

DAFTAR PUSTAKA

- Agustin, L., Nurainas., Syamsuardi., and Chairul. 2021. *Zingiber macradenium* K. Schum, an Endemic Ginger from Sumatera: Traditional use and Antimicrobe Potential. *Journal Eduvest.* 1(10): 1036-1046.
- Alvarez, I and J.F. Wendel. 2003. Ribosomal ITS Sequences and Plant Phylogenetic Inference. *Molecular Phylogenetics And Evolution* 29:417-434.
- Ardiyani, M., M.F Newman., and A. D. Poulsen. 2017. A New Apecies of *Zingiber* (Zingiberaceae) East of Wallace's Line. *Gardens' Bulletin Singapore.* 69(2): 189-199.
- Auliani, A., Fitmawati., dan Neri S. 2014. Studi Etnobotani Famili Zingiberaceae dalam Kehidupan Masyarakat Lokal di Kecamatan Siak Hulu Kabupaten Kampar. *JOM FMIPA.* 1(2).
- Brunell, M. S., and Whitkus, R. 1998. Assessment of morphological variation in *Eriastrum densifolium* (Polemoniaceae): Implications for subspecific delimitation and conservation. *Systematic Botany.* 351-368.
- Bai, L., L. J. Škorničková., and N. H Xia. 2015. Taxonomic studies on *Zingiber* (Zingiberaceae) in China I: *Zingiber kerrii* and the synonymy of *Z. menghaiense* and *Z. stipitatum*. *Garden Bulletin Singapore.* 67(1): 129-142.
- Baldwin, G, Bruce., M. J. Sanderson., J. M. Porter., M. F. Wojciechowski., C. S. Campbell and M. J. Donoghue. 1995. The ITS region of nuclear ribosomal DNA a Valuable Sources of Evidence on Angiospermae Phylogeny. *Ann Missouri Bot Gard.* 82(2): 247-277.
- Burland, T. G. 2000. DNASTAR's Lasergence Sequence Analysis Software. *Methods Mol Biol.* 132: 71-91.
- CBOL Plant Working Group. 2009. A DNA Barcode for LandPlants. *Proceedings of the National Academy of Sciences USA.* 106(31):12794– 12797.

- Chandra, R. Nurainas. Syamsuardi. 2015. Jenis-jenis *Zingiber* mill di Sumatera Barat. *Prosiding Seminar Nasional Biologi - Biodiversitas dan Ekologi Tropika Indonesia (BioETI)*. 3(1):173-181.
- Chen. S.L., Y.Yao., J.P Han., C. Liu., J.Y.Song., L.C.Shi., Y.J.Zhu., X.Y Ma., T.Gao., X.H.Pang., K.Luo., Y.Li., X.W.Li., X.C.Jia., Y.L.Lin., and C.Leon. 2010. Validation of the ITS2 region as a novel DNA barcode for identifying medicinal plant species. *PLOS One*. 5(1): e8613.
- Clegg. MT., K. Ritland., and G. Zuwarski. 1986. Processes of chloroplast DNA evolution In Evolutionary Processes and Theory (ed.S. Karlin and E. Nevo). New York: Academic Press.
- Cue Noud, P., V. Savolainen., M. Powell., R.J. Grayer., and M.W.Chase. 2002. Molecular phylogenetics of the Caryophyllales based on combined analyses of 18S rDNA and *rbcL*, *atpB*, and *MatK* sequences. *American Journal of Botany*. 89(1):132–144.
- De Guzman, C. C. and J.S. Siemonsma. 1999. *Plant Resource of South-East Asia*. Leiden, The Netherlands: Backhyus Publishers. 400 pp.
- Delta, A. M., Ardinis A., dan Syamsuardi. 2013. Studi Jenis-Jenis Zingiberaceae di Kawasan Hutan Lindung Gunung Talang Sumatera Barat. *J Bio UA*. 2(3): 161-168.
- Degtjareva, G., M. Logacheva., T.H.Samigullin., and C.M.V.Roman. 2012. Organization of Chloroplast psbA-trnH Intergenic Spacer in Dicotyledonous Angiosperms of the Family Umbelliferae. *Biochemistry*. 77(9):1056-1064.
- Dunning, L.T. andV. Savolainen. 2010. Broad-scale Amplification of MatK for DNA Barcoding Plants, a Technical Note. *Botanical Journal of the Linnean Society*. 164: 1-9.
- Edel, V. 1998. Polymerase chain reaction in mycology: an overview. *Applications of PCR in Mycology*. 1-20.

