

LITERATURE CITED

[LADYZHENSKAYA, K. I.] ЛАДЫЖЕНСКАЯ К. И. 1952. *Riccia frostii* Aust. во флоре печеночников СССР - [*Riccia frostii* Aust. In liverwort flora of the USSR]. - *Бопимащ, омд. споп. расм.* [Bot. Mat. Otol. Spor. Rast.] 8: 80-188.

Новые находки печеночников в Камчатской области. 1. - New liverwort records from Kamchatskaya Province. 1. А. Д. Потёмкин, М. В. Дулин - A. D. Potemkin & M. V. Dulin

Новые для области - New for province

Plagiochila arctica Bryhn & Kaal. - Центральная Камчатка, Усть-Камчатский р-н, Толбачинский вулканический массив, Толбачинский дол (55°43'28" N - 160°22'25" E), выс. 1161 м надур. м., окрестности сопки Круленькая, склон СВ экспозиции, ложбина между лавовых гряд, на почве в кустарничково-осоковой тундре, Дулин #08022 [Dulin] {SYKO, LE}. Вид распространен преимущественно в Сибирской и Американской Арктике, с единичными местонахождениями в более южных, не относящихся к Арктике р-нах. Ближайшее местонахождение на Командорских островах (о-в Медный) (Bakalin & Cherdantseva, 2008).

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ЛИТЕРАТУРА

[BAKALIN, V.A. & V.YA. CHERDANTSEVA] БАКАЛИН В.А., В.Я. ЧЕРДАНЦЕВА 2008. Бриофлора острова Медный и бриогсография Алеут (Северная Пацифика) [Bryoflora of Mednyi Island and bryogsoigraphy of Aleut Islands] *В кн.: Сохранение биоразнообразия Камчатки и прилегающих морей (Матер, докл. VIII международной научной конференции, Петропавловск-Камчатский, 27-28 ноября 2007 г.)* [In: *Sokhranenie bioraznootobrazija Kamchatki i prilegajuschih morej (Mater, dokl. VIII mezhdunarodnoj nauchnoj konjerencii, Petropavlovsk-Kamchatski), 27-28 nojabrja 2007 g.*] *Петропавловск-Камчатский* [Petropavlovsk-Kamchatski/]: 36-56.

New liverwort records from Primorsky Territory. 2. - Новые находки печёночников в Приморском крае. 2. V.A. Bakalin - В.А. Бакалин

New for Russia - Новые для России

Fmllairia polyptera Tayl. - Ussurijsky Nature Reserve, upper course of Artyomovka River (43°41' 33" N - 132°33'52" E), 229 m alt., leafy

tree trunk in mixed *Abies*, *Pinus* and hardwood forest on stick slope of northern exposure to valley, Bakalin # P-68-19-08 [Бакалин] {VLA}.

Porella nitens (Steph.) S. Hatt. - Partizansk District, Livadijsky Range, Pidan Mt. Area, Oury Stream Valley, abt. 8 km to the South from Lukjanovka Railway Station (43°06'30" N - 132°41'33" E), 398 m alt., base of tree in broad-leaved forest with admixture of *Pinus* and *Abies*, and cover of shrubs and grasses, Bakalin # P-51-1-08 [Бакалин] {VLA}; Ussurijsky Nature Reserve, Anikin Creek Valley, lower course (43°40'39" N - 132°29'06" E), 199 m alt., tree trunk at 1 m of height in broad-leaved forest with *Pinus* and *Abies*, Bakalin # P-60-12-08 [Бакалин] {VLA}; *ibid.*, upper course of Artyomovka River (43°41'50" N - 132°33'19" E), 229 m alt., stone in mixed *Abies*, *Pinus* and hardwood forest, Bakalin # P-66-2-08 [Бакалин] {VLA}.

P. nitidula (Mass.) S. Hatt. - Ussurijsky Nature Reserve, upper course of Artyomovka River (43°41'50" N - 132°33'19" E), 229 m alt., base of tree in mixed *Abies*, *Pinus* and hardwood forest, with *Apometzgeria pubescens* (Schrank) Kuwah., Bakalin # P-66-1-08 [Бакалин] {VLA}.

Reboulia hemisphaerica (L.) Raddi ssp. *diolica* R.M. Schust. - Nakhodka Municipal District, Sestra Mountain (42°49'39" N - 132°59'39" E), 328 m alt., sliding humus in cliff crevice of calcareous rocks with scattered oak and *Rhododendron* shrubs, Bakalin # P-69-4-08 [Бакалин] {VLA}.

