

REFERENCES

- Assmann, E. 1970. *Principles of Forest Yield Study*. Pergamonn Press. New York
- Baksir, A., Mutmainnah, Akbar, N. and Ismail, F. Penilaian Kondisi Menggunakan Metode Hemispherical Photography Pada Ekosistem Mangrove Di Pesisir Desa Minaluli, Kecamatan Mangoli Utara, Kabupaten Kepulauan Sula, Provinsi Maluku Utara. *Jurnal Sumberdaya Akuatik Indopasifik*, 2(2):69-80, DOI: 10.30862/jsai-fpik-unipa.2018.Vol.2.No.2.52
- Bianchi, S., Crhistine., Sophie and James. 2017. Rapid Assessment of Forest Canopy and Light Regime Using Smartphone Hemispherical Photography. *Journal Ecology and Evolution*, 7(2): 10556-1066
- Chianucci, F. and Cutini, A. 2012. Digital Hemispherical Photography For Estimating Forest Canopy Properties: Current Controversies and Opportunities. *Biogeosciences and Forestry*.
- Crookston, Nicholas L, Stage and Albert R. 1999. *Percent canopy cover and stand structure statistics from the forest vegetation simulator*. Ogden, UT (324 25th St., Ogden 84401) : U.S. Dept. of Agriculture, Forest Service, Rocky Mountain Research Station.
- FAO, 2003. An illustrated guide to the state of health of trees. Recognition and interpretation of symptoms and damage. Eric Boa, Diagnostic and Advisory Service, CABI Bioscience, Egham, Surrey, United Kingdom
- Greig-Smith, P. 1952 *Ecological observation on degraded and secondary forest in Trinidad, British West Indies. General feature of the vegetation*. *Journal of Ecology* 40: 283-315.
- Hazrina, AS. 2020. *Estimasi Canopy Dengan Menggunakan Aplikasi GLAMA di Hutan Kondisi Penelitian Hayati (HPPB) Universitas Andalas*. Skripsi Jurusan Biologi Universitas Andalas. Padang.
- Indrawan, Mochamad., R.B. Premack., dan Jatna Supriatna. 2007. *Biologi Konservasi*. Edisi Revisi. Yayasan Obor Indonesia. Jakarta.

- Irwanto. 2006. *Penilaian Kesehatan Tegakan Hutan Tegakan Jati Tectonia grandis dan Eucalyptus pellita Pada Kawasan Hutan Wanagama*. Universitas Gadjah Mada. Yogyakarta.
- Jayadi, E. M. 2015. *Ekologi Tumbuhan* (PDF). Mataram: Institut Agama Islam Negeri Mataram. hlm. 2. [ISBN](#) 978-602-74071-0-7. Diarsipkan dari [versi asli](#) (PDF) tanggal 2020-03-31.
- Jennings, S. B., Brown, N. D., and Sheil, D. 1999. Assessing Forest Canopies and Understorey Illumination: Canopy Closure, Canopy Cover And Other Measures. *Forestry*. 72(1).
- Keith Morrison. 2007. *Research Methods In Education*. Sixth Edition. Routledge Taylor & Francis E-Library. USA and Canada.
- Keputusan Menteri Lingkungan Hidup RI No. 201 Tahun 2004 Tentang Kriteria Baku Dan Pedoman Penentuan Kerusakan Mangrove di Luar Kawasan Konservasi. KLHK. 2018. Status Kehutanan 2018. KLHK. Jakarta.
- Korhonen, L., Korhonen, K. T., Rautiainen, M., and Stenberg, P. 2006. Estimation of Forest Canopy Cover: A Comparison of Field Measurement Techniques. *Silva Fennica*. 40 (4).
- Kusmana, C, Istomo, B. Winata and I. Hilwan. 2022. *Ekologi hutan Indonesia*. IPB Press. Bogor.
- Mangold, R. 1997. *Forest Health Monitoring: Field Methods Guide*. Buku. USDA Forest Service. New York. 246
- Mauludin, M.R., Azizah, R., Pribadi, R., dan Suryono. 2018. Komposisi dan Tutupan Kanopi Mangrove di Kawasan Ujung Piring Kabupaten Jepara.
- Motta, Renzo and Haudemand, JC. 2000. Protective forests and silvicultural stability - An example of planning in the Aosta Valley. *Mountain Research And Development*. 20. 180-187
- Mukhtar, E., Mizunaga., and T.Yoneda. 2004. *Sturcture And Composition Of Secondary Forest Tree In Limau Manis*. Tropic. Unpublished Data.
- Nurdiansah D dan I.W.E. Dharmawan. 2018. Komunitas Mangrove di Wilayah Pesisir Pulau Tidore dan Sekitarnya. *Oseanologi dan Limnologi di Indonesia*, 3(1): 1-9.
- Oladejo SO, D. Awoniran, and Ea O. 2018. Assessment of plant health status using