- Fazekas, A. J., P.R. Kesanakurti., K.S. Burgess., D.M. Percy., S.W. Graham., S.C. Barrett., and B.C. Husband. 2009. Are plant species inherently harder to discriminate than animal species using DNA barcoding markers? *Molecular Ecology Resources*. 9(1):130-139.
- Gomes EA., M.C. Kasaya., E.G. deBarros., A.C. Borgs and EF Araujo. 2002. Polymorphism in the internal transcribed spacer (ITS) of the ribosomal DNA of 26 isolates of ectomycorrhizal fungi. *Genet Mol Biol*. 25(4): 477-483.
- Hajibabaei M., M. A. Smith., D.H. Janzen., J.J. Rodriguez., J.B. Whitfield., and P. D. N. Hebert 2006. A minimalist barcode can identify a specimen whose DNA is degraded. *J Compilation Blackwell Publishing*. 6: 959-964.
- Hall, T.A. 1999. BioEdit: A User-Friendly Biological Sequence Alignment Editor and Analysis Program for Windows 95/98/NT. *Nucl. Acids. Symp.* 41: 95-98.
- Hebert, P.D. N., and G. T. Ryan. 2005. The Promise of DNA Barcoding for Taxonomy. *Systematic Biology*. 54(5):852–859.
- Hilu, K.W. and H. Liang.1997. The matK gene: sequence variation and application in plant systematics. *American journal of botany*. 84(6):830-839.
- Hollingsworth, P.M., S.W.Graham., and D.P.Little. 2011. Choosing and Using a Plant DNA Barcode. *PloS One*. 6(5):19254.
- IAPT. 2018. International Code of Nomenclature For Algae, Fungi, And Plants. <https://www.iapt-taxon.org/nomen/pages/main/preamble.html>. Terakhir diakses 20 Mei 2022.
- Holtum RE. 1950. The Zingiberaceae of the Malay Peninsula. *Gard. Bull. Singapore*, 13: 1-249. <https://www.biodiversitylibrary.org/part/171621>.
- Jamil, I. 2005. Analisis Sekuen Daerah ITS DNA Ribosom (rDNA) dan Desain Primer Untuk Mendeteksi *Phytophthora palmivora* Butl pada Kakao. Repository IPB.ac.id.

- Jayakrishnan, T., A. Joe., V.S. Hareesh., and M.Sabu. 2021. Two new Zingiber (Zingiberaceae) species from Arunachal Pradesh, Northeastern India. *Taiwania*, 66(1).
- Jorgensen RA., Cueller RE., Thomson WF., and Kavanagh TA. 1987. Structure and variation in ribosomal RNA gene of Pea. *Plant Molecular Biology*. 8(1):3-12.
- Kress WJ., A.Z.Liu., M. Newman., and Q.C. Li. 2005. The Molecular Phylogeny of *Alpinia* (Zingiberaceae): A complex and polyphyletic genus of gingers. *American Journal of Botany* 92(1): 167-178.
- Kress WJ., L.M. Prince., and K.J. Williams. 2002. The phylogeny and a new classification of ginger (Zingiberaceae): Evidence from molecular data. *American Journal of Botany*. 89(10): 1682-1696.
- Kumar, S., Glen, S., Michael L., Christina, K., and Koichiro, Tamura. 2018. MEGA X: Molecular Evolutionary Genetics Analysis across Computing Platforms. *Molecular Biology and Evolution*. 35(6):1547.
- LIPIS. 2022. Lembaga Ilmu Pengetahuan Indonesia. <http://lipi.go.id/publikasi/zinger-loerzingii-the-iucn-red-list-of-threatened-species-2019-et117465518a124284822/36144>. Terakhir diakses 22 Februari 2022.
- Li, W., and Graur, D. 1991. *Fundamental of Molecular Evolution*. Sinauer Associates, Inc..
- Larsen K., Ibrahim H., Khaw SH., and Saw LG. 1999. Ginger of Peninsular, Malaysia, and Singapore. Kinabalu, Malaysia: Natural History Publication (Borneo).
- Maulidah. R., Fitri. S. E., Nurainas., Syamsuardi., and Arbain. N. 2019. Two Records of *Alpinia* in Sumatera, Indonesia and Phylogenetic relationship to their allied species. *Check List*. 15(1): 109-117.

