

*Riccardia* cf. *chamaedryfolia* (With.) Grolle - (1) о. Уруп, п-ов Ван-дер-Линд (45°35'N - 149°25'E), по дороге от бухты Катаева на север до 205 м высоты, влажный осоково-пушицевый луг, на кочке, Ньюшко # 9.2-07 [Nyushko] {SAK, LE}, автеция; (2) о. Шикотан, бухта Аэродромная (43°48'N - 146°50'E), склон северо-западной экспозиции, старый ельник с бамбуком, на поваленном стволе ели, Ньюшко # 13.7-06 [Nyushko] {SAK, LE}; (3) о. Расшуа, озера Белое и Тихое (47°45'N - 153°00'E), на заболоченном осоковом лугу, по краю кочек осоки, среди сфагнов и мхов, Ньюшко # 6-06 [Nyushko] {SAK, LE}.

*Scapania scandica* (Arnell et H. Buch) Macvicar-о. Кетой, бухта Южная (47°18'N - 152°28'E), разнотравно-злаковый луг, по влажным канавкам, Ньюшко # 16-06 [Nyushko] {LE, SAK}.

*Tritomaria exsecta* (Schmidel) Loeske - о. Шикотан, гора Шикотан (43°52'N - 146°50'E), на тропинке, Ньюшко # 33-06 [Nyushko] {SAK, LE}, с выводковыми почками.

Редкие для области - Rare for province

*Eremonothus myriocarpus* (Carrington) Lindb. et Kaal. - о. Шикотан, бухта Аэродромная (43°48'N - 146°50'E), склон северо-западной экспозиции, на прибрежных скалах, Ньюшко # 015-06 [Nyushko] {SAK, LE}, с периянтциями. Ранее указывался с о. Парамушир (Bakalin & Cherdantseva, 2006).

*Kurzia makinoana* (Steph.) Grolle - о. Шикотан, бухта Аэродромная (43°48'N - 146°50'E), прибрежные склоны, на скалах и задернованных каменистых россыпях, Ньюшко № 15.1-06 [Nyushko] {SAK, LE}. Вид известен по единичным местонахождениям с о. Сахалин (Bakalin et al., 2005) и о. Итуруп (Потемкин, 2003).

*Marsupella boeckii* (Austin) Lindb. - о. Шикотан, бухта Аэродромная (43°48'N - 146°50'E), прибрежные склоны, на скалах и задернованных каменистых россыпях, Ньюшко # 15.1-06 [Nyushko] {SAK, LE}, с периянтциями. Данное местонахождение самое южное в России. Ранее для области приводился с о. Парамушир (Bakalin, Cherdantseva, 2006).

*Nardia compressa* (Hook.) Gray - (1) о. Онекотан, около вулкана Креницина (край кальдеры Тао-Русыр) (49°23'N - 154°42'E), на пушицевом торфяном болоте, Ньюшко # 4-06

[Nyushko] {SAK, LE}. На этом образце основано ошибочное указание *Jamesoniella undulifolia* (Nees) Mull. Frib. для Сахалинской области (Нюшко, Потемкин, 2007); (2) о. Кунашир, вулкан Менделеева, Столбовские горячие источники (145°40'N - 44°00'E), по берегу ручья, среди *Sphagnum* sp., А. Петухов, 9.X.2007 [A. Petukhov] {SAK, LE}. Ранее вид указывался для о. Итуруп (Благодатских, Дуда, 1987) и о. Парамушир (Bakalin, Cherdantseva, 2006).

Работа частично поддержана РФФИ (проект № 07-04-00325а). Экспедиции на средние и северные Курильские острова выполнялись в рамках Международного проекта Национального Научного фонда США (NSF USA) (ARC-0508109).

#### ЛИТЕРАТУРА

- BAKALIN, V.A., V.YA. CHERDANTSEVA 2006. Bryophytes of northern Kuril Islands (North-West Pacific). - *Arctou IS*: 131-153.
- BAKALIN, V.A., V.YA. CHERDANTSEVA, K.V. GOROBETS, J. HARPEL 2005. Contributions to the knowledge on liverworts of Sakhalin Island (West Pacific). - *Arctoa* 14: 143-154.
- [BLAGODATSKIKH, L.S. & J. DUDAJ БЛАГОДАТСКИХ Л.С., И. ДУДА 1987. К флоре печеночных мхов юга Дальнего Востока. - [Contributions to the hepatic flora of the South of Far East] *Новости сист. низш. раст.* [Nov. Sist. Nizsh. East.] 24: 198-199.
- [NYUSHKO, T.I. & A.D. POTEKIN] НЮШКО Т.И., АД. ПОТЕМКИН 2007. Новые и малоизвестные для Сахалинской области печеночники (Marchantiophyta) с Курильских островов - [New and less known for flora of the Sakhalin Region liverworts (Marchantiophyta) from the Kuril Islands] *Бот. журн.* [Bot. Zhurn.] 92(12): 1939-1946.
- [POTEKIN, A.D.] ПОТЕМКИН А.Д. 2003. Новые и малоизвестные для России печеночники с Камчатки и из Приморского Края (Российский Дальний Восток). - [New and little known for Russia hepatics from Kamchatka and Primorskiy Territory (Russian Far East)] *Arctoa* 12: 75-82.
- New liverwort records from Sakhalin Province. 2. Southern Kuril Islands. - Новые находки печеночников в Сахалинской области. 2. Южные Курильские острова.**  
V.A. Bakalin - В.А. Бакалин
- New for Russia - Новые для России  
*Alobiellopsisparvifolia* (Steph.) R.M. Schust. - South of Kunashir Island, Goryachyee Lake area (43°51'52"N - 145°30'10"E), 140 m alt, fine-grained ground in the crevices of tufa cliff splashed

by water of the lake, with *Cephalozia bicuspidata*, *Plectocolea hyalina*, Bakalin # K-45-22-06 [Бакалин] {VLA}.

