DAFTAR PUSTAKA

Alcaraz, L.D., Peimbert, M., Barajas, H.R., Dorantes-Acosta, A.E., Bowman, J.L., & Arteaga-Vázquez, M.A. 2018. Marchantia liverworts as a proxy to plants' basal microbiomes. *Scientific Reports*, 8(1), 1–12. https://doi.org/10.1038/s41598-018-31168-0

Amakawa, T. 1960. Family Jungermanniaceae of Japan. *J. Hattori Bot. Lab.*, *21*(4), 248–291.

Bakalin, V. A. 2014. The Revision of "Jungermannia s.l." in the North Pacific: the Genera Endogemma, Jungermannia s.str., Metasolenostoma, Plectocolea and Solenostoma (Hepaticae). *Botanica Pacifica*, *3*(2), 55–128. https://doi.org/10.17581/bp.2014.03206

Bakalin, V. A., & Choi, S. S. 2023. The Type Specimens of Plectocolea and Solenostoma (Marchantiophyta) in Some Japanese and European Herbaria. *Plants*, *12*(23). https://doi.org/10.3390/plants12233935

Bakalin, V., Choi, S. S., & Park, S. J. 2020. Review of Heteroscyphus Schiffn. (Lophocoleaceae, Marchantiophyta) in Cambodia. *Journal of Bryology*, *43*(1), 52–61. https://doi.org/10.1080/03736687.2020.1815383

Bakalin, V. A., Klimova, K. G., Karpov, E. A., Bakalin, D. A., & Choi, S. S. 2022. Liverworts of the South Kamchatka Nature Park: Survival in Active Volcanism Land. *Diversity*, *14*(9), 1–40. https://doi.org/10.3390/d14090722

Bakalin, V. A., & Vilnet, A. A. 2012. New combinations and new species of Solenostoma and Plectocolea (Solenostomataceae) from the Russian Far East. *Bryologist*, *115*(4), 566–584. https://doi.org/10.1639/0007-2745-115.4.566

Bakalin, V., Vilnet, A., Ma, W. Z., & Klimova, K. 2019. The differentiation and speciation of *Scapania javanica* and *S. undulata* complexes in the Eastern Sino-Himalayas and perimeters for Scapania Sect. Stephania (Scapaniaceae, Hepaticae). *Phytotaxa*, *400*(3), 123–144. https://doi.org/10.11646/phytotaxa.400.3.2

Benita, A.A., Fitriani, A., Ramadhan, F., Masfurin, F.R., Grandisningtias, G.G., & Fitriyyah, I. 2025. Identifikasi Karakter Morfologi dan Reproduksi pada Thallophyta dan Bryophyta di UIN Sunan Gunung Djati Bandung. *Tumbuhan: Publikasi Ilmu Sosiologi Pertanian Dan Ilmu Kehutanan*, *2*(1), 82–94.

Botting, R.S., & Fredeen, A.L. 2006. Contrasting terrestrial lichen, liverwort, and moss diversity between old-growth and young second-growth forest on two soil textures in central British Columbia. *Canadian Journal of Botany*, *84*(1), 120–132. https://doi.org/10.1139/b05-146

Bullu, N.I., Sabuna, A.C., & & Hendrik, A.C. 2021. Identifikasi Jenis Lumut (Briophyta) Di Kawasan Cagar Alam Gunung Mutis, Kabupaten Timor Tengah Selatan (TTS). *Indigenous Biologi :Jurnal Pendidikan Dan Sains Biologi*, *4*(3), 112–117. https://doi.org/10.33323/indigenous.v4i3.269

Cacciatori, C., Czerepko, J., & Lech, P. 2022. Long-term changes in bryophyte diversity of central European managed forests depending on site environmental features. *Biodiversity and Conservation*, *31*(11), 2657–2681. https://doi.org/10.1007/s10531-022-02449-y

Candrika, A.E., Apsari, C.J., Nurlaily, F.R., Choirunnisa, S.A., & & Fardhani, I. 2023. Keanekaragaman dan Kelimpahan Pertumbuhan Lumut terhadap Jarak Sumber Air Terjun Coban Putri. *Jurnal Pendidikan Mipa*, *13*(4), 1177–1183. https://doi.org/10.37630/jpm.v13i4.1368

