

DAFTAR PUSTAKA

- Abolmaali, S.M.R., Tarkesh, M. and Bashari, H. 2018. MaxEnt Modeling for Predicting Suitable Habitats and Identifying the Effects of Climate Change on A Threatened Species, *Daphne mucronata*, in Central Iran. *Ecological Informatics*. 43: 116–123.
- Alamsjah, F., Agustien, A., & Alam, T.W.N. 2023. Uji Antibakteri Ekstrak Rimpang Koenih Rimbo (*Curcuma sumatrana* Miq.) Tumbuhan Endemik Sumatera terhadap Bakteri Gram Positif. *Bioscientist: Jurnal Ilmiah Biologi*. 11(1): 561–570.
- Ali, F., Khan, N., Khan, A.M., Ali, K., Abbas, F. 2023. Species Distribution Modelling of *Monotheca buxifolia* (Falc.) A. DC.: Present Distribution and Impacts of Potential Climate Change. *Heliyon*. 9(2).
- Allouche, O., Tsoar, A., & Kadmon, R. 2006. Assessing the Accuracy of Species Distribution Models: Prevalence, Kappa and the True Skill Statistic (TSS). *Journal of Applied Ecology*. 43: 1223–1232.
- Anand V, Oinam, B., Singh, I.H. 2021. Predicting the current and future potential spatial distribution of endangered *Rucervus eldii eldii* (sangai) using MaxEnt model. *Environ Monit Assess*. 193: 147.
- Ardiyani, M., Anggara, A., & Leong-Škorničková, J. 2011. Rediscovery of *Curcuma sumatrana* (Zingiberaceae) Endemic to West Sumatra. *Blumea*. 56: 6–9.
- Baldwin, R.A. 2009. Use of Maximum Entropy Modeling in Wildlife Research. *Entropy*. 11(4): 854–866.
- Beentje, H.J. 2010. The Kew Plant Glossary: An Illustrated Dictionary of Plant Terms.
- Bijmoer, R, Scherrenberg, M, & Creuwels, J. 2023. Naturalis Biodiversity Center (NL) - Botany. Naturalis Biodiversity Center. Occurrence dataset <https://doi.org/10.15468/ib5ypt>. Diakses 13 April 2023
- BKSDA, 2012. *Buku Informasi Kawasan Konservasi Balai KSDA Sumatera Barat*. BKSDA Sumatera Barat.
- Chen, L., Huang, J.G., Alam, S.A., Zhai, L.H., Dawson, A., Stadt, K.J., & Comeau, P.G. 2017. Drought Causes Reduced Growth of Trembling Aspen in Western Canada. *Glob Chang Biol*. 23: 2887–2902.
- Cubey, R. 2022. Royal Botanic Garden Edinburgh Herbarium (E). Royal Botanic Garden Edinburgh. Occurrence dataset <https://doi.org/10.15468/ypopair>. Diakses 13 April 2023
- De Vogel, E.F. 1987. *Manual of Herbarium Taxonomy Theory and Practice*. Unesco. Jakarta.

- Djarwaningsih, T. 2002. Persebaran Geografi Jenis-Jenis *Pimelodendron* (Euphorbiaceae) Di Malesia. *Berita Biologi*. 6: 509–514.
- Du Z, He Y, Wang H, Wang C, Duan Y. 2021. Potential Geographical Distribution and Habitat Shift of the Genus *Ammopiptanthus* in China under Current and Future Climate Change Based on the MaxEnt Model. *J Arid Environ*. 184: 104238. DOI: 10.1016/j.jaridenv.2020.104328.
- Eviati, Sulaeman. 2009. *Analisis Kimia Tanah, Tanaman, Air dan Pupuk*. Balai Penelitian Tanah. Bogor.
- Fachrul, M.F. 2007. *Metode Sampling Bioekologi*. Bumi Aksara. Jakarta.
- Fathia, A.A, Hilwan, I., Wibowo, C. 2019. Rehabilitasi Lahan pada Area Bekas Terbakar dengan Jenis Tanah yang Berbeda di Kabupaten Gunung Mas Kalimantan Tengah. *Media Konservasi*. 24(1): 20-28.