- remote sensing and GIS techniques. *Advances in Plants & Agriculture Research* vol.8 no 6, pp. 517-525
- Paletto, A and Tosi, V. 2009. Forest Canopy Cover and Canopy Closure: Comparison of Assessment Techniques. *European Journal of Forest Research*. 128: 265-272.
- Permana, G. 2017. *Kondisi Hutan Konservasi PT. Kencana Sawit Indonesia (KSI) dengan Menggunakan Aplikasi Gap Light Analysis Mobile App (GLAMA)*. Skripsi Jurusan Biologi FMIPA Universitas Andalas. Padang.
- Putra, E.I; Supryanto; H. Purnomo; N.F. Haneda and J.R. Mantangaran. 2019. The use of Analytical Network Process (ANP) Approach to Assess the Health of Natural Production Forest. *IOP Conf. Series: Earth and Environmental Science* 394 012040
- Rahman, M. 1994. *Inventarisasi Sumber Daya Flora di Hutan Pendidikan dan Penelitian Biologi (HPPB) Universitas Andalas Padang*. UNAND. Padang.
- Rich, P. M. 1990. Characterizing Plant Canopies with Hemispherical Photographs. *Remote Sensing Reviews*. 5(1): 13-29.
- Richards, P. W. 1996 *The tropical rain forest – an ecological study*. Cambridge University Press, UK.
- Rizal, and Reda. 2017. [Analisis Kualitas Lingkungan](#) (PDF). Jakarta: Penerbit Lembaga Penelitian dan Pengabdian Masyarakat, Universitas Pembangunan Nasional Veteran Jakarta. hlm. 26. ISBN 978-602-19087-6-1.
- Safei R., Hardjanto, Supriyanto, Leti Sundawati. 2014. *Value of Vitality Status in Monoculture and Agroforestry Planting Systems of the Community Forest*. *International Journal of Sciences: Basic and Applied Research* 18(2):340-353.
- Safei, R; C. Wulandari dan H. Kaskoyo. 2019. Penilaian Kesehatan Hutan pada Berbagai Tipe Hutan di Provinsi Lampung. *Jurnal Sylva Lestari* Vol 7(1); 95-109.
- Soerianegara, I., dan Indrawan, A. 2005. *Ekologi Hutan Indonesia*. Fakultas Kehutanan Institut Pertanian Bogor. Bogor.
- Sukma, Silvana. 2021. *Canopy Cover Estimation By Using Gap Light Analysis Mobile App at Prof. Sumitro Djojohadikusumo conservation area of PT. TKA South Solok*. Skripsi Jurusan Biologi FMIPA Universitas Andalas. Padang.

Tichý, L. 2016. Field Test of Canopy Cover Estimation by Hemispherical Photographs Taken With A Smartphone. *Journal of Vegetation Science*, 27: 427- 435.

Undang Undang RI No. 41 tahun 1999 tentang Kehutanan.

