

REFERENCES

- Abdullah, Muhammad, and Mustikaningtyas, Dewi, 2010, "Inventarisasi Jenis-Jenis Tumbuhan Berkhasiat Obat Di Hutan Hujan Dataran Rendah Desa Nyamplung Pulau Karimunjawa." *Biosaintifika: Journal of Biology & Biology Education* 2 (2): 75–81.
- Adili, B., El Aouni, M., and Balandier, P., 2013, "Unravelling the influence of light, litter and understorey vegetation on *Pinus pinea* natural regeneration", *Forestry*, 86(3), 297–304.
- Anderson, M. J., and Willis, T. J., 2003, "Canonical analysis of principal coordinates: a useful method of constrained ordination for ecology", *Ecology*, 84 (2), 511–525.
- Arbainsyah, de Iongh, H. H., Kustiawan, W., and de Snoo, G. R. 2014, "Structure, composition and diversity of plant communities in FSC-certified, selectively logged forests of different ages compared to primary rainforest", *Biodiversity and Conservation*, 23(10), 2445–2472.
- Armesto, J. J., and Figueroa, J., 1987, "Stand structure and dynamics in the temperate rainforests of Chiloé Archipelago, Chile", *Journal of Biogeography*, 367–376.
- Armstrong, A. H., Shugart, H. H., and Fatoyinbo, T. E., 2011, "Characterization of community composition and forest structure in a Madagascar lowland rainforest", *Tropical Conservation Science*, 4(4), 428–444.
- Asase, A., Asiatokor, B. K., and Ofori-Frimpong, K., 2014, "Effects of selective logging on tree diversity and some soil characteristics in a tropical forest in southwest Ghana", *Journal of Forestry Research*, 25(1), 171–176.
- Bagchi, R., Press, M. C., and Scholes, J. D., 2010, "Evolutionary history and distance dependence control survival of dipterocarp seedlings", *Ecology Letters*, 13(1), 51–59.
- Baker, W. J., and Loo, A. H. B., 2004, "A Synopsis of the Genus *Hydriastele* (*Arecaceae*)", *Kew Bulletin*, 59(1), 61–68.
- Baldeck, C.A., Harms, K.E., Yavitt, J.B., John, R., Turner, B.L., Valencia, R., Navarrete, H., Bunyavejchewin, S., Kiratiprayoon, S., Yaacob, A. and Supardi, M.N.N., 2013, "Habitat filtering across tree life stages in tropical forest communities". Proceedings of the Royal Society of London B: *Biological Sciences*, 280.
- Beehler, B. M., 2007, "Introduction to Papua, Pages 8 – 10 in A. J. Marshall and B. M. Beehler. ", The Ecology of Papua part one Vol. 6 of The Ecology of Indonesia, Conservation International Foundation, 2007.
- Bertault, J-G and Sist, P, 1997, "An experimental comparison of different harvesting intensities with reduced-impact and conventional logging in East Kalimantan, Indonesia", *Forest Ecology and Management*, 94, 209–218.
- Bohlman, S., and Pacala, S., 2012, "A forest structure model that determines crown layers and partitions growth and mortality rates for landscape-scale applications of tropical forests", *Journal of Ecology*, 100, (2), 508–518.

- Brokaw, N. V., and Scheiner, S. M., 1989, "Species composition in gaps and structure of a tropical forest", *Ecology*, 538-541.
- Brown, S., and Lugo, A. E., 1990, "Tropical secondary forests", *Journal of tropical ecology*, 6 (01), 1-32.
- Budiaman, A., and Pradata, A. A., 2014, "Low Impact Felling Distance and Allowable Number of Felled Trees in TPTI System", *Jurnal Manajemen Hutan Tropika*, 19 (3), 194.
- Bunyan, M., Bardhan, S., Singh, A., and Jose, S., 2015, Effect of Topography on the Distribution of Tropical Montane Forest Fragments: A Predictive Modelling Approach", *Journal of Tropical Forest Science*, 27(1), 30–38.
- Cain, S. A., 1950, "Life-Forms and Phytoclimate, Botanical Review, 16(1), 1–32.
- Campbell, M., Magrath, A., and Laurance, W. F. 2015, "Liana Diversity and the Future of Tropical Forests". In Biodiversity of Lianas (pp. pp. 255–274).
- Cannon, C. H., Peart, D. R., and Leighton, M., 1998, "Tree species diversity in commercially logged Bornean rainforest", *Science*, 281(5381), 1366-1368.
- Cannon, C. H., Peart, D. R., Leighton, M., and Kartawinata, K., 1994, "The structure of lowland rainforest after selective logging in West Kalimantan, Indonesia", *Forest Ecology and Management*, 67(1), 49-68.
- Castro-Luna, A., Castillo-Campos, G., and Sosa, V., 2011, "Effects Of Selective Logging And Shifting Cultivation On The Structure And Diversity Of A Tropical Evergreen Forest In South-Eastern Mexico", *Journal of Tropical Forest Science*, 23(1), 17–34.
- Chapman, C. A, and Chapman, L., 1995, "Survival without recruitment survival dispersers: seedling parents under parents", *Conservation Biology*, 9(3), 675–678.
