

## Contribution to Moss Flora in the Southern Part of the Baikal Lake

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The study summarizes the results of collections of mosses of the authors, as well as of Jiří Váňa and Zdeněk Černý, participants of students reciprocal exchanges between the State University in Moscow and Charles University in Prague on the shore of the southern part of the Baikal Lake in 1980, 1982 and 1983.

The Baikal Lake is situated in Central Asia, on the territory of the Russian Soviet Federal Socialist Republic (Buryat Autonomous Soviet Socialist Republic and the Ircutsk Region) between 51°40' to 55°45'N. lat. and 103°40' to 109°55' E. long.

The characters of the surroundings of the lake is mostly montane to alpine, in its southern part on the south-eastern shore the ridge of Chamar Daban steeply raises (its main peaks reach over 2000 m a. s. l.), on the western shore there is somewhat lower Primorski Khrebet with main peaks over 1000 m a. s. l.

The climate of the Baikal surroundings is determined by geographical situation of the region, peculiarities of atmospheric circulation, influence of water masses of the lake as well as by the relief structure. Interrelations of these factors yield considerable climatical differences: from dry steppe climate to cold alpine one, with average annual air temperatures variations from —6.1 to +0.3 °C. The average annual precipitation totals vary from 170 to 1800 mm. There exist nevertheless considerable differences between the eastern and western shores. The eastern shore has cold and humid climate, the climate on the western shore being drier, continental one. An example of a locality with anomalously warm climate is the bay Bukhta Peschanaya.

The region visited forms part of the phytogeographical complex Baikal montane taiga region (sensu Popov 1957 in Bardunov 1969) extending in the width of 50—100 km over the Baikal shore. The region has montane character with prevailing larch (*Larix sibirica*), fir-pine (*Abies sibirica* and *Pinus sibirica*) and pine (*Pinus sylvestris*) forests. Above the timberline dwarf pine (*Pinus pumila*) stands and alpine grasslands vegetation are formed. The

driest western part of the area is characterized by steppes. Due to temperature inversion numerous subalpine and alpine species, including the bryophytes, descend down to the lake shores (e. g. *Pinus pumila*). Bardunov (Bardunov 1961a in Galazi et Molozhnikov 1982) paid attention to the peculiarities of vertical distribution of mosses under the influence of the enormous water masses of the Baikal Lake.

