DAFTAR PUSTAKA

Abozeid, A., Y. Liu, J. Liu and Z. Tang, 2017. Cluster analysis of leaf macro-and micro-morphological characteristics of *Vicia* L. (Fabaceae) and their taxonomic implication. *Phyton Int. J. Exp. Bot*.86: 306-317.

Acquaah G. 2007. *Principles of plant genetics and breeding*. Blackwell: UK.

Ajibade, S. R., Weeden, N. F. and Chite, S. M.. 2000. Inter-simple Sequence Repeat Analysis of Genetic Relationships In The Genus *Viglla*. *Euphytica*. 111: 47-5.

Azhari, H., Mohamad, A., Othman, R., 2015. *Molecular Identification of Aquilaria spp. by Using Inter-Simple Sequence Repeat ISSR*. University Kebangsaan Malaysia. Selangor Malaysia.

Azhar, M., Azhari, M.H., Ismail, S.N., and Sandhu, P.K. 2013. Optimazation of ISSR Marker for Moleculer DNA Fingerprinting in *Aquilaria* sp.*Thesis. Agrotecnology and Bioscience Division*. Selangor Malaysia.

Badron, U.H. Talip, N., Mohammad, A.L., Affendi, A.E.A., and Juhari, A.A.A. 2014. Studies on Leaf Venation in Selected Taxa of The Genus *Ficus* L. (Moraceae) in Penisular Malaysia. *Tropical Life Sciences Research*. 25 (2): 111-125.

Betrianingrum, C. 2009. *Kajian Pertumbuhan Eksplan Pucuk Gaharu (Gyrinops versteegi (*Gilg*)* Domke *Melalui Teknik Ex Vitro*. Bogor: Institut Pertanian Bogor.

Banu, S., Buruah, D., Bhagwat, R.M., Sarkar, P., Bhowmick, A., Kadoo, N.Y. 2015. Analysis of Genetic Variability in *Aquilaria malaccensis* From Bramhaputra Valley, Assam, India Using ISSR Markers. *Flora*. 1(1):1-9.

Bhat, R.B. 1995. Taxonomic Implications of Leaf Architecture In The Genus Hibiscus. *S Afr J Bot* . 61 (4): 209-214.

Bhau, B. S., Medhi, K., Sarkar, T. & Saikia, S. P. 2009. PCR Based Molecular Characterization of *Nepenthes khasiana* Hook. f. Pitcher Plant. *Journal of Genet Resour Crop Evol*. 56. 1183-1193.

Bornet, B. and Branchard, M. 2004. Use of ISSR Fingerprints To Detect Microsatellites and Genetic Diversity In Several Related *Brassica taxa* and *Arabidopsis thaliana*. *Hereditas*. 140 (3): 245-247.

Cain, A. and G. A. Harrison. 1958. An Analysis of The taxonomist's Judgement of Affinity. *Proc. Zool. Soc*.131:85-98.

Cao, P.J., Q.F. Yao, B.Y. Ding, H.Y. Zeng, Y.X. Zhong, C.X. Fu,and X.F. Jin. 2006. Genetic Diversity of *Sinojackia Dolichocarpa* (Styracaceae), A

Species Endangered and Endemic To China, Detected By *Inter-Simple Sequence Repeat* (ISSR). *Biochem. Syst. Ecol*. 34:231–239.

Chairiyah, N., Harijati, N., Mastuti, R. 2013. Variation of Calcium Oxalate (CaOx) Crystals in Porang (*Amorphophallus muelleri* Blume). *American Journal of Plant Science*. 4. 1765-1773.

Chowdhury M., Hussain, Md. D., Chung, Sun-Ok., Kabir, E., Rahman, A., 2016. Agarwood Manufacturing: A Multidisiplinary Oppurtunity For Economy of Bangladesh-A review. *CIGR Journal*. 18 (3): 171-172.

