UNIVERSITAS
GADJAH MADA
Permudaan Alam Ki Putri (Podocarpus neriifolius) di Petak 5 KHDTK Wanagama I, Kabupaten Gunungkidul
Venita Setiarahma, Prof.Dr.Ir. Suryo Hardiwinoto, M.Agr.Sc. ; Prof.Ir. Widiyatno, S.Hut., M.Sc., Ph.D., IPM.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

Abbas, S., Nichol, J. E., Zhang, J., & Fischer, G. A. (2019). The accumulation of species and recovery of species composition along a 70 year succession in a tropical secondary forest. *Ecological Indicators*, *106*, 105524.

Abdillahi, H.S., Finnie, J.F. and Van Staden, J. (2011). Antiinflammatory, antioxidant, anti-tyrosinase and phenolic contents of four Podocarpus species used in traditional medicine in South Africa. J. *Ethnopharmacol*. 136, 496- 503.

Abdillah, M. M., Handayani, W., & Prakarsa, T. B. P. (2019). Keanekaragaman Famili Arthropoda Tanah Di Kawasan Hutan Pendidikan Wanagama Kabupaten Gunungkidul Daerah Istimewa Yogyakarta. Jurnal Biosilampari: *Jurnal Biologi*, 1(2), 59-64.

Abdillahi, H.S., Stafford, G.I., Finnie, J.F. and Van Staden, J. (2010). Ethnobotany, phytochemistry and pharmacology of *Podocarpus sensu latissimo* (s.l.). *South African J. Bot*. 76, 1-24.

Agustini, N. T., Sugara, A., & Bahri, S. (2023). Kajian Analisis Struktur Komunitas Mangrove di Muara Jenggalu Kota Bengkulu. *Jurnal Laot Ilmu Kelautan*, *5*(1), 81-90.

Akkarasedthanon, J., Chuea-Nongthon, C. H. O. K. C. H. A. I., & Grote, P. J. (2017). Factors affecting size distribution and sapling occurrence of Podocarpaceae at Khao Yai National Park, Thailand. *Tropical Natural History,* 17(2), 94-110.

Andrus, R. A., Harvey, B. J., Hoffman, A., & Veblen, T. T. (2020). Reproductive maturity and cone abundance vary with tree size and stand basal area for two widely distributed conifers. *Ecosphere*, *11*(5), e03092

Anhar, A., Erida, G., Siregar, A. W., Rahmah, H., Muslih, A. M., Hanafi, I., & Hayati, D. (2025). Vegetation diversity in the Geumpang Protected Forest Area, Pidie District, Aceh, Indonesia. *Biodiversitas Journal of Biological Diversity*.

Arrijani, A. (2008). Vegetation structure and composition of the montane zone of Mount Gede Pangrango National Park. *Biodiversitas Journal of Biological Diversity*, 9(2).

UNIVERSITAS
GADJAH MADA
Permudaan Alam Ki Putri (Podocarpus neriifolius) di Petak 5 KHDTK Wanagama I, Kabupaten Gunungkidul
Venita Setiarahma, Prof.Dr.Ir. Suryo Hardiwinoto, M.Agr.Sc. ; Prof.Ir. Widiyatno, S.Hut., M.Sc., Ph.D., IPM.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Baker, F. S. (1950). *Principles of Silviculture*. McGraw-Hill Book Company. New York.

Baral, S., & Ghimire, P. (2020). Effect of tree canopy opening in the regeneration layer of Terai Sal (Shorea robusta Gaertn.) forest in Western Nepal: A case study. *Town Planning Review, 7*, 502-507.

Bastias, C. C., Truchado, D. A., Valladares, F., Benavides, R., Bouriaud, O., Bruelheide, H., ... & De la Cruz, M. (2020). Species richness influences the spatial distribution of trees in European forests. *Oikos*, 129(3), 380-390.

Bianchi, S., Cahalan, C., Hale, S., & Gibbons, J. (2017). Rapid assessment of forest canopy and light regime using smartphone hemispherical photography. *Ecology and Evolution, 7*, 10556 - 10566.