- Miquel F.A.W. 1862. *Sumatra Zijne Plantenwereld Hare Vootbrengselen* Volume III. Amsterdam. Hal 273.
- Moller M., and Cronk Q.C.B. 1997. Origin and Relationships of Saintpaulia (*Gesneriaceae*) Based on Ribosomal DNA Internal Transcribed Spacer (ITS) Sequence. *American Journal of Botany*. 84(7): 956-965
- Muellner, A.N., Samuel, R., Johnson, S.A., Cheek, M., Pennington, T.D., and Chase, M.W. 2003. Molecular Phylogenetics of Meliaceae (Sapindales) Based on Nuclear and Plastid DNA Sequences. *American Journal of Botany*. 90(3):471-480.
- Muharani. M. 2022. Autentikasi Jenis, Studi Etnobotani dan Mikrohabitat *Bilongkiang* (*Zingiber* Sp. *Zingiberaceae*) di Kabupaten Solo. Tesis. Pascasarjana Biologi Universitas Andalas.
- NCBI. 2021. National Center for Biological Information. <http://www.ncbi.nlm.nih.gov/>. Terakhir diakses pada 02 September 2021
- Newman, M., A. Lhuillier and A.D. Poulsen. 2004. Checklist of The Zingiberaceae of Malesia. *Blumea Supplement*.16:1-166.
- Nurainas, N., and Arbain, D. 2017. A New Species and Record of Zingiberaceae From Sumatera Indonesia. *Taiwania* 62(3): 294-298.
- O'Brien HE, JLParrent, JA Jackson, JM Moncalvo and R Vilgays. 2005. Fungal communities' analysis by large-scale sequencing of environmental samples. *Applied and environmental microbiology*.71(9): 5544-5550.
- Poulsen, A. D., Muthisen, H. B., Newman, M. F., Ardiyani, M., Lofthus, O., and Bjora, C. S. 2018. *Sulettaria*: A New Ginger Genus Disjunct from *Elettaria cardamomum*. *Taxon*. 67 (4): 725-738.
- Purty, R. S., & Chatterjee, S. 2016. DNA barcoding: an effective technique in molecular taxonomy. *Austin J Biotechnol Bioeng*. 3(1):1059.

- Qin, Y., Meihui, L., Yong, C., Ya, G. and Wei, Z. 2017. Molecular thresholds of ITS2 and their implications for molecular evolution and species identification in seed plants. *Scientific Reports.* 7(1):1-8.
- Ristoja. 2012. *Eksplorasi Pengetahuan Lokal Etnomedisin dan Tumbuhan Obat di Indonesia Berbasis Komunitas.* Jakarta: Lembaga Penerbitan Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI.
- Roviglioni, R., De Vicente, M. C., Dudnik, N., and Hodgkin, T. 2000. Molecular methods in the conservation and use of plant genetic resources. In *International Symposium on Molecular Markers for Characterizing Genotypes and Identifying Cultivars in Horticulture 546* (pp. 107-118).
- Saha, K., Sinha, R. K., and Sinha, S. 2020. Distribution, Cytology, Genetic Diversity and Molecular phylogeny of selected species of Zingiberaceae—A Review. *Feddes Repertorium.* 131(1): 58-68.
- Selvaraj, D., Sarma, R. K., and Ramalingam S. 2018. Phylogenetic analysis of Chloroplast Matk Gene from Zingiberaceae for Plant DNA Barcoding. *Biomedical Informatics Publishing Group.* 3(1):24-27.
- Shi, I. C., Zhang, J., Han, J. P., Song, J. Y., Yao, H., Zhu, Y. J., and Chen, S. L. 2011. Testing the potential of proposed DNA barcodes for species identification of Zingiberaceae. *Journal of Systematics and Evolution.* 49(3): 261-266.
- Smarda, P., Bures, P., Horova, L., Leitch, I. J., Mucina, L., Pacini, E., ... and Rotreklová, O. 2014. Ecological and evolutionary significance of genomic GC content diversity in monocots. *Proceedings of the National Academy of Sciences.* 111(39): E4096-E4102.
- Soltis DE, Soltis PS. 1998. Choosing an Approach and an Appropriate Gene for Phylogenetic Analysis. Di dalam: Soltis DE, Soltis Ps, Doyle JJ, editor. *Molecular Systematics of Plants II: DNA Sequencing.* Massachusetts: Kluwer Academic Publishers.