Christopoulos, M.V., Rouskas, D., Tsantili, E. and Bebeli, P.J. 2010. Germplasm Diversity and Genetic Relationships Among Walnut (*Juglans Regia* L.) Cultivars and Greek Local Selections Revealed By Inter-Simple Sequence Repeat (ISSR) Markers. *Scientia Horticulturae*. 125 (4): 584-592.

Doyle J.J., Doyle J.L. 1990. Isolation of Plant DNA from Fresh Tissue. *Focus*. 12: 13-15.

Eurling, M.C.M., Beek, H.H.V. Gravendell, B. 2010. Polimorphic Microsatellite for Forensic Identificaton of Agarwood (*Aqularia crassna*). *Forensic Science International*. 197 (1):30-34.

Evgenidis, G., Taraka-Mavrona, E., Koutsika-Sotiriou, M. 2011. Principal Component and Cluster Analysis As a tool in the assesment of Tomato Hybirds and Cultivars. *International Journal of Agronomy*. 2011:1-8.

Fang, D.Q., Roose, M.L. 1997. Identification of Closely Related *Citrus* Cultivars with Inter-simple sequence repeat markers. *Theory Application Genetica*. 95 (1): 409.

Franceschi, V. R. Dan Nakata, P. A. 2005. Calcium Oxalate in Plant: Formation and Function. *Annual Review of Plant Biology*. 56 (1) :41-71.

Gusmailina. 2010. *Fisibilitas Penerapan Metode Penetrasi untuk Meningkatkan Kualitas IGW (Inoculated Gaharu Wood).* Bogor: Pusat Penelitian dan Pengembangan Hasil Hutan, Badan Penelitian dan Pengembangan Kehutanan, Departemen Kehutanan RI.

Gower, J.C. 1971. A general Cooficient of Similarity and Some OF Its Properties. *Biometrics*. 27:857-874

Hickey, L. J. 1973. Classification of Architecture of Dicotyledonous Leaves. *American Journal of Botany*. 60(1):17–33.

Hickey, L. J. 1979. A Revised Classification of The Architecture of Dicotyledoous Leaves. In: Metcalfe, C.R.and L. Chalk (eds). *Anatomy of The Dicotyledones*. 1. 25-39

Hou, D. 1960. Thymelaeaceae. In: Van Steenis, C.G.G.J. (ed.), *Flora Malesiana Series I, Volume 6.* Wolter Noordhoff Publishing. Groningen The Netherlands: 1-48.

Horn, J.W. 2004. The Morphology and Relationship of the Sphaerosepalaceae (Malvales). *Botanical Journal of the Linnean Society*.1 (1):1-44.

Ilarslan H. Palmer R.G. and Horner, H.T. 1997. Quantitative Determination of Calcium Oxalate and Oxalate in Developing Seeds of Soybean (Leguminosae). American Journal of Botany. 84 (9): 1042-1046.

Jabbarzadeh, Z.; Khosh-Khui, M.; Salehi, H. and Saberivand, A. 2010. *Inter Simple Sequence Repeat* (ISSR) Markers As Reproducible and Specific Tools For Genetic Diversity Analysis Of Rose Species. *African Journal of Biotechnology*. 9 (37): 6091-6095.

Jan HU, Rabbani MA. Shinwani ZK. 2012. Estimation of genetic variability in turmeric (*Curcuma longa* L.) germplasm using agromorphological traits. *J Bot* .44: 231-238.

Jena, S.N., Verma, S. Nair, K. N., Srivastava, A.K., Misra, S., Rana, T.S., 2014. Genetic Diversity and Population Structure of Mangrove Lime (*Meropa Angulata*) in India Revealed by AFLP dan ISSR Markers. *Elsivier*. 1-8.

Joshi, S. P., Y. S. Gupta, R. K. Aggarwal, P. K. Ranjekar and D. S. Brar. 2000. Genetic Diversity and Phylogenetic Relationship As Revealed by Inter-Simple Sequence Repeat (ISSR).