- Chazdon, R. L., Finegan, B., Capers, R. S., Salgado-Negret, B., Casanoves, F., Boukili, V., and Norden, N., 2010, "Composition and dynamics of functional groups of trees during tropical forest succession in northeastern Costa Rica", *Biotropica*, 42, (1), 31-40.
- Chiti, T., Perugini, L., Vespertino, D., and Valentini, R., 2015, "Effect of selective logging on soil organic carbon dynamics in tropical forests in central and western Africa", *Plant and Soil*, 399(1-2), 283–294.
- Chuyong, G. B., Newbery, D. M., and Songwe, N. C., 2004, "Rainfall Input, Throughfall and Stemflow of Nutrients in a Central African Rain Forest Dominated by Ectomycorrhizal Trees." *Biogeochemistry* 67: 73–91.
- Cicuzza, D., Krömer, T., Poulsen, A. D., Abrahamczyk, S., Delhotal, T., Piedra, H. M., and Kessler, M. 2013, "A transcontinental comparison of the diversity and composition of tropical forest understory herb assemblages", *Biodiversity and Conservation*, 22(3), 755–772.
- Comita, L. S., Uriarte, M., Thompson, J., Jonckheere, I., Canham, C. D., and Zimmerman, J. K., 2009, "Abiotic and biotic drivers of seedling survival in a hurricane-impacted tropical forest", *Journal of Ecology*, 97 (6), 1346-1359.

- Corlett, R. T., 2016, "The Impacts of Droughts in Tropical Forests", *Trends in Plant Science*, xx, (In Press).
- Corrià-Ainslie, R., Julio Camarero, J., and Toledo, M. 2015, "Environmental heterogeneity and dispersal processes influence post-logging seedling establishment in a Chiquitano dry tropical forest", *Forest Ecology and Management*, 349, 122–133.
- Cottam, G., and Curtis, J. T., 1956, "The use of distance measures in phytosociological sampling", *Ecology*, 451-460.
- Crausbay, Shelley D., Patrick H. Martin, Shelley D. Crausbay, and Patrick H. Martin, 2016, "Natural Disturbance, Vegetation Patterns and Ecological Dynamics in Tropical Montane Forests", *Journal of Tropical Ecology* (July):1–20.
- Cummings, J. A., Parker, I. M., and Gilbert, G. S., 2012, "Allelopathy: a tool for weed management in forest restoration", *Plant Ecology*, 213(12), 1975–1989.
- de Avila, A. L., Ruschel, A. R., de Carvalho, J. O. P., Mazzei, L., Silva, J. N. M., Lopes, J. do C., ... Bauhus, J., 2015, "Medium-term dynamics of tree species composition in response to silvicultural intervention intensities in a tropical rainforest", *Biological Conservation*, 191, 577–586.
- De Leeuw, J., and Mair, P., 2009, "Simple and Canonical Correspondence Analysis Using the R Package anacor", *Journal of Statistical Software*, 31(5), 1-18.
- Denslow, J. S., 1987, "Tropical rainforest gaps and tree species diversity", *Annual review of ecology and systematics*, 18, (1), 431-451.
- Denslow, J. S., 1995, "Disturbance and diversity in tropical rainforests: the density effect", *Ecological applications*, 5, (4), 962-968.
- Du Rietz, G. E., 1931, Life-forms of terrestrial flowering plant, Almqvist and Wiksell.
- Duah-Gyamfi, A., Swaine, E. K., Adam, K. A., Pinard, M. A., and Swaine, M. D., 2014, "Can harvesting for timber in tropical forest enhance timber tree regeneration?", *Forest Ecology and Management*, 314, 26-37.
- Easterling, M. R., Ellner, S. P., and Dixon, P. M., 2000, "Size-specific sensitivity: Applying a new structured population model", *Ecology*, 81, (3), 694-708.
- Edwards, David P., Joseph A. Tobias, Douglas Sheil, Erik Meijaard, and William F. Laurance, 2014, "Maintaining Ecosystem Function and Services in Logged Tropical Forests." *Trends in Ecology & Evolution* 29 (9). 511–20.
- Ellner, S. P., and Rees, M., 2006, "Integral projection models for species with complex demography", *The American Naturalist*, 167, (3), 410-428.
- FAO, 2012, *State of the World's Forests 2012*, Rome.
- Fayolle, A., Picard, N., Doucet, J., Swaine, M., and Bayol, N., 2014, "Forest Ecology and Management a new insight in the structure, composition and functioning of central African moist forests", *Forest Ecology and Management*, 329, 195–205.
- Folega, F., Zhang, C. Y., Woegan, Y. A., Wala, K., Dourma, M., Batawila, K., Seburanga J.L, Zhao X.H., and Akpagana, K., 2014, "Structure and ecology of forest plant community in Togo", *Journal of Tropical Forest Science*, 26, (2), 225-239.

- Forestry Departement, 2007, *Statistik Dinas Kehutanan Papua Tahun 2006*, Forestry Departement, Jakarta.
- Forestry Department, 1989, *Tebang pilih tanam Indonesia (TPTI)*, Departemen Kehutanan, Jakarta.
- Frangi, J. L., and Lugo, A. E., 1998, "A flood plain palm forest in the Luquillo Mountains of Puerto Rico five years after Hurrigan Hugo", *Biotropica*, 30(3), 339–348.
- Gandhi, Y., and Mitlöhner, R. 2014, "Tree Species Composition, Diversity and Structure in Tunas Logging Concession Area of Papua-Indonesia", *Tree*, 66, 47.
