**Additional specimens examined.**

**Russia. Irkutsk Region:** Slyudyanka District, foothill of Khamar-Daban Ridge, ~ 7 km SSE of the village Vydrino, Taltsy River tributary of the Snezhnaya River, left bank, rocky outcrops overgrown on the E slope (51°23.122'N, 104°38.990'E), 516 m a.s.l., on rocks, 30.VIII.2018, *Tubanova S180124, S180130, S180124, S180130* (UUH).

**Republic of Buryatia:** (1) Dzhida District: the N macrosclope of the Maly Hamar-Daban Ridge, ~ 3 km S of Lake Tagley, the W slope, larch grassy with cedar and birch, granite ruins (50°54.685'N, 104°49.336'E), 1411 m a.s.l., on boulders, 31.VIII.2020, *Tubanova M202211* (UUH); Baikal Nature Reserve, middle course of the Abidui River, pine-birch mixed forest with fir, on a rotten pine, 27.VII.1991, *Kazanovsky ID 1719* (IRK, UUH); (2) Yeravna District: ~ 1 km S of the shift settlement "Ozerny GOK", rocks of the W exposure (52°58'18,5ˮN, 111°38'26,8ˮE), 1177 m a.s.l., in a wet niche under stones, 04.VIII.2008, *Tubanova ErT-23/0812* (UUH); (3) Zaigraevo District: foothills of the Kurbinsky Ridge, ~ 5 km to the N from Unegetei Village, the dry slope of the Belaya Mt. with limestone outcrops of the S exposure (52°10'48.6" N, 108°36'25.9"E), 731 m a.s.l., on the rocks in the pine forest, 25.VII.2017, *Tubanova An-170211* (UUH); Angirsky Reserve, floodplain of the Kurba River, ~ 1.5 km to S of Krasny Yar Village, slope N exposure ~ 30° with large rock outcrops, rhododendron-rhytidium larch, (52°11'46.9" N, 108°35'33.1"E), 647 m a.s.l., on the rotten tree, 27.VII.2017, *Tubanova An-171207* (UUH); (4) Zakamensk District, Dzhidinsky Ridge, ~ 22.5 km SW from Khamney village, Zun-Oynogor River, slope SE exposure, birch-cedar grassy forest (50°14.643'N, 103°38.478'E), 1175 m a.s.l., on rotten tree, 28.VI.2018, *Tubanova Z182504* (UUH); (5) Kurumkan district, Dzherginsky Nature Reserve: 2 km N of the Birankur Cordon, at the foothills of the cliff, larch grassy-mosses forest, on the rotten tree, 09.VII.1999, *Tubanova 43(III)* (UUH); Barguzin Ridge, the middle part of the course of the Ulyugna river: ~ 6 km to the NW from the mouth of the Bolshye Karpusy River, near the Arshan, larch rhododendron-lingonberry-mosses (55°02'25.1" N, 110°47'19.5"E), 1008 m a.s.l., on rotten tree, 27.VI.2016, *Tumurova # Ba-3-6* (UUH); ~ 21 km to the NW from Ulyunkhan Village, rocks E exposure (54°57'43" N, 110°00'08"E), 773 m a.s.l, on rotten tree, 26.VI.2016, *Dorzhieva, Tubanova Ba160123, Ba160109* (UUH); mouth of the Bolshye Karpusy River, larch-aspen mosses forest (55°00'44,0" N, 110°49'52.8"E), 921 m a.s.l, on rotten tree, 27.VI.2016, *Dorzhieva, Tubanova Ba160209, Ba160219* (UUH); (6) Kyakhta District, the vicinity of Naushki Village, the ravine "Boty Yama", the slope of the N exposure ~ 45°, mosses pine-birch forest (50°23'30.3"N, 106°11'40.5"E), 754 m a.s.l., on rotten tree, 18.VII.2010, *Tubanova Kyah-5/10-4* (UUH); (7) Pribaikalsky District, the coast of Baikal Lake: Cape Krestovy, rock outcrops on the N slope, aspen-pine forest (53°17'53.0ˮN, 108°38'27.6ˮE), 451 m a.s.l., on rotten tree, 28.VI.2014, *Tubanova B14012/42, B14012/43* (UUH); Cape Gorevoy Cliff, rock outcrops on the W slope, pine forest (53°15'24.0ˮN, 108°32'09.7ˮE), 462 m a.s.l., on rotten tree, 27.VI.2014, *Tubanova B14011/08, B14011/11* (UUH); Chernaya Griva Ridge, rocks of the western exposure near the road between the villages of Goryachinsk and Turka (52°58'09.9ˮN, 108°14'44.4ˮE), 495 m a.s.l., on a stone, 27.VI.2014, *Tubanova B14008/33* (UUH); (8) Tunka District: ~ 3 km south of Turan Village, S slope ~ 10°, grassy birch forest, long-standing cutting (51°36.396'N, 101°40.135'E), 1024 m a.s.l., on the rotten tree, 16.VI.2022, *Tubanova T220202* (UUH); 23 km along the Mondy – Orlik road from the Mondy Village, left bank of the Bely Irkut River (51°46.898'N, 100°41.363'E), 1952 m a.s.l., on rotten tree, 19.VI.2014, *Badmaeva 04* (UUH); to the S from the Turan Village, about 5 km to the S from the camp site "Sukhoi Ruchei", birch grass forest (51.75935°N, 101.61678°E), 1072 m a.s.l., on rotten tree, 22.VII.2016, *Tubanova Tu-160104* (UUH); ~ 23 km to S from Kyren Village, steep slope on the starboard side of the Harbyaty River, upper course, rocks in the birch-larch moss forest (51°27.919'N, 102°05.242'E), 1445 m a.s.l., on rotten tree, 15.VII.2018, *Tubanova T180527* (UUH); vicinity of Arshan Village, Artemievo River, mixed forest (51°55'48.0ˮN, 102°29'25.1ˮE), 1542 m a.s.l., on the rotten tree and base of a tree trunk, 14.IX.2017, *Tubanova Tu170323, Tu170310* (UUH); ~ 2 km to the NNW from the Arshan Village, along the Kyngarga River (51.93061°N, 102.42686°E), 1141 m a.s.l., on rocks, 14.IX.2017, *Tubanova, Pisarenko Tu170515* (UUH).