Jumawan, J.H and JR. Buot, I. E. 2016. Numerical Taxonomic Analysis In Leaf Architectural Traits os Some *Hoya* R. BR. Species (Apocynaceae) From Philippines. *Bangladesh J. Plant Taxon*. 23 (2):199-207.

Kim, S. J., Lee, C. H., Jongyum, K. & Ki, S. K. 2014. Phylogenetic Analysis of Korean Native *Chrysanthemum* Species Based on Morphological Characteristics. *J. Scientia Horticulturae.* 175: 278–289.

Komar, T.E., Wardani, M., Hardjanti, F.I., Ramdhania, N., 2014. *In Situ and Ex Situ Conservation of Aquilaria And Gyrinops : A Review*. Ministry and Forestry. Bogor Indonesia.

Kpadehyea, J.T. Buot, Jr. I.E. 2014. Leaf Architecture of Two Species and Nine Infraspecific Taxa of The Philippine Mussaenda Linn. (Rubiaceae); Concervation Concerns. *Int. Res J. Biol. Sci*. 3(10):13-21

Kuo-Huang L.L., Ku M.S.B dan Franchesci, V.R. 2007. Correlations Between Calcium Oxalate Crystals and Photosynthetic Activities In Palisade Cells of Shade-Adapted *Peperomia glabella. Botanical Studies*. 48: 155–164.

LAWG (Leaf Architecture Working Group). 1999. *Manual of Leaf Architecture: Morphological Description and Categorization of Dicotyledonous and Net-Veined Monocotyledonous Angiosperms*. Smithsonian Institution, USA: 65.

Lee, S.H. Turjaman, M. Mohamed, R. 2018. Phylogenetic Relatedness of Several Agarwood-Producing Taxa (Thymelaeceae) From Indonesia. *Tropical Life Science Research*. 29 (2):14.

Lee, SH., Ng, W.L., Mahat, M.N., Nazre, M., And Mohamed, R. 2016. DNA Barcoding of The Endangered *Aquilaria* (Thymelaeaceae) and Its Application in Species Authentication of Agarwoood Product Traded in The Market. *Journal Plose One*. 11(4):1-21.

Lestari, W. Jumari., Ferniah, R.S. 2018. Identification and cluster analysis of Pitcher Plant (*Nepenthes* spp.) From South Sumatera Indonesia. *Biosaintifika*. 10 (2): 245-251.

Lu, H., Jiang, W., Ghiassi, M., Lee, S., Nitin, M., 2012. Classification of *Camelia* (Theaceae) Spesies Using Leaf Architecture Variation and Pattern Recognation Techniques. *Plose One*.7 (2): 3.

Masungsong, L.A., Belarmino, M.M., JR. Buot, I.E. 2019. Delination The Selected Cucumis L. Species and Accessions Using Leaf Architecture Character. *Biodiversitas*. 20 (3): 629-635.

Mathius, NT. Rahmawati, D dan Anidah. 2009. Genetic Variation Among *Aquilaria* Spesies and *Gyrinops versteegii* Using Amplified Fragment Length Polymorphism Markers. *Biotropia*.16 (2):89.

Matus I, M I Gonzalez and A del Pozo.1999. Evaluation of phenotypic variation in a Chilean collection of garlic clones using multivariate analysis. *Plant genetic resources Newsletter* :117:31-36.

Makmur A. 1992. *Plant Breeding*. Rineka Cipta: Jakarta.

Mangoendidjojo W. 2003. *Fundamentals of Plant Breeding*. Kanisius: Yogyakarta.

Melville, R. 1976. The Terminology of Leaf Architecture. *Royal Botanic Garden, Key Surrey England*. 25 (5): 549-561.