- Giles, E., Jr, L., Dick, C. W., Terborgh, J., Carolina, N., and Wright, S. J., 2004, "Why Do Some Tropical Forests Have So Many Species of Trees ? ", *Biotropica*, 36(4), 447–473.
- Gimaret-Carpentier, C., Pélissier, R., Pascal, J. P., and Houllier, F., 1998, "Sampling strategies for the assessment of tree species diversity", *Journal of Vegetation Science*, 9, (2), 161-172.
- Givnish, J., 1999, "On the causes of gradients tree diversity", *Journal of Ecology*, 87(2), 193–210.
- Goodale, U. M., Berlyn, G. P., Gregoire, T. G., Tennakoon, K. U., and Ashton, M. S., 2014, "Differences in survival and growth among tropical rainforest pioneer tree seedlings in relation to canopy openness and herbivory", *Biotropica*, 46(2), 183–193.
- Gourlet-Fleury, S., Mortier, F., Fayolle, A., Baya, F., Ouédraogo, D., Bénédet, F., and Picard, N., 2013, "Tropical forest recovery from logging: a 24-year silvicultural experiment from Central Africa. Philosophical Transactions of the Royal Society of London. Series B", *Biological Sciences*, 368(1625), 20120302.
- Guisan, A., Weiss, S. B., and Weiss, A. D., 1999, "GLM versus CCA spatial modeling of plant species distribution", *Plant Ecology*, 143, (1), 107-122.
- Gutiérrez-Granados, G., Pérez-Salicrup, D. R., and Dirzo, R., 2011, "Differential diameter-size effects of forest management on tree species richness and community structure: implications for conservation", *Biodiversity and Conservation*, 20(7), 1571–1585.
- Hartshorn, G. S., 1995, "Ecological Basis for Sustainable Development in Tropical Forests." *Annual Review of Ecology and Systematics* 26 (1): 155–75.
- Hartshorn, G. S., 1975, *A matrix model of tree population dynamics*, In *Tropical ecological systems* (pp. 41-51), Springer Berlin Heidelberg.
- Herrera, C. M., Jovani, R., Ecology, S., February, N., Herrera, C. M., and Jovani, R., 2010, "Lognormal distribution of individual lifetime fecundity: insights from a 23-year study", *Ecology*, 91(2), 422–430.
- Hill, M. O., and Gauch, H. G., 1980, "Detrended correspondence analysis: An improved ordination technique", *Vegetatio*, 42(1-3): 47–58.
- Hobbs, R. J., Arico, S., Aronson, J., Baron, J. S., Bridgewater, P., Cramer, V. A., Epstein, P. R., Ewel, J. J., Klink, C. A., Lugo, A. E., Norton, D., Ojima, D.,

- Richardson, D. M., Sanderson, E. W., Valladares, F., Vilà, M., Zamora, R., and Zobel, M., 2006, "Novel ecosystems: theoretical and management aspects of the new ecological world order", *Global ecology and biogeography*, 15, (1), 1-7.
- Howe, H. F., 2014, "Diversity Storage: Implications for tropical conservation and restoration", *Global Ecology and Conservation*, 2, 349–358.
- Huang, Y., Ai, X., Yao, L., Zang, R., Ding, Y., Huang, J., ... Liu, J., 2015, "Changes in the diversity of evergreen and deciduous species during natural recovery following clear-cutting in a subtropical evergreen-deciduous broadleaved mixed forest of central China", *Tropical Conservation Science*, 8(4), 1033–1052.
- Huth, A., Drechsler, M., and Köhler, P., 2004, "Multicriteria evaluation of simulated logging scenarios in a tropical rainforest", *Journal of Environmental Management*, 71(4), 321–333.
- Irawan, Y. R., Fitmawati, F., and Herman, H., 2013, "Pengetahuan Tumbuhan Obat Dukun Sakai Desa Sebangar Duri Tiga Belas dan Desa Kesumbo Ampai Duri Kabupaten Bengkalis", *Biosaintifika: Journal of Biology and Biology Education*, 5(1), 30–35.
- Katovai, E., Katovai, D. D., Edwards, W., and Laurance, W. F., 2015, "Forest structure, plant diversity and local endemism in a highly varied New Guinea landscape Methods Study Location", *Tropical Conservation Science*, 8(2), 284–300.
- Kessler, M., Salazar, L., Homeier, J., and Kluge, J. 2014, "Species richness-productivity relationships of tropical terrestrial ferns at regional and local scales", *Journal of Ecology*, 102(6), 1623–1633.
- Khairil, M., Wan Juliana, W. A., and Nizam, M. S., 2014, "Edaphic influences on tree species composition and community structure in a tropical watershed forest in peninsular Malaysia", *Journal of Tropical Forest Science*, 26(2), 284–294.
- Koike, K., and Syahbuddin, 1993, "Canopy Structure of a Tropical Rain Forest and the Nature of an Unstratified Upper Layer." *Functional Ecology* 7 (2): 230–35.
- Kraft, N. J., Valencia, R., and Ackerly, D. D., 2008, "Functional traits and niche-based tree community assembly in an Amazonian forest", *Science*, 322 (5901), 580-582.
