

Appendix. Voucher information and GenBank accession numbers. Sequences printed in bold are newly obtained

| Taxon | Provenance | Voucher | isolate | ITS | <i>trnF-trnS</i> |
|-----------------------------------|---|---------------------------------|----------|-----------------|-------------------------------|
| <i>Myuroclada maximowiczii</i> | China: Hunan | Koponen et al. 53505 (H) | | HG009020 | |
| <i>Myuroclada maximowiczii</i> | South Korea: Yeongyang-gun | YYJ 20200105-1 (JNU) | | | NC052723 |
| <i>Sanionia uncinata</i> | Sweden: Västmanland | B39811 (S) | D010 | GQ849882 | |
| <i>Sanionia uncinata</i> | Antarctica: King George Island | | | | NC025668 |
| <i>Cratoneuron filicinum</i> | Czech Rep.: Horní Maršov | Kučera 22385 (CBFS) | Cn2368 | OL989999 | |
| <i>Cratoneuron filicinum</i> | China: Jilin | Wu 2012072132 | | | NC049073 |
| <i>Entodon concinnus</i> | Bulgaria: Trigrad gorge | Kučera 14006 (CBFS) | En1020 | MH613374 | OL960672 |
| <i>Entodon schleicheri</i> | Russia: Irkutskaya Province, Slyudyanka | Kučera 20340 (CBFS) | En1507 | MK327300 | OL960673 |
| <i>Rhytidium rugosum</i> | Austria: Mt. Waldhorn | Kučera 12871 (CBFS) | Ry1522 | MK327361 | OL960693 |
| <i>Pseudoleskeella catenulata</i> | Czech Rep.: Křížlice | Kučera 14759 (CBFS) | Pk2099 | OL990009 | OL960682 |
| <i>Stereodon callichrous</i> | Czech Rep.: Labský důl | Kučera 14832 (CBFS) | Hy539 | MH613394 | MH613620/ MZ209520 |
| <i>Pylaisia polyantha</i> | Czech Rep.: Mikulov | Kučera 19399 (CBFS) | Py1353 | MH613484 | OL960684 |
| <i>Ptilium crista-castrensis</i> | Czech Rep.: Zliv | Kučera 17064 (CBFS) | Pt1032 | MH613481 | OL960683 |
| <i>Ptilium crista-castrensis</i> | China | Cao & Liu 87 | CB87 | – | FJ572440/ FJ572630 |
| <i>Abietinella abietina</i> | Czech Rep.: Horní Albeřice | Kučera 22358 (CBFS) | Ab2127 | OL989996 | OL960665 |
| <i>Abietinella abietina</i> | China | HIMC2011232 | | JX853713 | JX853719/ JX853716 |
| <i>Abietinella hystricosa</i> | China | HIMC201106008 | | JX853712 | JX853718/ JX853715 |
| <i>Actinothuidium hookeri</i> | China: Yunnan | Shevock 52072 (MW) | ThF22 | OL989997 | OL960666 |
| <i>Actinothuidium hookeri</i> | China | | Yunan 14 | KF770664 | KF770502/ KF770556 |
| <i>Boulaya mittenii</i> | Russia: Primorsky Territory, Elomovsky Klyuch | Kučera 21386 (CBFS) | Bo2126 | OL989998 | OL960667 |
| <i>Boulaya mittenii</i> | | Tanaka 7309 (HIRO) | | FM161080 | AM990347 |
| <i>Bryonoguchia molkenboeri</i> | Russia: Primorsky Territory, Chandolaz Range | Ignatov & Ignatova 13-1936 (MW) | OK1176 | KX396260 | OL960668 |
| <i>Bryonoguchia molkenboeri</i> | China | | Hubei 5 | KF770666 | KF770504/ KF770558 |
| <i>Echinophyllum sachalinense</i> | Russia: Primorsky Territory, Tadusha | Ignatov et al. 13-1469 (MW) | OK1174 | KX396259 | OL960671 |
| <i>Echinophyllum sachalinense</i> | Russia: Botchi Reserve | MW9037836 | ThF48 | OL990000 | OL960669/ OL960670 |
