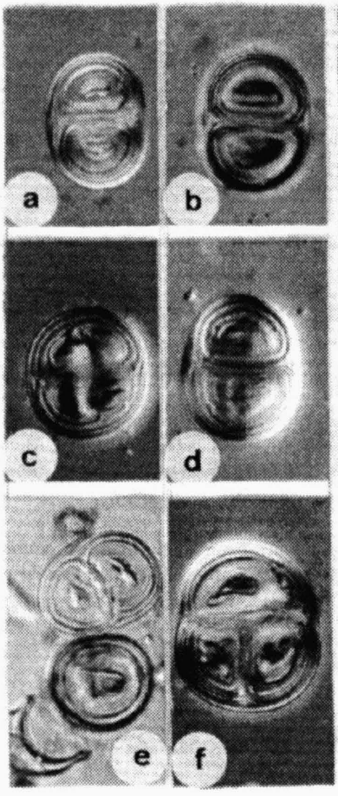
Gloeocapsopsis cyanea (Krieger) Kom. et Anagn., comb. nova. – Bas.: *Gloeocapsa cyanea* Krieger, Ber. Deutsch. Bot. Ges. 61:255, 1944.

Gloeocapsopsis polyedrica (Ercegović) Kom. et Anagn., status novus et comb. nova. – Bas.: *Gloeocapsa alpina* var. *polyedrica* Ercegović, Acta Bot. Inst. Bot. Univ. Zagreb. 1:80, 1925.

Gloeothece abiscoensis (Skuja) Kom. et Anagn., status novus – Bas.: *Gloeothece vibrio* var. *abiscoensis* Skuja, Nova Acta Reg. Soc. Sci. Upsal., Ser. 4, 18(3):36, 1964.

Hormothece banyolensis (Margalef) Kom. et Anagn., comb. nova. – Bas.: *Cyanostylon banyolense* Margalef, Publ. Inst. Biol. Apl. Barcelona 1:60, 1946.

Hormothece cylindrocellularis (Geitler) Kom. et Anagn., comb. nova. – Bas.: *Cyanostylon cylindrocellulare* Geitler, Arch. Hydrobiol., Suppl. 12, 4:623, 1933.



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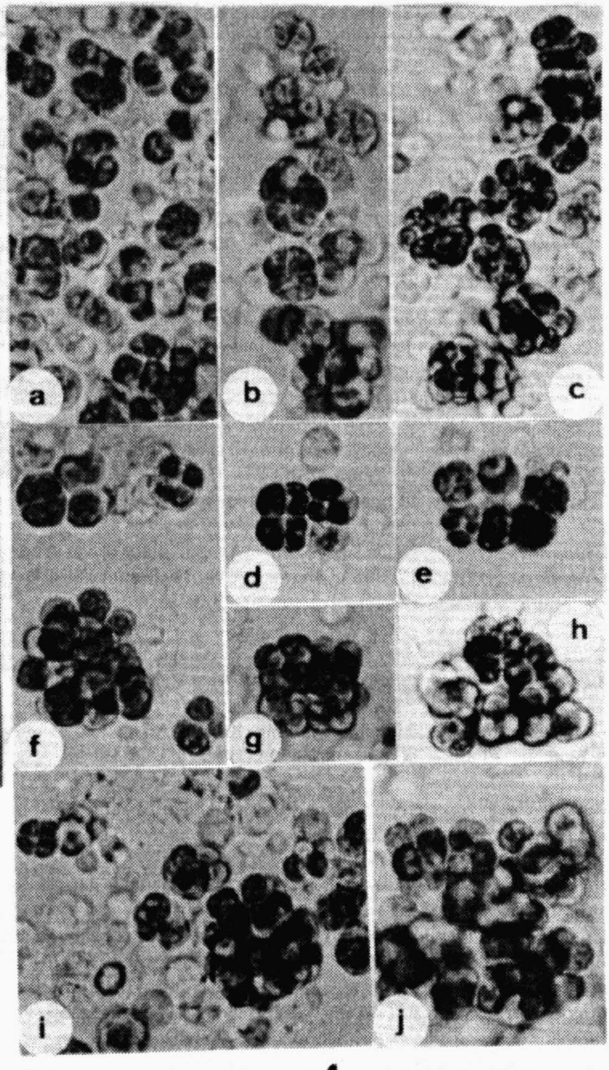

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Fig. 3. – *Chroococcus ercegovicii* Kom. et Anagn., specimens from the original locality in Bohemian Karst (identical with Fig. 1).

Fig. 4. – *Cyanosarcina huebeliorum* Kom. et Anagn., specimens from the type culture (identical with Fig. 2).