- Fitriani, A., Arifin, Y.F., Hatta, G.M., Wahdah, R., & Payung, D. 2022. Suitability Habitat Model of *Mangifera rufocostata* under Different Climatic and Environmental Conditions. *Biodiversitas Journal of Biological Diversity*. 23: 4570–4577.
- Gauthier, P., Pons, V., Letourneau, A., Kleszczewski, M., Papuga, G., & Thomson, J.D. 2017. Combining Population Monitoring with Habitat Vulnerability to Assess Conservation Status in Populations of Rare and Endangered Plants. *J. Nat. Conserv*. 37: 83-95.
- Gong L, Li X, Wu S, Jiang L. 2022. Prediction of Potential Distribution of Soybean in the Frigid Region in China with Maxent Modeling. *Ecological Informatics*. 72: 101834.
- Gunawan, G., Anwar, K., Gafur, A., Hilaliyah, R., Waro, A.A., Hikmah, N., Sakinah, S., Erwansyah, M., Susilawati, D., Lestari, R.D., & Triana, D. 2023. Predicting the Current Potential Geographical Distribution of *Baccaurea* (*B. lanceolata* and *B. motleyana*) in South Kalimantan, Indonesia. *Biodiversitas Journal of Biological Diversity*. 24: 930-939.
- Gunawan, G., Sulistijorini, S., Chikmawati, T., Sobir, S. 2021. Predicting Suitable Areas for *Baccaurea angulata* in Kalimantan, Indonesia using Maxent Modelling. *Biodiversitas Journal of Biological Diversity*. 22(5): 2646–2653.
- Halimatussakdiah, Amna, U., & Mardina, V. 2020. Antioxidant Activity of Methanol Extract of *Diplazium esculentum* (Retz.) Sw. Leaves Collected from Aceh. IOP Conference Series: Materials Science and Engineering, 725(012082): 1–7.
- Hammer, Ø., Harper, D.A.T., & Ryan, P.D. 2001. PAST: Paleontological Statistics Software Package for Education and Data Analysis. *Palaeontologia electronica*. 4(1): 9.
- Harapan, T.S, Agung, A.P., Handika, H., Novarino, W., Tjong, D.H., & Tomlinson, K.W. 2020. New Records and Potential Geographic Distribution of Elongated Caecilian, *Ichthyophis elongatus* Taylor, 1965 (Amphibia:

- Gymnophiona: Ichthyophiidae), Endemic to West Sumatra, Indonesia. *Check List*. 16(6): 1695–1701.
- Harapan, T.S., Nurainas, Syamsuardi, & Taufiq, A. 2022. Identifying the Potential Geographic Distribution for *Castanopsis argentea* and *C. tungurrut* (Fagaceae) in the Sumatra Conservation Area Network, Indonesia. *Biodiversitas*. 23(4): 1726–1733.
- Haq, S.M., Waheed, M., Darwish, M., Siddiqui, M.H., Goursi, U.H., Kumar, M., Song, L., & Bussmann, R.W. 2024. Biodiversity and Carbon Stock of the Understory Vegetation as Indicators for Forest Health in the Zabarwan Mountain Range. Indian Western Himalaya. *Ecological Indicators*. 159
- Hernandez, P.A., Franke, I., Herzog, S.K, Pacheco, V., Paniagua, L., Quintana, H., & Young B.E. 2008. Predicting Species Distributions in Poorly-Studied Landscapes. *Biodiversity and conservation*. 17:1353–1366.
- Hijmans, R.J. 2015. Package ‘raster’. R Package. <https://cran.rproject.org/web/packages/raster/index.html>. Diakses pada 26 Maret 2023.
- Hossain, M.A, Akamine, H., Ishimine, Y., Teruya, R., Aniya, Y. & Yamawaki, K. 2009. Effects of Relative Light Intensity on the Growth, Yield and Curcumin Content of Turmeric (*Curcuma longa* L.) in Okinawa, Japan. *Plant production science*. 12(1): 29–36 .