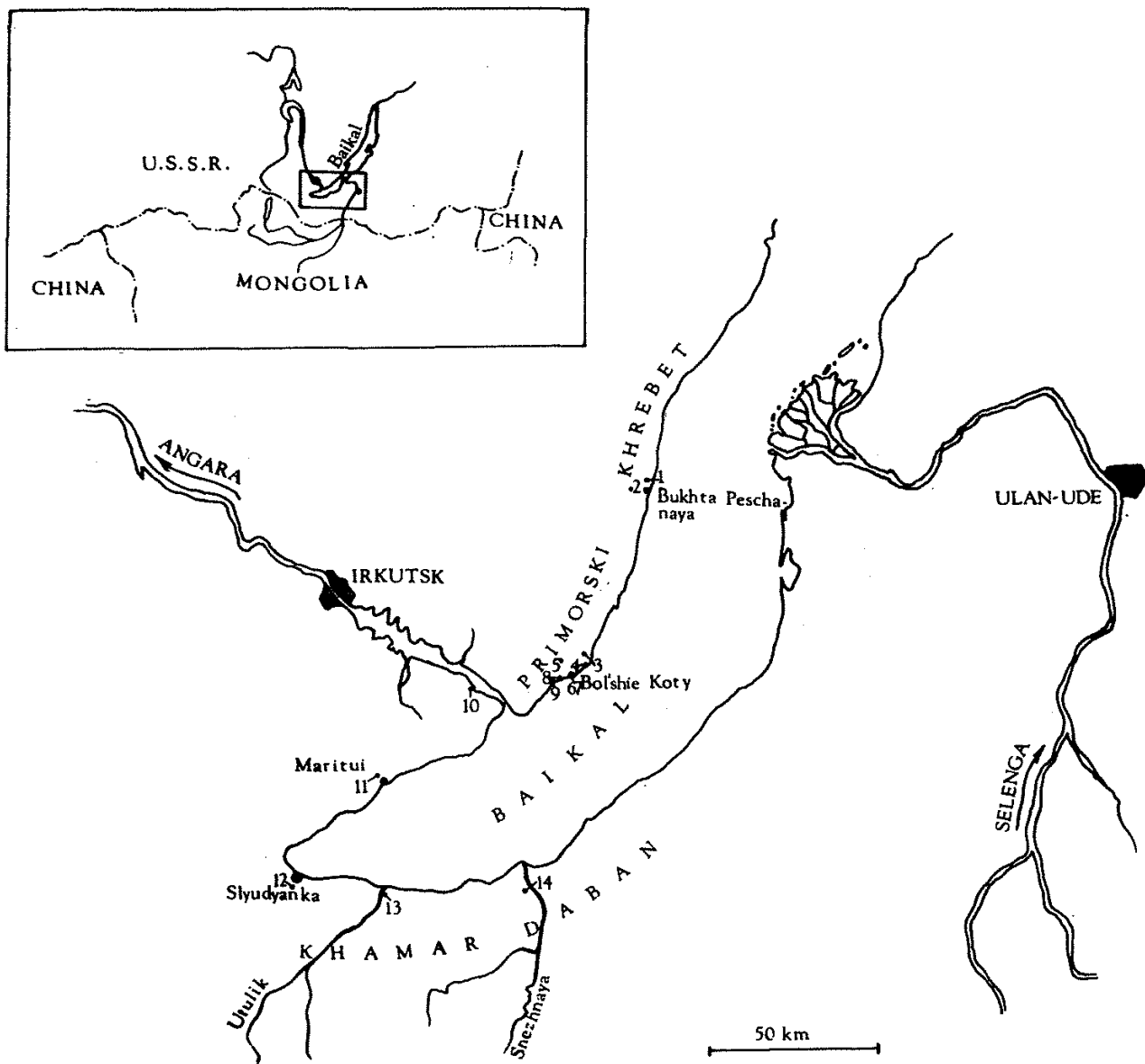
A more detailed phytogeographical analysis of the Baikal shore was performed by Popov and Busik (Popov et Busik 1966 in Galazi et Molozhnikov 1982). On the basis of the character of vertical structural pattern, characteristic flora and other natural peculiarities they delineated 7 phytogeographical regions. All the localities reported in this paper are situated in the south-eastern (Chamar-Daban) and south-western (Angara) regions. The shore of the south-eastern part is characterized by higher air humidity (annual precipitation totals 1000—1800 mm, height of the snow cover 1—2 m). The characters of the climate is conditioned by the presence of oak-hornbeam forests in the past amply distributed in southern Siberia in the conditions of warmer and humid Tertiary climate. In the south-western part the precipitations amount to only 300—400 mm. The rocky slopes of the Primorski Khrebet promontories oriented towards the Baikal are covered with steppe and rock-steppe vegetation with quite low species diversity. The middle and upper parts of the mountains are covered with coniferous forest ranges.

The quality of bryological knowledge of the area differs in the mosses and liverworts (cf. Váňa 1988). Mosses around the Baikal Lake have been systematically studied in the first place by Bardunov. Results of this studies can be found in his papers about the moss flora of the shore and the mountains of the northern Baikal (Bardunov 1961), East Sayan (Bardunov 1965) and in summarizing work in form of a key for the determination of mosses of central Siberia (Bardunov 1969). Some data can be obtained from the studies of moss flora of near-by territories, e. g. Mongolia (Abramova et Abramov 1983), the Altai Mountains and the Sayans (Bardunov 1974) or from some phytocenological studies (e. g. Tyulina 1976). It nevertheless seems probable that there exist numerous further data about the bryoflora of the surroundings of Baikal in local periodicals or publications unavailable or unknown to the authors of this paper.

During the excursions of the participants of the above mentioned exchanges the following localities were visited (see map with identical numerous designation of the localities); in the list they are complemented by the date of collection:

1. The bay **Bukhta Sennaya** on the W shore of the Lake, ca. 8 km NNE of the bay **Bukhta Peschanaya**, ca. 460 m a. s. l., July 14, 1980.
2. Peak parts of the mountain range **Primorski Khrebet** above the bay and tourist base **Bukhta Peschanaya** on the W shore, ca. 650—900 m a. s. l., July 13 and 15, 1980.