*Calypogeia arguta* Nees et Mont. - North of Kunashir Island, Ruruj Hot Spring Area (44°29'20"N - 146°06'16"E), 50 m alt., near hydrosolphatars, on wet peaty ground along thermal stream, Bakalin # K-41-6-06 [Бакалин] {VLA}.

*Cololejeunea macounii* (Spruce) A. Evans - South of Kunashir Island, 3 km to the East from caldera of Golovnin Volcano (43°50'13"N - 145°32'43"E), 150 m alt, *Abies* forest with admixture broad-leaved trees, *Taxus* and *Picea* with moss cover, on the bark of *Abies* on the height 1-2 m from the ground, with *Nipponolejeunea subalpina*, Bakalin#K-47-18a-06 [Бакалин] {VLA}.

*Diplophyllum andrewsii* Evans - South of Kunashir Island, beginning of road to Goryachyee Lake (43°51'52"N - 145°30'10"E), 80 m alt., fine-grained soil along road-side, with *Solenostoma handelii* Schiffn., Bakalin # K-44-1-06 [Бакалин] {VLA}. - Iturup Island, southern macroslope of Volchyok knoll (Gniloye Lake area). Community of *Pinuspumila* with *Sasa* underbrush (45°09'23,1"N - 147°57'58,0"E), 425 m alt., on fine-grained soil along road-side, with *Nardia japonica* Steph., Bakalin # K-50-8a-05 [Бакалин] {VLA}.

*Geocalyx lancistipulus* (Steph.) S. Hatt. - North of Kunashir Island, Saratovka River mouth Area (44°15'21"N - 146°05'57"E), 27 m alt, *Picea glehnii* boggy forest with admixture of *Sorbus*, *Betula*, *Taxus cuspidata*, *Abies sachalinensis* and moss cover, in wet hollows, Bakalin # K-63-14-06 [Бакалин] {VLA}.

*Gymnocolea marginata* (Steph.) S. Hatt. - North of Kunashir Island, area near the top of Ruruj Mt. (44°27'32"N - 146°08'12"E), 1300 m alt, on wet fine-grained soil in cliff crevices, Bakalin # K-39-11a-06 [Бакалин] {VLA}. - Iturup Island, Varanskogo volcano, area near the peak (45°06'08,8"N - 148°0Г09,2"E), 1114m alt., wet crevices in vertical wall of cliff, in full sun, Bakalin # K-58-28-05 [Бакалин] {VLA}.

*Lepidozia cf. vitrea* Steph. - South of Kunashir Island, Serebryanoye Lake Area (43°03'19"N - 145°50'18"E), 15 m alt, *Picea glehnii* - *Abies sachalinensis* with admixture of broad-leaved trees forest with green moss cover, on decaying wood, Bakalin#K-50-2b-06 [Бакалин] {VLA}.

*Nardia subclavata* (Steph.) Amakawa - South of Kunashir Island, Kislaya River, the area of thermal springs (44°00'20"N - 145°46'23"E), 100 m alt., on wet fine-grained soil with sulphur in the stream of hot water, Bakalin # K-52-4-06 [Бакалин] {VLA}. - Iturup Island, west macroslope of Bogdan Khmel'nitski volcano, valley of Yuzhnyu Chirip sulphur river, about 1,5 km from the mouth (45°20'47,8"N - 147°52'20,2"E), 256 m alt., on wet tufa cliffs of river's canyon, on thin layer of fine-grained soil, with *Cephalozia bicuspidata* (L.) Dumort, Bakalin # K-70-1-05 [Бакалин] {VLA}.

*Plectocolea rigidula* S. Hatt. - North of Kunashir Island, Dal'nij Stream (44°27'41"N - 146°06'49"E), 200-m alt, wet cliffs near high waterfall (abt 50 m of height), with *Hygrobiella laxifolia* (Hook.) Spruce, *Scapania integerrima* Steph, Bakalin#K-37-11-06 [Бакалин] {VLA}.

*Plectocolea rosulans* (Steph.) S. Hatt. - North of Kunashir Island, Dal'nij Stream (44°27'41"N - 146°06'49"E), 100 m alt, on stones along small stream, Bakalin#K-37-31-06 [Бакалин] {VLA}. - Iturup Island, west macroslope of Bogdan Khmel'nitski volcano, valley of Yuzhnyu Chirip sulphur River, about 1,5 km from the mouth (45°20'47,8"N - 147°52'20,2"E), 256 m alt, on wet tufa cliffs of river's canyon, on thin layer of fine-grained soil, Bakalin# K-70-2-05 [Бакалин] {VLA}.

*Plectocolea virgata* Mitt. - Iturup Island, Chyornyye Skaly cliffs (about 8 km to the North from Reydovo Settl. along Okhotsk Sea Coast) (45°15'32,1"N - 148°10'22,9"E), 15 m alt, on pumice stone, with *Nardia assamica* (Mitt.) Amakawa, Bakalin#K-66-20a-05 [Бакалин] {VLA}.

*Riccardia subalpina* Furuki - North of Kunashir Island, east slope of Tyatya volcano (44°17'20"N - 146°18'00"E), 40 m alt, mixed *Alnus-Betula-Abies* with admixture *Picea*, *Kalopanax*, *Taxus* forest with forbs cover, on decaying wood, Bakalin # K-56-7-06 [Бакалин] {VLA}.

*Riccardia vitrea* Furuki - Iturup Island, Pismo Cape area (45°12'32,9"N - 147°50'04,5"E), 75 m alt, *Quercus-Acer* forest with admixture of *Sorbus*, *Betula ermanii*, *Salix*, *Alnus* and thick underwood of *Sasa*, on crumble fine-grained soil along stream, in part shade, Bakalin # K-45-46-05 [Бакалин] {VLA}.