| <i>Haplocladium angustifolium</i> | South Africa: Amatola Mountains | Vanderpoorten 23 (DUKE) | Hc2288 | OL990002 | OL960675 |
| <i>Haplocladium angustifolium</i> | China | | Hubei 3 | KF770659 | KF770497/ KF770551 |
| <i>Haplocladium</i> | Russia: Primorsky | Kučera 21282 (CBFS) | Hc2130 | OL990001 | OL960674 |

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|----------------------------------|---|-------------------------------|-----------|-----------------|-------------------------------|
| <i>angustifolium</i> | Territory, Elomovsky Klyuch | | | | |
| <i>Haplocladium microphyllum</i> | China: Hangzhou, Xiaoshan | Mao201912011 (SZG) | | – | MT385397 |
| <i>Haplocladium microphyllum</i> | China | | Jiangsu 1 | KF770660 | KF770498/ KF770552 |
| <i>Haplocladium microphyllum</i> | USA: Florida, Orlando | Majestyk 11418 (DUKE) | Hc2289 | OL990003 | OL960676 |
| <i>Haplocladium microphyllum</i> | Bolivia: Gran Chaco | A. Fuentes s.n. (DUKE) | Hc2334 | OL990004 | OL960677 |
| <i>Haplocladium strictulum</i> | China | | Jilin 3 | KF770661 | KF770499/ KF770553 |
| <i>Haplocladium virginianum</i> | USA: NC, Lillington | Aguero 19745 (DUKE) | Hc2293 | OL990005 | OL960678 |
| <i>Haplocladium virginianum</i> | | Buck 32482 (NY) | | AF168160 | AF161133/ AF143040 |
| <i>Helodium blandowii</i> | USA: Alaska | Schofield 108637 | | AY009803 | AY009852 |
| <i>Helodium blandowii</i> | Austria: Wanzenau | Kučera 17242 (CBFS) | He2108 | OL990006 | OL960679 |
| <i>Ignatovia microphylla</i> | Russia: Primorsky Territory, Chandolaz Range | Tumurova VL-1-14 MHA ex UUH | OK1884 | MN850404 | MN849424 |
| <i>Leskea gracilescens</i> | | Buck 30102 (NY) | | AF176277 | AF161135/ AF143042 |
| <i>Leskea polycarpa</i> | Czech Rep.: Řeznovice | Kučera 19133 (CBFS) | Lk2097 | OL990007 | OL960680 |
| <i>Leskea scabrinervis</i> | China | | Jiangsu 2 | KF770663 | KF770501/ KF770555 |
| <i>Bryochenea vestitissima</i> | China | | Yunan 11 | KF770655 | KF770493/ KF770547 |
| <i>Bryochenea vestitissima</i> | Russia: Primorsky Territory, Ussurijsky Reserve | Ignatov 08-35 (MW) | | KX396261 | KX396252 |
| <i>Pelekium minutulum</i> | Bolivia | Linneo et al. 513 (MO) | | KX396262 | KX396253 |
| <i>Pelekium minutulum</i> | Russia: Perm Province | Bezgodov, Ateeva 217 (MW) | | KX396265 | KX396256 |
| <i>Pelekium pygmaeum</i> | Russia: Primorsky Territory, vicinity of Dalnegorsk | Kučera 21867 (CBFS) | Pe2129 | OL990008 | OL960681 |
| <i>Raiiella fujisana</i> | Russia: Primorsky Territory, Pidan Mt | Kučera 21698 (CBFS) | Rl2125 | OL990010 | OL960685 |
| <i>Raiiella fujisana</i> | China | | Liaolin 2 | KF770665 | KF770503/ KF770557 |
| <i>Raiiella fujisana</i> | Russia: Khabarovsk Territory, Badzhal Range | MW9130131 | ThF29 | OL990011 | OL960686 |
| <i>Raiiella fujisana</i> | Russia: Sakhalin Province, Shikotan Island | Fedosov s.n. 15.VIII.21 (MW) | ThF77 | - | OL960687 |