3. The valley **Bolshaya Kadifnaya** on the W shore, ca. 15 km NE of the village **Bolshie Koty**, ca. 550 m a. s. l., August 19, 1982.
4. The valley **Sennaya** on the W shore, ca. 5 km NE of the village **Bolshie Koty**, ca. 600 m a. s. l., August 18, 1982.
5. E shore of the mountain **Char Chatai** in the mountain range **Primorski Khrebet**, locality **V Grokhotakh**, ca. 10 km NW of the village **Bolshie Koty**, ca. 750—900 m a. s. l., August 16, 1982.
6. Conglomerate rocks above the village **Bolshie Koty** on the W shore, ca. 600—700 m a. s. l., August 16, 1982, July 13, 1983.
7. A brook in the village **Bolshie Koty** on the W shore, ca. 460 m a. s. l., August 17, 1982.
8. A forest on the shore of the Lake between the village **Bolshie Koty** and the valley **Chernaya**, ca. 520 m a. s. l., August 22, 1982.
9. The valley **Chernaya** on the W shore, ca. 8 km SW of the village **Bolshie Koty**, ca. 540 m a. s. l., August 17, 1982.



Map of the Southern Part of the Baikal Lake with Marked Numbers of Localities (see List of Localities)

10. Taiga on the left shore of the **Angara** river, ca. 15 km from its outflow from the Lake, ca. 460 m a. s. l., July 17, 1980.
11. Surroundings of the village **Maritui** on the NW shore, humid taiga, ca. 6 km off the shore, ca. 500—550 m a. s. l., July 17, 1983.
12. Calcareous rocks above the river bed of the river **Slyudyanka**, ca. 4 km S of the town Slyudyanka on the S shore, ca. 600—700 m a. s. l., July 7, 1980.
13. Surroundings of the river **Utulik** on the S shore, ca. 3 km off the river mouth into the Lake, ca. 490 m a. s. l., July 9 and 10, 1980.
14. Peat-bog lake and its surroundings at the tourist base **Teplie ozera** in the valley of the river Snezhnaya on the SE shore, ca. 10 km SE of the town Vydrino, ca. 900 m a. s. l., July 8, 1980.

In the above 14 localities, prevailingly from lower altitudes, not very distant from the Lake shore, altogether 151 moss species could be recorded. According to the literary sources known to the authors of this paper 16 species have not so far been published from the Baikal shore, viz.: *Bryobrittonia longipes*, *Claopodium pellucinerve*, *Cnestrum alpestre*, *Desmatodon laureri*, *Didymodon icmadophilus*, *Ditrichum cylindricum*, *Grimmia laevigata*, *Gymnostomum aeruginosum*, *Hypnum plicatulum*, *Mielichhoferia savicziae*, *Mnium spinulosum*, *Pseudoleskeella tectorum*, *Sphagnum capillifolium*, *S. magellanicum*, *S. rubellum*, *Timmiella anomala*. Some interesting finds, viz.: *Cephalocladium enerve*, *Didymodon perobtus*, *Encalypta sibirica*, *Lindbergia brachyptera* and *Trichostomum crispulum* were treated in a paper read at the Conference of Central and East European Bryologists (CEBWG) in Eger 1985 (Váňa et Soldán 1985). The following alphabetically arranged list of species comprises also a brief note with literary references about them. In certain further species a short note concerning their peculiar ecology or chorology is added. Collection localities in the species list are designated in abbreviated form (identical with the bold-faced part in the locality list). After the locality the initial of the collector is given in brackets, viz.: Č = Z. Černý, P = L. Pujmanová, S = Z. Soldán, V = J. Váňa. Herbarium specimens can be found in the Herbarium of the Department of Botany of the Charles University, Prague (PRC), in the herbarium of J. Váňa and in the herbaria of the authors.

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#### List of species

- Amblystegium serpens** (Hedw.) B.S.G.: Slyudyanka (S).  
**Amphidium lapponicum** (Hedw.) Schimp.: Utulik (S).