*Scapania ampliata* Steph. - North of Kunashir Island, area near the top of Ruruj Mt. (44°27'32"N

- 146°08'12"E), 1300 m alt., on wet fine-grained soil in cliff crevices, with *Mylia taylorii* (Hook.) S. Gray, *Marsupella sphacelata* (Gieseke ex Lindenb.) Dumort., Bakalin #K-39-17a-06 [Бакалин] {VLA}. - Iturup Island, Baranskogo volcano, area near the peak (45°06'08,8"N - 148°01'09,2"E), 1114m alt., wet crevices in vertical wall of cliff, in full sun, with *Lophozia sudetica* (Nees ex Hueb.) Grolle K-58-24b-05 [Бакалин] {VLA}.

***Scapania integerrima*** Steph. - Iturup Island, west macroslope of Bogdan Khmel'nitski volcano, valley of Yuzhny Chirip Sulphur River, about 2 km from the mouth (45°20'50,8"N- 147°52'46,0"E), 400 m alt., on wet stones of wall of river's canyon, dbt. 50 m from the river bed, with *Diplophyllum taxifolium* (Wahlenb.) Dumort., Bakalin # K-71-7-05 [Бакалин] {VLA}. - South of Kunashir Island, Kislaya River, in the area of thermal springs (44°00'20"N - 145°46'23"E), 100 m alt., on wet fine-grained soil with sulphur in the stream of hot water, Bakalin # K-52-1-06 [Бакалин] {VLA}.

***Scapania parvixesta*** Steph. - North of Kunashir Island, Dal'nij Stream (44°27'41"N - 146°06'49"E), 300 m alt., on stones along small stream, Bakalin#K-37-27-06 [Бакалин] {VLA}.

New for Kurils - Новые для Курильских островов

***Anastrophyllum michaïxii*** (F. Web.) H. Buch - South of Kunashir Island, Serebryanoye Lake Area (43°03'19"N- 145°50'18"E), 15 malt., *Picea glehnii* - *Abies sachalinensis* forest with admixture of broad-leaved trees with green moss cover, on decaying wood, with *Lepidozia reptans* (L.) Dumort., *Scapania bolanderi* Austin, Bakalin # K-50-2-06 [Бакалин] {VLA}.

***Apometzgeria pubescens*** (Schrank) Kuwah. - North of Kunashir Island, mouth of Dal'nij Stream (Ruruj Mt.) (44°28'59"N - 146°05'38"E), 50 m alt., *Abies*-*Picea* forest with admixture of *Kalopanax*, *Acer* and underwood of *Taxus*, *Weigela*, *Hydrangia*, etc., boulder in full shade, Bakalin # K-42-9-06 [Бакалин] {VLA}.

***Bazzania bidentula*** (Steph.) Steph. - Iturup Island, Baranskogo'Volcano Area, the First Hot Stream (45°05'25,8"N -147°59'32,3"E), 409 m alt., *Sorbus*-*Betula* forest with underwood of *Pinus pumila*, *Sasa* and *Calamagrostis*, on vertical side of boulder shaded by *Sorbus*, Bakalin # K-

56-17-05 [Бакалин] {VLA}.

***Bazzania japonica*** (Sande Lac.) Lindb. South of Kunashir Island, Goryachyee Lake Arer (43°51'52"N - 145°30'10"E), 180 m alt., decaying wood in *Picea glehnii* forest, with *Cephalozia connivens* (Dicks.) Lindb, Bakalin # K-45-20 06 [Бакалин] {VLA}.

***Bazzania tricrenata*** (Wahlenb.) Lindb. - Sout of Kunashir Island, Ozernaya River mouth Area (43°53'04"N - 145°27'43"E), 30 m alt., wind; meadow with spots of bare ground, on slope to see Bakalin # K-46-11 -06 [Бакалин] {VLA}. - Iturup Island. Chyornyye Skaly cliffs (about 8 km to the North from Reydovo Settl. along Okhotsk Sea Coast (45°15'32,1"N- 148°10'22,9"E), 15 m alt., in crevices of sheer cliffs shaded by *Alnus* along sea coast Bakalin #K-66-3-05 [Бакалин] {VLA}.

***Blepharostoma minus*** Horikawa - North of Kunashir Island, East slope of Tyatya volcano (44° 17'20"N - 146° 18'00"E), 40 m alt., mixed *Alnus*-*Betula*-*Abies* with admixture *Picea*, *Kalopanax*, *Taxus* forest with forbs cover, on decaying wood, Bakalin # K-56-7b-06 [Бакалин] {VLA}

***Calycularia crispula*** Mitt. - North of Kunashir Island, Atrium of Tyatya volcano, old volcanic cone in the source of Krutoj Stream (44°21'38"N - 146° 16' 17"E), 1200 m alt., cliffs along slope, in wet crevices of cliffs, Bakalin # K-58-3a-06 [Бакалин] {VLA}.

***Calypogeia suecica*** (Arnell et J. Perss.) Mull.Frib. - North of Kunashir Island, Dal'nij Stream (Ruruj Mt.), middle part (44°27'40"N - 146°06'49"E), 500 malt., decaying wood *mAbies*-*Picea* with admixture of *Acer* forest, with *Cephalozia leucantha* Spruce, *Blepharostoma trichophyllum* (L.) Dumort., *Lophozia ventricosa* (Dicks.) Dumort. var. *guttulata* (Lindb. et H.W.Arnell) Bakalin, Bakalin # K-40-1-06 [Бакалин] {VLA}.

***Cephalozia connivens*** (Dicks.) Lindb. - South of Kunashir Island, Goryachyee Lake Area. (43°51'52"N - 145°30'10"E), 180 m alt., on decaying wood in *Picea glehnii* forest. Bakalin # K-45-18a-06 [Бакалин] {VLA}.

***Cephalozia otaruensis*** Steph. - Iturup Island, Chyornyye Skaly cliffs (about 8 km to the North from Reydovo Settl. along Okhotsk Sea Coast) (45°15'32,1"N 148°10'22,9"E), 15 m alt, in crevices of sheer cliffs shaded by *Alnus* along sea coast,

with *Diplophyllum taxifolium* (Wahlenb.) Dumort., Bakalin # K-66-17-05 [Бакалин] {VLA}.

