Appendix to Edge Effects MS

Parsons and Bruna

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The following articles were used in the review.

References

Aragón, Gregorio, Laura Abuja, Rocío Belinchón, and Isabel Martínez. 2015. "Edge Type Determines the Intensity of Forest Edge Effect on Epiphytic Communities." *European Journal of Forest Research* 134 (3): 443–51. https://doi.org/10.1007/s10342-015-0863-5.

Badano, Ernesto I., Omar R. Samour-Nieva, Joel Flores, and David Douterlungne. 2015. "Microclimate and Seeding Predation as Drivers of Tree Recruitment in Human-Disturbed Oak Forests." *Forest Ecology and Management* 356 (November): 93–100. https://doi.org/10.1016/j.foreco.2015.07.031.

Baker, Thomas P., Gregory J. Jordan, and Susan C. Baker. 2016. "Microclimatic Edge Effects in a Recently Harvested Forest: Do Remnant Forest Patches Create the Same Impact as Large Forest Areas?" *Forest Ecology and Management* 365 (April): 128–36. https://doi.org/10.1016/j.foreco.2016.01.022.

Baker, Thomas P., Gregory J. Jordan, E. Ashley Steel, Nicholas M. Fountain-Jones, Timothy J. Wardlaw, and Susan C. Baker. 2014. "Microclimate Through Space and Time: Microclimatic Variation at the Edge of Regeneration Forests over Daily, Yearly and Decadal Time Scales." *Forest Ecology and Management* 334 (December): 174–84. https://doi.org/10.1016/j.foreco.2014.09.008.

Brigić, Andreja, Marija Starčević, Boris Hrašovec, and Zoltán Elek. 2014. "Old Forest Edges May Promote the Distribution of Forest Species in Carabid Assemblages (Coleoptera: Carabidae) in Croatian Forests." *European Journal of Entomology* 111 (5): 715–25. https://doi.org/10.14411/eje.2014.090.

Bruna, Emilio M., and Ana Segalin De Andrade. 2011. "Edge Effects on Growth and Biomass Partitioning of an Amazonian Understory Herb (*Heliconia Acuminata* ; Heliconiaceae)." *American Journal of Botany* 98 (10): 1727–34. https://doi.org/10.3732/ajb.1000290.

Brunialti, Giorgio, Luisa Frati, and Stefano Loppi. 2012. "Fragmentation of Mediterranean Oak Forests Affects the Diversity of Epiphytic Lichens." *Nova Hedwigia* 96 (1-2): 265–78. https://doi.org/10.1127/0029-5035/2012/0075.

Bueno, Andrea, and Luis D. Llambí. 2015. "Facilitation and Edge Effects Influence Vegetation Regeneration in Old-Fields at the Tropical Andean Forest Line." Edited by Karsten Wesche. *Applied Vegetation Science* 18 (4): 613–23. https://doi.org/10.1111/avsc.12186.

Cadenasso, M L, M M Traynor, and S TA Pickett. 1997. "Functional Location of Forest Edges: Gradients of Multiple Physical Factors" 27.

Camargo, J. L. C., and V. Kapos. 1995. "Complex Edge Effects on Soil Moisture and Microclimate in Central Amazonian Forest." *Journal of Tropical Ecology* 11 (2): 205–21. http://www.jstor.org/stable/2560108.

Cappelatti, Laura, and Jairo Lizandro Schmitt. 2015. "SPATIAL DISTRIBUTION AND POPULATION STRUCTURE OF PALMS (ARECACEAE) IN A FOREST FRAGMENT OF LOWLAND DENSE HUMID FOREST IN SOUTH BRAZIL." *Ciência Florestal* 25 (4): 817–25. https://doi.org/10.5902/1980509820577.

Cerboncini, Ricardo A. S., James J. Roper, and Fernando C. Passos. 2016. "Edge Effects Without Habitat Fragmentation? Small Mammals and a Railway in the Atlantic Forest of Southern Brazil." *Oryx* 50 (3): 460–67. https://doi.org/10.1017/S0030605314001070.

Chen, Jiquan, Jerry F. Franklin, and Thomas A. Spies. 1993. "Contrasting Microclimates Among Clearcut, Edge, and Interior of Old-Growth Douglas-Fir Forest." *Agricultural and Forest Meteorology* 63 (3-4): 219–37. https://doi.org/10.1016/0168-1923(93)90061-L.

———. 1995. "Growing-Season Microclimatic Gradients from Clearcut Edges into Old-Growth Douglas-Fir Forests." *Ecological Applications* 5 (1): 74–86. https://doi.org/10.2307/1942053.