- Krisnawati, H and Wahjono D., 2010, "Effect of Post-Logging Silvicultural Treatment on Growth Rates of Residual Stand in a Tropical Forest", *Journal of Forestry Research* Vol. 7 No. 2, 2010: 112-124.
- Kunstler, G., Falster, D., Coomes, D.A., Hui, F., Kooyman, R.M., Laughlin, D.C., Poorter, L., Vanderwel, M., Vieilledent, G., Wright, S.J. and Aiba, M., 2016, "Plant functional traits have globally consistent effects on competition", *Nature*, 529(7585), 204–207.
- Kuswandi, R., 2014, "The Effect of Silvicultural Treatment on Stand Growth of Logged-Over Forest in South Papua", *Indonesian Journal of Forestry Research*, 1(2), 117–126.
- Kuswandi, R., and Murdjoko, A., 2015, "Population Structures of Four Tree Species in Logged-Over Tropical Forest in South Papua, Indonesia : An Integral Projection Model Approach", *Indonesian Journal of Forestry Research*, 2(2), 93–101.

- Kuswandi, R., Sadono, R., Supriyatno, N., and Marsono, D., 2015, "Keanekaragaman Struktur Tegakan Hutan Alam Bekas Tebangan Berdasarkan Biogeografi di Papua", *Jurnal Manusia Dan Lingkungan*, 22(2), 151–159.
- Ladwig, L. M., Meiners, S. J., Pisula, N. L., and Lang, K. A., 2013, "Conditional allelopathic potential of temperate lianas", *Plant Ecology*, 213(12), 1927–1935.
- Lang, G. E., and Knight, D. H., 1983, "Tree growth, mortality, recruitment, and canopy gap formation during a 10-year period in a tropical moist forest", *Ecology*, 64 (5), 1075-1080.
- Laurance, W. F., Ferreira, L. V., Rankin-de Merona, J. M., and Laurance, S. G. , 1998, "Rainforest fragmentation and the dynamics of Amazonian tree communities", *Ecology*, 79, (6), 2032-2040.
- Lieberman, D., Lieberman, M., Peralta, R., and Hartshorn, G. S., 1985, "Mortality patterns and stand turnover rates in a wet tropical forest in Costa Rica", *The Journal of Ecology*, 915-924.
- Lieberman, D., Lieberman, M., Peralta, R., and Hartshorn, G. S., 1996, "Tropical forest structure and composition on a large-scale altitudinal gradient in Costa Rica", *Journal of Ecology*, 84, 137-152.
- Lima, R. A. F., Muller-landau, H. C., Prado, P. I., and Condit, R., 2016, "How do size distributions relate to concurrently measured demographic rates ? Evidence from over 150 tree species in Panama", *Journal of Tropical Ecology*, 32(03), 179–192.
- Lozada, J. R., Arends, E., Sánchez, D., Villarreal, A., Soriano, P., and Costa, M., 2012, "Vegetation succession of logged forest in the western alluvial plains of Venezuela", *Journal of Tropical Forest Science* 24(3): 300-311.
- Lu, X., Zang, R., and Huang, J. 2015, "Relationships between Community Level Functional Traits of Trees and Seedlings during Secondary Succession in a Tropical Lowland Rainforest". *PLoS ONE*, 10(7).
- Ma, L., Lian, J., Lin, G., Cao, H., Huang, Z., and Guan, D., 2016, "Forest dynamics and its driving forces of sub-tropical forest in South China", *Scientific Reports*, 6(February), 1–10.
- Magrath, A., Rodríguez-Pérez, J., Campbell, M., and Laurance, W. F., 2014, "Edge effects shape the spatial distribution of lianas and epiphytic ferns in Australian tropical rainforest fragments", *Applied Vegetation Science*, 17(4), 754–764.
- Marshall, A.J. and Beehler, B.M., 2012, "*The ecology of Papua: Part one*", Tuttle Publishing. 168-169.
- Marsono, D. and Sastrosumarto, S., 1980. *Tegakan Tinggal Akibat Pelaksanaan TPI di Kalimantan Timur dan Sekitarnya*. In Lokakarya Tebang Pilih Indonesia, Fakultas Kehutanan UGM and Dinas Kehutanan Kalimantan Timur, Jogjakarta.
- Marsono, D., 2008, *Keharusan Basis Ekosistem Dalam Pengelolaan Hutan dan Lahan*, Pidato Dies Natalis ke 45 Fakultas Kehutanan UGM, Yogyakarta.
- Marsono, D., 2012, *Ekosistem Unggul Sebagai Jawaban Kemunduran Fungsi Hutan Dan Lahan*, Pidato Dies Natalis ke 49, Fakultas Kehutanan UGM, Yogyakarta.
- Marsono, D., Husodo, A.H., 2016, *Ekologi dan Kesehatan*, Penerbit PT Kanisius, Yogyakarta, Indonesia.

- Marsono, D., Susanto, S., Gunawan, T., 2015, *Konservasi Sumber Daya Hutan dan Lahan*, Penerbit PT Kanisius, Yogyakarta, Indonesia.
- Massey Jr, F. J. 1951, "The Kolmogorov-Smirnov test for goodness of fit", *Journal of the American statistical Association*, 46(253), 68-78.