*Cephalozia elachista* (J.B. Jack ex Gottsche et Rabenh.) Schiffn. - South of Kunashir Island, Serebryanoye Lake Area (43°03'19"N - 145°50'18"E), 15 m alt, dwarf-shrub-moss-sedge bog, wet hollows between *Sphagnum* hummocks, Bakalin # K-51-6a-06 [Бакалин] {VLA}. - Iturup Island, *Larix* forest with *Sphagnum* cover near North-West bank of Reydovoye Lake (45°15'27,5"N - 148°04'1,3"E), 20 m alt, on *Sphagnum* ridges. 30.VIII.2006 K-62-4-05 [Бакалин] {VLA}.

*Crossocalyx hellerianus* (Nees in Lindenb.) Meyl. - North of Kunashir Island, Dal'nij Stream (44°27'41"N - 146°06'49"E), 300 m alt, *Picea-Betula* flood land forest, on decaying wood, with *Lophocolea heterophylla* (Schrad.) Dumort, *Nowellia curvifolia* (Dicks.) Mitt, *Lophozia ventricosa* (Dicks.) Dumort. var. *guttulata* (Lindb. et H.W.Arnell) Bakalin, Bakalin # K-37-22a-06 [Бакалин] {VLA}.

*Crossogyna autumnalis* (DC.) Schljakov - North of Kunashir Island, Dal'nij Stream, middle part (Ruruj Mt.) (44°27'40"N - 146°06'49"E), 500 m alt, decaying wood in *Abies-Picea* with admixture of *Acer* forest, with *Aneura pinguis* (L.) Dumort, *Blepharostoma trichophyllum* (L.) Dumort, *Lophozia ventricosa* (Dicks.) Dumort. var. *guttulata* (Lindb. et Arnell) Bakalin, *Cephalozia leucantha* Spruce, *Lophocolea heterophylla* (Schrad.) Dumort, Bakalin # K-40-6-06 [Бакалин] {VLA}.

*Fossombronia alaskana* Steere et Inoue - South of Kunashir Island, Otradnoye Settlement Area (44°03'24"N - 145°51'44"E), 10 m alt, sea coastal sandy dunes, wet place overgrowth by *Juncus*, on wet sand, Bakalin # K-54-1-06 [Бакалин] {VLA}.

*Fvullania inflata* Gottsche - Iturup Island, 1 km to the South-West of Reydovoye Lake. Right tributary of Mineral'nyy Stream (45°14'47,6"N - 148°00'51,2"E), 25 m alt, flood-plane, wet *Alnus-Salix* with solitaries *Larix* trees forest with high herbs, on bark of *Alnus* at the height of 1,5 m, Bakalin # K-61-7-05 [Бакалин] {VLA}.

*Frullania koponenii* S. Hatt. - South of Kunashir Island, Otradnoye Settlement area (44°03'24"N - 145°51'44"E), 50 m alt, *Abies* forest with admixture of *Betula ermanii*, *Kalopanax*, *Picea* and cover of ferns, on the bark of *Picea*, Bakalin it-K-

55-4-06 [Бакалин] {VLA}.

*Frullania muscicola* Steph. - South of Kunashir Island, Otradnoye Settlement area (44°03'24"N - 145°51'44"E), 50 m alt, *Abies* forest with admixture of *Betula ermanii*, *Kalopanax*, *Picea* and cover of ferns, on the bark of *Picea*, Bakalin # K-55-4b-06 [Бакалин] {VLA}.

*Geocalyx graveolens* (Schrad.) Nees - Kunashir Island, Ruruj Hot Springs Area (44°29'07"N - 146°05'57"E), 38 m alt, *Abies-Picea* with admixture of *Acer* and *Tilia* forest, on decaying wood and boulders in shade, with *Cephalozia lunulifolia* (Dumort.) Dumort, *Calypogeia integristipula* Steph, *Liochlaena subulata* (Evans) Schljak, *Lepidozia reptans* (L.) Dumort, Bakalin # K-36-10-06 [Бакалин] {VLA}.

*Iwatsukia jishibae* (Steph.) N. Kitag. - South of Kunashir Island, Kislaya River, the area of thermal springs (44°00'20"N - 145°46'23"E), 100 m alt, on wet decaying wood in *Abies-Picea* forest along river, with *Riccardia palmata* (Hedw.) Caruth, *Mylia verrucosa* Lindb, *Nowellia curvifolia* (Dicks.) Mitt, *Scapania bolanderi* Austin, Bakalin # K-52-20a-06 [Бакалин] {VLA}.

*Jungermannia cf. borealis* Danish, et Vana - Iturup Island, *Betula ermanii* forest with thick underbrush of *Pinus pumila* and *Sasa* in source of Kuril'skaya River (Gniloye Lake area) (45°09'00,2"N - 147°57'49,8"E), 402 m alt, on boulders in the stream-bed, Bakalin # K-48-32-05 [Бакалин] {VLA}.

*Lejeunea cavifolia* (Ehrh.) Lindb. - South of Kunashir Island, Ozernaya River mouth area (43°53'04"N - 145°27'43"E), 30 m alt, in the crevices along sea-coast, shaded by broad-leaved trees, Bakalin # K-46-10-06 [Бакалин] {VLA}.

*Liochlaena subulata* (Evans) Schljak. - North of Kunashir Island, East slope of Tyatya volcano (44°17'20"N - 146°18'00"E), 40 m alt, mixed *Alnus-Betula-Abies* with admixture *Picea*, *Kalopanax*, *Taxus* forest with forbs cover, on decaying wood, Bakalin # K-56-2a-06 [Бакалин] {VLA}.

*Lophocolea cuspidata* (Nees) Limpr. - South of Kunashir Island, Serebryanoye Lake Area (43°03'19"N - 145°50'18"E), 15 m alt, *Picea glehnii* - *Abies sachalinensis* with admixture of broad-leaved trees forest with green moss cover, in wet hollows, with *Riccardia chamaedryfolia* (With.) Grolle, Bakalin # K-50-16-06 [Бакалин] {VLA}.