Christianini, Alexander V., and Paulo S. Oliveira. 2013. "Edge Effects Decrease Ant-Derived Benefits to Seedlings in a Neotropical Savanna." *Arthropod-Plant Interactions* 7 (2): 191–99. https://doi.org/10.1007/s11829-012-9229-9.

Crockatt, Martha E., and Daniel P. Bebber. 2015. "Edge Effects on Moisture Reduce Wood Decomposition Rate in a Temperate Forest." *Global Change Biology* 21 (2): 698–707. https://doi.org/10.1111/gcb.12676.

Cubides, Paola Johanna Isaacs, and José Nicolás Urbina Cardona. 2011. "Anthropogenic Disturbance and Edge Effects on Anuran Assemblages Inhabiting Cloud Forest Fragments in Colombia." *Natureza & Conservação* 9 (1): 39–46. https://doi.org/10.4322/natcon.2011.004.

Davies-Colley, R J, and G W Payne. 2000. "Microclimate Gradients Across a Forest Edge." *NEW ZEALAND JOURNAL OF ECOLOGY* 24 (2).

Delgado, Juan D., Natalia L. Arroyo, José R. Arévalo, and José M. Fernández-Palacios. 2007. "Edge Effects of Roads on Temperature, Light, Canopy Cover, and Canopy Height in Laurel and Pine Forests (Tenerife, Canary Islands)." *Landscape and Urban Planning* 81 (4): 328–40. https://doi.org/10.1016/j.landurbplan.2007.01.005.

Didham, Raphael K., and Robert M. Ewers. 2014. "Edge Effects Disrupt Vertical Stratification of Microclimate in a Temperate Forest Canopy." *Pacific Science* 68 (4): 493–508. https://doi.org/10.2984/68.4.4.

Didham, Raphael K., and John H. Lawton. 1999. "Edge Structure Determines the Magnitude of Changes in Microclimate and Vegetation Structure in Tropical Forest Fragments." *Biotropica* 31 (1): 17. https://doi.org/10.2307/2663956.

Dilrukshi, Iadn, and Smw Ranwala. 2016. "Kirigala Forest Fragments and the Identity as a Dipterocarp Plantation or Hora Kele of Ingiriya." *Journal of the National Science Foundation of Sri Lanka* 44 (3): 313. https://doi.org/10.4038/jnsfsr.v44i3.8012.

Dodonov, Pavel, Karen A. Harper, and Dalva M. Silva-Matos. 2013. "The Role of Edge Contrast and Forest Structure in Edge Influence: Vegetation and Microclimate at Edges

in the Brazilian Cerrado." *Plant Ecology* 214 (11): 1345–59. http://www.jstor.org/stable/24553703.

Dovčiak, Martin, and Jordan Brown. 2014. "Secondary Edge Effects in Regenerating Forest Landscapes: Vegetation and Microclimate Patterns and Their Implications for Management and Conservation." *New Forests* 45 (5): 733–44. https://doi.org/10.1007/s11056-014-9419-7.

Draaijers, G. P. J., R. Van Ek, and W. Bleuten. 1994. "Atmospheric Deposition in Complex Forest Landscapes." *Boundary-Layer Meteorology* 69 (4): 343–66. https://doi.org/10.1007/BF00718124.

Ewers, Robert M., and Cristina Banks-Leite. 2013. "Fragmentation Impairs the Microclimate Buffering Effect of Tropical Forests." Edited by Gil Bohrer. *PLoS ONE* 8 (3): e58093. https://doi.org/10.1371/journal.pone.0058093.

Gehlhausen, Sophia M., Mark W. Schwartz, and Carol K. Augspurger. 2000. "Vegetation and Microclimatic Edge Effects in Two Mixed-Mesophytic Forest Fragments." *Plant Ecology* 147 (1): 21–35. http://www.jstor.org/stable/20050900.

Gignac, L. Dennis, and Mark R. T. Dale. 2005. "Effects of Fragment Size and Habitat Heterogeneity on Cryptogam Diversity in the Low-Boreal Forest of Western Canada." *The Bryologist* 108 (1): 50–66. https://doi.org/10.1639/0007-2745(2005)108%5B50:EOFSAH%5D2.0.CO;2.

Heithecker, Troy D., and Charles B. Halpern. 2007. "Edge-Related Gradients in Microclimate in Forest Aggregates Following Structural Retention Harvests in Western Washington." *Forest Ecology and Management* 248 (3): 163–73. https://doi.org/10.1016/j.foreco.2007.05.003.