New for territory - Новые для края

Blepharostoma minus Horikawa - Partizansk District, Livadijsky Range, Pidan Mt. Area, Oury Stream Valley, abt. 13 km to the South from Lukjanovka Railway Station (43°05'05" N - 132°41'40" E), 699 m alt., boulders along stream in mountain lighted dark coniferous forest, Bakalin # P-56-10-08 [Бакалин] {VLA}.

Calypogeia azurea Stotler & Crotz - Ussurijsky Nature Reserve, Anikin Creek Valley, lower course (43°40'39" N - 132°29'06" E), 199 m alt., decaying wood in broad-leaved forest with *Pinus* and *Abies*, with *Cephalozia lunulifolia*, *Crossogyna autumnalis*, Bakalin # P-60-1-08 [Бакалин] {VLA}; *ibid.*, Koryavaya Pad', Zmeinaya Mountain (43°38'43" N - 132°33'20" E), 214 m alt., decaying wood in broad-leaved forest on N-fac-

ing slope, Bakalin # P-64-15-08 [Бакалин] {VLA}; *ibid.*, upper course of Artyomovka River (43°41'33" N - 132°33'52" E), 229 m alt., decaying wood in mixed *Abies*, *Pinus* and hardwood forest, Bakalin # P-67-8-08 [Бакалин] {VLA}.

C. neogaea (R.M. Schust.) Bakalin - Vladivostok Municipal Area, Muraviov-Amursky Peninsula, Okeansky Range, left side of Bogataya River (43°14'04" N - 132°04'41" E), 69 m alt., peaty soil along stream in broad-leaved forest with herbs and shrubs cover in sources of small stream, Bakalin # P-4-3-08 [Бакалин] {VLA}; *ibid.* (43°14'32" N - 132°05'26" E), 44 m alt., wet soil under ferns in swampy *Alnus* forest with ferns and shrubs, Bakalin # P-6-4-08 [Бакалин] {VLA}.

C. suecica (Arnell & J. Perss.) Mull. Frib. - Ussurijsky Nature Reserve, upper course of Artyomovka River (43°41'50" N - 132°33'19" E), 229 m alt., decaying wood in mixed *Abies*, *Pinus* and hardwood forest, with *Lophocolea heterophylla*, *Tritomaria exsecta*, *Cephalozia otaruensis*, Bakalin # P-66-11-08 [Бакалин] {VLA}.

Fossombronia alaskana Steere & Inoue - Lazovsky District, Lazovsky Pass (43°29'24" N - 133°34'52" E), 881 m alt., clayish roadside in mixed mostly conifer forest, Bakalin # P-72-1-08 [Бакалин] {VLA}; Khanka District, Melgunovca Creek valley (44°34'14" N - 132°04'33" E), 54 m alt., clayish wet roadside in wet meadow, Bakalin # P-73-2-08 [Бакалин] {VLA}.

Frullania muscicola Steph. var. *inueana* Steph.) Kamim. - Khanka District, ca. 7 km N of "Iovokachalinsk (45°09'33" N - 131°59'56" E), 30 m alt., bark of *Quercus mongolica* in oak forest, Bakalin # P-74-7-08 [Бакалин] {VLA}.

Geocalyx cf. *lancistipulus* (Steph.) S. Hatt. - Ussurijsky Nature Reserve, Anikin Creek Valley, lower course (43°41'05" N - 132°28'11" E), 235 m alt., decaying wood in broad-leaved forest with *Чну* and *Abies*, with *Odontoschisma denudatum*, *Cephalozia catenulata*, *Blepharostoma trichophyllum*, *Crossogyna autumnalis*, *Nowellia curijolia*, *Mylia verrucosa*, Bakalin # P-61-16-08 [Бакалин] {VLA}.

Harpanthus scutatus (F. Weber & D. Mohr) pruce - Ussurijsky Nature Reserve, Anikin Creek 'alley, lower course (43°40'39" N - 132°29'06" E), 199 m alt., decaying wood in broad-leaved forest with *Pinus* and *Abies*, Bakalin # P-60-4-08

[Бакалин] {VLA}; *ibid.*, Koryavaya Pad', Zmeinaya Mountain (43°38'43" N - 132°33'20" E), 214 m alt., decaying wood in broad-leaved forest on N-facing slope, Bakalin # P-64-3-08 [Бакалин] {VLA}; *ibid.*, upper course of Artyomovka River (43°41'33" N - 132°33'52" E), 229 m alt., decaying wood in mixed *Abies*, *Pinus* and hardwood forest, with *Cephalozia lunulifolia*, Bakalin # P-67-16-08 [Бакалин] {VLA}.