Dauphin, G., Gradstein, S.R., Allen, N.S., & Clementina, C. 2024. Liverworts and Hornworts of Barro Colorado Island, Panama. In *Smithsonian Institution Scholarly Press.* Smithsonian Institution Scholarly Press. https://doi.org/https://doi.org/10.5479/si.26882410

Duckett, J. G., Pressel, S., & Kowal, J. 2024. The biology of Marchantia polymorpha subsp. ruderalis Bischl. & Boissel. Dub in nature. *Frontiers in Plant Science*, *15*(May), 1–10. https://doi.org/10.3389/fpls.2024.1339832

Eman, M., Sari, A.P., & Ariandi. 2022. Studi Keanekaragaman Lumut (Bryophyta) Di Kawasan Hutan Desa Taupe, Kecamatan Mamasa, Kabupaten Mamasa, Sulawesi Barat. *Jurnal Pendidikan Biologi Undiksha.*, *9*(1), 85–94.

Endang, T., Jumiati, J., & Pramesthi I.A.D. 2020. Inventarisasi Jenis-Jenis Lumut (Bryophyta) di Daerah Aliran Sungai Kabura-Burana Kecamatan Batauga Kabupaten Buton Selatan. *Jurnal Biologi Tropis*, *20*(2), 161–172.

Ermawati, K.C. 2021. Upaya Pengembangan Candi Gedongsongo Sebagai Daya Tarik Wisata di Desa Candi Kecamatan Bandungan. *Jurnal Pariwisata Indonesia*, *17*(1), 21–28. https://doi.org/10.53691/jpi.v17i1.138

Faisal, M., Panggabean, A., Wulandari, D.R., & Dwi, C.P. 2024. *Pengaruh Polusi Udara Terhadap Pertumbuhan Dan Distribusi Lumut Di Beberapa Kampus Di Kota Medan*. *3*(4), 979–983.

Fanani, M., Afriyansyah, B., & Haerida, I. 2019. Keanekaragaman Jenis Lumut (Bryophyta) Pada Berbagai Substrat Di Bukit Muntai Kabupaten Bangka Selatan. *Ekotonia: Jurnal Penelitian Biologi, Botani, Zoologi Dan Mikrobiologi*, *4*(2), 43–47.

Fathiya, N., & Puspa, V.R. 2024. Identifikasi Lumut (Bryophyta) pada Berbagai Substrat di Kawasan Wisata Air Terjun Suhom, Aceh Besar. *Jurnal Biologi Edukasi*, *16*(1), 1–23.

Febriansah, R., Setyowati, E., & Fauziah, A. 2019. Identifikasi Keanekaragaman Marchantiophyta Di Kawasan Air Terjun Parangkikis Pagerwojo Tulungagung. *Jurnal Biologi Dan Pembelajarannya (JB&P)*, *6*(2), 17–21. https://doi.org/10.29407/jbp.v6i2.14795

Fitriani, A. A., Rahayuningsih, M., & Rahayu, E. S. 2021. Species richness of mosses in selo hiking trails mount merbabu national park. *Journal of Physics: Conference Series*, *1918*(5). https://doi.org/10.1088/1742-6596/1918/5/052031

Frahm, J.-P., O´shea, B., Pocs, T., Koponen, T., Piippo, S., Enroth, J., Rao, P., & Fang, Y.M. 2003. Manual of Tropical Bryology. An International Journal on the Biology of Tropical Bryophytes. Germany.

Gimeno, C., & Deltoro, V. I. 2000. Sulphur dioxide effects on cell structure and photosynthetic performance in the liverwort *Frullania dilatata*. *Canadian Journal of Botany*, *78*(1), 98–104. https://doi.org/10.1139/cjb-78-1-98

Glime, J.M. 2017. Bryophyte Ecology. *Physiological Ecology*, *1*, 1–140. http://digitalcommons.mtu.edu/bryophyte-ecology/

Glime, J.M. 2020. Chapter 001: Aquatic and Wet Habitats. *Bryophyte Ecology: Habitat and Role*, *3*. http://digitalcommons.mtu.edu/bryophyte-ecology/

Glime, J. M. 2021. Aquatic and Wet Marchantiophyta, Order Jungermanniales: Jungermanniineae. *Bryophyte Ecology*, *4*(1–4), 1–68.