- Huang, Y.I., Y. Zeng, P. Jiang, H. Chen, and J. Yang. 2022. Prediction of Potential Geographic Distribution of Endangered Relict Tree Species *Dipteronia Sinensis* in China Based on Maxent and GIS. *Polish Journal Environmental Studies*. 31(4): 3597.
- Idrees, M., Pathak, M.L., Memon, N.H., Khan, S., Zhang, Z.Y. and Gao, X.F., 2021. Morphological and Morphometric analysis of genus *Eriobotrya* Lindl.(Rosaceae). *JAPS: Journal of Animal & Plant Sciences*. 31(4).
- Indriyanto. 2006. *Ekologi Hutan*. Bumi Aksara. Jakarta.
- IPNI. 2024. International Plant Names Index. The Royal Botanic Gardens, Kew, Harvard University Herbaria & Libraries and Australian National Botanic Gardens. Diakses pada 10 Mei 2024.
- Ito, H., Hayakawa, K, Ooba, M., & Fujii, T. 2020. Analysis of Habitat Area for Endangered Species Using Maxent by Urbanization In Chiba, Japan. *Intl J Geomate*. 18: 94-100. DOI: 10.21660/2020.68.5721.
- Juliasih, N.K.A. & Adnyana, I.M.D.M., 2023. Ethnopharmacology and Species diversity of Pteridophyta in Cyathea Park, Bali: A Field study and Literature Review. *Research Square*. 1-21.
- Kaiser, H.F. 1960. The Application of Electronic Computers to Factor Analysis. *Educational and Psychological Measurement*. 20: 141–151.
- Larsen, K., Ibrahim, H., Khaw, S.H., & Saw, L.G. 1999. *Gingers of Peninsular Malaysia and Singapore*. Natural History Publications. Kinabalu.

- Laumonier, Y. 1997. The Vegetation and Physiography of Sumatra. Editor MJA Werger. Kluwer Academic Publisher. Netherland.
- Leong-Škorničková, J., Soonthornkalump, S., Lindström, A.J., Niwesrat, S., Lim, S.Q. and Suksathan, P., 2023. *Curcuma maxwellii* and *C. rubroaurantiaca* (Zingiberaceae, Zingiberoideae), two new species from Thailand. *PhytoKeys*. 235: 237.
- Mahatara, D, Acharya A.K., Dhakal B.P., Sharma D.K., Ulak S., Paudel P. 2021. MaxEnt Modelling for Habitat Suitability of Vulnerable Tree *Dalbergia latifolia* in Nepal. *Silva Fenn.* 55: 10441. DOI: 10.14214/sf.10441.
- Marfai, M.A., Pratomoatmojo, N.A., Hidayatullah, T., Nirwansyah, A.W., & Gomaeruzzaman, M. 2011. Model Kerentanan Wilayah Pesisir Berdasarkan Perubahan Garis Pantai dan Banjir Pasang (Studi Kasus: Wilayah Pesisir Pekalongan). Red Carpet Studio. Yogyakarta.
- Mawazin, & Subiakto, A. 2013. Keanekaragaman dan Komposisi Jenis Permudaan Alam Hutan Rawa Gambut Bekas Tebangan di Riau. *Indonesian Forest Rehabilitation Journal*. 1(1): 59–73.
- Mcshea, W.J. 2014. What are the Roles of Species Distribution Models in Conservation Planning?. *Environmental Conservation*. 41(2): 93–96.
- Merow, C., Smith, M.J., & Silander, J.A. 2013. A Practical Guide to MaxEnt for Modeling Species' Distributions: What It Does, and Why Inputs and Settings Matter. *Ecography*. 36(10): 1058–1069.
- Miquel, F.A.W. 1861. Flora van Nederlandsch Indië, Erste Bijvoegsel. Amsterdam.
- Mueller-Dombois, D. & Ellenberg, H. 1974. Aim and Methods of Vegetation Ecology. Wiley International ed. John Wiley and Sons. Chichester-New York.