Mylia nuda H. Inoue & Yang - Ussurijsky Nature Reserve, Koryavaya Pad', Zmeinaya Mountain (43°38'43" N - 132°33'20" E), 214 m alt., decaying wood in broad-leaved forest on N-facing slope, Bakalin # P-64-2-08 [Бакалин] {VLA}. This species was newly recorded for Russian flora by Bakalin et al. (2005) from Sakhalin Island. The taxon is the most closely related to *M. verrucosa* and differs from the latter in smooth perianth surface (versus distinctly verrucose).

Reboulia hemisphaerica (L.) Raddi ssp. *orientalis* R.M. Schust. - Partizansk District, Livadijsky Range, Pidan Mt. Area, Oury Stream Valley, abt. 12 km to the South from Lukjanovka Railway Station (43°05'25" N - 132°41'34" E), 580 m alt., cliffs along stream in dark coniferous forest with cover of shrubs, grasses and ferns, with *Calycularia crispula*, Bakalin # P-54-4-08 [Бакалин] {VLA}; Ussurijsky Nature Reserve, Anikin Creek Valley, lower course (43°41'23" N - 132°29'47" E), 240 m alt., fine-grained soil in cliff crevice in broad-leaved forest with *Pinus* and *Abies*, Bakalin # P-62-1-08 [Бакалин] {VLA}; *ibid.*, Koryavaya Pad', Zmeinaya Mountain (43°38'43" N - 132°33'20" E), 214 m alt., limestone cliffs in broad-leaved forest on N-facing slope, Bakalin # P-64-8-08 [Бакалин] {VLA}; Nakhodka Municipal District, Sestra Mountain (42°49'39" N - 132°59'39" E), 328 m alt., sliding humus in cliff crevice of calcareous rocks with scattered oak and *Rhododendron* shrubs, with *Preissia quadrata*, Bakalin # P-69-6-08 [Бакалин] {VLA}.

Riccia glauca L. - Khanka District, ca. 7 km N of Novokachalinsk (45°09'33" N - 131°59'56" E), 130 m alt., edge of arable field, on soil, with *Anthoceros* cf. *punctatus*, Bakalin # P-74-5-08 [Бакалин] {VLA}.

Tetralophozia setiformis (Ehrh.) Schljak. - Partizansky District, Livadijsky Range, top of Pi-

danMt. Area (43°04'15" N - 132°4Г37" E), 1343 m alt., deep crevice in gravelly barrens field, Bakalin # P-58-1-08 [Бакалин] {VLA}. Due to available data this is the southernmost locality in Asia and one of the most southern in the world.

Rare for territory - Редкие для края

Anthoceros agrestis Paton - Khanka District, Milgunovka Creek valley (44°34'14" N - 132°04'33" E), 64 m alt., on wet clayish roadside in wet meadow, Bakalin # P-73-3-08 [Бакалин] {VLA}.

Athalamia nana (Shim. & S. Hatt.) S. Hatt. - Ussurijsky District, neighboring of Kamenushka Settlement, valley of Komarovka River (43°36'29" N - 132°14'59" E), 126 m alt., knolls on the left side, crevices in cliffs with moss cover in broad-leaved forest, with *Targionia hypophylla*, Bakalin # p-1-4-08 [Бакалин] {VLA}; Vladivostok Municipal area, Muraviov-Amursky Peninsula, Okeansky Range, left side of Bogataya River (43° 14'32" N - 132°05'26" E), 44 m alt., cliff crevice along flood-valley of stream in broad-leaved forest, Bakalin #P-5-1-08 [Бакалин] {VLA}; Nakhodka Municipal District, Sestra Mountain (42°49'39" N - 132°59'40" E), 332 m alt., cavity in limestone cliffs with scattered oak and *Rhododendron* shrubs, Bakalin #P-70-2-08 [Бакалин] {VLA}. - This species was previously collected in Lazovyy Range, and it was the only collection from Russia (Gambaryan, 1992).