Gradstein, S.R. 2011. *Guide to the Liverworts and Hornworts of Java*. Seameo Bryotrop. Southeast Asian Regional Centre for Tropical Biology.

Gradstein, S.R. 2021. The Liverworts and Hornworts of Colombia and Ecuador. In *The Liverworts and Hornworts of Colombia and Ecuador* New York Botanical Garden.

Gradstein, S.R., Churchill, S.P., & Salazar-Allen, N. 2001. Guide to the Bryophytes of Tropical America. In *Memoirs of the New Botanical Garden* . The New York Botanical Garden Press.

Gradstein, S.R., & León-Yánez, S. 2020. Liverwort diversity in Polylepis pauta forests of Ecuador under different climatic conditions. *Neotropical Biodiversity*, *6*(1), 138–146.

Gradstein, S.R., & Sporn, S.G. 2010. Land-use change and epiphytic bryophyte diversity in the Tropics. *Nova Hedwigia*, *138*, 311–323.

Haerida, I. 2009. *Lejeuneaceae subfamily Ptychanthoideae (Hepaticae) in West Java.* Tesis. Insitut *Pe*rtanian Bogor

Haerida, I. 2017. Liverworts of Bali, Indonesia, with new records to the island. *Gardens' Bulletin Singapore*, *69*(1), 81–87. https://doi.org/10.26492/gbs69(1).2017-05

Hajar, S., Muallimah, N., Oki Jain, H., Burhan, S., Nahdlatul Ulama Sulawesi Tenggara, U., & Mayjend Katamso, J. 2024. Inventarisasi Jenis-Jenis Lumut (Bryophyta) Di Sekitar Kampus Universitas Nahdlatul Ulama Sulawesi Tenggara. *Biokatalis*, *1*(2), 60–69.

Halder, K., Chakraborti, S., Lama, P. C., & Mitra, S. 2024. Influence of bark chemistry on distributioof epiphytic mosses on basal trunk of Cryptomeria japonica. *Environmental and Experimental Biology*, *22*(3), 95–104. https://doi.org/10.22364/eeb.22.10

Hayati, R. 2013. Model Ambang Batas Fisik Dalam Perencanaan Kapasitas Area Wisata Berwawasan Konservasi Di Kompleks Candi Gedong Songo Kabupaten Semarang. *Jurnal Geografi*, *10*(2), 85–95.

Huang, W. J., Wu, C. L., Lin, C. W., Chi, L. L., Chen, P. Y., Chiu, C. J., Huang, C. Y., & Chen, C. N. 2010. Marchantin A, a cyclic bis(bibenzyl ether), isolated from the liverwort Marchantia emarginata subsp. tosana induces apoptosis in human MCF-7 breast cancer cells. *Cancer Letters*, *291*(1), 108–119. https://doi.org/10.1016/j.canlet.2009.10.006

He-Nygrén, X., Juslén, A., Ahonen, I., Glenny, D., & Piippo, S. 2006. Illuminating the evolutionary history of liverworts (Marchantiophyta) - Towards a

natural classification. *Cladistics*, 22(1), 1–31. https://doi.org/10.1111/j.1096-0031.2006.00089.x

Husain, Z., Pikoli, S.W., Salam, N., Uno, W.D., Kumaji, S.S., & Febrianti. 2022. Variasi Morfologi Lumut (Bryophyta) Di Area Kampus Bone Bolango Universitas Negeri Gorontalo. *Prosiding Seminar Nasional Mini Riset Mahasiswa*, *1*(2), 72–80.

Jarman, S. J. & Fyhrer, B. A. 1995. *Mosses and Liverworts of Rainforest in Tasmania and South-eastern Australia*. CSIRO Publishing

Jatmiko, F.A.N., Jumari, & Wiryani, E. 2020. Komposisi Struktur Vegetasi di Kawasan Wisata Alam Wono Lestari, Candi Gedong Songo, Kecamatan Bandungan, Kabupaten Semarang, Jawa Tengah. *Jurnal Akademika Biologi*, *9*(1), 7–17.