*Lophocolea itoiana* H. Inoue - Iturup Island, Pisimoy Cape area (45°12'32,9"N - 147°50'04,5"E), 75 m alt., *Acer-Quercus* forest with admixture of *Sorbus*, *Betula ermanii*, *Salix*, *Alnus* and thick underwood of *Sasa*, in full shade, on boulder covered by fine-grained soil, K-45-16-05 [Бакалин] {VLA}.

*Marchantia paleacea* Bertol. - Kunashir Island, Ruruj Hot Springs Area (44°29'07"N - 146°05'57"E), 38 m alt., destroying travertine cone, in percolated thermal water, Bakalin # K-36-1-06 [Бакалин] {VLA}.

*Marsupella adusta* (Nees) Spruce - North of Kunashir Island, Dal'nij Stream, (44°27'41"N - 146°06'49"E), 700 m alt., on stones in snow-bed hollow of impermanent spring, Bakalin # K-37-39-06 [Бакалин] {VLA}.

*Marsupella commutata* (Limpr.) H. Bern. - Iturup Island, Baranskogo volcano, Area near the peak (45°06'08,8"N - 148°01'09,2"E), 1114 m alt., wet crevices in vertical wall of cliff, in full sun, with *Gymnomitrium concinnatum* (Lightf.) Corda, Bakalin # K-58-29-05 [Бакалин] {VLA}. - North of Kunashir Island, area near the top of Ruruj Mt. (44°27'32"N - 146°08'12"E), 1300 m alt., on wet fine-grained soil in cliff crevices, with *Gymnomitrium concinnatum* (Lightf.) Corda, *Diplophyllum albicans* (L.) Dumort., *Diplophyllum taxifolium* (Wahlenb.) Dumort., *Lophozia sudetica* (Nees ex Hueb.) Grolle, Bakalin # K-39-2a-06 [Бакалин] {VLA}.

*Marsupella funckii* (F. Web. & Mohr) Dumort. - North of Kunashir Island, area near the top of Ruruj Mt. (44°27'32"N - 146°08'12"E), 1300 m alt., on wet fine-grained slip soil, with *Nardia japonica* Steph, Bakalin # K-39-20-06 [Бакалин] {VLA}.

*Marsupella tubulosa* Steph. - North of Kunashir Island, Dal'nij Stream. (44°27'41"N - 146°06'49"E), 700 m alt., on stones in snow-bed hollow of temporary spring, with *Anthelia juratzkana* (Limpr.) Trev., Bakalin # K-37-38a-06 [Бакалин] {VLA}.

*Metzgeria conjugata* Lindb. - North of Kunashir Island, Dal'nij Stream (44°27'41"N - 146°06'49"E), 700 m alt., on stones in snow-bed hollow of temporary spring, with *Blepharostoma trichophyllum* (L.) Dumort., Bakalin # K-37-40c-06 [Бакалин] {VLA}. - Iturup Island. The bank of the western part of Reydivoye Lake (45°15'27,5"N - 148°01'41,3"E), 20 m alt., on boulders, Bakalin

#K-64-12a-05 [Бакалин] {VLA}.

*Metzgeria fruticulosa* (Dicks.) A. Evans - South of Kunashir Island, 3 km to the East from caldera of Golovnin's volcano (43°50'13"N - 145°32'43"E), 150 m alt., *Abies* with admixture broad-leaved trees, *Taxus* and *Picea* forest with moss cover, on the bark of *Abies* at the height 1-2 m from the ground, Bakalin # K-47-22-06 [Бакалин] {VLA}.

*Mylia taylorii* (Hook.) S. Gray - North of Kunashir Island, area near the top of Ruruj Mt. (44°27'32"N - 146°08'12"E), 1300 m alt., on wet fine-grained soil in cliff crevices, Bakalin # K-39-1-06 [Бакалин] {VLA}. - Iturup Island, Baranskogo volcano, area near the peak (45°06'08,8"N - 148°01'09,2"E), 1114 m alt., wet crevices in vertical wall of cliff, in full sun, with *Lophozia sudetica* (Nees ex Hueb.) Grolle, *Macrodiplomphylum plicatum* (Lindb.) H. Perss., Bakalin # K-58-23a-05 [Бакалин] {VLA}.

*Nardia assamica* (Mitt.) Amakawa - North of Kunashir Island, Ruruj Hot Spring Area, near hydrosolphatars. (44°29'20"N - 146°06'16"E), 50 m alt., on hot (30-40°C) strata of travertine, Bakalin # K-41-2-06 [Бакалин] {VLA}. - Iturup Island, Baranskogo volcano Area, the Second (Big) Hot Stream (45°04'40,4"N - 147°59'12,6"E), 193 m alt., moss mats hanging from big boulders and cliffs above hot stream steaming with H<sub>2</sub>O and SO<sub>2</sub> (it is always humid, acidic and warm), Bakalin # K-60-7b-05 [Бакалин] {VLA}.

*Nowellia curvifolia* (Dicks.) Mitt. - South of Kunashir Island, Kislaya River, the area of thermal springs (44°00'20"N - 145°46'23"E), 100 m alt., on wet decaying wood in *Abies-Picea* forest along river, with *Scapania bolanderi* Austin K-52-19a-06 [Бакалин] {VLA}.

*Obtusifolium obtusum* (Lindb.) S.W. Arnell - South of Kunashir Island, Kislaya River, the area of thermal springs (44°00'20"N - 145°46'23"E), 100 m alt., on wet fine-grained soil with sulphur in the hot stream, with *Cephalozia bicuspidata* (L.) Dumort., Bakalin # K-52-11-06 [Бакалин] {VLA}.

*Odontoschisma denudatum* (Mart.) Dumort. - South of Kunashir Island, Goryachyee Lake Area (43°51'52"N - 145°30'10"E), 180 m alt., decaying wood in *Picea glehnii* forest, Bakalin # K-45-14a-06 [Бакалин] {VLA}.