- Sukarjo, Indah. 2021. *Autentikasi Zingiber album Tumbuhan Endemik Sumatera Menggunakan Penanda Molekuler Internal Transcribed Spacer*. Skripsi. Sarjana Biologi Jurusan Biologi FMIPA Universitas Andalas.
- Syahrajabian, M. H., Sun, W., Cheng, Q. 2019. Pharmacological Uses and Health Benefits of Ginger (*Zingiber officinale*) in Traditional Asian and Ancient Chinese Medicine, and Modern Practice. *Notula Scientia Biologicae*. 11(3): 309-319.
- Syamsuardi, H. Okada, and Makotoogawa. 2002. New Variety of *Ranunculusjaponicus* (Ranunculaceae) Its Genetic Relationships to the Related Species of Sect. *Acris* in Japan. *Acta Phytotax Geobot*. 53 (2):121-132.
- Syamsuardi, S., C. Chairul., and P. Murni. 2018. Analysis of Genetic Impurity of An Original Cultivar Duku (*Lansium parasiticum* (Osbeck.) KC Sahni Bennet.), from Jambi, Indonesia Using ITS and MatK Gene. *International Journal of Environment, Agriculture and Biotechnology*. 3(2): 239084.
- Takano, A., and H. Okada. 2003. Taxonomy of *Globba* (Zingiberaceae) in Sumatra, Indonesia. *Systematic Botani*. 28 (3): 524-546.
- Tamura, M. N., J. Yamashita., S. Fuse., and M. Haraguchi. 2004. Molecular phylogeny of monocotyledons inferred from combined analysis of plastid matK and rbcL gene sequences. *Journal of Plant Research*. 117(2): 109-120.
- Theerakulpisut, P., P. Triboun., W. Mahakham., D. Maensiri., J. Khampila., and P. Chantaranothai. 2012. Phylogeny of the genus *Zingiber* (Zingiberaceae) based on nuclear ITS sequence data. *Kew Bulletin*. 67(3): 389-395.
- Theilade, I. 1999. A synopsis of the genus *Zingiber* (Zingiberaceae) in Thailand. *Nordic Journal of Botany*. 19(4):389-410.
- Theilade, I., M.L. Mærsk-Møller., J. Theilade., and K. Larsen. 1993. Pollen morphology and structure of *Zingiber* (Zingiberaceae). *Grana*. 32(6): 338-342.

- Thompson JD, T.J. Gibson., F. Plewniak., F. Jeanmougin., and D.G.Higgins. 1997. The Clustal-X windows interface: flexible strategies for multiple sequence alignment aided by quality analysis tools. *Nucleic Acids Research*. 25(24): 4876- 4882.
- Udensi, O. U., E.E. Ita., E.V. Ikpeme., G. Ubi., and L.I. Emeagi. 2017. Sequence analysis of maturase K (matk): a chloroplast-encoding gene in some selected pulses. *Global Journal of Pure and Applied Sciences*. 23(2): 213-230.
- Valeton, T. 1918. New notes on the Zingiberaceae of Java and Malaya. *Bull. Jard. Bot. Buitenzorg*. 2(27): 1 – 176.
- Vinitha, M. R., U.S. Kumar., K. Aishwarya., M. Sabu., and G. Thomas. 2014. Prospects for discriminating Zingiberaceae species in India using DNA barcodes. *Journal of integrative plant biology*. 56(8):760-773.
- White, T. J., T. Bruns., S.J.W.T. Lee., and J. Taylor. 1990. Amplification and direct sequencing of fungal ribosomal RNA genes for phylogenetics. *PCR protocols: a guide to methods and applications*. 18(1): 315-322.
- Wicke, S. and Quandt, D. 2009. Universal Primers for the amplification of the plastid trnK/MatK region in land plants. *Anales del Jardin Botanico de madrid*. 66(2):285-288.
- Yu, J., J.H. Xue., and S.L. Zhou. 2011. New universal MatK primers for DNA barcoding angiosperms. *Journal of Systematics and Evolution*. 49(3):176-181.
- Zachos, F. E. 2016. *Species concepts in biology*. Volume 801. Cham: Springer.