Mega, I.M., Suanda, D.K., Kasniari, D.N., Suena, W., dan Parwata, M.A.O. 2012. Formulasi Inokulan Jamur Pembentuk Gubal Gaharu Pada Tanaman Ketimun (*Gyrinops versteegii*). *Jurnal Agrotrop*. 2(2): 139.

Meric, Ciler. 2009. Calsium Oxalate Crystals in Some Species of The Tribe Inuleae (Asteraceae). *Acta Biologica Cracoviensia Series Botanica*. 51 (1): 105-110.

Ministry of Forestry. 2012. Promoting Conservation of Plant Genetic Resources of *Aquilaria* And *Gyrinops* Species. *Forestry Research and Development*. Bogor Indonesia.

Mishra, M., Padmajyothi, D., Prakash, N.S., Ram, A.S., Dist-Chikmagalur., Karnataka. 2010. Leaf Architecture In Indian Coffe (*Coffea arabica* L)

Cultivar and Their Adaptive Significance. *World Journal of Fungal and Plant Biology*. 1 (1): 37-41.

Mogea, J.P.,Gandawidjaja D.,Wiriadinata, H., Nasution, R.E dan Irawati. 2001. *Tumbuhan Langka Indonesia.* Pusat Penelitian dan Pengembangan Biologi LIPI. Balai Penelitian Botani, Herbarium Bogoriense.

Moss, W. W. 1979. Phenetic Approaches to Classification. *Amer. Zool*. 19. 1217-1223.

Mulyaningsih, T. and I. Yamada. 2007. Notes on Some Species of Agarwood In Nusa Tenggara, Celebes And West Papua. Sulawesi. [Online: cseas.kyoto-u.ac.jp/final_reports2007/article/43-tri.pdf]. [Di akses 11 November 2018].

Mulyaningsih,T., Marsono, D., Sumardi., Yamada.I. 2017. Keragaman infraspesifik gaharu (*Gyrinops versteegii* (Gilg) Domke Di pulau lombok bagian bagian barat. *Jurnal Penelitian Hutan dan Konservasi Alam*. 1(1):57-58.

Oliveira, E.F., Bezerra, D. G., Santos, M. L., Rezenda, M.H., Paula, J.A. M. 2017. Leaf Morphology and Venation of *Psidium* Species From Brazilian. *Brazilian Journal of Pharmacognosy*.1 (1):407-413.

Paoli, G.D., D.R. Peart, M. Leighton, and I. Samsoedin. 2001. An Ecological and Economic Assessment of The Non Timber Forest Product Gaharu Wood In Gunung Palung National Park, West Kalimantan, Indonesia. *Conservation Biology*. 15(6):1721-1752.

Priadi, D., Perdani, A. Y., Sulistyowati, Y., Pohan, F. N., & Mulyaningsih, E. S. 2016. Characterization of Carambola (*Averrhoa carambola*) Plant Collection of Cibinong Plant Germplasm Garden Based on Phenotypic and Genetic Characters. *Biosaintifika: Journal of Biology & Biology Education.* Vol 8(1): 121-128.

Qiu, Y.X., D.Y. Hong, C.X. Fu, and K.M. Cameron. 2004. Genetic Variation In The Endangered and Endemic Species *Changium Smyrnioides* (Apiaceae). *Biochem. Syst. Ecol*. 32:583.

Raden, I., Nugroho.C.C., Syahrani. 2017. Identification and characterization of Morphological Diversity of Lemba (*Curculigo latifolia*) In East Kalimantan Indonesia. *Biodiversitas*. 18(4):1367-1376.

Reddy, M.P., Sarla, N., Siddiq, E.A. 2002. Inter Simple Sequence Repeat (ISSR) Polymorphism and Its Application In Palnt Breeding. *Euphytica*. 128 (1):9-10.

Rincon F, B Johnson, J Crossa and S Taba. 1996. Cluster analysis, an approach to sampling variability in maize accessions. *Maydica*, 41:307-316.