*Orthocaulis attenuatus* (Mart.) Evans - Iturup Island, *Betula ermanii* forest with thick un-

derbrush of *Pinus pumila* and *Sasa* in source of Kuril'skaya River (Gniloye Lake area) (45°09'00,2"N - 147°57'49,8"E), 402 m alt, on bark of *Betula* near trunk base, with *Ptilidium californicum* (Aust.) Pears, Bakalin # K-48-7-05 [Бакалин] {VLA}.

***Pallavicinia lyellii*** (Hook.) Carruthers - North of Kunashir Island, Saratovka River mouth area (44° 15'21"N - 146°05'57"E), 27 m alt, *Picea glehnii* with admixture of *Sorbus*, *Betula*, *Taxus cuspidata*, *Abies sachalinensis* boggy forest with moss cover, in wet hollows, Bakalin # K-63-8-06 [Бакалин] {VLA}.

***Pedinophyllum truncatum*** (Steph.) H. Inoue - North of Kunashir Island, mouth of Dal'nij Stream (Ruruj Mt.). (44°28'59"N - 146°05'38"E), 50 m alt, *Abies-Picea* forest with admixture of *Kalopanax*, *Acer* and underwood of *Taxus*, *Weigela*, *Hydrangia*, etc., on boulder in full shade, Bakalin # K-42-1 lb-06 [Бакалин] {VLA}.

***Plectocolea infusca*** Mitt. var. *ovalifolia* Amakawa - North of Kunashir Island, mouth of Dal'nij Stream (Ruruj Mt.). (44°28'59"N - 146°05'38"E), 50 m alt, *Abies-Picea* forest with admixture of *Kalopanax*, *Acer* and underwood of *Taxus*, *Weigela*, *Hydrangia*, etc., boulder in full shade, Bakalin # K-42-15-06 [Бакалин] {VLA}.

***Plectocolea infusca*** Mitt. var. *ovicalyx* (Steph.) Bakalin comb. nov. - *Solenostoma ovicalyx* Steph, Спец. Нерат. 6:82, 1917. - Iturup Island, west macroslope of Bogdan Khmel'nitski volcano, valley of Yuzhnyy Chirip sulphur river, about 2 km from the mouth (45°20'50,8"N - 147°52'46,0"E), 400 m alt, on wet stones of wall of river's canyon, abt. 50 m from the river bed, with *Marsupella sphacelata* (Gieseke ex Lindenb.) Dumort, Bakalin # K-71-7a-05 [Бакалин] {VLA}. - South of Kunashir Island, Ozernaya River mouth area (43°53'04"N - 145°27'43"E), 100 m alt, *Abies-Picea-broad-leaved* forest on slope to river, on the bark of *Acer*, Bakalin # K-46-1a-06 [Бакалин] {VLA}.

***Porella fauriei*** (Steph.) S. Hatt. - North of Kunashir Island, mouth of Dal'nij Stream (Ruruj Mt.) (44°28'59"N - 146°05'38"E), 50 m alt, *Abies-Picea* forest with admixture of *Kalopanax*, *Acer* and underwood of *Taxus*, *Weigela*, *Hydrangia*, etc., boulder in full shade, Bakalin # K-42-8-06 [Бакалин] {VLA}. - Iturup Island, Pisimoy Cape area (45°12'32,9"N - 147°50'04,5"E), 75 m alt.

*Quercus-Acer* forest with admixture of *Sorbus*, *Betula ermanii*, *Salix*, *Alnus* and thick underwood of *Sasa*, on the base of *Acer* tree, Bakalin # K-45-2-05 [Бакалин] {VLA}.

***Porella grandiloba*** Lindb. - North of Kunashir Island, mouth of Dal'nij Stream (Ruruj Mt.) (44°28'59"N - 146°05'38"E), 50 m alt, *Abies-Picea* forest with admixture of *Kalopanax*, *Acer* and underwood of *Taxus*, *Weigela*, *Hydrangia*, etc., on boulder in full shade, Bakalin # K-42-13-06 [Бакалин] {VLA}.

***Protolophozia debiliformis*** (Schust.) Konstant. - Iturup Island, Baranskogo volcano, area near the peak (45°06'08,8"N - 148°01'09,2"E), 1114m alt, wet crevices in vertical wall of cliff, in full sun, with *Sphenolobus minutus* (Schreb.) Berggr, *My Ha taylorii* (Hook.) S. Gray, Bakalin # K-58-22-05 [Бакалин] {VLA}.

***Radula constricta*** Steph. - Iturup Island, the bank in the western part of Reydovoye Lake (45° 15'27,5N - 148°01'41,3"E), 20 m alt, on boulders, Bakalin # K-64-10-05 [Бакалин] {VLA}.

***Radula japonica*** Gottsche in Steph. - Iturup Island, Pisimoy Cape area (45°12'32,9"N - 147°50'04,5"E), 75 m alt, *Quercus-Acer* forest with admixture of *Sorbus*, *Betula ermanii*, *Salix*, *Alnus* and thick underwood of *Sasa*, on big boulder in full shade in the sources of stream, with *Conocephalum conicum* (L.) Und, Bakalin # K-45-37-05 [Бакалин] {VLA}. - South of Kunashir Island, Ozernaya River mouth Area (43°53'04"N - 145°27'43"E), 100 m alt, *Abies-Picea-broad-leaved* forest on slope to river, on the bark of *Acer*, Bakalin # K-46-1-06 [Бакалин] {VLA}.

***Riccardia multifida*** (L.) Gray ssp. *decrescens* (Steph.) Furuki - Iturup Island, Pisimoy Cape area (45°12'32,9"N - 147°50'04,5"), 75 m alt, *Quercus-Acer* forest with admixture of *Sorbus*, *Betula ermanii*, *Salix*, *Alnus* and thick underwood of *Sasa*, on big boulder in full shade in the sources of stream, Bakalin # K-45-41a-05 [Бакалин] {VLA}.