Bisay, E. E., Mofu, W. Y., & Rahawarin, Y. Y. (2019). Identifikasi jenis-jenis bank benih pada Hutan Pendidikan Anggori-Manokwari. *Jurnal Kehutanan Papuasia*, *5*(1), 1-14.

Coomes, D. A., & Bellingham, P. J. (2011). Temperate and tropical podocarps: how ecologically alike are they?. *Smithsonian contributions to botany*, (95).

Da Silva, I. A. G., Dubeux, J., Santos, M. V. F., De Mello, A. C. L., Da Cunha, M. V., Apolinário, V., & De Freitas, E. V. (2021). Tree Canopy Management Affects Dynamics of Herbaceous Vegetation and Soil Moisture in Silvopasture Systems Using Arboreal Legumes. *Agronomy*.

Damanik, S. E., & Sinurat, A. (2022). *Perencanaan Pembangunan Dan Pelestarian Ekosistem Hutan*. Penerbit K-Media.

Damayanti, D. R., Bintoro, A., and Santoso, T. (2017). Permudaan Alami Hutan di Satuan Pengelolaan Taman Nasional (SPTN) Wilayah III Kuala Penet Taman Nasional Way Kambas. *Jurnal Sylva Lestari* 5(1): 92.

Darma, B. (2021). *Statistika Penelitian Menggunakan SPSS*. In guepedia (pp. 55 50 76).

Engone Obiang, N. L., Kenfack, D., Picard, N., Lutz, J. A., Bissiengou, P., Memiaghe, H. R., & Alonso, A. (2019). Determinants of spatial patterns of canopy tree species in a tropical evergreen forest in Gabon. *Journal of Vegetation Science*, 30(5), 929-939.

Enright, N. J., & Jaffré, T. (2011). Ecology and distribution of the Malesian podocarps. *Smithsonian contributions to botany*, 95, 57-78.

UNIVERSITAS
GADJAH MADA
Permudaan Alam Ki Putri (Podocarpus neriifolius) di Petak 5 KHDTK Wanagama I, Kabupaten Gunungkidul
Venita Setiarahma, Prof.Dr.Ir. Suryo Hardiwinoto, M.Agr.Sc. ; Prof.Ir. Widiyatno, S.Hut., M.Sc., Ph.D., IPM.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Enright, N. J., Marod, D., Bennett, I., Froend, R. H., & Ladd, P. G. (2022). The ecology of conifer persistence in tropical rainforests: *Podocarpus neriifolius* in northern Thailand. *Plant Ecology*, *223*(3), 297-314.

Fachrul, M. F. (2007). *Metode sampling bioekologi*.

Fajri, M., & Garsetiasih, R. (2019). Komposisi jenis vegetasi lahan pasca tambang galian C di KHDTK Labanan, Kabupaten Berau. *Jurnal Penelitian Hutan Dan Konservasi Alam*, *16*(2), 101-118.

Fariz, T. R., Ihsan, H. M., Lutfiananda, F., Sartohadi, J., Darmajati, Y., & Syahputra, A. (2023). Perbandingan Pengukuran Kerapatan Kanopi dari Hemispherical Photography dan UAV untuk Pemetaan Menggunakan Citra Sentinel-2. *Jurnal Hutan Tropis Volume*, *11*(1), 123-132.

Fitriandhini, D., & Putra, A. (2022). Dampak kerusakan ekosistem hutan oleh aktivitas manusia: Tinjauan terhadap keseimbangan lingkungan dan keanekaragaman hayati. *Jurnal Kependudukan dan Pembangunan Lingkungan*, 3(3), 217-226.

Gratzer, G., Darabant, A., Chhetri, P. B., Rai, P. B., & Eckmüllner, O. (2004). Interspecific variation in the response of growth, crown morphology, and survivorship to light of six tree species in the conifer belt of the Bhutan Himalayas. *Canadian Journal of Forest Research*, *34*(5), 1093-1107.