- Meijaard E, Sheil D, Nasi R, Augeri D, Iskandar B, Rosenbaum D, Setyawati T, Lammertink M, Rachmatika I, Wong A, Soehartono T, Stanley S, O'Brien T., 2005, *Life after logging, Reconciling wildlife conservation and production forestry in Indonesia Borneo*, CIFOR, Indonesia.
- Mesquita, R. de C. G., Santos, M. P. E. dos, Massoca, C. C. J., Bentos, T. V., and Williamson, G. B., 2015, "Amazon Rainforest Succession: Stochasticity or Land-Use Legacy?", *BioScience*, 65(9), 849–861.
- Millennium Ecosystem Assessment, 2005, *Ecosystems and Human Well-being: Synthesis*. Island Press, Washington, DC.
- Ministry of Forestry, 2009, *Sistem silvikultur dalam areal izin usaha pemanfaatan hasil hutan kayu pada hutan produksi*, Departemen Kehutanan, Jakarta.
- Ministry of Forestry, 2010, *Statistik Kehutanan Indonesia Tahun 2009*, Ministry of Forestry, Jakarta.
- Mueller-Dombois, D., and H. Ellenberg., 1974, *Aims and methods of vegetation ecology*, New York: John-Wiley and Sons.
- Murdjoko, A., 2013, "Recuperation of Non-commercial Trees in Logged Forest in Southern Papua, Indonesia", *Jurnal Manajemen Hutan Tropika*, 19, (2), 94.
- Murdjoko, A., Marsono, D., Sadono, R., and Hadisusanto, S, 2016a, "Plant Species Composition and Their Conspecific Association in Natural Tropical Rainforest, South Papua", *Biosaintifika: Journal of Biology & Biology Education*, 8(1), 33–46.
- Murdjoko, A., Marsono, D., Sadono, R., and Hadisusanto, S, 2016b, "Population Dynamics of *Pometia* for The Period of Post-Selective Logging in Tropical Rainforest, Southern Papua, Indonesia", *Biosaintifika: Journal of Biology & Biology Education*, 8(3), 321-330.
- Muthuramkumar, S., Ayyappan, N., Parthasarathy, N., Mudappa, D., Raman, T. R. S., Selwyn, M. A., and Pragasan, L. A., 1998, "Plant community structure in tropical rainforest fragments of the western Ghats, India", *Biotropica*, 38(2), 143–160.
- Mutiso, F. M., Hitimana, J., Kiyiapi, J. L., Sang, F. K., and Eboh, E. 2013, "Recovery of Kakamega tropical rainforest from anthropogenic disturbances", *Journal of Tropical Forest Science*, 25(4), 566–576.
- Nichols, J Doland, Victor K Agyeman, Francis Balfour Agurgo, Michael R Wagner, and Joseph R Cobbinah, 1999, "Patterns of Seedling Survival in the Tropical African Tree *Milicia Excelsa*" *Journal of Tropical Ecology* 15 (04): 451–61.
- Nichols, J. D., Agyeman, V. K., Agurgo, F. B., Wagner, M. R., and Cobbinah, J. R., 1999, "Patterns of seedling survival in the tropical African tree *Milicia excelsa*", *Journal of Tropical Ecology*, 15(4), 451–461.
- Noss, R. F., 1990, "Indicators for monitoring biodiversity: a hierarchical approach", *Conservation biology*, 4, (4), 355-364.

- Oke, D. O., 2012, "Effects of Short Rotation Natural Fallow on Diversity of Plant Species and Population of Soil Microbes in Aponmu, Ondo State, Nigeria", *Journal of Tropical Forest Science*, 24(1), 18–26.
- Orwa C., Mutua, A., Kindt R., Jamnadass R., Anthony, S., 2009, *Agroforestry Database: a tree reference and selection guide version 4.0*, <http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp>).
- Osazuwa-Peters, O. L., Chapman, C. A., and Zanne, A. E., 2015. Selective logging : does the imprint remain on tree structure and composition after 45 years? ", *Conservation Physiology*, 3(1), cov012.
- Ostertag, Rebecca, Scatena, F.N., and Silver, Whendee L., 2003, "Forest Floor Decomposition Following Hurricane Litter Inputs in Several Puerto Rican Forests." *Ecosystems* 6 (3): 261–73.
- Pajmans, K., 1970, "An Analysis of Four Tropical Rainforest Sites in New Guinea", *Journal of Ecology*, 58(1), 77–101.
- Peh, K. S., Lewis, S. L., and Lloyd, J., 2011, "Mechanisms of monodominance in diverse tropical tree-dominated systems", *Journal of Ecology*, 99, 891–898.
- Pennington, R. T., Hughes, M., and Moonlight, P. W., 2015, "The Origins of Tropical Rainforest Hyperdiversity", *Trends in Plant Science*, 20(11), 693–695.
- Pérez-Méndez, N., Jordano, P., and Valido, A., 2015, "Downsized mutualisms: Consequences of seed dispersers' body-size reduction for early plant recruitment", *Perspectives in Plant Ecology, Evolution and Systematics*, 17(2), 151–159.
- Peters, H. A., 2003,"Neighbour-regulated mortality: the influence of positive and negative density dependence on tree populations in species-rich tropical forests", *Ecology Letters*, 6, (8), 757-765.
- Petocz, Ronald G., 1989, *Conservation and Development in Irian Jaya: a strategy for rational resource utilization*, E. J. Brill, Leiden, The Netherlands.