Kartikasari, D., Widodo, A.G., Habibah, N., & Asna, Z.R. 2023. Diversity of Moss Species (Bryophyta) In Senggani Ravine Tourism Area, Tulungagung Regency. *Jurnal Riset Biologi Dan Aplikasinya*, *5*(1), 43–51. https://doi.org/10.26740/jrba.v5n1.p43-51

Kim, S.Y., Hong, M., Kim, T.H., Lee, K.Y., Park, S.J., Hong, S.H., Sowndhararajan, K., & Kim, S. 2021. Anti-inflammatory effect of liverwort (M*archantia polymorpha* L.) and racomitrium moss (*racomitrium canescens* (hedw.) brid.) growing in Korea. *Plants*, *10*(10). https://doi.org/10.3390/plants10102075

Komatsu, A., Kodama, K., Mizuno, Y., Fujibayashi, M., Naramoto, S., & Kyozuka, J. 2023. Control of vegetative reproduction in Marchantia polymorpha by the KAI2-ligand signaling pathway. *Current Biology*, *33*(7), 1196-1210.e4. https://doi.org/10.1016/j.cub.2023.02.022

Krisnawati, Y., & Wardianti, Y. 2022. Jenis-Jenis Lumut Di Bukit Reli Kabupaten Musi Rawas, Sumatera Selatan. *Journal of Scientech Research and Development*, *3*(1), 24–32.

Laenen, B., Patiño, J., Hagborg, A., Désamoré, A., Wang, J., Shaw, A.J., Goffinet, B., & Vanderpoorten, A. 2018. Evolutionary Origin of the Latitudinal Diversity Gradient in Liverworts. *Molecular Phylogenetics and Evolution*, *127*, 606–612. https://doi.org/10.1016/j.ympev.2018.06.007

Lee, G.Ee., & Gradstein, S.R. 2021. *Guide to the genera of liverworts and hornworts of Malaysia*. Hattori Botanical Laboratory.

Lloret, F., & González-Mancebo, J. M. 2011. Altitudinal distribution patterns of bryophytes in the Canary Islands and vulnerability to climate change. *Flora: Morphology, Distribution, Functional Ecology of Plants*, *206*(9), 769–781. https://doi.org/10.1016/j.flora.2011.04.007

Long, D. G. 2005. Studies on the genus Asterella (Aytoniaceae) VI: Infrageneric classification in Asterella. *Journal of the Hattori Botanical Laboratory*, *261*(97), 249–261.

Maresca, V., Sorbo, S., Loppi, S., Funaro, F., Del Prete, D., & Basile, A. 2020. Biological effects from environmental pollution by toxic metals in the “land of fires” (Italy) assessed using the biomonitor species *Lunularia cruciata* L. (Dum). *Environmental Pollution*, *265*.

Masyitoh, A.D., Saputri, I., Antika, I.R., Ifannani, F.A., Simanjuntak, L.A., Safitri, N.R., & Fardhani, I. 2023. Keanekaragaman Hayati Tumbuhan Lumut (Bryophyta) Sekitar Kebun Rojo Camp Kecamatan Dau Kabupaten Malang. *Jurnal Penelitian Pendidikan IPA*, *9*(6), 4423–4430. https://doi.org/10.29303/jppipa.v9i6.2628

Munir, A., Darlian, L., & Ary, A. 2024. Jenis-Jenis Tumbuhan Lumut (Bryophyta) di Kawasan Hutan Lindung Nanga-Nanga Papalia Kota Kendari. *Ampibi: Jurnal Alumni Pendidikan Biologi*, *9*(1), 72–77.