Greene, D. F., Messier, C., Asselin, H., & Fortin, M. J. (2002). The effect of light availability and basal area on cone production *in Abies balsamea* and *Picea glauca*. *Canadian Journal of Botany*, *80*(4), 370-377.

Gyeltshen, P., Gurung, D. B., Tobgay, K., & Tshewang, S. (2023). Occurrence and Conservation Status of *Podocarpus neriifolius* D. Don (Podocarpaceae) in Bhutan. *Nelumbo*, 154-157.

Hamidun, M. S., & Baderan, D. W. K. (2014). Analisis vegetasi hutan produksi terbatas boliyohuto provinsi Gorontalo. *Gorontalo: Universitas Negeri Gorontalo*.

Hardiwinoto, S., Wibisono, M. G., Suryanto, P., & Jihad, A. N. (2024). *Silvikultur: Ilmu Seni dan Teknologi Membangun Hutan.* UGM PRESS.

He, D., Peng, D., Yang, H., & Zhang, X. (2023). The response of seedlings and saplings to canopy structure and light in different gaps in a spruce-fir mixed stand in Changbai Mountains, China. *Forest Ecology and Management*.

UNIVERSITAS
GADJAH MADA
Permudaan Alam Ki Putri (Podocarpus neriifolius) di Petak 5 KHDTK Wanagama I, Kabupaten Gunungkidul
Venita Setiarahma, Prof.Dr.Ir. Suryo Hardiwinoto, M.Agr.Sc. ; Prof.Ir. Widiyatno, S.Hut., M.Sc., Ph.D., IPM.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Horvath, ´ C.V., Kovacs, ´ B., Tinya, F., Schadeck Locatelli, J., N´emeth, C., Crecco, L., Ill´es, G., Cs´ep´ anyi, P., Odor, ´ P., (2023). A matter of size and shape: Microclimatic changes induced by experimental gap openings in a sessile oak–hornbeam forest. *Sci. Total Environ*. 873, 162302.

Holeksa, J., Żywiec, M., Bogdziewicz, M., Kurek, P., Milne-Rostkowska, F., Piechnik, Ł., & Seget, B. (2021). Microsite-specific 25-year mortality of Norway spruce saplings. *Forest Ecology and Management, 498*, 119572.

Hossain, M., Islam, M. A., Azad, M., Rahman, M. M., Shumi, W., & Shukor, N. (2019). Propagation of an endangered gymnosperm tree species *(Podocarpus neriifolius* D. Don.) by stem cuttings in non-mist propagator. *Pertanika journal of tropical agricultural science, 42*, 237-250.

Hu, M., Shi, H., He, R., Wen, B., Liu, H., Zhang, K., Shu, X., Dang, H., & Zhang, Q. (2024). Disparities in tree mortality among plant functional types (PFTs) in a temperate forest: insights into size-dependent and PFT-specific patterns. *Forest Ecosystems*.

Indonesia. (1999). *Undang-Undang Republik Indonesia Nomor 41 Tahun 1999 tentang Kehutanan*.

Iskandar. (2003). *The impact of managing a research and education forest in Indonesia*. Paper presented at the XII World Forestry Congress, Quebec City, Canada.

Kartawinata, K., & Abdulhadi, R. (2016). *Ekologi Vegetasi: Tujuan dan Metode.* Bogor, Indonesia: LIPI Press & Yayasan Pustaka Obor Indonesia.

Kershaw Jr, J. A., Ducey, M. J., Beers, T. W., & Husch, B. (2016). *Forest mensuration*. John Wiley & Sons.

Kunakh, O. M., Volkova, A. M., Tutova, G. F., & Zhukov, O. V. (2023). Diversity of diversity indices: Which diversity measure is better?. *Biosystems Diversity*, *31*(2), 131-146.

Kurniawan, F. Y., & Mustika, N. D. (2021). Distribusi dan Kemelimpahan Spesies Anggrek Epifit di Hutan Wanagama, Gunung Kidul, Daerah Istimewa Yogyakarta. *Jurnal Riset Sains dan Teknologi)*, 83-89.