Hennenberg, Klaus Josef, Dethardt Goetze, Jörg Szarzynski, Bettina Orthmann, Björn Reineking, Ingo Steinke, and Stefan Porembski. 2008. "Detection of Seasonal Variability in Microclimatic Borders and Ecotones Between Forest and Savanna." *Basic and Applied Ecology* 9 (3): 275–85. https://doi.org/10.1016/j.baae.2007.02.004.

Ibanez, Thomas, Christelle Hély, and Cédric Gaucherel. 2013. "Sharp Transitions in Microclimatic Conditions Between Savanna and Forest in New Caledonia: Insights into the Vulnerability of Forest Edges to Fire: Microclimate at the Forest Edge." *Austral Ecology* 38 (6): 680–87. https://doi.org/10.1111/aec.12015.

Jose, Shibu, Andrew R. Gillespie, Suman Jacob George, and B.Mohan Kumar. 1996. "Vegetation Responses Along Edge-to-Interior Gradients in a High Altitude Tropical Forest in Peninsular India." *Forest Ecology and Management* 87 (1-3): 51–62. https://doi.org/10.1016/S0378-1127(96)03836-4.

Kapos, V. 1997. "Edge-Related Changes in Environment and Plant Responses Due to Forest Fragmentation in Central Amazonia." *Tropical Forest Remnants: Ecology, Management, and Conservation of Fragmented Communities*.

Kunert, Norbert, Luiza Maria Teóphilo Aparecido, Niro Higuchi, Joaquim Dos Santos, and Susan Trumbore. 2015. "Higher Tree Transpiration Due to Road-Associated Edge Effects in a Tropical Moist Lowland Forest." *Agricultural and Forest Meteorology* 213 (November): 183–92. https://doi.org/10.1016/j.agrformet.2015.06.009.

Lehtinen, Richard M, Jean-Baptiste Ramanamanjato, and Joe Gaby Raveloarison. n.d. "Edge Effects and Extinction Proneness in a Herpetofauna from Madagascar."

Lima-Ribeiro, Matheus De Souza. 2008. "Efeitos de Borda Sobre a Vegetação e Estruturação

Populacional Em Fragmentos de Cerradão No Sudoeste Goiano, Brasil." *Acta Botanica Brasilica* 22 (2): 535–45. https://doi.org/10.1590/S0102-33062008000200020.

MacDougall, Andrew, and Martin Kellman. 1992. "The Understorey Light Regime and Patterns of Tree Seedlings in Tropical Riparian Forest Patches." *Journal of Biogeography* 19 (6): 667. https://doi.org/10.2307/2845708.

Magnago, Luiz Fernando Silva, Mariana Ferreira Rocha, Leila Meyer, Sebastião Venâncio Martins, and João Augusto Alves Meira-Neto. 2015. "Microclimatic Conditions at Forest Edges Have Significant Impacts on Vegetation Structure in Large Atlantic Forest Fragments." *Biodiversity and Conservation* 24 (9): 2305–18. https://doi.org/10.1007/s10531-015-0961-1.

Malombe, Itambo, Kennedy Wambua Matheka, Tamás Pócs, and Jairo Patiño. 2016. "Edge Effect on Epiphyllous Bryophytes in Taita Hills Fragmented Afromontane Forests." *Journal of Bryology* 38 (1): 33–46. https://doi.org/10.1179/1743282015Y.0000000015.

Martini, Angeline, and Daniela Biondi. 2015. "Microclima e Conforto Térmico de Um Fragmento de Floresta Urbana Em Curitiba, PR." *Floresta e Ambiente* 22 (2): 182–93. https://doi.org/10.1590/2179-8087.082114.

Matlack, Glenn R. 1993. "Microenvironment Variation Within and Among Forest Edge Sites in the Eastern United States." *Biological Conservation* 66 (3): 185–94. https://doi.org/10.1016/0006-3207(93)90004-K.

Mendonça, Augusto H., Cibele Russo, Antônio C. G. Melo, and Giselda Durigan. 2015. "Edge Effects in Savanna Fragments: A Case Study in the Cerrado." *Plant Ecology & Diversity* 8 (4): 493–503. https://doi.org/10.1080/17550874.2015.1014068.