Mustika, W., Yanti, L.A., & Iqbar. 2024. Keanekaragaman Lumut Epifit (Bryophyta) di Kawasan Resort Pengelolaan Hutan (RPH) Alue Geulima Taman Hutan Raya Pocut Meurah Intan Aceh Besar. *Jurnal Ilmiah Mahasiswa Pertanian*, *9*(4), 488–493. www.jim.usk.ac.id/JFP

Nadhifah, A., Haerida, I., Fastanti, F. S., Söderström, L., Hagborg, A., & von Konrat, M. 2024. Beyond nutmeg, mace, and cloves: Checklist of the liverworts and hornworts of Maluku Islands (Moluccas), Indonesia. *PhytoKeys*, *239*, 107–193. https://doi.org/10.3897/phytokeys.239.116679

Nadhifah, A., Söderström, L., Hagborg, A., Iskandar, E. A. P., Haerida, I., & Von Konrat, M. 2021. An archipelago within an archipelago: A checklist of liverworts and hornworts of Kepulauan Sunda Kecil (Lesser Sunda Islands), Indonesia and Timor-Leste (East Timor). *PhytoKeys*, *180*, 1–30. https://doi.org/10.3897/phytokeys.180.65836

Noor, A.I. 2023. Peran Keanekaragaman Hayati di Indonesia dalam Mengatasi Perubahan Iklim Global. *Semnas Bio*. 2809–8447.

Nuryanto, Gultom, H.M., & Melinda, S. 2021. Pengaruh Angin Permukaan dan Kelembapan Udara terhadap Suspended Particulate Matter (SPM) di Sorong Periode Januari–Juli 2019. *Buletin GAW Bariri (BGB)*, *2*(2), 71–78. https://doi.org/10.31172/bgb.v2i2.51%0A

Orsida, F., Khotimperwati, L., Prihastanti, E., & & Nadhifah, A. 2024. Diversity and Distribution of Thalloid Liverworts in Mount Ungaran, Central Java, Indonesia. *Jurnal Riset Biologi Dan Aplikasinya*, *6*(2), 90–108. https://doi.org/10.26740/jrba.v6n2.p.90-108.

Pasaribu, P.O., Hafidhuddin, I., Darmawan, A.M., Arnelya, A., Putri, M., Asharo, R.K., Priambodo, R., & Rizkawati, V. 2022. Identifikasi Lumut di Kawasan Taman Nasional Situ Gunung Sukabumi. *Jurnal Pendidikan MIPA*, *12*(2), 165–169.

Paukszto, Ł., Górski, P., Krawczyk, K., Maździarz, M., Szczecińska, M., Ślipiko, M., & Sawicki, J. 2023. The organellar genomes of Pellidae (Marchantiophyta): the evidence of cryptic speciation, conflicting phylogenies and extraordinary reduction of mitogenomes in simple thalloid liverwort lineage. *Scientific Reports*, *13*(1), 1–17. https://doi.org/10.1038/s41598-023-35269-3

Procházková, J., Hájek, T., Mikulášková, E., Plášek, V., Těšitel, J., & Hájek, M. 2025. Congruent responses of epiphytic bryophyte communities to air pollution on two species of trees differing in bark chemistry. *Preslia*, *97*(1), 157–173. https://doi.org/10.23855/preslia.2025.157

Putra, R.R., Hernawati, D., & Fitriani, R. 2019. Identifikasi Tumbuhan Lumut di Kawasan Wisata Gunung Galunggung Kabupaten Tasikmalaya Jawa Barat. *Bioma : Berkala Ilmiah Biologi*, *21*(2), 114–120. https://doi.org/10.14710/bioma.21.2.114-120

Putri, I.K., Haerida, I., Setyati, D., Nadhifah, A., & Ulum, F.B. 2024. Liverworts (Marchantiophyta) of Ireng-ireng forest Bromo Tengger Semeru National Park, east Java Indonesia. *BIO Web of Conferences*, *101*. https://doi.org/10.1051/bioconf/202410103001

Rahmat, C., Putro, S., & Sriyono. 2020. Kajian Pengembangan Fasilitas Pariwisata Berdasarkan Prinsip Pembangunan Berkelanjutan di Kawasan Candi Gedongsongo Kabupaten Semarang. *Geo Image Spatial-Ecological-Regional)*, *9*(1), 14–21.