- Nawawi, J.A. 2021. Efek Pemberian Ekstrak Etanol Rimpang Kunyit Liar Endemik Sumatera (*Curcuma sumatrana*, Zingiberaceae) terhadap Tingkat Kecerdasan, Struktur Histologi Otak dan Konsentrasi Malondialdehid Mencit yang Diinduksi Monosodium Glutamat. Skripsi. Biologi FMIPA Universitas Andalas. Padang.
- Newman, M., Lhuillier, A., & Poulsen, A.D. 2004. Checklist of the Zingiberaceae of Malesia. *Blumea. Supplement*. 16: 1–166.
- Nguyen TT, Gliottone I, Pham MP. 2021. Current and Future Predicting Habitat Suitability Map of *Cunninghamia konishii* Hayata Using Maxent Model under Climate Change in Northern Vietnam. *Eur J Ecol*. 7: 1-17. DOI: 10.17161/eurojecol.v7i2.15079.
- Nurainas & Ardiyani, M. 2019. *Curcuma sumatrana*. The IUCN Red List of Threatened Species 2019.

- Nuridin. 2012. Morfologi, Sifat Fisik dan Kimia Tanah Inceptisols dari Bahan Lakustrin Paguyaman-Gorontalo Kaitannya dengan Pengelolaan Tanah. *Jurnal Agroteknotropika*. 1(1): 13–22.
- Odum, E.P. 1996. Dasar-Dasar Ekologi. Gadjah Mada University Press. Yogyakarta.
- Pearson, R.G, Raxworthy, C.J, Nakamura, M., & Peterson, A.T. 2007. Predicting species distributions from small numbers of occurrence records: a test case using cryptic geckos in Madagascar. *Biogeography*. 34: 102–117.
- Phillips, S.J, Anderson, R.P., & Schapire, R.E. 2006. Maximum entropy modeling of species geographic distributions. *Ecological Modelling*. 190: 231–259.
- Phillips, S.J. 2002. A Brief Tutorial on MaxEnt. *Acta Biochimica Polonica*. 49(3): 633–641.
- Pranata S, Sulistijorini, & Chikmawati, T. 2019. Ecology of *Rafflesia arnoldii* (Rafflesiaceae) in Pandam Gadang West Sumatra. *J Trop Life Sci* 9: 243–251. DOI: 10.11594/jtls.09.03.05.
- Pusat Penelitian Tanah. 1983. *Term Of Reference* Survei Kapabilitas Kesuburan Tanah. Departemen Pertanian Bogor. Bogor.
- Rahman, A.T., Rafia, Jethro, A., Santoso, P., Kharisma, V.D., Murtadlo, A.A.A., Purnamasari, D., Soekamto, N.H., Ansori, A.N.M., Kuswati, Mandeli, R.S., Aledresi, K.A.M.S., Yusof, N.F.M., Jakhmola, V., Rebezov, M., Zainul, R., Dobhal, K., Parashar, T., Ghifari, M.A., & Sari, D.A.P. 2022. In Silico Study of the Potential of Endemic Sumatra Wild Turmeric Rhizomes (*Curcuma sumatrana*: Zingiberaceae) as Anti-Cancer. *Pharmacogn J*. 14(6): 806–812.
- Rahmi, N., Nurainas, Syamsuardi. 2023. Diversity, Distribution of the Ginger Family (Zingiberaceae) in West Sumatra Based on Herbarium Specimens and Its Potency for Genetic Resource Essential Oil. *IOP Conference Series Earth and Environmental Science*. 1255(1).
- Rambey, R., Susilowati, A., Rangkuti, A.B., Onrizal, O., Desrita, Ardi, R., Hartanto, A. 2021. Plant Diversity, Structure and Composition of Vegetation around Barumun Watershed, North Sumatra, Indonesia. *Biodiversitas*. 22(8): 3250–3256.