**Trans-Baikal Territory:** (1) Sokhondinsky Biosphere Reserve, Agutsa River: bank of Buninda creek (49°42'12" N, 111°22'54"E), 1144 m a.s.l., on a stone, 12.VII.2013, *Chernyadeva 26-13* (LE, UUH); *idib,* grassy birch forest (49°38'N, 111°27'E), 1170 m a.s.l., on stones, 18.VII.2010, *Chernyadeva Exsiccata 358*. Fasc. IX, No. 351-400 (2012) (UUH); (2) Alkhana National Park, protected area, S macroslope of Alkhanai Mt., valley of Ubzholgos River, Upper Forest Belt (50°50'N, 113°24'E), on a stone, 21.VII.2005, *Afonina 3405* (LE, UUH).

**Amur Region:** Zeysky Reserve, Tukuringra Ridge, W slope ~30°, rhododendron aspen forest, on rotten tree, 03.VIII.1980, Stetsura N., № 3(758) (IRK, UUH); *idib*, NW slope ~30°, lingonberry-moss larch forest, on rotten tree, 01.VIII.1980, *Stetsura s.n.* (IRK, UUH); *idib,* rhododendron pine forest, 1980, *Stetsura s.n.* (IRK, UUH).

**Jewish Autonomous Region:** Obluchinsk District: (1) foothills of the Maly Khingan Ridge, about 3.5 km S from the Londoko Villge, the basin of the Bira River, the Kamenushka River, the SE slope, oak forest (49°02.711'N, 131°59.625'E), 258 m a.s.l., on the trunk of *Betula dahurica*, 16.VI.2018, *Tubanova E183007* (UUH); (2) Maly Khingan Ridge, the border with the Amur Region and Khabarovsk Territtory, upper course of the tributary of the Malaya Olono River, mixed coniferous-deciduous forest (49°15'20.8" N, 131°24'11.1"E), 670 m a.s.l., on the larch trunk, 13.VI.2018, *Tubanova E180206, E180215* (UUH).

**Khabarovsk Territory:** (1) Verkhnebureinsky District, upper course of the Bureya River (51°43'N, 134°18'E), 580 m a.s.l., spruce trunk (near cliff), 27.VIII.1997, *Ignatov 97-723* (MHA, UUH); (2) Sovetsko-Gavansky District, Botchinsky Nature Reserve, between the Solonchakov Key and the Mulpa River, 1 km along road to N from the Teply Klyuch Cordon, rocky outcrops in the spruce-fir forest (48°10'N, 139°21'E), 362 m a.s.l., on the cliff, 19. VIII.2013, *Ignatov, Ignatova 13-876* (MHA, UUH); neighborhood of Sovetskaya Gavan City, the tract "Blooming Glade" on the shore of the Tatar Strait, the spruce forest on the slope to the sea (48°58'N, 140°22'E), 120 m a.s.l., on rotten tree, 26.VIII.2013, *Ignatov, Ignatova 13-1215* (MHA, UUH).