- Andreaea rupestris* Hedw.: Teplie ozera (S).
- Anomodon planatus* Mitt.: Sennaya (V), rocks Bolshie Koty (P), Chernaya (V), Slyudyanka (S), Teplie ozera (S).
- Atrichum undulatum* (Hedw.) P. Beauv.: V Grokhotakh (P).
- Aulacomnium acuminatum* (Lindb. et Arn.) Par.: Bukhta Sennaya (S), Teplie ozera (S).
- A. palustre* (Hedw.) Schwaegr.: V Grokhotakh (V), rocks Bolshie Koty (V), Chernaya (P), Angara (S).
- A. turgidum* (Wahlenb.) Schwaegr.: Bukhta Peschanaya (S), Slyudyanka (S), Utulik (S).
- Bartramia pomiformis* Hedw.: rocks Bolshie Koty (P), Slyudyanka (S), Utulik (S), Teplie ozera (S).
- Blindia acuta* (Hedw.) B.S.G.: Utulik (S).
- Brachythecium albicans* (Hedw.) B.S.G.: rocks Bolshie Koty (P), Maritui (Č).
- B. glareosum* (Spruce) B.S.G.: rocks Bolshie Koty (V).
- B. salebrosum* (Web. et Mohr) B.S.G.: Sennaya (P), rocks Bolshie Koty (P), Chernaya (P), Maritui (Č).
- B. velutinum* (Hedw.) B.S.G.: rocks Bolshie Koty (P).
- Brothera leana* (Sull.) C. Müll.: Sennaya (V), Maritui (Č).
- Bryobrittonia longipes* (Mitt.) Horton: Utulik (S). The species was discovered at the territory of the USSR only in 1953 (Abramova et Abramov 1960). Bardunov reports it only from Sayan and the region Plato (Bardunov 1969). Horton, monographer of the family *Encalyptaceae*, revised 13 localities on the Soviet territory, 4 from the broader surroundings of Baikal (Horton 1983). The Utulik locality is probably the easternmost locality in Siberia. The collected herbarium specimen is the second fertile collection of this species from Asia (a specimen with sporogons is known only from East Sayan).
- Bryoerythrophyllum recurvirostre* (Hedw.) Chen: Bolshaya Kadiĭnaya (V), rocks Bolshie Koty (P), Chernaya (V).
- Bryum argenteum* Hedw.: rocks Bolshie Koty (P), between Bolshie Koty and Chernaya (P), Chernaya (V).
- B. capillare* Hedw.: rocks Bolshie Koty (V).
- B. creberrimum* Tayl.: Angara (S), Utulik (S).
- B. inclinatum* (Brid.) Bland.: brook Bolshie Koty (P), Chernaya (P, V).
- B. pseudotriquetrum* (Hedw.) Gaertn. et al.: V Grokhotakh (P).
- Calliargon cordifolium* (Hedw.) Kindb.: V Grokhotakh (V), brook Bolshie Koty (P), Angara (S).
- Cephalocladium enerve* (Broth.) A. Abr. et I. Abr.: rocks Bolshie Koty (P). The species is endemic in central Siberia. The given locality is probably the

lowest one (480 m a. s. l.) and the easternmost on Soviet territory (cf. Váňa et Soldán 1985).