Kusuma, Y. S., Darwo, D., Suhada, D. A., Kaimuddin, M. I., Rahmah, T. N., Anita, V. P. D., ... & Zuhriansah, A. L. (2025). Analisis Struktur Vegetasi dan Potensi Pohon Penghasil Obat: Studi Kasus KHDTK Aek Nauli, Sumatera Utara. *Jurnal Penelitian Hutan Tanaman*, *22*(2), 107-126.

UNIVERSITAS
GADJAH MADA
Permudaan Alam Ki Putri (Podocarpus neriifolius) di Petak 5 KHDTK Wanagama I, Kabupaten Gunungkidul
Venita Setiarahma, Prof.Dr.Ir. Suryo Hardiwinoto, M.Agr.Sc. ; Prof.Ir. Widiyatno, S.Hut., M.Sc., Ph.D., IPM.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Kusumandari, A., Marhaento, H., & Suryatmojo, H. (2024). Vegetation Analysis of the Spring Water Surroundings at the Wanagama Rehabilitated Forest. *In BIO Web of Conferences* (Vol. 94, p. 04012). EDP Sciences.

Krebs, C. J. (1989). *Ecological methodology*. New York, NY: Harper and Row Publishers Inc., 654 p.

Laurans, M., Hérault, B., Vieilledent, G., & Vincent, G. (2014). Vertical stratification reduces competition for light in dense tropical forests. *Forest Ecology and Management*, 329, 79-88.

Li, Y.-F., Ye, S., Bai, W., & Zhang, G. (2023). Species diversity patterns differ by life stages in a pine-oak mixed forest. *Dendrobiology*.

Li, Y., Li, J., & Wei, L. (2024). Stable reverse J-shaped diameter distribution occurs in an old-growth karst forest. *Journal of Forestry Research*, *35*(1), 107.

Ludwig, J. A., & Reynolds, J. F. (1988). *Statistical ecology: A primer on methods and computing*. John Wiley & Sons.

Lusk, C., Falster, D., JaraVergara, C. K., Jiménez-Castillo, M., & Saldaña-Mendoza, A. (2008). Ontogenetic variation in light requirements of juvenile rainforest evergreens. *Functional Ecology*, 22, 454-459.

Ma, R., Li, J., Guo, Y., Wang, B., Xiang, W., Li, D., Huang, F., Lu, F., Wen, S., Lu, S., & Li, X. (2024). Recruitment dynamics in a tropical karst seasonal rain forest: Revealing complex processes from spatial patterns. *Forest Ecology and Management*.

Magurran, A. E. (2003). *Measuring biological diversity*. John Wiley & Sons.

Mawazin, S. A., & Subiakto, A. J. I. F. R. J. (2013). Keanekaragaman dan komposisi jenis permudaan alam hutan rawa gambut bekas tebangan di Riau. *Indonesian Forest Rehabilitation Journal*, 1(1), 59-73.

Murti, R. E. D., Nadia, I., Arifah, T. N., Irawan, P., & Prawansyah, F. I. (2021). Pemodelan dinamika tegakan hutan jenis rasamala *(Altingia excelsa)* bonita IV menggunakan metode lefkovitch di Pulau Jawa.

Na'iem, M., Rudiana, P. A., Hasibuan, S. M., Idhom, A. M., Mustaqim, A., Sutiyati, S., & Cahyono, M. F. (2020). *Wanagama: Kisah Terciptanya Hutan Pendidikan, Konservasi, dan Kesejahteraan Sosial Ekonomi bagi Rakyat Sekitar.* Yogyakarta: Samudra Biru.

Nanami, S., Kawaguchi, H., & Yamakura, T. (2011). Spatial pattern formation and relative importance of intra-and interspecific competition in codominant

UNIVERSITAS
GADJAH MADA
Permudaan Alam Ki Putri (Podocarpus neriifolius) di Petak 5 KHDTK Wanagama I, Kabupaten Gunungkidul
Venita Setiarahma, Prof.Dr.Ir. Suryo Hardiwinoto, M.Agr.Sc. ; Prof.Ir. Widiyatno, S.Hut., M.Sc., Ph.D., IPM.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

tree species, *Podocarpus nagi* and *Neolitsea aciculata*. *Ecological Research*, *26*(1), 37-46.