Roth-Nebelsick, A., UHL, Dieter., Mosbrugger, V., Kerp, H. 2001. Evolution and Function of Leaf Venation Architecture: Ar review. *Annals of Botany*. 87: 553-566.

Roemantyo and Partomihardjo, T. 2010. Analisis Prediksi Sebaran Alami Gaharu Marga Aquilaria dan Gyrinops di Indonesia. Berita Biologi. Vol 10. Pusat Peneltian Biologi LIPI.

Ruzin, S.E. 1999. *Plant Microtechnique and Microscopy*. New York (USA). Oxford University Press.

Salvana, F.R.P dan Buot, JR. I.E. 2014. Leaf Architecture Study of *Hoya coriacea*, *Hoya halconensis* and *Hoya buottii* (Apocynaceae). International Research Journal of Biological Science. 3 (3):37-44.

Santoso. 2012. Penelitian dan Pengembangan Gaharu. Puslitbang Konservasi dan Rehabilitasi. Badan Litbang Kehutanan.

Scarpella E, Barkoulas M, Tsiantis, M. 2010. Control of Leaf and Vein Development by Auxin. *Cold Spring Harbor Perspect Biol* . 2 (1): 1-17.

Sehgal L and Paliwal G S. 2008. Studies on the leaf anatomy of *Euphorbia*: II Venation patterns. *Botanical Journal of Linnean Society* 68(3): 173–208

Semiadi, G, H. Wiriadinata, E.B. Waluyo, D. Darnaedi. 2010. Rantai Pasokan Produk Tumbuhan Gaharu (*Aquilaria* spp.) asal Merauke, Papua. *Buletin Plasma Nutfah*. 16 (2): 150-159.

Setyaningrum, H. D. dan Saparinto, C. 2014. *Panduan Lengakap Gaharu*. Jakarta: Penebar Swadaya.

Sharma R. 1991. Laminar Characters and Venation Pattern In Some Tiliaceae. *Journal of Indian Botanical Society*. 70 : 249–255.

Sharma JR. 1998. Statistical and biometrical techniques in plant breeding. *New Age International Limited Publishers*, New Delhi, India.

Shretha, J. 2016. Cluster Analysis of Maize Inbred Lines. *Journal of Nepal Agricultural Research Council*. 2 :33-36.

Suranto. 2002. Cluster analysis of Ranunculus Species. *Biodiversitas*. 3 (1):201-206.

Siburian, R. H. S. 2009. Keragaman Genetik *Gyrinops versteegii* asal Papua Berdasarkan RAPD dan Mikrosatelit. Sekolah Pascasarjana IPB, Bogor.

Siburian, R.M.S., Siregar, U.J., Siregar, I.Z. 2017. Genetic Variation of *Gyrinops versteegii* Originated From Papua Based on RAPD. *Asian Journal of Microbiology Biotechnology Environment Science*. 19 (3):1.

Sitepu, I.R., Santoso, E., Siran S.A., dan Turjarman, M. 2011. Fragrant Wood Gaharu: When The Wild Can No Longer Provide. Bogor: Ministry of Forest

Of Indonesia In Cooperation With International Tropical Timber Organization.

Sneath, P. H. A and Sokal, R.R. 1963. *Principles of Numerical Taxonomy* . W.H. Freeman & Company, San Fransisco. 7: 37-38.

Sneanth, P.H.A. and Sokal, R.R. 1973. *Numerical Taxonomy*. San Francisco: W.H. Freeman.

Sokal, R. R. 1986. Phenetic Taxonomy: Theory and Method. *Ann. Rev. Ecol. Syst*.17. 423.

Stace, C.A. 1989. *Plant Taxonomy and Biosystematics*. Second Edition. Routledge Champman and Hall Inc., London, 264 p.

Sumarna, Y. 2012. *Budidaya Jenis Pohon Penghasil Gaharu*. Bogor: Departemen Kehutanan, Badan Penelitian dan Pengembangan Kehutanan, Pusat Litbang Produktivitas Hutan.