- Ceratodon purpureus** (Hedw.) Brid.: V Grokhotakh (V), rocks Bolshie Koty (P), between Bolshie Koty and Chernaya (P), Chernaya (P), Maritui (Č), Utulik (S).
- Claopodium pellucinerve** (Mitt.) Best.: Sennaya (V).
- Climacium dendroides** (Hedw.) Web. et Mohr: V Grokhotakh (P), rocks Bolshie Koty (Č), Angara (S), Maritui (Č), Utulik (S).
- Cnestrum alpestre** (Hüb.) Nyh. ex Mogensen: Bolshaya Kadil'naya (V), rocks Bolshie Koty (P, V).
- C. schisti** (Wahlenb.) I. Hag.: rocks Bolshie Koty (V), Teplie ozera (S).
- Cratoneuron filicinum** (Hedw.) Spruce: V Grokhotakh (P), brook Bolshie Koty (P), between Bolshie Koty and Chernaya (V).
- Cynodontium glaucescens** (Lindb. et Arn.) Par.: Teplie ozera (S).
- C. strumiferum** (Hedw.) Lindb.: rocks Bolshie Koty (P).
- Desmatodon laureri** (Schultz) B.S.G.: Bukhta Peschanaya (S). The nearest localities are situated in Sayan and in Mongolia (Abramova et Abramov 1983, Bardunov 1965, 1974, Ochyra et Pacyna 1980, Schubert et al. 1977). This is probably the lowest situated locality in Asia (650 m a. s. l.).
- Dicranodontium denudatum** (Brid.) Britt.: V Grokhotakh (V), rocks Bolshie Koty (V).
- Dicranum affine** Funck: Sennaya (V).
- D. bonjeanii** De Not.: rocks Bolshie Koty (Č, P).
- D. congestum** Brid.: between Bolshie Koty and Chernaya (V), Chernaya (V), Angara (S), Maritui (Č), Teplie ozera (S).
- D. elongatum** Schleich. ex Schwaegr.: Sennaya (P), V Grokhotakh (V), Chernaya (V).
- D. flagellare** Hedw.: Sennaya (V), between Bolshie Koty and Chernaya (V).
- D. fragilifolium** Lindb.: Sennaya (P), rocks Bolshie Koty (Č, P), Maritui (Č), Teplie ozera (S).
- D. muehlenbeckii** B.S.G.: Bukhta Sennaya (S), Bukhta Peschanaya (S), between Bolshie Koty and Chernaya (V), Utulik (S), Teplie ozera (S).
- D. polysetum** Sw.: Bukhta Sennaya (S), Sennaya (V), rocks Bolshie Koty (Č), between Bolshie Koty and Chernaya (V), Angara (S).
- D. scoparium** Hedw.: Slyudyanka (S).
- Didymodon icmadophilus** (Schimp. ex C. Müll.) K. Saito: Bolshaya Kadil'naya (V).
- D. perobtusus** Broth.: Bolshaya Kadil'naya (P). The species was originally considered the only endemic species of Sayan, yet due later finds, its distribution area was considerably extended (central Siberia, Mongolia, North

- America). The newly found locality (550 m a. s. l.) is probably the only one under 1000 m a. s. l. (cf. Váňa et Soldán 1985).
- D. rigidulus** Hedw.: rocks Bolshie Koty (P).
- Distichium capillaceum** (Hedw.) B.S.G.: Bukhta Peschanaya (S), rocks Bolshie Koty (P), Chernaya (P), Utulik (S).
- Ditrichum cylindricum** (Hedw.) Grout.: Sennaya (V), rocks Bolshie Koty (P).
- Drepanocladus aduncus** (Hedw.) Warnst.: V Grokhotakh (P).
- D. exannulatus** (B.S.G.) Warnst.: Angara (S).
- D. uncinatus** (Hedw.) Warnst.: Bukhta Peschanaya (S), V Grokhotakh (V), brook Bolshie Koty (V), rocks Bolshie Koty (Č, P), Chernaya (P), Angara (S), Maritui (Č), Teplie ozera (S).
- Encalypta ciliata** Hedw.: Sennaya (V), rocks Bolshie Koty (V).
- E. sibirica** (Weinm.) Warnst.: Sennaya (V), rocks Bolshie Koty (V), Chernaya (V). The find represents a rediscovery of this taxon (some authors consider it only a variety of *E. ciliata*) in the region where Weinmann collected the type specimen in 1845. The localities form the northernmost limit of the distribution of the species (cf. Váňa et Soldán 1985).
- Entodon schleicheri** (Schimp.) Demeter: Slyudyanka (S), Utulik (S).
- Erythrodontium leptothallum** (C. Müll.) Noguchi: rocks Bolshie Koty (V).
- Eurhynchium pulchellum** (Hedw.) Jenn.: Bolshaya Kadiĭnaya (V), Sennaya (V), V Grokhotakh (P), rocks Bolshie Koty (V), Maritui (Č), Utulik (S).
- Fabronia ciliaris** (Brid.) Brid.: rocks Bolshie Koty (Č, P).
- Fissidens bryoides** Hedw.: rocks Bolshie Koty (V).
- F. osmundoides** Hedw.: rocks Bolshie Koty (V).
- Fontinalis antipyretica** Hedw.: V Grokhotakh (V).
- Funaria hygrometrica** Hedw.: Sennaya (P), V Grokhotakh (V), Chernaya (V).
- Grimmia affinis** Hornsch.: Maritui (Č).
- G. elatior** Bruch ex Bals. et De Not.: rocks Bolshie Koty (Č, V).
- G. laevigata** (Brid.) Brid.: Bukhta Peschanaya (S), Bolshaya Kadiĭnaya (P).
- G. ovalis** (Hedw.) Lindb.: rocks Bolshie Koty (P), between Bolshie Koty and Chernaya (V), Chernaya (V), Maritui (Č), Teplie ozera (S).
- Gymnostomum aeruginosum** Sm.: Bolshaya Kadiĭnaya (P), rocks Bolshie Koty (P), Chernaya (V).
- Hedwigia ciliata** (Hedw.) P. Beauv.: Bukhta Peschanaya (S), rocks Bolshie Koty (Č, P), Chernaya (P), Maritui (Č), Slyudyanka (S), Teplie ozera (S).
- Helodium blandowii** (Web. et Mohr) Warnst.: brook Bolshie Koty (V), Chernaya (V).
- Homalia trichomanoides** (Hedw.) B.S.G.: rocks Bolshie Koty (P).
- Hygrohypnum luridum** (Hedw.) Jenn.: Utulik (S).
- H. ochraceum** (Wils.) Loeske: Sennaya (P), V Grokhotakh (V), Utulik (S).