- Picard, R.R. and Cook, R.D., 1984,"Cross-validation of regression models", *Journal of American Statistical Association*, 79: 575-583.
- Pinard, M. A, and Putz, F. E., 1994, "Vine infestation of large remnant trees in logged forest in Sabah, Malaysia: biomechanical facilitation in vine succession", *Journal of Tropical Forest Science*, 6(3), 302 – 309.
- Popma, J., Bongers F., and Castillo, J. Meave., 1988, "Patterns in the Vertical Structure of the Tropical Lowland Rain Forest of Los Tuxtlas , Mexico." *Vegetatio* 74: 81–90.
- Primack, R.B., and Lee, H.S., 1991, "Population dynamics of pioneer (*Macaranga*) trees and understorey (*Mallotus*) trees (Euphorbiaceae) in primary and selectively logged bornean rainforests", *Journal of Tropical Ecology* 7, (4): 439-457.
- Putz, F. E., Blate, G. M., Redford, K. H., Fimbel, R., and Robinson, J., 2001,"Tropical forest management and conservation of biodiversity: an overview", *Conservation Biology*, 7-20.
- Putz, F. E., Zuidema, P. A., Synnott, T., Peña-Claros, M., Pinard, M. A., Sheil, D., Vanclay, J. K., Sist, P., Gourlet-Fleury, S., Griscom, B., Palmer, J. and Zagt, R.,

- 2012, "Sustaining conservation values in selectively logged tropical forests: the attained and the attainable", *Conservation Letters*, 5, 296–303.
- Putz, Francis E, Blate, Geoffrey. M., Redford, Kent H, and Fimbel, Robert, 2001, "Tropical Forest Management and Conservation of Biodiversity: An Overview." *Conservation Biology* 15 (1): 7–20.
- Putz, Francis E., and Claudia Romero, 2014, "Futures of Tropical Forests (Sensu Lato)." *Biotropica* 46 (4): 495–505.
- R Development Core Team., 2005, "R: a language and environment for statistical computing", R Foundation for Statistical Computing, Vienna, <http://www.R-project.org>.
- Rao, P., Barik, S. K., Pandey, H. N., and Tripathi, R. S., 1990, "Community composition and tree population structure in a sub-tropical broad-leaved forest along a disturbance gradient", *Vegetatio*, 88, (2), 151-162.
- Rasingam, L., and Parthasarathy, N., 2009, "Diversity of understory plants in undisturbed and disturbed tropical lowland forests of Little Andaman Island, India", *Biodiversity and Conservation*, 18, 1045–1065.
- Richards, P. W., and Champion, H. G., 1954, "The Tropical Rainforest", *Empire Forestry Review*, 33(2), 134–135.
- Rikhari, H. C., Adhikari, B. S., and Rawat, Y. S., 1997, "Woody species composition of temperate forests along an elevational gradient in Indian Central Himalaya", *Journal of Tropical Forest Science*, 10(2), 197–211.
- Rowe, N., and Speck, T., 2005, "Plant growth forms: an ecological and evolutionary perspective", *The New Phytologist*, 166(1), 61–72.
- Ruslandi, Halperin, J., and Putz, F., 2012, "Effects of Felling Gap Proximity on Residual Tree Mortality and Growth in a Dipterocarp Forest in East Kalimantan, Indonesia", *Journal of Tropical Forest Science*, 24(241), 110–124.
- Rutten, G., Ensslin, A., Hemp, A., and Fischer, M., 2015, "Forest Structure and Composition of Previously Selectively Logged and Non-Logged Montane Forests at Mt. Kilimanjaro", *Forest Ecology and Management*, 337:61–66.
- Saiful, I., and Latiff, A., 2014, "Effects of Selective Logging on Tree Species Composition, Richness and Diversity in a Hill Dipterocarp Forest in Malaysia", *Journal of Tropical Forest Science*, 26(2), 188–202.
- Sanches, M. C., and Valio, I. F. M., 2002, "Seedling growth of climbing species from a southeast Brazilian tropical forest", *Plant Ecology*, 159(1), 51–59.
- Sandor, M. E., and Chazdon, R. L., 2014, "Remnant Trees Affect Species Composition but Not Structure of Tropical Second-Growth Forest", *PloS One*, 9(1), e83284.
- Sawada, Y., Aiba, S., Takyu, M., Repin, R., Nais, J., and Kitayama, K., 2015, "Community dynamics over 14 years along gradients of geological substrate and topography in tropical montane forests on Mount Kinabalu, Borneo", *Journal of Tropical Ecology*, 31(02), 117–128.
- Schnitzer, S. A., and Walter, P. C., 2013, "Treefall Gaps and the Maintenance of Species Diversity in a Tropical Forest", *Ecology*, 82(4), 913–919.

- Seidler, T. G., and Plotkin, J. B., 2006, "Seed dispersal and spatial pattern in tropical trees", *PLoS Biology*, 4(11), 2132–2137.
- Sharpe, J. M., and Shiels, A. B. 2014, "Understory fern community structure, growth and spore production responses to a large-scale hurricane experiment in a Puerto Rico rainforest", *Forest Ecology and Management*, 332, 75–86.
- Sheil, D., and Van Heist, M., 2000, "Ecology for Tropical Forest Management." *International Forestry Review* 2: 261 - 270.