- Remya K, Ramachandran A, Jayakumar S. 2015. Predicting the current and future suitable habitat distribution of *Myristica dactyloides* Gaertn using MaxEnt model in the Eastern Ghats, India. *Ecol Eng* 82: 184–188. DOI: 10.1016/j.ecoleng.2015.04.053.
- Santoro, A., Piras, F., Yu, Q. 2023. Spatial Analysis of Deforestation in Indonesia in the Period 1950–2017 and the Role of Protected Areas. *Biodiversity and Conservation*. 1-27.

- Santoso, B. 2006. Pemberdayaan Lahan Podsolik Merah Kuning dengan Tanaman Rosela (*Hibiscus sabdariffa* L.) di Kalimantan Selatan. *Perspektif*. 5(1): 1–12.
- Selamoglu, Z., Akgul, H., & Dogan, H. 2016. Environmental Effects on Biologic Activities of Pollen Samples Obtained from Different Phytogeographical Regions in Turkey. *Fresenius Environmental Bulletin*. 25: 2484–2489.
- Semwal, P., Painuli, S., Painuli, K.M., Antika, G., Tumer, T.B., Thapliyal, A., Setzer, W.N., Martorell, M., Alshehri, M.M., Taheri, Y., Daştan, S.D., Ayatollahi, S.A., Petkoska, A.T., Sharifi-Rad, J., & Cho, W.C. 2021. *Diplazium esculentum* (Retz.) Sw.: Ethnomedicinal, Phytochemical, and Pharmacological Overview of the Himalayan Ferns. *Oxidative Medicine and Cellular Longevity*. 2021(1).
- Shi, F., Liu, S., An, Y., Sun, Y., Zhao, S., Liu, Y. dan Li, M. 2023. Climatic Factors and Human Disturbance Influence Ungulate Species Distribution on the Qinghai-Tibet Plateau. *Science of The Total Environment*. 869.
- Shi, J., Xia, M., He, G., Gonzalez, N.C, Zhou, S., Lan, K., Ouyang, L., Shen, X., Jiang, X., Cao, F. Li, H. 2024. Predicting *Quercus gilva* Distribution Dynamics and Its Response to Climate Change Induced by GHGs Emission through MaxEnt Modeling. *Journal of Environmental Management*. 357. 120841.
- Smith, RL. 1977. *Elements of Ecology and Field Biology*. Harper & Row Publisher. New York.
- Sobuj, N.A. & Rahman, M., 2011. Comparison of Plant Diversity of Natural Forest and Plantations Of Rema-Kalenga Wildlife Sanctuary of Bangladesh. *Journal of Forest and Environmental Science*. 27(3): 127-134.
- Solfiyeni, S., Chairul, C., Marpaung, M. 2021. Analisis Vegetasi Tumbuhan Invasif di Kawasan Cagar Alam Lembah Anai, Sumatera Barat. In *Proceeding Biology Education Conference: Biology, Science, Environmental, and Learning*. 13(1): 743–747.
- Solfiyeni, S., Syamsuardi, S., Chairul, C., Mukhtar, E. 2022. Impacts of Invasive Tree Species *Bellucia pentamera* on Plant Diversity, Microclimate and Soil of Secondary Tropical Forest in West Sumatra, Indonesia. *Biodiversitas Journal of Biological Diversity*. 23(6): 3335–3346.
- Song, B., Niu, S., & Wan, S. 2016. Precipitation Regulates Plant Gas Exchange and Its Long-Term Response to Climate Change in A Temperate Grassland. *J Plant Ecol*. 9: 531–541.
- Su, H., Bista, M., & Li, M. 2021. Mapping Habitat Suitability for Asiatic Black Bear And Red Panda in Makalu Barun National Park of Nepal from MaxEnt and GARP models. *Sci Rep*. 11: 14135. DOI: 10.1038/s41598-021-93540-x.
- Suharta, N., Yatno, E. 2009. Karakteristik Spodosols, Kendala dan Potensi Penggunaannya. *Jurnal Sumberdaya Lahan*. 3(1): 1–14.