Susilo, A., Kalima, T., Santoso, E., 2014. *Panduan Lapangan Pengenalan Jenis Pohon Penghasil Gaharu Aquilaria spp. di Indonesia*. Pusat Penelitian dan Pengembangan Konservasi dan Rehabilitasi Kementerian Kehutanan: Bogor.

Susilo, A., Kalima, T., Santoso, E., 2014. *Panduan Lapangan Pengenalan Jenis Pohon Penghasil Gaharu Gyrinops spp. di Indonesia*. Pusat Penelitian dan pengembangan konservasi dan rehabilitasi kementerian kehutanan: Bogor.

Sutar, S.S and Salunke, R.J. 2016. Study of Leaf Venation In Some Species of Genus *Bauhinia* L. *Journal of Pharmacognosy and Phytochemistry*. 5 (4): 122-124.

Talebi, S.M., Shayestehfar, A.R. 2014. Infraspesific Trichomes Variation in *Acinos graveolens* (M.B.) Link. *Annals of Biological Science*. 2 (2): 51-57.

Taamalli, W., Geuna, F., Banfi, R., Bassi, D., Daoud, D., Zarrouk, M. 2006. Agronomic and Molecular Analysis For The Characterisation of Accessions In Tunisian Olive Germaplasm Collections. *Electronic Journal of Biotechnology*. 9 (12): 467-481.

Tjitrosoepomo, Gembong. 2013. Morfologi Tumbuhan. Yogyakarta: Gadjah Mada Uviversity Press.

Tnah, L.H., Lee, C.H., Lee, S.L. Ng, K.K.S., Ng, C.H., Farhanan, Z.N., Lau, K.H., Chua, L.S..L. 2012. Isolation and Characterizaton of Microsatellite Marker for Important Tropical Tree *Aquilaria Malaccensis* (Thymelaeceae). *American Journal Botany*.10 (1). 2-3.

Torre, M.P.D.L., Garcia, M., Heinz, R., Escando, A. 2012. Anlysis of Genetic Variability by ISSR marker in *Calibrachoa caesia*. *Elektronic Journal of Biology*. 15:1-12.

Torrefiel, J.T., Buot Jr. I. E. 2017. *Hoya carandangiana*, *Hoya bicolensis*, and *Hoya camphorifolia* (Apocynaceae) Spesies Delineation: Insight From Leaf Architecture. *The Thailand Natural History Museum Journal*. 11 (1): 35-44.

Ubaidillah, R. & Sutrisno, H. 2009. Pengantar Biosistematik Teori dan Praktek. LIPI. Bogor.

Verma. V., Aggarwal, R.K. 2019. A New Similarity Measure Base on Simple Matching Coefficient for Improving The Accuracy of Collaborative Recommendation. *I.J. Information Technology and Computer Science*. Vol. 6 :37-49.

Vijayan, K. 2005. Inter Simple Sequence Repeat (ISSR) Polymorphism and its Application in Mulberry Genome Analysis. *International Journal Industry Entomol*ology. 10 (2): 79-81.

Wang, C., Zhang, H., Qian, Z.Q., Zhao, G.F., 2008. Genetic differentiation inendangered *Gynostemma pentaphyllum* (Thunb.) Makino based on ISSR Polymorphism and Its Implications For Conservation. *Biochem. Syst. Ecol*. Vol.36: 699–705.

Zietkiewicz E, Rafalski A, Labuda D. 1994. Genome Fingerprinting by Simple Sequence Repeat (SSR) Anchored Polymerase Chain Reaction amplification. *Genomics*.20 : 176-183

Zou, M., Xia, Z., Lu, C., Wang, H., Ji, J., and Wang, W. 2012. Genetic Diversity and Differentiation of *Aquilaria sinensis* (Lour.) Gilg Revealed by ISSR and SRAP. *Crop Science*. 52 (1):1-13.