***Riccardia chamaedryfolia*** (With.) Grolle - South of Kunashir Island, Serebryanoye Lake Area. (43°03'19"N - 145°50'18"E), 15m alt, *Picea glehnii* - *Abies sachalinensis* forest with admixture of broad-leaved trees with green moss cover, in wet hollows, with *Calypogeia integritipula* Steph, *Cephalozia leucantha* Spruce, *Harpantus flotovianus* (Nees) Nees K-50-15-06 [Бакалин] {VLA}.

***Riccardia latifrons*** (Lindb.) Lindb. - South of Kunashir Island, the area of confluence of Kislaya and Lesnaya Rivers (44°00'20"N - 145°46'23"E), 60 m alt., cliffs along rivers, on peaty mats of dying mosses, with *Kurzia makinoana* (Steph.) Grolle, *Cephalozia bicuspidata* (L.) Dumort., Bakalin # K-53-4-06 [Бакалин] {VLA}.

***Scapania bolanderi*** Austin - North of Kunashir Island, mouth of Dal'nij Stream (Ruruj Mt.) (44°28'59"N - 146°05'38"E), 50 m alt., *Abies-Picea* forest with admixture of *Kalopanax*, *Acer* and underwood of *Taxus*, *Weigela*, *Hydrangia*, etc., on decaying wood, Bakalin # K-42-4a-06 [Бакалин] {VLA}.

***Scapania crassiretis*** Bryhn - Iturup Island, Baranskogo volcano, area near the peak (45°06'08,8"N - 148°01'09,2"E), 1114 m alt, wet crevices in vertical wall of cliff, in full sun, with *Marsupella sphacelata* (Giesseke ex Lindenb.) Dumort, *Lophozia sudetica* (Nees ex Hueb.) Grolle, Bakalin # K-58-13-05 [Бакалин] {VLA}.

***Scapania curta*** (Mart.) Dumort. - Iturup Island, Baranskogo volcano, area near the peak (45°06'08,8"N - 148°01'09,2"E), 1114m alt., wet crevices in vertical wall of cliff, in full sun, with *Lophozia sudetica* (Nees ex Hueb.) Grolle, *Diplophyllum taxifolium* (Wahlenb.) Dumort, Bakalin # K-58-24-05 [Бакалин] {VLA}.

***Scapania parvifolia*** Warnst. - South of Kunashir Island, Ozernaya River mouth area (43°53'04"N - 145°27'43"E), 30 m alt, windy meadow with spots of bare ground, on slope to sea, Bakalin # K-46-13-06 [Бакалин] {VLA}.

***Scapania umbrosa*** (Schrad.) Dumort. - South of Kunashir Island, the area of confluence of Kislaya and Lesnaya Rivers (44°00'20"N - 145°46'23"E), 60 m alt, on fine-grained soil of road-side in forest, with *Nardia subclavata* (Steph.) Amakawa, Bakalin # K-53-16-06 [Бакалин] {VLA}.

***Solenostoma caespiticium*** (Lindenb.) Steph. - South of Kunashir Island, Goryachyee Lake Area (43°51'52"N-145°30'10"E), 170 m alt, road-side in *Sasa-Pinus pumila* thickets, Bakalin # K-45-4a-06 [Бакалин] {VLA} - Iturup Island, Gniloye Lake area. N 45°08'32,8" E 147°57'25,7" 422 m alt. Coll. 14.IX.2005 On crumble bank of Gniloye Lake (mixture of peat and sandy soil) K-51-24a-05 [Бакалин] {VLA}.

***Solenostoma cf. handelii*** Schiffn. - South of

Kunashir Island, beginning of road to Goryachyee Lake (43°51'N 145°30'E), 80 m alt, fine-grained soil along road-side, with *Diplophyllum andrewsii* Evans, Bakalin # K-44-1-06 [Бакалин] {VLA}.

***Solenostoma fauriana*** (Beauverd in Steph.) Bakalin comb. nov. - *Jungermannia fauriana* Beauverd in Steph. Spec. Hepat. 6: 571. 1924. - South of Kunashir Island, Ozernaya River mouth area (43°53'04"N - 145°27'43"E), 30 m alt, windy meadow with spots of bare ground, on slope to sea, with *Nardia assamica* (Mitt.) Amakawa, Bakalin # K-46-12-06 [Бакалин] {VLA}.

***Solenostoma fusiforme*** (Steph.) Amakawa - Iturup Island, Gniloye Lake area, the sources of the tributary of Gniloy Stream (45°08'07,4"N - 147°57'45,1"E), 391 m alt, *Carex-Juncus-moss* eutrophic bog, on ridges and hollows, Bakalin # K-52-2-05 [Бакалин] {VLA}. - South of Kunashir Island, Kislaya River, in the area of thermal springs (44°00'20"N - 145°46'23"E), 100 m alt, thermal spring mire along river, in hollows, Bakalin # K-52-18-06 [Бакалин] {VLA}.

***Solenostoma jenseniana*** (Grolle) Bakalin - Iturup Island, Vetrovoy Peresheek neck (45°16'14,8"N - 148°18'17,3"E), 28 m alt, on fine-grained soil of march-ridden old Japanese take-off strip, with *Nardia unispinalis* Amakawa, Bakalin # K-68-6-05 [Бакалин] {VLA}.

***Solenostomapyriflorum*** Steph. var. *minutissima* (Amakawa) Bakalin comb. nov. - *Jungermannia pyriflora* var. *minutissima* Amakawa, J. Hattori Bot. Lab. 22: 61. 1960. - Iturup Island, Baranskogo volcano area, the First Hot Stream (45°05'25,8"N - 147°59'32,3"E), 409 m alt, *Sorbus-Betula* forest with underwood by *Pinuspumila*, *Sasa* and *Calamagrostis*, on boulders along stream (water with high content of Fe), with *Nardia cf. subclavata* (Steph.) Amakawa, Bakalin # K-56-4-05 [Бакалин] {VLA}. - South of Kunashir Island, Ozernaya River mouth area (43°53'04"N - 145°27'43"E), 30 m alt, windy meadow with spots of bare ground, on slope to sea, with *Anthelia juratzkana* (Limpr.) Trev, Bakalin # K-46-13a-06 [Бакалин] {VLA}.