Cephaloziella spinicaulis Douin - Ussurijsky Nature Reserve, Anikin Creek Valley, lower course (43°4L23" N - 132°29'47" E), 240 m alt., cliffs along stream in broad-leaved forest with *Pinus* and *Abies*, Bakalin #P-62-9-08 [Бакалин] {VLA}; *ibid.*, Коруявауа Pad', Zmeinaуа Mountain (43°38'29" N - 132°33'15" E), 331 m alt., cliffs in broad-leaved forest on S-facing slope, Bakalin # P-63-2-08 [Бакалин] {VLA}. This species was collected previously in Lazovsky State Nature Reserve, and it was the only record for Russian liverwort flora (Gambaryan, 1992).

Cololejeunea ornata A.W. Evans - Ussurijsky Nature Reserve, Anikin Creek Valley, lower course (43°40'39" N - 132°29'06" E), 199 m alt., base of tree in broad-leaved forest with *Pinus* and *Abies*, Bakalin #P-60-10-08 [Бакалин] {VLA}; *ibid.*, Коруявауа Pad', Zmeinaуа Mountain (43°38'43" N - 132°33'20" E), 214 m alt., base of tree in

broad-leaved forest on N-facing slope, with *Radula japonica*, Bakalin #P-64-5-08 [Бакалин] {VLA}; *ibid.*, upper course of Artyomovka River (43°41'33" N - 132°33'52" E), 229 m alt., base of leafy tree in mixed *Abies*, *Pinus* and hardwood forest, Bakalin #P-67-4-08 [Бакалин] {VLA}; Nakhodka Municipal District, Sestra Mountain (42°49'39" N - 132°59'39" E), 328 m alt., base of *Pinus* trunk on calcareous rocks, with *Lejeunea japonica*, Bakalin #P-69-9-08 [Бакалин] {VLA}.

Hattorianthus erimonus (Steph.) R.M. Schust. & Inoue - Vladivostok Municipal Area, Muraviov-Amursky Peninsula, Okeansky Range, left side of Bogataya River (43° 14'32" N - 132°05'26" E), 44 m alt., wet soil under ferns in swampy *Alnus* forest with ferns and shrubs, Bakalin #P-6-1-08 [Бакалин] {VLA}; Ussurijsky Nature Reserve, Anikin Creek Valley, lower course (43°41'05" N - 132°28'11" E), 235 m alt., rocks along stream in broad-leaved forest with *Pinus* and *Abies*, with *Conocephalum conicum*, Bakalin #P-61-20-08 [Бакалин] {VLA}; *ibid.*, upper course of Artyomovka River (43°41'33" N - 132°33'52" E), 229 m alt., climbing slope to stream in mixed *Abies*, *Pinus* and hardwood forest, with *Conocephalum conicum*, Bakalin #P-67-26-08 [Бакалин] {VLA}. This East Asian Temperate species was known in Primorsky Territory from three localities and these were only localities of species in Russia. The taxon is probably not rare in southern half of Primorsky Territory, but occurs in unusual habitats with other hepatics and is frequently overlooked by hepaticologists.

Herbertus dicranus (Taylor ex Gottsche et al.) Trevis (= *Herberthus sakuraii* (Warnst.) S. Hatt.) - South of Sikhote-Alin Range, Partizansky District, Livadijsky Range, top of Pidan Mt. Area (43°04'15,2" N - 132°41'36,9" E), 1343 m alt., stony field (gravelly barrens), deep crevice in gravelly barrens, with *Lophozia excisa*, *Plicanthus birmensis*, *Sphenolobus saxicola*, Bakalin #P-58-4-08 [Бакалин] {VLA}. This species was newly recorded for Primorsky Territory by Bakalin (2007) from Lazovsky District (as *H. sakuraii*) with nearest locality in Upper Bureya River course (Konstantinova et al, 2002). Indeed as it was recently shown by Juslen (2006) this is the most common species in East Asia. In Russian herbaria this species was frequently misidentified as *H.*

aduncus due to mysterious juncture considered for a long time the former as taxon with presumably Arctic distribution.