Nascimento, Marcio Irias do, Fábio Poggiani, Giselda Durigan, Antonio Francisco Iemma, and Demóstenes Ferreira da Silva Filho. 2010. "Eficácia de Barreira de Eucaliptos Na Contenção Do Efeito de Borda Em Fragmento de Floresta Subtropical No Estado de São Paulo, Brasil The Effectiveness of Eucalyptus Barrier in Containing the Edge Effect on a Subtropical Forest Fragment in the State of São Paulo, Brazil." *Scientia Florestalis* 38: 191–203.

Newmark, William D. n.d. "Tanzanian Forest Edge Microclimatic Gradients: Dynamic Patterns."

Pedroso-de-Moraes, Cristiano, Lígia Eleonor Prezzi, Thiago de Souza-Leal, Thiago Fernandes Canonici, Olavo Raymundo Jr, and Paulo Silveira. n.d. "Edge Effect on Orchids of a Fragment of Semi-Deciduous Seasonal Forest in the Southeast of Brazil."

Pereira, AF de N, IAA da Silva, ACP Santiago, ICL Barros, et al. 2014. "Edge Effects on Fern Community in an Atlantic Forest Remnant (Bonito, Pernambuco, Brazil)." *Interciencia* 39 (4): 281–87.

Pinheiro, Marayana Prado, Josafá Amaral de Oliveira Filho, Solange França, André Márcio Amorim, and Marcelo Schramm Mielke. 2013. "Annual Variation in Canopy Openness, Air Temperature and Humidity in the Understory of Three Forested Sites in Southern Bahia State, Brazil." *Ciência Florestal* 23: 107–16.

Pinto, Severino R. R., Gabriel Mendes, André M. M. Santos, Mateus Dantas, Marcelo Tabarelli, and Felipe P. L. Melo. 2010. "Landscape Attributes Drive Complex Spatial Microclimate Configuration of Brazilian Atlantic Forest Fragments." *Tropical Conservation Science* 3 (4): 389–402. https://doi.org/10.1177/194008291000300404.

Pohlman, Catherine L., Stephen M. Turton, and Miriam Goosem. 2007. "Edge Effects of

Linear Canopy Openings on Tropical Rain Forest Understory Microclimate." *Biotropica* 39 (1): 62–71. http://www.jstor.org/stable/30045485.

———. 2009. "Temporal Variation in Microclimatic Edge Effects Near Powerlines, Highways and Streams in Australian Tropical Rainforest." *Agricultural and Forest Meteorology* 149 (1): 84–95. https://doi.org/10.1016/j.agrformet.2008.07.003.

Rajpar, MN, and M Zakaria. 2015. "Bird Abundance and Its Relationship with Microclimate and Habitat Variables in Open-Area and Shrub Habitats in Selangor, Peninsular Malaysia." *JAPS: Journal of Animal & Plant Sciences* 25 (1).

Ramos, Flavio Nunes, and Flavio Antonio Maës Santos. 2006. "Microclimate of Atlantic Forest Fragments: Regional and Local Scale Heterogeneity." *Brazilian Archives of Biology and Technology* 49 (6): 935–44. https://doi.org/10.1590/S1516-89132006000700011.

Renhorn, Karl-Erik, Per-Anders Esseen, Kristin Palmqvist, and Bodil Sundberg. 1997. "Growth and Vitality of Epiphytic Lichens. I. Responses to Microclimate Along a Forest Edge-Interior Gradient." *Oecologia* 109 (1): 1–9. http://www.jstor.org/stable/4221485.

Reynoso, Juan Antonio, and Guadalupe Williams-Linera. 2007. "Herbivory Damage on Oak Seedlings at the Edge of Cloud Forest Fragments." *Botanical Sciences*, no. 80 (June): 29–34. https://doi.org/10.17129/botsci.1743.

Santos-Barrera, Georgina, and Nicolás Urbina-Cardona. 2011. "The Role of the Matrix-Edge Dynamics of Amphibian Conservation in Tropical Montane Fragmented Landscapes." *Revista Mexicana de Biodiversidad* 82 (2). https://doi.org/10.22201/ib.20078706e.2011.2.463.

Savilaakso, Sini, Jenny Koivisto, Timo O. Veteli, and Heikki Roininen. 2009. "Microclimate and Tree Community Linked to Differences in Lepidopteran Larval Communities Between Forest Fragments and Continuous Forest." *Diversity and Distributions* 15 (2): 356–65. http://www.jstor.org/stable/20532103.