**Primorye Territory:** (1) Dalnegorsk District, 5 km to the NW from the Krasnorechenskiy Village, the N slope of Sedaya Mt., cedar-fir forest (44°36'30" N, 135°16'01.0"E), 650 m a.s.l., on rotten tree, 30.VIII.2013, *Ignatov, Ignatova 13-1588* (MHA 9-100587); (2) Ol’khovaya Mt.: a spruce forest on a rock, 04.X.2006, on rotten tree, *Cherdantseva s.n.* (VBGI, UUH); upper course of the Alekseevka River, mixed floodplain forest (43°20'N, 133°39'E), on a stump, 09.IX.2010, *Donskov s.n.* (MHA, UUH); (3) Lazo District, the road to Benevsky Waterfalls, 10.IX.2014, on rotten tree, *Fedosov 14-2-002* (MW, UUH); (4) Vladivostok, the pass to Lazurnaya Bay, aok forest, 28.IX.1974, on the trunk of *Betula costata*, 0.5-3 m, *Bardunov, Cherdantseva s.n.* (IRK); (5) Verkhne-Ussuriysky Statzionar, on the steep E slope, broad-leaved spruce forest, on the cedar trunk, 20.VII.1980, *Cherdantseva s.n.* (IRK); (6) Kavalerov District, Vysokogorsk, valley broad-leaved forest with an admixture of conifers, on the trunk of cedar 2 m, 10.IX.1977, *Bardunov, Cherdantseva, Denisov s.n.* (IRK); (7) Partizansky District: Lazovsky Reserve, Perekatnaya River, middle course, coniferous-deciduous forest, on the trunk of cedar 0.5-3 m, 22.IX.1974, *Bardunov, Cherdantseva, Olinovich, Kirchakova s.n.* (IRK); ~ 100 km S of Nakhodka, the foothills of Ol’khovaya Mt., S exposure, dark coniferous forest with admixture of alder and maple (43°19'37.4ˮN, 133°39'57.5ˮE), 1003 m a.s.l., on rotten tree, 22.IX.2015, *Tubanova Pr1507/14* (UUH); on rotten trunk, 07.IX.2010, *Donskov s.n.* (MHA, UUH); ~ 100 km S of Nakhodka, the foothills of Ol’khovaya Mt., 7 km S of the fork of the Alekseevka River, along the bank of the Alekseevka, mixed fern forest (dark coniferous and deciduous species) (43°14'56,5" N, 133°37'17.1"E), 527 m a.s.l., on rotten tree, 22.IX.2015, *Tubanova Pr1505/15* Pr1505/18, (UUH); (8) Terney District: Isakov Klyuch, right tributary of the Dzhigitovka River, starboard side, slope of the hill, oak forest with cedar, (44°56'05.9" N, 135°59'07.9"E), 540 m a.s.l., on a stone, 03.IX.2013, *Ignatov, Ignatova, Malashkina 13-1813* (MHA9100589); (9) Chuguev District: Bulyga-Fadeeva, cedar-spruce-fir-broadleaf forest, on Betula costata trunk, 2 m, 600 m a.s.l., 24.IX.1976, *Bardunov s.n.* (IRK); *idib.,* trial site 1, (44°01'N, 134°12'E), 860 m a.s.l., on birch trunk, 14.VIII.2007, Ignatov M.S., # 07-604, (MHA 9-100604); ~ 10 km N from the Bereznjaki Village, (43°56.1'N, 134°08.4'E), 800 m a.s.l., on the base a tree trunk, 14.VIII.2007, *Ignatov 07-593* (MHA 9-100576); (10) Khasansky District, “Kedrovaya Pad” Nature Reserve, in the middle course of the Edrovaya River, broad-leaved forest with admixture of coniferous, on the base of *Abies nephrolepis* trunk, 1958, *Ardeeva s.n.* (LE, UUH); (11) Khankajskiy District, S slope of Sinyaya Mt., (44°50'00"N, 131°41'45"E,), 330 m a.s.l., 02.IV.2011, *Malashkina Pr-01-11-11* (VBGI, UUH); (12) Shkotovsky District, the vicinity of the Lukyanovka Village, the mouth of the Yafoshin Klyuch River, Livadiyskaya Mt. (Pidan), E slope, mixed forest (43°05'06,6" N, 132°41'40.4"E), 712 m a.s.l., on rotten tree, 20.IX.2015, *Tumurova VL-3-3* (UUH); (13) Ussuriysky Nature Reserve: the pass beyond the Mironovsky Klyuch, mixed deciduous forest, on a rotten stump, 23.VII.1974, *Nesterova s.n.* (IRK); basin of Shipiza River, right bank, coniferous-deciduous forest, on a rotten stump, 19.VIII.1974, *Nesterova s.n.* (IRK); Zmeinaya Mt., deciduous forest, on the trunk of Pinus koraiensis, 11.X.1969, *Anonimous s.n.* (IRK).

**MONGOLIA. Khovsgol County:** Rinchinhumbe District, Source of Sharga River, Songinot gozgor mountain, 2800 m a.s.l., slope, cedar-birch-larch forest, 18.VII.2012, *Enkhjargal # 2982* (UBA).

**Selenge County:** Darkhan-Ull, Sharyn Gol District, source of Monostoi Amny, 1091–1380 m a.s.l., taiga element above birch-pine forest, the top of mountain, 17.VII.2005, *Tsegmed, Tushigma, Enkhjargal # 14048, 14045* (UBA).

**Tov County:** Sergelen District, Southern slope of Bogdo-Ula Mountain, Mandshiryn Monastery, birch-larch forest, on a rock, 26.VII.1995, *Tsegmed # 11 893* (UBA).

**Bulgan County:** Khilganat District, Buteligt Nuruu Ridge, source of Khotloltyn, 1600 m a.s.l., 05.VIII.1995, *Tsedendash #12103* (UBA).