Jubula japonica Steph. - Ussurijsky Nature Reserve, upper course of Artyomovka River (43°47'33" N - 132°33'52" E), 229 m alt., humus on slope in mixed *Abies*, *Pinus* and hardwood forest on stick slope of northern exposure to valley, with *Metzgeria conjugata*, *Apometzgeria pubescens*, Bakalin #P-68-10-08 [Бакалин] {VLA}. This species was recorded for Russian Asia on the base of collections of Lazarenko made in 1934 in Ussurijsky Reserve (Lazarenko, 1936; Zerov, 1953). Since 1934 it was not collected in any localities (collections were not repeated in Ussurijsky Reserve as well) despite some attempts (Gambaryan, 1992). In autumn 2008 during goal-seeking in Ussurijsky Reserve the species was collected in one place but in more or less good condition. I suppose the distributional range of *J. japonica* in Primorsky Territory is decreased and the species is a relict of Pleistocene temperature optimum.

Jungermannia atrovirens Dumort. - Nakhodka Municipal District, Sestra Mountain, area near the top (42°49'39" N - 132°59'38" E), 300 m alt., stones near temporary stream, Bakalin #P-47-4-08 [Бакалин] {VLA}.

Mannia fragrans (Balb.) Frye & Clark var. *indora* (Wallr.) S. W. Arnell - Nakhodka Municipal District, Sestra Mountain (42°49'39" N - 132°59'39" E), 328 m alt., sliding humus in cliff crevice of calcareous rocks with scattered oak and *Rhododendron* shrubs, Bakalin #P-69-1-08 [Бакалин] {VLA}. - *Mannia fragrans* var. *indora* differs from var. *fragrans* in absence of strong smell of coniferous pitch, that is so characteristic for the latter. The var. *indora* was not recorded for Primorsky Territory, but all specimens kept in VLA and cited by Gambaryan (1992) really belong to this variety but not to var. *fragrans*.

M. pilosa (Horn) Frey & Clark - Ussurijsky Nature Reserve, Koryavaya Pad', Zmeinaya Mountain (43°38'25" N - 132°33'41" E), 191 m alt., wall of limestone cave in broad-leaved forest on S-facing slope, Bakalin #P-65-1-08 [Бакалин] {VLA}.

Pedinophyllum interruption (Nees) Lindb. - Nakhodka municipal District, area near the mouth of Partzanskaya River, limestone massif

"Sestra", area near the top (42°49'39" N - 132°59'38" E), 300 m alt., stones near temporary stream with scattered oak, with *Reboulia hemisphaerica*, Bakalin #P-47-3-08 [Бакалин] {VLA}; Partizansky District, Livadijsky Range, Pidan Mt. Area, Oury Stream Valley, abt. 9 km to the South from Lukjanovka Railway Station (43°06'05" N - 132°41'29" E), 444 m alt., decaying wood in multidominant (mainly *Picea*, *Abies*, *Acer*, *Alnus*) forest with cover of shrubs, grasses and ferns, with *Liochlaena subulata*, Bakalin #P-52-1-08 [Бакалин] {VLA}.

P. truncatum (Steph.) H. Inoue - Partizansky District, Livadijsky Range, Pidan Mt. Area, Oury Stream Valley, abt. 3 km to the South from Lukjanovka Railway Station (43°08'53" N - 132°42'06" E), 242 m alt., base of broad-leaved tree in hardwood forest with admixture of *Pinus koraiensis*, cover of shrubs and grass, Bakalin #P-48-1-08 [Бакалин] {VLA}; Ussurijsky Nature Reserve, Anikin Creek Valley, lower course (43°40'39" N - 132°29'06" E), 199 m alt., decaying wood in broad-leaved forest with *Pinus* and *Abies*, Bakalin #P-60-3-08 [Бакалин] {VLA}; *ibid.*, Koryavaya Pad', Zmeinaya Mountain (43°38'43" N - 132°33'20" E), 214 m alt., decaying wood in broad-leaved forest on N-facing slope, Bakalin #P-64-1-08 [Бакалин] {VLA}; *ibid.*, upper course of Artyomovka River (43°41'33" N - 132°33'52" E), 229 m alt., decaying wood in mixed *Abies*, *Pinus* and hardwood forest, with *Chiloscyphus* cf. *polyanthos*, *Lophocolea heterophylla*, Bakalin #P-67-11-08 [Бакалин] {VLA}; Nakhodka Municipal District, Sestra Mountain (42°49'39" N - 132°59'39" E), 328 m alt sliding humus in cliff crevice of limestone rocks with scattered oak and *Rhododendron* shrubs, with *Lejeunea japonica* Mitt, Bakalin #P-69-5-08 [Бакалин] {VLA}; Khanka District, ca. 7 km N of Novokachalinsk (45°09'33" N - 131°59'56" E), 130 m alt, sliding clayish slope to Khanka Lake in *Quercus* forest, Bakalin #P-74-9-08 [Бакалин] {VLA}.