***Solenostoma sphaerocarpum*** (Hook.) Steph. - South of Kunashir Island, the area of confluence of Kislaya and Lesnaya Rivers (44°00'20"N - 145°46'23"E), 60 m alt, on fine-grained soil along river, with *Marsupella emarginata* (Ehrh.) Dumort, *Scapania ampliata* Steph, *Kurzia mak-*

*inoana* (Steph.) Grolle, *Nardia subclavata* (Steph.) Amakawa, Bakalin # K-53-5-06 [Бакалин] {VLA}.

*Tritomaria exsecta* (Schmid. ex Schrad.) Loeske - North of Kunashir Island, East slope of Tyatya volcano (44°17'20"N - 146°18'00"E) 40 m alt, mixed *Alnus-Betula-Abies* forest with admixture *Picea*, *Kalopanax*, *Taxus* with forbs cover, on decaying wood, with *Lophocolea heterophylla* (Schrad.) Dumort, *Macrodiplophyllum plicatum* (Lindb.) H. Perss, *Bazzania ovifolia* (Steph.) S. Hatt, Bakalin # K-56-3-06 [Бакалин] {VLA}.

The work was partly supported by RFBR 06-05-64137 and FEB RAS 06-111-06-190.

**Новые находки мхов в Автономной Республике Крым, Украина. 1. - New moss records from the Autonomous Republic of Crimea, Ukraine. 1.** Е.А. Игнатова, А.П. Серегин. - Е.А. Ignatova & А.П. Seregin.

Новые для республики - New for Republic *Bryum dichotomum* Hedw. (*B. bicolor* Dicks.) - 3.5 км к ВЮВ от с. Терновка (44°33'50"N - 33°47'40"E), вырубленный сад на щебнистом склоне западной экспозиции, на почве, 340 м над у. м, Серёгин # М-106 [среди *Barbula unguiculata* Hedw.] [Seregin] {MW}.

*Rhynchostegiella teneriffae* (Mont.) Dirkse & Bouman - г. Севастополь, Максимова Дача (44°33'40"N - 33°32'40"E), днище балки, теневая сторона старой каменной кладки, Серёгин, И. Привалова # М-810 [Seregin & I. Privalova] {MW}.

*Schistidium elegantulum* Blom - (1) Мекензиевы Горы, северная окраина ст. Мекензиевы Горы (44°39'20"N - 33°35'50"E), грабинниковый лес вдоль ж. д, на слое гумуса, покрывающем глыбу известняка, Серёгин # М-52 [Seregin] {MW}; (2) г. Севастополь, Максимова балка ниже Максимова Дачи, 44°34'00"N - 33°32'20"E, выходы известняка на открытом склоне, Серёгин, И. Привалова # М-836 [Seregin & I. Privalova] {MW}; (3) Балаклавский район, Орлиновское лесничество, пер. Байдарские Ворота - церковь Вознесения, 44°24'20"N - 33°47'30"E, верх каменной защитной кладки вдоль шоссе, 440 м над у. м, Серёгин # М-838 [Seregin] {MW}; (4) там же, грабинниковый лес вдоль шоссе, зарастающие известняковые глыбы, 440 м над у. м, Серёгин # М-850 [Seregin] {MW}; (5) там же,

открытое место в редколесье вдоль шоссе, выходы известняка, 450 м над у. м, Серёгин # М-860 [Seregin] {MW}.

Редкие для республики - Rare for Republic *Campylidium calcareum* (Stundw. & Nyholm) Ochuga - (1) Мекензиевы Горы, северная окраина ст. Мекензиевы Горы (44°39'20"N - 33°35'50"E), грабинниковый лес вдоль ж. д, на глыбах известняка, Серёгин ## М-49, М-60, М-61 [Seregin] {MW}; (2) 1 км к В от с. Родное (44°35' 15"N -33°45'50"E), долина ручья-правого притока р. Черная, открывающаяся к западу, буковый лес на днище, влажные глыбы известняка вдоль русла, 280 м над у. м, Серёгин # М-98 [среди *Hygroamblystegium varium* (Hedw.) Moenk.] [Seregin] {MW}.

*Rhynchostegium murale* (Hedw.) Bruch et al. - 1 км к В от с. Родное (44°35' 15"N - 33°45'50"E), долина ручья-правого притока р. Черная, открывающаяся к западу, буковый лес на днище, влажные глыбы известняка вдоль русла, 280 м над у. м, Серёгин ## М-100, М-102 [Seregin] {MW}.

*Sciuro-hypnum populeum* (Hedw.) Ignatov et Huttunen - Балаклавский район, Орлиновское лесничество, 2 км к ВСВ от пер. Байдарские Ворота (44°24'40"N - 33°48'10"E), северный склон Главной гряды у верхней границы леса, лес из *Quercus petraea*, основание ствола *Quercus petraea*, 580 м над у. м, Серёгин # М-874 [Seregin] {MW}.

**Новые находки мхов в Гродненской области, Беларусь. 1. - New moss records from Grodno Province, Belarus. 1.** Е.А. Игнатова, А.П. Серегин. - Е.А. Ignatova & А.П. Seregin.

Новые для Беларуси - New for Belarus *Schistidium crassipilum* Blom - Гродненский район, 20 км к СЗ от г. Гродно, 2.75 км к СЗ от пос. Сопочкин (53°51'10"N - 23°38'00"E), заросшая черепичная крыша дома на хуторке, Серёгин, И. Серёгина, О. Созинов # М-1895 [Seregin, I. Seregina & O. Sozinov] {MW}.

*Schistidium submuticum* Broth, ex Blom - (1) Гродненский район, западная окраина г. Гродно, правобережная пойма р. Неман у нового моста (53°40'50"N - 23°48'20"E), бетонные плиты, укрепляющие склон, Серёгин, И. Серёгина, О. Созинов # М-1849 [Seregin, I. Seregina, O. Sozinov] {MW}.