Nasyirsyah. (2008). Persaingan antar tanaman sejenis. *Jurnal Ilmu Pertanian* 3:22-28

Ningsih, R. S. M. (2019). Pengaruh intensitas cahaya terhadap pertumbuhan dan perkembangan tanaman kacang merah. *Agroswagati*, *7*(1), 1-6.

Norden, N., Letcher, S. G., Boukili, V., Swenson, N. G., & Chazdon, R. (2012). Demographic drivers of successional changes in phylogenetic structure across life-history stages in plant communities. *Ecology*, *93*(sp8), S70-S82.

Nurdiana, D. R., & Buot Jr, I. E. (2021). Vegetation community and species association of Castanopsis spp. at its habitat in the remnant forest of Cibodas Botanical Garden, Indonesia. *Biodiversitas: Journal of Biological Diversity*, 22(11).

Nurjanto, H. H., Supriyo, H., Widyastuti, S. M., Kabirun, S., Johand, E., & Matsue, N. (2016). Smectite under heavy clay soils development at FRE Wanagama forest area.

Nyland, R.D (1996). *Silviculture, Concepts, and Applications.* New York, St. Louise, San Francisco, Auckland, Bogota, Caracas, Lisbon, London, Madrid, Mexico City, Milan, Montreal, New Delhi, San Juan, Singapore, Sdyney, Tokyo, Toronto: The McGraw-Hill Companies, Inc.

Odum. (1993). *Dasar-Dasar Ekologi*. Gadjah Mada University Press. Yogyakarta. 697 p.

Oyun, M. B. (2006). Allelopathic potentialities of *Gliricidia sepium* and *Acacia auriculiformis* on the germination and seedling vigour of maize (Zea mays L.). *American Journal of Agricultural and Biological Science*, *1*(3), 44-47.

Palma, A. C., Winter, K., Aranda, J., Dalling, J., Cheesman, A., Turner, B. L., & Cernusak, L. (2020). Why are tropical conifers disadvantaged in fertile soils? Comparison of *Podocarpus guatemalensis* with an angiosperm pioneer*, Ficus insipida*. *Tree physiology*.

Pati, P. K., Kaushik, P., Khan, M. L., & Khare, P. (2025). Ecological dilemma: Invasive *Gliricidia sepium* improves carbon sequestration but decline diversity during secondary succession in tropical dry deciduous forest communities of Central India. *Environmental Challenges*.

UNIVERSITAS
GADJAH MADA
Permudaan Alam Ki Putri (Podocarpus neriifolius) di Petak 5 KHDTK Wanagama I, Kabupaten Gunungkidul
Venita Setiarahma, Prof.Dr.Ir. Suryo Hardiwinoto, M.Agr.Sc. ; Prof.Ir. Widiyatno, S.Hut., M.Sc., Ph.D., IPM.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Permadi, D., Umami, N., Triyogo, A., Pujiarti, R., Larasati, B., & Septiana, R. (2021). Socio-technical Aspects of Smallholder Beekeeping Adoption of *Apis cerana* in Wanagama Teaching Forest, Gunungkidul, Yogyakarta. 56-65.

Piovesan, G., & Lüttge, U. (2018). Tree growth dynamics during early ontogenetic stages in closed forests. *Trees*, 32, 671-673.

Pramoedibyo, R. I. S., Soeseno, O. H., Supriyo, H., Soekotjo, Naiem, M., & Iskandar, U. (2004). *Dari Bukit-Bukit Gundul Sampai ke Wanagama I*. Yogyakarta: Yayasan Sarana Wana Jaya.

Previansari, D., Sukmono, A., & Firdaus, H. S. (2019). Analisis pengaruh relief dan arah sinar matahari terhadap kesesuaian lahan tembakau berbasis pemodelan geospasial 3-dimensi di gunung sindoro. *Jurnal Geodesi Undip*, 9(1), 344-353.