Rola, K., & Plášek, V. 2022. The Utility of Ground Bryophytes in the Assessment of Soil Condition in Heavy Metal-Polluted Grasslands. *Plants*, 11(16), 1–20. https://doi.org/10.3390/plants11162091

Saputro, R.W., & Utami, S. 2020. Keanekaragaman Tumbuhan Paku (Pteridophyta) di Kawasan Candi Gedong Songo Kabupaten Semarang. *Bioma : Berkala Ilmiah Biologi*, 22(1), 53–58. https://doi.org/10.14710/bioma.22.1.53-58

Satake, K., Shibata, K., & Bando, Y. 1990. Mercury sulphide (HgS) crystals in the cell walls of the aquatic bryophytes, *Jungermannia vulcanicola* Steph. and *Scapania undulata* (L.) Dum. Aquatic Botany, 36(4), 325–341. https://doi.org/10.1016/0304-3770(90)90049-Q

Setiawan, M.B., & Vanel, Z. 2023. Strategi Promosi Dinas Pariwisata Kabupaten Semarang untuk Meningkatkan Wisatawan Candi Gedong Songo. *Jurnal Pustaka Komunikasi*, *6*(2), 266–277. https://doi.org/10.32509/pustakom.v6i2.2669

Shimamura, M. 2016. *Marchantia polymorpha:* Taxonomy, phylogeny and morphology of a model system. *Plant and Cell Physiology*, *57*(2), 230–256. https://doi.org/10.1093/pcp/pcv192

Sigalingging, T.W., Nurcahyanto, H., & Marom, A. 2024. Strategi Pengembangan Pariwisata Candi Gedongsongo Kabupaten Semarang. *Journal of Public Policy and Management Review*, *13*(2), 1–18.

Singh, D., & Singh, D. K. 2015. Three new records of the genus Solenostoma (Solenostomataceae, Marchantiophyta) in Indian bryoflora from Sikkim. *Indian Journal of Forestry*, *38*(3), 233–240. https://doi.org/10.54207/bsmps1000-2015-7t2o2b

Sinha, S., Singh, A., Sinha, D., & Chatterjee, R. 2021. A Review on Bryophytes as Key Bio-indicators to Monitor Heavy Metals in the Atmosphere. *International Journal of Plant and Environment*, *7*(01), 49–62. https://doi.org/10.18811/ijpen.v7i01.5

Siregar, E. S., Ariyanti, N. S., & Tjitrosoedirdjo, S. S. 2013. The Liverwort Genus Marchantia (Marchantiaceae) Of Mount Sibayak North Sumatra, Indonesia. *Biotropia*, *20*(2), 73–80. https://doi.org/10.11598/btb.2013.20.2.3

Siregar, E. S., Pasaribu, N., & Khairani. 2020. The liverwort family lejeuneaceae (Marchantiophyta) of Mount Lubuk Raya, North Sumatra, Indonesia. *Biodiversitas*, *21*(6), 2767–2776. https://doi.org/10.13057/biodiv/d210653

Siregar, E. S., Pasaribu, N., & Nababan, I. G. 2018. The liverworts family Lepidoziaceae in Aek Nauli Parapat natural forests, North Sumatra, Indonesia. *Journal of Physics: Conference Series*, *1116*(5). https://doi.org/10.1088/1742-6596/1116/5/052063

Siregar, E S., Pasaribu, N., & Sofyan, M.Z. 2024. Distribution of the Thalloid Liverwort Genus Marchantia (Marchantiaceae) in North Sumatra, Indonesia. *Biotropia*, *31*(2), 277–290. https://doi.org/10.11598/btb.2024.31.2.2177

Söderström, L., Hagborg, A., Von Konrat, M., Bartholomew-Began, S., Bell, D., Briscoe, L., Brown, E., Cargill, D.C., Costa, D.P., Crandall-Stotler, B.J., Cooper, E.D., Dauphin, G., Engel, J. J., Feldberg, K., Glenny, D., Gradstein, S.R., He, X., Heinrichs, J., Hentschel, J., … Zhu, R.L. 2016. World checklist of hornworts and liverworts. *PhytoKeys*, *59*(1), 1–828. https://doi.org/10.3897/phytokeys.59.6261

So, M.L. 1995. *Mosses and Liverworts of Hong Kong.* Heavenly People Depot. Hong Kong.