Porella caespitans (Steph.) S. Hatt. var. *caespitans* - Ussurijsky Nature Reserve, upper course of Artyomovka River (43°41'33" N - 132°33'52" E), 229 m alt, cliffs along valley in mixed *Abies*, *Pinus* and hardwood forest on stick slope of northern exposure to valley, Bakalin #P-68-24-08 [Бакалин] {VLA}.

P. caespitans (Steph.) S. Hatt. var. *setigera* (Steph.) S. Hatt. - Ussurijsk District, neighboring of Kamenushka Settlement, valley of Komarovka River, knolls on the left side (43°36'29" N - 132°14'59" E), 126 m alt, boulders in broad-leaved forest with herbs cover, Bakalin #P-1-6-08 [Бакалин] {VLA}; Nakhodka Municipal District, Sestra Mountain, area near the top (42°49'39" N - 132°59'38" E), 300 m alt, vertical cliffs' walls in partial shade, Bakalin # P-47-23-08 [Бакалин] {VLA}.

P. fauriei (Steph.) S. Hatt. - Ussurijsk District, neighboring of Kamenushka Settlement, valley of Komarovka River, knolls on the left side (43°36'29" N - 132°14'59" E), 126 m alt, boulders in broad-leaved forest with herbs cover, Bakalin #P-1-7-08 [Бакалин] {VLA}; Partizansk District, Livadijsky Range, Pidan Mt. Area, Оуры Stream Valley, abt. 9 km to the South from Lukjanovka Railway Station (43°06'05" N - 132°41'29" E), 444 m alt, stones along stream in multidominant (mainly *Picea*, *Abies*, *Acer*, *Alnus*) forest with cover of shrubs, grasses and ferns, slope to valley, Bakalin #P-52-7-08 [Бакалин] {VLA}. - Apparently this species is strongly attracted to areas with oceanic and hyperoceanic climate contrary to *P. vernicosa* which is attracted to suboceanic climate. *P. vernicosa* is one of the most common species of the genus in Primorsky Territory, but absent in southern Russian Pacific Islands (Sakhalin and Kurds). On the other hand *P. fauriei* is the most common species of genus in the latter region, but very rare in Primorsky Territory. Evidently the two listed localities are the only localities in Primorsky Territory (and continental Russia as well). I checked many (about 50) samples from VLA named *P. fauriei* (collected in Primorye) and found that they belong to *P. vernicosa*.

P. oblongifolia S. Hatt. - Ussurijsky Nature Reserve, Anikin Creek Valley, lower course (43°41'05" N - 132°28'11" E), 235 m alt, rocks along stream in broad-leaved forest with *Pinus* and *Abies*, with *Cephaloziella spinicaulis*, Bakalin #P-61-23-08 [Бакалин] {VLA}.

P. tosana (Steph.) S. Hatt. - Ussurijsky Nature Reserve, Anikin Creek Valley, lower course (43°41'23" N - 132°29'47" E), 240 m alt, cliffs along stream in broad-leaved forest with *Pinus* and *Abies*, Bakalin #P-62-17-08 [Бакалин] {VLA}.

Reboulia hemisphaerica (L.) Raddi ssp. *hemisphaerica* - Nakhodka Municipal District, Sestra Mountain, area near the top (42°49'39" N - 132°59'38" E), 300 m alt, fine-grained soil at base of cliffs, Bakalin #P-47-6-08 [Бакалин] {VLA}.

Riccia huebeneriana Lindenb. - Khanka District, Melgunovka Creek valley (44°34'14" N - 132°04'33" E), 64 m alt, clayish wet roadside in wet meadow, Bakalin #P-73-1-08 [Бакалин] {VLA}; *ibid.*, ca. 7 km N of Novokachalinsk (45°09'33" N - 132°59'56" E), 130 m alt, edge of arable field, on soil, Bakalin # P-74-1-08 [Бакалин] {VLA}. - The pair of species, *R. frostii* and *R. huebeneriana* show an example of vicariation in North Eurasia. From West to East *R. huebeneriana* is distributed in Europe East to Ural Mts, after Ural absent up to extreme of Russian Far East (Kamchatka Peninsula, Primorsky Territory) and Japan. All records from Siberia are based on misidentifications or untestable (cf. Bakalin & Taran, 2004). Contrary *R. frostii* is sporadically distributed in Europe and becomes one of the most frequent species of the genus in Siberia, but totally absent in Russian Far East and Japan.