- Shen, Y., Yu, S., Lian, J., Shen, H., Cao, H., Lu, H., and Ye, W., 2016, "Inferring community assembly processes from trait diversity across environmental gradients", *Journal of Tropical Ecology*, 32(04), 290–299.
- Silva Matos, D. M., and Belinato, T. A., 2010, "Interference of *Pteridium arachnoideum* (Kaulf.) Maxon. (Dennstaedtiaceae) on the establishment of rainforest trees", *Brazilian Journal of Biology*, 70(2), 311–316.
- Silva, J.N.M., de Carvalho, J.O.P., Lopes, J do C.A., de Almeida, B.F., Costa, D.H.M., de Oliveira, L.C., Vanclay, J.K. and Skovsgaard, J.P., 1995, "Growth and yield of a tropical rainforest in the Brazilian Amazon 13 years after logging", *Forest Ecology and Management*, 71(3), 267-274.
- Sist P., and Nguyen-Thé, 2002, "Logging damage and the subsequent dynamics of a dipterocarp forest in East Kalimantan (1990-1996)", *Forest Ecology and Management*, 165: 85 – 103,
- Sist, P., Picard, N., and Gourlet-Fleury, S., 2003, "Sustainable cutting cycle and yields in a lowland mixed dipterocarp forest of Borneo", *Annal of Forest Science*, 60, 803–814.
- Slik, J. F., Verburg, R. W., and Keßler, P. J., 2002, "Effects of fire and selective logging on the tree species composition of lowland dipterocarp forest in East Kalimantan, Indonesia", *Biodivers Conservation*, 11:85–98.
- Smith, B., and Wilson, J. B., 1996, "A consumer's guide to evenness indices", *Oikos*, 70-82.
- Snee, R.D., 1977, "Validation of Regression Models: Methods and Examples", *Technometrics*, 19, 415-428.
- Spellerberg, I. F., and Fedor, P. J., 2003, "A tribute to Claude Shannon (1916–2001) and a plea for more rigorous use of species richness, species diversity and the 'Shannon–Wiener' Index", *Global Ecology and Biogeography*, 12, (3), 177-179.
- Swaine, A. M. D., Whitmore, T. C., and Swaine, M. D., 1988, "On the Definition of Ecological Species Groups in Tropical Rainforests Stable", *Vegetatio*, 75(1), 81–86.
- Swaine, M. D., Lieberman, D., and Putz, F. E., 1987, "The dynamics of tree populations in tropical forest: a review", *Journal of tropical ecology*, 3, (4), 359-366.
- Ter Braak, C.J.F., 1986, "Canonical correspondence analysis: a new eigenvector technique for multivariate direct gradient analysis", *Ecology*, 67(5), 1167–1179.
- Ter Braak, C.J.F., 1987, "The Analysis of Vegetation-Environment Relationships by Canonical Correspondence Analysis", *Vegetatio*, 69(1), 69–77.

- Theimer, T. C., Gehring, C. A., Green, P. T., Connell, J. H., and Theimer, C., 2016, "Terrestrial vertebrates alter seedling composition and richness but not diversity in an Australian tropical rainforest", *Ecology*, 92(8), 1637–1647.
- Thomas, S. C., and Baltzer, J. L., 2002, "Tropical Forests." *Encyclopedia of Life Sciences*, 1–8.
- Thomson, L.A.J. and Thaman, R.R., 2006, "*Pometia pinnata* (tava)", ver 2.1, In: Elevitch, C.R. (ed). Species Profiles for Pacific Island Agroforestry, Permanent Agriculture Resource (PAR), Holualoa, Hawai'i, www.traditionaltree.org.
- Tomlinson, P. B., Fisher, J. B., Spangler, R. E., and Richer, R. A., 2001, "Stem vascular architecture in the rattan palm *Calamus* (*Arecaceae-calamoideae-calaminae*)", *American Journal of Botany*, 88(5), 797–809.
- Toriyama, J., Hak, M., Imaya, A., Hirai, K., and Kiyono, Y., 2015, "Effects of forest type and environmental factors on the soil organic carbon pool and its density fractions in a seasonally dry tropical forest", *Forest Ecology and Management*, 335, 147–155. 037
- Tryon, R. M., 1971, "The process of evolutionary migration in species of *Selaginella*", *Brittonia*, 23(1), 89–100.
- Van Gardingen, P. R., Clearwater, M. J., Nifinluri, T., Effendi, R., Rusmantoro, W., Noor, M., Mason, P. A., Ingleby, K. and Munro, R. C., 1998, "Impacts of logging on the regeneration of lowland dipterocarp forest in Indonesia", *The Commonwealth Forestry Review*, 71-82.
- Van Laar, A., and Akca, A. (Eds.), 2007, *Forest mensuration (Vol. 13)*, Springer Science and Business Media.
- Vanclay, J. K., 1996, *Estimating Sustainable Timber Production from Tropical Forest, CIFOR Working Paper No. 11: Estimating AAC in the Tropics*, Princeton University Press, New Jersey.
- Vazquez, J. A., and T. J. Givnish., 1998, "Altitudinal gradients in the tropical forest composition, structure, and diversity in the Sierra de Manantlán", *Journal of Ecology* 86:999–1020.