- Suwardi, A.B., Syamsuardi, Mukhtar, E., & Nurainas. 2023a. Potential Geographic Distribution of *Durio oxleyanus* (Malvaceae): a Threatened Wild Fruit Plant Species in Sumatra, Indonesia. *Polish Journal of Environmental Studies*. 32(3): 1–10.
- Suwardi, A.B., Syamsuardi, S., Mukhtar, E., Nurainas, N. 2023b. The diversity and regional conservation status of wild edible fruit species in Sumatra, Indonesia. *Biodiversitas Journal of Biological Diversity*. 24: 3245–3257.
- Syofiani, R., Putri, S.D., Karjunita, N. 2020. Karakteristik Sifat Tanah sebagai Faktor Penentu Potensi Pertanian di Nagari Silokek Kawasan Geopark Nasional. *Jurnal Agrium*. 17(1).
- Takahashi, A. 2023. Plant specimens in the Museum of Nature and Human Activities, Hyogo Prefecture, Japan. National Museum of Nature and Science, Japan. Occurrence dataset <https://doi.org/10.15468/sqctqh>. Diakses 13 April 2023.
- Takhtajan, A. 1986. *Floristic Region of the World*. University of California Press.
- Teapon, A. & Hadun, R. 2018. Evaluasi Status Kesuburan Kimia Tanah pada Beberapa Subgroup Tanah di Kecamatan Tidore Timur. *Jurnal Agriment*. 3(1): 7–15.
- Utama, A.P., Syamsuardi, & Arbain, A. Studi Morfometrik Daun Macaranga Thou. Di Hutan Pendidikan dan Penelitian Biologi (HPPB). *Jurnal Biologi Universitas Andalas*. 1(1): 54–62.
- Vicento-Serrano, S.M., Beguería, S., & López-Moreno, J.L. 2010. A Multiscalar Drought Index Sensitive to Global Warming: The Standardized Precipitation Evapotranspiration Index-SPEI. *J Clim*. 23: 1696–1718.
- Wang, M., Hu, Z., Wang, Y. & Zhao, W. 2023. Spatial Distribution Characteristics of Suitable Planting Areas for *Pyrus* Species under Climate Change in China. *Plants*. 12(7): 1559.
- WFO Plantlist. 2024. Zingiberaceae Martinov. Published on the Internet; <http://www.worldfloraonline.org/taxon/wfo-7000000651>. Diakses 26 Maret 2024
- Wulansari, D., Qodrie, E.N.P., Dharma, B., Kamal, A.S., Hafid, L., Marlina, L. and Praptiwi, P., 2020. Aktivitas Antibakteri Ekstrak Kultur Jamur Endofit *Fusarium* sp. CSP-4 yang Diisolasi dari *Curcuma sumatrana* Miq. *Berita Biologi*. 19(1): 71–76.
- Yang, X.Q., Kushwaha, S.P.S, Saran, S., Xu, J., & Roy, P.S. 2013. Maxent Modeling for Predicting the Potential Distribution of Medicinal Plant *Justicia adhatoda* L in Lesser Himalayan Foothills. *Ecological Engineering*. 51: 83–87.
- Yi, Y.J., Cheng, X., Yang, Z.F., & Zhang, S.H. 2016. Maxent Modeling for Predicting the Potential Distribution of Endangered Medicinal Plant (*H. riparia* Lour) in Yunnan, China. *Ecological Engineering*. 92: 260–269.

- Ye, P., Zhang G, Zhao X, Chen H, Si Q, & Wu J. 2021. Potential geographical distribution and environmental explanations of rare and endangered plant species through combined modeling: A case study of Northwest Yunnan, China. *Ecol Evol.* 11: 13052–13067. DOI: 10.1002/ece3.7999.
- Zhang, X.N., Yang, X.D., Li, Y., He, X.M., Lv, G.H. & Yang, J.J. 2018. Influence of Edaphic Factors on Plant Distribution and Diversity in the Arid Area of Xinjiang, Northwest China. *Arid Land Research and Management*, 32(1): 38–56.