Silva, Valéria Teodoro Da, Paulo Souza Medri, Talita Parpinelli Ferracin, Edmilson Bianchini, José Marcelo Domingues Torezan, and José Antonio Pimenta. 2010. "Comparação Entre Parâmetros Abióticos e a Estrutura Florestal de Um Fragmento de Floresta e Um Reflorestamento Abandonado de Eucalipto (Eucalyptus Saligna Smith) No Parque Ecológico Da Klabin, Telêmaco Borba/PR." *Semina: Ciências Biológicas e Da Saúde* 31 (1): 37. https://doi.org/10.5433/1679-0367.2010v31n1p37.

Siqueira, Ludmila P de, Mário Basílio de Matos, Dalva M Silva Matos, Maria Isabel G Braz, and Leonardo Silva-Lima. n.d. "USING THE VARIANCES OF MICROCLIMATE VARIABLES TO DETERMINE EDGE EFFECTS IN SMALL ATLANTIC RAIN FOREST FRAGMENTS, SOUTH-EASTERN BRAZIL."

Sizer, Nigel, and Edmund V. J. Tanner. 1999. "Responses of Woody Plant Seedlings to Edge Formation in a Lowland Tropical Rainforest, Amazonia." *Biological Conservation* 91 (2-3): 135–42. https://doi.org/10.1016/S0006-3207(99)00076-2.

Stevens, S. M., and T. P. Husband. 1998. "The Influence of Edge on Small Mammals: Evidence from Brazilian Atlantic Forest Fragments." *Biological Conservation* 85 (1-2): 1–8. https://doi.org/10.1016/S0006-3207(98)00003-2.

Turton, S. M., and H. J. Freiburger. 1997. "Edge and Aspect Effects on the Microclimate of a Small Tropical Forest Remnant on the Atherton Tableland, Northeastern Australia." *Laurance, W F, Bierregaard, R O, Jr Tropical Forest Remnants Ecology, Management, and Conservation of Fragmented Communities*, 45–54. https://eurekamag.com/research/

031/051/031051937.php.

Urbina-Cardona, J. Nicolás, Mario Olivares-Pérez, and Víctor Hugo Reynoso. 2006. "Herpetofauna Diversity and Microenvironment Correlates Across a Pasture–Edge–Interior Ecotone in Tropical Rainforest Fragments in the Los Tuxtlas Biosphere Reserve of Veracruz, Mexico." *Biological Conservation* 132 (1): 61–75. https://doi.org/10.1016/j.biocon.2006.03.014.

Van Wilgenburg, Steve L., Daniel F. Mazerolle, and Keith A. Hobson. 2001. "Patterns of Arthropod Abundance, Vegetation, and Microclimate at Boreal Forest Edge and Interior in Two Landscapes: Implications for Forest Birds." *Écoscience* 8 (4): 454–61. https://doi.org/10.1080/11956860.2001.11682675.

Watts, Adam C., and Leda N. Kobziar. 2015. "Hydrology and Fire Regulate Edge Influence on Microclimate in Wetland Forest Patches." *Freshwater Science* 34 (4): 1383–93. https://doi.org/10.1086/683534.

Williams-Linera, G., V. Domínguez-Gastelú, and M. E. García-Zurita. 1998. "Microenvironment and Floristics of Different Edges in a Fragmented Tropical Rainforest." *Conservation Biology* 12 (5): 1091–1102. http://www.jstor.org/stable/2387582.

Williams-Linera, Guadalupe. 1990. "Vegetation Structure and Environmental Conditions of Forest Edges in Panama." *The Journal of Ecology* 78 (2): 356. https://doi.org/10.2307/2261117.

Wright, Thomas E., Sabine Kasel, Michael Tausz, and Lauren T. Bennett. 2010. "Edge Microclimate of Temperate Woodlands as Affected by Adjoining Land Use." *Agricultural and Forest Meteorology* 150 (7-8): 1138–46. https://doi.org/10.1016/j.agrformet.2010.04.016.

Ylisirniö, Anna-Liisa, Mikko Mönkkönen, Ville Hallikainen, Taina Ranta-Maunus, and Jari Kouki. 2016. "Woodland Key Habitats in Preserving Polypore Diversity in Boreal Forests: Effects of Patch Size, Stand Structure and Microclimate." *Forest Ecology and Management* 373 (August): 138–48. https://doi.org/10.1016/j.foreco.2016.04.042.

Young, Andrew, and Neil Mitchell. 1994. "Microclimate and Vegetation Edge Effects in a Fragmented Podocarp-Broadleaf Forest in New Zealand." *Biological Conservation* 67 (1): 63–72. https://doi.org/10.1016/0006-3207(94)90010-8.