Ricciocarpos nutans (L.) Corda - Khanka District, ca. 1 km N of Il'inka (44°55'15" N - 131°59'52" E), 90 m alt, drifting on water around old flooded pit among rather dense *Calamagrostis*, Bakalin #P-75-1-08 [Бакалин] {VLA}.

Scapania crassiretis Bryhn - Partizansk District, Livadijsky Range, Pidan Mt. Area, Оуры Stream Valley, abt. 12 km to the South from Lukjanovka Railway Station (43°05'18" N - 132°41'23" E), 609 m alt, stones along stream in dark coniferous forest with cover of shrubs, grasses and ferns, with *Tritomaria quincjuedentata*, Bakalin # P-55-8-08 [Бакалин] {VLA}.

S. parvifolia Warnst. - Partizansk District, Livadijsky Range, abt. 1 km to the North from the top of Pidan Mt. (43°04'32" N - 132°41'43" E), 1046 m alt, decaying wood in subalpine dark coniferous forest with cover of mosses and ferns, Bakalin #P-59-1-08 [Бакалин] {VLA}.

S. sphaerifera H. Buch. - Partizansk District, Livadijsky Range, top of Pidan Mt. Area (43°04'15" N - 132°41'37" E), 1343 m alt, deep crevice in gravelly barrens field, Bakalin #P-58-2-08 [Бакалин] {VLA}.

Schistochilopsis cornuta (Steph.) Konstant. - Partizansky District, Livadijsky Range, Pidan Mt. Area, Oury Stream Valley, abt. 12 km to the South from Lukjanovka Railway Station (43°05'25"N - 132°41'34"E), 580 m alt., decaying wood in dark coniferous forest with cover of shrubs, grass and ferns, with *Lepidozia reptans*, *Cephalozia leucantha*, *Mylia verrucosa*, Bakalin # P-54-2-08 [Бакалин] {VLA}.

Trichocoleopsis sacculata (Mitt.) Okam. - Partizansk District, Livadijsky Range, Pidan Mt. Area, Oury Stream Valley, abt. 9 km to the South from Lukjanovka Railway Station (43°06'05" N - 132°41'27" E), 444 m alt., stones along stream in multidominant (mainly *Picea*, *Abies*, *Acer*, *Alnus*) forest with cover of shrubs, grass and ferns, Bakalin#P-52-6-08 [Бакалин] {VLA}.

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- New for Russia - Новые для России
- Porella spinulosa* (Steph.) S. Hattori - Kedrovaya Pad' Strict Nature Reserve (ca. 43°06' N - 131°30' E), on fallen rotten decorticated coniferous tree trunk, together with *Aneura pinguis*, *Cephalozia otaruensis*, etc. Mod. subintegristipila, 5.X.2002, A.D. Potemkin & V.M. Kotkova #214403 [А.Д. Потёмкин, В.М. Коткова] {LE}. Most close locality is Honsu in Japan (Yamada & Iwatsuki, 2006).
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- New for Sakhalin - Новые для Сахалина
- Asterella gracilis* (F. Weber) Underw. - Nabil'sky Range, right tributary of Khrebtovyy Stream (50°46'01" N - 143°16'58" E), 801 m alt., cliff ledge along river, Bakalin #S-29-1-06 [Бакалин] {VLA}.
- Barbilophozia barbata* (Schmid. ex Schreb.) Loeske - Nabil'sky Range, source of Porozhistryj Stream on western slope of Chamga Mt. (50°44'45" N - 143°18'36" E), 1406 m alt., fine-grained soil along stream, Bakalin #S-31-2-06 [Бакалин] {VLA}.
- Bazzania bidentula* (Steph.) Steph. - Nabil'sky Range, upper course of Khrebtovyy Stream near Chamginsky Pass (50°46'04" N - 143°15'18" E), 500 m alt., *Abies* forest with *Pinus pumila* thickets on steep slope to stream, decaying wood, with *Tritomaria exsecta*, *Mylia verrucosa*, *Cephalozia lunulifolia*, Bakalin #S-26-1-06 [Бакалин] {VLA}.
- B. tricrenata* (Wahlenb.) Lindb. - Nabil'sky Range, right tributary of Khrebtovyy Stream (50°46'01" N - 143°16'58" E), 801 m alt., cliff