Purnomo, D. W., & Usmadi, D. (2012). Pengaruh struktur dan komposisi vegetasi dalam menentukan nilai konservasi kawasan rehabilitasi di Hutan Wanagama I dan sekitarnya. *Jurnal Biologi Indonesia*, *8*(2), 255-268.

Rahman, R., Hossain, M., Hossain, A., & Hasan, M. E. (2020). Natural regeneration potential of Madhupur National Park, Bangladesh. *Bangladesh Journal of Botany*.

Rangkuti, A. B., Hartini, K. S., Susilowati, A., Rambey, R., HARAHAP, M., Arinah, H., ... & RUHIDI, A. (2023). Structure, composition and diversity of tree species in Martelu Purba Nature Reserve, North Sumatra, Indonesia. *Biodiversitas: Journal of Biological Diversity*, *24*(1).

Russo SA, Davies SJ, King DA, Tan S. (2005) Soil-related performance variation and distributions of tree species in a Bornean rain forest. *J Ecol* 93:879–889.

Safira, D. A., & Rusdiana, O. (2025). Variasi Tekstur Tanah dan Bahan Organik Berdasarkan Kerapatan Tajuk Studi Kasus pada Hutan Kota Muhammad Sabki, Kota Jambi. *Jurnal Silva Tropika*, *9*(1), 32-43.

Saleh, A. R., & Jayanti, K. D. (2017). Pengaruh populasi naungan terhadap pertumbuhan awal tanaman kakao *(Theobroma cacao* L.*)* di lapangan. *Agropet*, *14*(2)

Saleha, S., & Ngakan, P. O. (2016). Sebaran dan struktur populasi anakan Diospyros celebica Bakh. di bawah pohon induknya. *Jurnal Penelitian Kehutanan Wallacea*, *5*(2), 103-111.

UNIVERSITAS
GADJAH MADA
Permudaan Alam Ki Putri (Podocarpus neriifolius) di Petak 5 KHDTK Wanagama I, Kabupaten Gunungkidul
Venita Setiarahma, Prof.Dr.Ir. Suryo Hardiwinoto, M.Agr.Sc. ; Prof.Ir. Widiyatno, S.Hut., M.Sc., Ph.D., IPM.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Schmiege, S. C., Buckley, B. M., Stevenson, D., Cuong, T. Q., Nam, L. C., & Griffin, K. L. (2021). Contrasting physiological traits of shade tolerance in Pinus and Podocarpaceae native to a tropical Vietnamese forest: insight from an aberrant flat-leaved pine. *Tree Physiology*, *41*(2), 223-239.

Shannon, D., Tiansawat, P., Dasoon, S., Elliott, S., & Pheera, W. (2023). Effects of Fertilizer on Growth and Biomass Allocation of Three Evergreen Tree Species from Seasonally Dry Tropical Forests. *Trends in Sciences*.

Shaw, N., Barak, R., Campbell, R., Kirmer, A., Pedrini, S., Dixon, K., & Frischie, S. (2020). Seed use in the field: delivering seeds for restoration success. *Restoration Ecology, 28*.

Sidiyasa, K. (2009). Struktur dan komposisi tegakan serta keanekaragamannya di hutan lindung Sungai Wain, Balikpapan, Kalimantan Timur. *Jurnal penelitian hutan dan konservasi alam*, *6*(1), 79-93.

Smith, D.M. 1962. *The Practice of Silvicultur*e. New York, NY:Wiley and Sons.

Sobari, I., Sakiroh, S., & Purwanto, E. H. (2012). Pengaruh jenis tanaman penaung terhadap pertumbuhan dan persentase tanaman berbuah pada kopi arabika varietas kartika 1. *Jurnal Tanaman Industri dan Penyegar*, *3*(3), 217-222.

Soerianegara, I., & Lemmens, R. H. M. J. (1993). *Plant resources of southeast Asia*. No. 5 (1). Timber Trees: Major Commercial Timbers, 384-391.