- Hylocomium pyrenaicum** (Spruce) Lindb.: Teplie ozero (S).
- H. splendens** (Hedw.) B.S.G.: Bukhta Sennaya (S), rocks Bolshie Koty (P), between Bolshie Koty and Chernaya (P), Maritui (Č), Slyudyanka (S).
- Hymenostylium recurvirostre** (Hedw.) Dix.: Bolshaya Kadiĭnaya (V).
- Hypnum callichroum** Brid.: V Grokhotakh (V), rocks Bolshie Koty (V).
- H. cupressiforme** Hedw.: rocks Bolshie Koty (Č), Utulik (S).
- H. lindbergii** Mitt.: V Grokhotakh (P).
- H. plicatulum** (Lindb.) Jaeg. et Sauerb.: rocks Bolshie Koty (P). Bardunov (1969) does not report this species from Siberia, yet the Baikal region lies in the distribution area of the species (cf. Ando 1972). The species descends practically to the Lake level (ca. 460 m a. s. l.); on the other hand in Japan it is „strictly bound on the subalpine-alpine zone“ (Ando 1972). Abramova and Abramov (Abramova et Abramov 1983) report it in Mongolia from the altitudes 1840 and 2000 m a. s. l.
- H. vaucheri** Lesq.: Bolshaya Kadiĭnaya (P), V Grokhotakh (V).
- Isopterygiopsis muellerana** (Schimp.) Iwats.: rocks Bolshie Koty (P).
- Leptobryum pyriforme** (Hedw.) Wils.: brook Bolshie Koty (V), Chernaya (P).
- Leucodon sciuroides** (Hedw.) Schwaegr.: Bukhta Peschanaya (S), Slyudyanka (S).
- Lindbergia brachyptera** (Mitt.) Kindb.: Bukhta Peschanaya (S). It is a relatively scarcely occurring North American — Asian species with a disjunction in the Caucasus. The locality determined is the westernmost situated one in Asia (cf. Borodin et al. 1985, Váňa et Soldán 1985).
- Mielichhoferia savicziae** Bard.: Bolshaya Kadiĭnaya (V). In Siberia the species has so far been known only from the Sayan and Dauria (cf. Bardunov 1966, 1969, Savich-Lyubickaya et Smirnova 1970).
- Mnium marginatum** (With.) P. Beauv.: Bolshaya Kadiĭnaya (V).
- M. spinulosum** B.S.G.: Chernaya (V). Bardunov (1969) does not report this species from central Siberia; its closest known locality is from the Altai (Bardunov 1974) yet the surroundings of the Baikal lie within the range of distribution of the species (Koponen 1979).
- Myurella sibirica** (C. Müll.) Reim.: Utulik (S).
- Myuroclada maximoviczii** (Borszcz.) Steere et Schof.: Bukhta Peschanaya (S), Sennaya (V), Chernaya (P), Maritui (Č), Slyudyanka (S).
- Neckera borealis** Noguchi: rocks Bolshie Koty (V).
- N. pennata** Hedw.: Slyudyanka (S), Utulik (S), Teplie ozero (S).
- Oncophorus virens** (Hedw.) Brid.: V Grokhotakh (V), Chernaya (V).
- O. wahlenbergii** Brid.: Sennaya (V), V Grokhotakh (V), brook Bolshie Koty (Č, P, V), Utulik (S).
- Orthotrichum anomalum** Hedw.: Bolshaya Kadiĭnaya (V).