| <i>Raiiella scita</i> | USA: Maine, Schoodie Bay | Schofield 124652 (DUKE) | Rl2287 | OL990012 | OL960688 |
| <i>Raiiella scita</i> | Canada: Nova Scotia | Schofield 97336 (DUKE) | Rl2369 | - | OL960689 |
| <i>Raiiella thuidioides</i> | Russia: Primorsky, Elomovsky Klyuch | Kučera 21386 (CBFS) | Rl2133 | OL990014 | OL960692 |
| <i>Raiiella thuidioides</i> | Russia: Primorsky, Elomovsky Klyuch | Ignatov et al. #13-1264 (MHA) | OK599 | OL990013 | OL960690/ OL960691 |
| <i>Raiiella lagoensis</i> | Nicaragua | Esteli, Magill 13951 | | | MG199021 |
| <i>Raiiella</i> | | Sidwell, Monroe, & | | | AY908340 |

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|------------------------------|---|-------------------------------|------------|-----------------|-----------------------|
| <i>lagoensis</i> | | Sagastizado 831 (BM) | | | |
| <i>Rauvolfia praelonga</i> | Brazil, Distr. Federal | Sousa 421 | | | MG199023 |
| <i>Thuidium alleniorum</i> | USA: NC, Atkinson | B. Shaw 6015 (DUKE) | Th2286 | OL990015 | OL960694 |
| <i>Thuidium assimile</i> | | | Hubei 2 | KF770643 | KF770481/ KF770535 |
| <i>Thuidium assimile</i> | Czech Rep.: Praha | Kučera 22175 (CBFS) | Th2100 | OL990016 | OL960695 |
| <i>Thuidium assimile</i> | Russia: Primorsky, Chandalaz | Kučera 21386 (CBFS) | Th2135 | OL990017 | OL960696 |
| <i>Thuidium assimile</i> | | | Yunan 1 | KF770638 | KF770476/ KF770530 |
| <i>Thuidium delicatulum</i> | USA: NC, Duke Forest | Aguero 19750 (DUKE) | Th2278 | OL990018 | OL960697 |
| <i>Thuidium delicatulum</i> | Norway | MW9078688 | ThF57 | OL990019 | OL960698 |
| <i>Thuidium glaucinoides</i> | | | Yunan 5 | KF770649 | KF770487/ KF770541 |
| <i>Thuidium pristocalyx</i> | Russia: Primorsky, Elomovsky Klyuch | MW9066364 | ThF55 | OL990020 | OL960699 |
| <i>Thuidium kanedae</i> | | | Anhui 1 | KF770646 | KF770484/ KF770538 |
| <i>Thuidium kanedae</i> | Japan: Shikoku Island | MW9075555 | ThF54 | OL825640 | OL960700 |
| <i>Thuidium kanedae</i> | Russia: Sakhalin Province, Shikotan Island | Fedosov s.n. 27.VIII.21 (MW) | ThF73 | OL825641 | OL960701 |
| <i>Thuidium pristocalyx</i> | China | | Liaolin 1 | KF770648 | KF770486/ KF770540 |
| <i>Thuidium subglaucinum</i> | China | | Yunan 4 | KF770645 | KF770483/ KF770537 |
| <i>Thuidium subglaucinum</i> | China | | Zhejiang 1 | KF770642 | KF770480/ KF770534 |
| <i>Thuidium tamariscinum</i> | Czech Rep.: Vidov | Kučera 22544 (CBFS) | Th2197 | OL990021 | OL960702 |
| <i>Thuidium tamariscinum</i> | Russia: Sakhalinskaya Province, Iturup Island | MW9066363 | ThF56 | OL990022 | OL960703 |
| <i>Thuidium thermophilum</i> | Russia: Sakhalinskaya Province, Kunashir Island | Koroteeva 15-6/1-1 MHA9119722 | OK3014 | OL990023 | OL960704 |
| <i>Thuidium thermophilum</i> | Russia: Koryaksky Distr. | MHA9119753 | OK3015 | EF368013 | OL960705 |