Sulistyo, T.D. (2014). *Potensi dan Upaya Pengembangan Kawasan Taman Hutan Raya Bunder Kabupaten Gunungkidul Sebagai Laboratorium Alam Geografi.* Yogyakarta: Fakultas Ilmu Sosial Universitas Negeri Yogyakarta. p. 64.

Susanto, S. A., Putri, D. M., Rahmawati, I., & Sanjaya, M. A. (2021). Keragaman Permudaan Pohon di Area Sumber Air Blok Seda, Taman Nasional Gunung Ciremai. *Jurnal Sumberdaya Hayati*, *7*(2), 62-70.

Ulfa, S. W., Rahmah, S., Putri, P. K., Hasibuan, F. P., Aulia, R., & Gea, S. H. (2024). Keanekaragaman Gymnospermae Di Indonesia Pada Pulau Wawoni Sulawesi Tenggara. *Indonesian Journal of Multidisciplinary Scientific Studies*, 2(1), 67-71.

Wahdiana, A., Hatta, G. M., Kissinger, & Mahmud, M. (2022). Perkembangan suksesi vegetasi di area revegetasi lahan pascatambang batubara (Studi kasus di PT Amanah Anugerah Adi Mulia Kabupaten Tanah Laut). *EnviroScienteae*, 18(2).

UNIVERSITAS
GADJAH MADA
Permudaan Alam Ki Putri (Podocarpus neriifolius) di Petak 5 KHDTK Wanagama I, Kabupaten Gunungkidul
Venita Setiarahma, Prof.Dr.Ir. Suryo Hardiwinoto, M.Agr.Sc. ; Prof.Ir. Widiyatno, S.Hut., M.Sc., Ph.D., IPM.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Wahyuni, A. S., Prasetyo, L. B., & Zuhud, D. E. A. (2017). Populasi dan pola distribusi tumbuhan paliasa *(Kleinhovia hospita* L.*)* di Kecamatan Bontobahari.*Media Konservasi*, *22*(1), 11.

Whitmore, T. (1989). Canopy gaps and the two major groups of forest trees. *Ecology*, *70*(3), 536-538.

Witno, W., Karim, H. A., & Megawati, M. (2021). Pola sebaran populasi aren (Arenga pinnata) berdasarkan kelas pertumbuhan di desa sangtandung kecamatan walenrang utara kabupaten luwu. *Jurnal Penelitian Kehutanan BONITA*, *3*(2), 12-22.

Woods, K. D. (2008). Living long by staying small: stem layering as an adaptive life-history trait in shade-tolerant tree seedlings. *Canadian Journal of Forest Research*, *38*(3), 480-487.

Wright, M., Van Mantgem, P. J., Buffington, K. J., Thorne, K., Engber, E., & Smith, S. (2023). Spatially explicit models of seed availability improve predictions of conifer regeneration following the 2018 Carr Fire in northern California. *Frontiers in Ecology and Evolution*.

Wright, S., Muller-Landau, H., Condit, R., & Hubbell, S. (2003). Gap-dependent recruitment, realized vital rates, and size distributions of tropical trees. *Ecology, 84*, 3174-3185.

Zalamea, P. C., Turner, B. L., Winter, K., Jones, F. A., Sarmiento, C., & Dalling, J. W. (2016). Seedling growth responses to phosphorus reflect adult distribution patterns of tropical trees. *New Phytologist*, *212*(2), 400-408.

Zannah, H., Evie, R., Sudarti, S., & Trapsilo, P. (2023). Peran Cahaya matahari dalam proses fotosintesis tumbuhan. *Cermin: Jurnal Penelitian*, 7(1), 204-214.

Zhang, H., Zhang, X., Lv, Y., Ni, Y., Xu, B., Han, X., Cao, X., Yang, Q., Xu, W., & Qian, Z. (2024). How topography and neighbor shape the fate of trees in subtropical forest restoration: Environmental filtering and resource competition drive natural regeneration. *Forest Ecosystems*.

Zhou, L., Thakur, M. P., Jia, Z., Hong, S., Yang, Y., An, X., & Zhou, X. (2023). Light effects on seedling growth in simulated forest canopy gaps. *Frontiers in Forests and Global Change*.