Hormothece starmuehlneri (Bourrelly) Kom. et Anagn., comb. nova. – Bas.: *Cyanostylon starmuehlneri* Bourrelly, Rev. Hydrobiol. Trop. 17(1):19, 1984.

Hyella dilseae (Feldmann) Kom. et Anagn., comb. nova. – Bas.: *Myxohyella dilseae* Feldmann, Bull. Soc. Bot. France 103:575, 1956.

Hyella seriata (Hollenberg) Kom. et Anagn., comb. nova. – Bas.: *Myxohyella seriata* Hollenberg, Bull. Torrey Bot. Club 66:489, 1939.

Johannesbaptistia schizodichotoma (Copeland) Kom. et Anagn., comb. nova. – Bas.: *Heterohormogonium schizodichotomum* Copeland, Ann. New York Acad. Sci. 36:65, 1936.

Merismopedia arctica (Kosinskaja) Kom. et Anagn., status novus. – Bas.: *Merismopedia punctata* f. *arctica* Kosinskaja, Acta Inst. Bot. Acad. Sci. URSS, ser. 2 – Pl. Crypt., 1:47, 1933.

Microcrocis bella (Beck-Mannagetta) Kom. et Anagn., comb. nova. – Bas.: *Holopedium bellum* Beck–Mannagetta, Arch. Protistenk. 66:10, 1929.

Microcrocis gigas (Ryppowa) Kom. et Anagn., comb. nova. – Bas.: *Merismopedia gigas* Ryppowa, Acta Soc. Bot. Polon. 3:46, 1925.

Microcrocis marina (Lagerheim) Kom. et Anagn., status novus et comb. nova. – Bas.: *Merismopedia elegans* var. *marina* Lagerheim, Öfv. Kong. Sv. Vet.– Acad. Forh. 40(2):40, 1883.

Microcrocis solea (Komarenko) Kom. et Anagn., comb. nova. – Bas.: *Beckia solea* Komarenko in Komarenko et Vasil'eva Presnovodnye Diatomovye i Sinezelenye Vodorosli Vodoemov Jakutii, Moskva, p. 271, 1975.

***Microcystis smithii* Kom. et Anagn., spec. nova.** – Diagnosis: Coloniae microscopicae, gelatinosae, sphaericae, subsphaericae vel ovales, libere natantes, cum cellulis sparse regulatim dispositis. Tegumenta mucilaginosa dilatata, tenua, incolorata, homogenea, ad marginem distincte limitata, rare diffluentia. Cellulae sphaericae, aeruginosae vel olivaceo-virides, cum aerotopis facultativis, solitariis vel sparsis, brunescentibus, 3.2–5.6 µm in diametro. – Typus (iconotypus): Fig. 2:9 in G.M. Smith (1920), sub *Aphanocapsa pulchra*. – Habitatio: In plancto lacuum, Wisconsin, America septentrionalis (lacus Beaverdam = locus classicus). – Etymologia: Species ad honorem Prof. G. M. Smith nominata. – Syn. (sensu auct. post., sine typo): *Palmella pulchra* Kützing Spec. Alg., p. 214, 1849 = *Aphanocapsa pulchra* (Kützing) Rabenhorst Fl. Eur. Alg. 2:49, 1865 = *Microcystis grevillei* f. *pulchra* (Kützing) Elenkin Monogr. Alg. Cyanoph., Pars Spec. 1:129, 1938; non: *Microcystis pulchra* Flotow, Nova Acta Acad. Caes. Leop. – Carol. Natur. Curios. 20(2):478, 1842.

Myxosarcina decolorata (Varma et Mitra) Kom. et Anagn., status novus. – Bas.: *Myxosarcina spectabilis* var. *decolorata* Varma et Mitra, Nova Hedwigia 4:356, 1962.

Myxosarcina gloeocapsoides (Setchell et Gardner) Kom. et Anagn., comb. nova. – Bas.: *Pleurocapsa gloeocapsoides* Setchell et Gardner in Gardner New Pacific Coast Algae III, p. 465, 1918.

Myxosarcina tatrica (Starmach) Kom. et Anagn., status novus. – Bas.: *Myxosarcina chroococcoides* f. *tatrica* Starmach, Fragm. Florist. Geobot. 27:292, 1981.

Pleurocapsa brevissima (Ercegović) Kom. et Anagn., comb. nova. – Bas.: *Scopulonema brevissimum* Ercegovic, Rad Jugosl. Akad. 244 (Razr. Mat. Prirod. 75):145, 1932.