Sukkharak, P., Kitlap, P., Likananonn, A., & He, S. 2014. A preliminary study of bryophytes in the Khao Soi Dao wildlife sanctuary, Chanthaburi Province, Thailand. *Songklanakarin Journal of Science and Technology*, *36*(5), 527–534.

Sukkharak, P., & Chantanaorrapint, S. 2020. The liverwort genus Metzgeria (Metzgeriaceae, Marchantiophyta) in Thailand. *Phytotaxa*, *441*(3), 251–262. https://doi.org/https://doi.org/10.11646/phytotaxa.441.3.2

Sukkharak, P., & Gradstein, S. R. 2014. A taxonomic revision of the genus Mastigolejeunea (Marchantiophyta: Lejeuneaceae). *Nova Hedwigia*, *99*(3–4), 279–345. https://doi.org/10.1127/0029-5035/2014/0206

Susilo, F., Pasaribu, N., Syamsuardi, S., & Sartina Siregar, E. 2023. Lejeuneaceae (Subfamily: Lejeuneoideae) of Mount Sibuatan, North Sumatra, Indonesia. *Floribunda*, *7*(2), 92–106.

Ulfa, S.W., Mirda, K., Mawaddah, R., Afrina, N., & Samosir, A.R. 2023. Identifikasi Tumbuhan Lumut di Beberapa Kecamatan di Kota Medan. *INNOVATIVE: Journal of Social Science Research*, *3*(3), 489–501.

Utami, F. Y., Harmoko, H., & Fitriani, L. 2020. Eksplorasi Lumut (Bryophyta) di Kawasan Air Terjun Bukit Gatan Provinsi Sumatera Selatan. *Al-Hayat: Journal of Biology and Applied Biology*, *3*(2), 93–101. https://doi.org/10.21580/ah.v3i2.6143

Utomo, A. A., Khotimperwati, L., & Jumari, J. 2022. Lejeuneaceae (Marchantiophyta) in Curug Semirang, Central Java, Indonesia. *Biogenesis: Jurnal Ilmiah Biologi*, *10*(2), 168–180. https://doi.org/10.24252/bio.v10i2.29903

Verma, P. K., Rawat, K. K., Yadav, A., & Das, N. 2012. The Liverwort and Hornwort flora of Hoollongapar Gibbon Sanctuary , Jorhat (Assam) -1. *Archive for Bryology*, *152*,1–16.

Vitt, D. H., Finnegan, L., & House, M. 2019. Terrestrial bryophyte and lichen responses to canopy opening in pine-moss-lichen forests. *Forests*, *10*(3), 1–15. https://doi.org/10.3390/f10030233

Wahyuningsih, E. P., & Martiwi, I. N. A. 2025. Diversity of Bryophytes Based on Substrate Types in the Karangkamulyan Tourist Area, Ciamis Regency. *Jurnal Biologi Tropis*, *25*(1), 517–528. https://doi.org/10.29303/jbt.v25i1.8495

Wang, J., Lai, M. J., & Zhu, R. L. 2011. Liverworts and hornworts of Taiwan: An updated checklist and floristic accounts. *Annales Botanici Fennici*, *48*(5), 369–395. https://doi.org/10.5735/085.048.0501

Wikström, N., He-Nygrén, X., & Shaw, A.J. 2023. Liverworts (Marchantiophyta). *The Timetree of Life*, 146–152. https://doi.org/10.1093/oso/9780199535033.003.0013

Xiang, Y.L., Jin, X.J., Shen, C., Cheng, X.F., Shu, L., & Zhu, R.L. 2022. New insights into the phylogeny of the complex thalloid liverworts (Marchantiopsida) based on chloroplast genomes. *Cladistics*, *38*(6), 649–662. https://doi.org/10.1111/cla.12513

Yustiningsih, M. 2019. Intensitas Cahaya dan Efisiensi Fotosintesis pada Tanaman Naungan dan Tanaman Terpapar Cahaya Langsung [Light Intensity and Photosynthetic Efficiency in Shade Plants]. *Bioedu*, *4*(2)

Zhu, R. L., & Gradstein, S. R. 2005. A monograph of the genus Lopholejeunea (Spruce) Schiffn.(Lejeuneaceae, Hepaticae) in Asia. 1–87.