- Velho, N., Isvaran, K., and Datta, A., 2012, "Rodent seed predation: Effects on seed survival, recruitment, abundance, and dispersion of bird-dispersed tropical trees", *Oecologia*, 169(4), 995–1004.
- Verburg, R., and Eijk-Bos, C., 2003, "Effects of selective logging on tree diversity, composition and plant functional type patterns in a Bornean rainforest", *Journal of Vegetation Science*, 14(1), 99-110.
- Vitousek, P M, and R L Sanford, 1986, "Nutrient Cycling In Moist Tropical Forest." *Annual Review of Ecology and Systematics* 17: 137–67.
- Vitousek, P. M., 1984, "Litterfall, nutrient cycling, and nutrient limitation in tropical forests", *Ecology*, 65, 1), 285-298.
- Vleminckx, J., Drouet, T., Amani, C., Lisingo, J., Lejoly, J. and Hardy, O.J., 2015, "Impact of Fine-Scale Edaphic Heterogeneity on Tree Species Assembly in a Central African Rainforest", *Journal of Vegetation Science*, 26:134–44.

- Wang, Y.-H., and Augspurger, C., 2006, "Comparison of seedling recruitment under arborescent palms in two Neotropical forests", *Oecologia*, 147(3), 533–545.
- Watkins, J. E., and Cardelús, C., 2009, "Habitat Differentiation of Ferns in a Lowland Tropical Rainforest", *American Fern Journal*, 99(3), 162–175.
- Webb, L. J., 1959, "A physiognomic classification of Australian rainforests", *Journal of Ecology*, 47(3), 551–570.
- Webb, W. L., Lauenroth, W. K., Szarek, S. R., and Kinerson, R. S., 1983, "Primary production and abiotic controls in forests, grasslands, and desert ecosystems in the United States", *Ecology*, 134–151.
- Whitfeld, T. J. S., Lasky, J. R., Damas, K., Sosanika, G., Molem, K., and Montgomery, R. A., 2014, "Species Richness, Forest Structure, and Functional Diversity During Succession in the New Guinea Lowlands", *Biotropica*, 46(5), 538–548.
- Whittaker, R. H., 1969, "New Concepts of Kingdoms of Organisms", *Science*, 163(3863), 150–160.
- Willinghöfer, S., Ciccuzza, D., and Kessler, M., 2012, "Elevational diversity of terrestrial rainforest herbs: When the whole is less than the sum of its parts", *Plant Ecology*, 213(3), 407–418.
- Win, R., Suzuki, R., and Takeda, S., 2012, "Effects of selective logging on the regeneration of two commercial tree species in the Kabaung Reserved Forest, Bago Mountains, Myanmar", *Journal of Tropical Forest Science*, 24(3), 312–321.
- Wright, S. J., Calderón, O., Hernández, A., and Paton, S., 2004, "Are Lianas Increasing in Importance in Tropical Forests? a 17-Year Record From Panama", *Ecology*, 85(2), 484–489.
- Yamada, T., Hosaka, T., Okuda, T., and Kassim, A. R., 2013, "Effects of 50 years of selective logging on demography of trees in a Malaysian lowland forest", *Forest Ecology and Management*, 310, 531–538.
- Zambrano, J., Coates, R., and Howe, H. F., 2014, "Effects of forest fragmentation on the recruitment success of the tropical tree *Poulsenia armata* at Los Tuxtlas, Veracruz, Mexico", *Journal of Tropical Ecology*, 30(03), 209–218.
- Zech, Wolfgang, Nicola Senesi, Georg Guggenberger, Klaus Kaiser, Teodoro M Miano, Anja Miltner, and Gutz Schroth, 1997, "Factors Controlling Humification and Mineralization of Soil Organic Matter in the Tropics." *Geoderma* 79: 117–61.
- Zeide, B., 1993, "Analysis of growth equation", *Forest Science* 39:594–616.
- Zhang, C., and Fu, S., 2009, "Allelopathic effects of eucalyptus and the establishment of mixed stands of eucalyptus and native species", *Forest Ecology and Management*, 258(7), 1391–1396.
- Zhu, H., 2008, "Species composition and diversity of Lianas in tropical forests of Southern Yunnan (Xishuangbanna), South-western China", *Journal of Tropical Forest Science*, 20(2), 111–122.

- Zhu, Y., Comita, L. S., Hubbell, S. P., and Ma, K., 2015, “Conspecific and phylogenetic density-dependent survival differs across life stages in a tropical forest”, *Journal of Ecology*, 103(4), 957–966.
- Zimmerman, B. L., and Kormos, C. F., 2012, “Prospects for sustainable logging in tropical forests”, *BioScience*, 62(5), 479-487.
- Zuidema, P. A., Jongejans, E., Chien P. D., During H. J., and Schieving, F., 2010, “Integral Projection Models for trees: a new parameterization method and a validation of model output”, *Journal of Ecology*, 98 (2): 345–355.
- Zuidema, P. A., Vlam, M., and Chien, P. D., 2011, “Ages and long-term growth patterns of four threatened Vietnamese tree species”, *Trees*, 25:29–38.
- Zuidema, P.A., Brien, R.J.W., During, H.J.; and Güneralp, B., 2009, “Do persistently fast-growing juveniles contribute disproportionately to population growth? A new analysis tool for matrix models and its application to rainforest trees”, *American Naturalist*, 174 (5): 709-719.