- O. rupestre** Schleich. ex Schwaegr.: Slyudyanka (S).
- O. speciosum** Nees: Sennaya (P), V Grokhotakh (V).
- Oxystegus tenuirostris** (Hook. et Tayl.) A. J. E. Sm.: rocks Bolshie Koty (V).
- Phascum cuspidatum** Hedw.: Chernaya (V).
- Philonotis fontana** (Hedw.) Brid.: brook Bolshie Koty (V), Chernaya (P).
- Plagiomnium confertidens** (Lindb. et H. Arn.) T. Kop.: Bukhta Peschanaya (S), Maritui (Č), Utulik (S).
- P. cuspidatum** (Hedw.) T. Kop.: Bukhta Peschanaya (S), Sennaya (V), between Bolshie Koty and Chernaya (V), Maritui (Č), Slyudyanka (S).
- P. drummondii** (B.S.G.) T. Kop.: Angara (S).
- P. ellipticum** (Brid.) T. Kop.: Utulik (S).
- P. medium** (B.S.G.) T. Kop.: Bukhta Peschanaya (S), rocks Bolshie Koty (P).
- P. rostratum** (Schrad.) T. Kop.: Utulik (S).
- Plagiothecium denticulatum** (Hedw.) B.S.G.: Utulik (S).
- P. laetum** B.S.G.: Teplie ozera (S).
- P. succulentum** (Wils.) Lindb.: rocks Bolshie Koty (V), Slyudyanka (S).
- Platydictya jungermannoides** (Brid.) Crum: rocks Bolshie Koty (P).
- Platygyrium repens** (Brid.) B.S.G.: rocks Bolshie Koty (Č, V), Teplie ozera (S).
- Pleurozium schreberi** (Brid.) Mitt.: Bukhta Peschanaya (S), Sennaya (P), V Grokhotakh (P), rocks Bolshie Koty (V), Slyudyanka (S).
- Pogonatum dentatum** (Brid.) Brid.: V Grokhotakh (P), Angara (S), Utulik (S).
- P. urnigerum** (Hedw.) P. Beauv.: rocks Bolshie Koty (P), Maritui (Č), Utulik (S), Teplie ozera (S).
- Pohlia cruda** (Hedw.) Lindb.: Bukhta Peschanaya (S).
- P. elongata** Hedw.: rocks Bolshie Koty (P).
- P. nutans** (Hedw.) Lindb.: Bukhta Peschanaya (S), V Grokhotakh (P), between Bolshie Koty and Chernaya (V), Teplie ozera (S).
- P. wahlenbergii** (Web. et Mohr) Andr.: rocks Bolshie Koty (P).
- Polytrichum commune** Hedw.: V Grokhotakh (P), Maritui (Č), Teplie ozera (S).
- P. juniperinum** Hedw.: Sennaya (P), between Bolshie Koty and Chernaya (P), Slyudyanka (S), Utulik (S).
- P. piliferum** Hedw.: V Grokhotakh (P), Maritui (Č), Teplie ozera (S).
- P. strictum** Brid.: Bukhta Sennaya (S), rocks Bolshie Koty (Č, P), between Bolshie Koty and Chernaya (V), Teplie ozera (S).
- Pseudobryum cinclidioides** (Hüb.) T. Kop.: V Grokhotakh (V), rocks Bolshie Koty (V), Chernaya (P).
- Pseudoleskeella tectorum** (Brid.) Kindb. ex Broth.: Maritui (Č).
- Ptilium crista-castrensis** (Hedw.) De Not.: Bukhta Sennaya (S), Bukhta Pe-