Pleurocapsa hansgirgiana (Ercegović) Kom. et Anagn., comb. nova. – Bas.: *Scopulonema hansgirgianum* Ercegovic, Arch. Protistenk. 71:365, 1930.

Pleurocapsa mucosa (Ercegović) Kom. et Anagn., comb. nova. – Bas.: *Scopulonema mucosum* Ercegović, Rad Jugosl. Akad. 244 (Razr. Mat. Prirod. 75):144, 1932.

Radaisia gardneri Kom. et Anagn., nomen novum. – Pro *Pleurocapsa epiphytica* Gardner, Mem. New York Bot. Garden 7:31, 1927 = *Radaisia epiphytica* (Gardner) Gardner, New York Acad. Sci., Sci. Surv. Porto

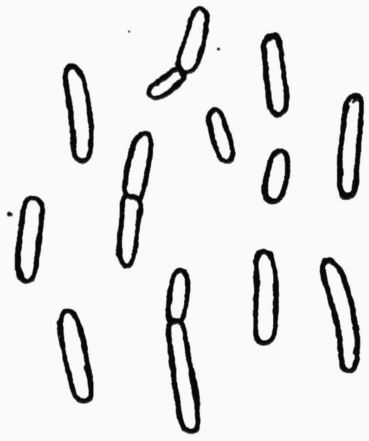

Fig. 5. – *Synechococcus rhodobaktron* Kom. et Anagn., species nova [iconotypus]. – Specimens from the lake Bodensee (original locality). (Orig.)

Rico 8 (2):264, 1932; non: *Radaisia epiphytica* Setchell et Gardner in Gardner, Univ. California Publ. Bot. 6, 1918.

Rhabdoderma curtum (Setchell) Kom. et Anagn., comb. nova. – Bas.: *Synechococcus curtus* Setchell in Collins et al., Phyc. Bor.-Amer. 28:1351, 1907.

Rhabdoderma rubrum (Ålvik) Kom. et Anagn., comb. nova. – Bas.: *Catella rubra* Ålvik, Bergens Mus. Årbok 1934, Naturv. Rekke 6:37, 1934.

Rhabdoderma transsylvanicum (Kol) Kom. et Anagn., comb. nova. – Bas.: *Gloeothece transsylvanica* Kol, Ann. Hist.-Nat. Musei Nation. Hung. (Ser. Nova) 6:94, 1955.

Rhabdogloea elenkinii (Roll) Kom. et Anagn., comb. nova. – Bas.: *Dactylococcopsis elenkinii* Roll, Ann. Protistol. 1:164, 1928.

Rhabdogloea scenedesmoides (Nygaard) Kom. et Anagn., comb. nova. – Bas.: *Dactylococcopsis scenedesmoides* Nygaard, Kong. Danske Vidensk. Selsk. Biol. Skr. 7 (1):185, 1949.

Stanieria suecica (Kylin) Kom. et Anagn., comb. nova. – Bas.: *Dermocarpa suecica* Kylin, Kungl. Fysiogr. Sällsk. i Lund Forh. 7 (12):23, 1937.

Stichosiphon willei (Gardner) Kom. et Anagn., comb. nova. – Bas.: *Chamaesiphon willei* Gardner, Mem. New York Bot. Gard. 7:34, 1927.

***Synechococcus rhodobaktron* Kom. et Anagn., spec. nova.** – Diagnosis: Cellulae solitariae, libere natantes, sine muco, cylindraceae, post divisionem binae, ad apices rotundatae, contentu rubro vel roseo-persicino, 3–9 (–11) × 0.8–2.3 µm. – Typus (iconotypus): Figura nostra 5. – Habitatio: In plancto lacuum grandium, Europa centralis, Japonia (locus classicus = lacus Bodamicus; leg. A. Ernst, Constance, Germania). – Etymologia: rhodo- = rose, baktron = rod (from Greek); (Fig. 5).

Synechocystis maior (Geitler) Kom. et Anagn., status novus. – Bas.: *Synechocystis crassa* var. *maior* Geitler, Arch. Hydrobiol./Trop. Binnengew. 4:623, 1933.

Xenococcus pallidus (Hansgirg) Kom. et Anagn., status novus. – Bas.: *Xenococcus schousboei* var. *pallidus* Hansgirg, Österr. Bot. Zeitschr. 39:5, 1889.

Acknowledgments

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Souhrn

Při přípravě rukopisu evropské monografie a určovacího klíče chrookokálních sinic pro kompendium Süsswasserflora von Mitteleuropa musí být respektovány výsledky nejnovějších taxonomických revizí. Článek přináší 61 nových kombinací, popisy 5 nových druhů a správná jména pro deset taxonů supraspecifické úrovně.

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