- schanaya (S), Sennaya (P), V Grokhotakh (V), rocks Bolshie Koty (P), Maritui (Č), Teplie ozera (S).
- Pylaisia polyantha** (Hedw.) B.S.G.: Bolshaya Kadilnaya (V), Sennaya (P), rocks Bolshie Koty (Č, P), between Bolshie Koty and Chernaya (P), Chernaya (V), Angara (S), Maritui (Č), Slyudyanka (S).
- Racomitrium canescens** (Hedw.) Brid.: Utulik (S).
- Rhabdoweisia kusenevae** Broth.: rocks Bolshie Koty (P).
- Rhodobryum roseum** (Hedw.) Limpr.: rocks Bolshie Koty (V), between Bolshie Koty and Chernaya (V), Chernaya (V).
- Rhytidiadelphus triquetrus** (Hedw.) Warnst.: Bukhta Sennaya (S), V Grokhotakh (P), rocks Bolshie Koty (V), Slyudyanka (S).
- Rhytidium rugosum** (Hedw.) Kindb.: Bukhta Peschanaya (S), Bukhta Sennaya (S), rocks Bolshie Koty (Č, P), Chernaya (P), Maritui (Č), Slyudyanka (S).
- Schistidium apocarpum** (Hedw.) B.S.G.: Bolshaya Kadilnaya (V), rocks Bolshie Koty (P), Utulik (S).
- S. rivulare** (Brid.) Podp.: V Grokhotakh (V), rocks Bolshie Koty (V), Maritui (Č).
- Sphagnum capillifolium** (Ehrh.) Hedw.: V Grokhotakh (P, V).
- S. girgensohnii** Russow: rocks Bolshie Koty (V), Utulik (S).
- S. magellanicum** Brid.: Teplie ozera (S).
- S. rubellum** Wils.: Teplie ozera (S).
- S. teres** (Schimp.) Aongstr.: V Grokhotakh (V).
- Splachnum ampullaceum** Hedw.: rocks Bolshie Koty (V), between Bolshie Koty and Chernaya (V).
- S. luteum** Hedw.: rocks Bolshie Koty (P).
- S. rubrum** Hedw.: between Bolshie Koty and Chernaya (V).
- S. sphaericum** Hedw.: rocks Bolshie Koty (V), between Bolshie Koty and Chernaya (V).
- Tetraphis pellucida** Hedw.: Sennaya (V), V Grokhotakh (V), Teplie ozera (S).
- Tetraplodon angustatus** (Hedw.) B.S.G.: rocks Bolshie Koty (V), between Bolshie Koty and Chernaya (P), Chernaya (V).
- Thuidium abietinum** (Hedw.) B.S.G.: Bukhta Peschanaya (S), Sennaya (P), rocks Bolshie Koty (P), Angara (S), Maritui (Č), Slyudyanka (S).
- T. philibertii** Limpr.: Sennaya (P), rocks Bolshie Koty (P).
- Timmia bavarica** Hessel.: Bukhta Peschanaya (S).
- Timmiella anomala** (B.S.G.) Limpr.: Maritui (Č).
- Tortula mucronifolia** Schwaegr.: rocks Bolshie Koty (Č, P), Angara (S).

- T. ruralis** (Hedw.) Gaertn. et al.: Bol'shaya Kadil'naya (P), Chernaya (V).  
**T. sinensis** (C. Müll.) Broth.: rocks Bol'shie Koty (V), Chernaya (V).  
**Trichostomum crispulum** Bruch: Bol'shaya Kadil'naya (V), rocks Bol'shie Koty (P). It is the first find in the Soviet part of central Siberia, the closest locality of the species is in Mongolia (Abramova et Abramov 1983, Váňa et Soldán 1985).  
**Zygodon conoideus** (Dicks.) Hook. et Tayl.: rocks Bol'shie Koty (V).

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