

**UNIVERSIDADE DE SÃO PAULO - IB - Depto de Botânica**  
**BIB-5772 - BIOGEOGRAFIA DE PLANTAS VASCULARES - 2018**

Prof. Dr. José Rubens Pirani - responsável  
 Profa. Dra. Maria Fernanda Calió (UNICAMP) – colaboradora

**PROGRAMA – 02 a 20/abril/2018 (de 14 a 19/4 não há aulas presenciais)**

T = aula teórica (sala 6 do CD)                      ED = estudo dirigido (dia 11 – Sala Multimídia 2 do CD)  
 EP = exercício prático em equipe                GD = grupo de discussão (sala 6 do CD)

**(\*) atividade extra-classe**

<b>DIA/SALA</b>	<b>MANHÃ</b>	<b>TARDE</b>
<b>02/sala 6 - T:</b>	Bases da Biogeografia. Análise espacial. Áreas de distribuição. Biogeografia Ecológica: bases.	<b>Sala 6 - T:</b> Biogeografia Ecológica. Biomas do mundo. <b>ED:</b> Exercício cartográfico sobre Áreas de Distribuição. *: <i>Leitura de textos para GD1:</i> Coutinho 2016; Sadava <i>et al.</i> 2009; Joly <i>et al.</i> 1999; Oliveira & Ratter 2000.
<b>03/sala 3 - T:</b>	Biogeografia Histórica: deriva continental; especiação e extinção; dispersão.	<b>Sala 3 - GD1:</b> Conceito de bioma; Biomas do mundo: Coutinho 2016; Sadava <i>et al.</i> 2009; Classificação da vegetação brasileira: Joly <i>et al.</i> 1999; Origem das florestas do Brasil Central: Oliveira & Ratter 2000.
<b>04/sala 6- T:</b>	Tipos fundamentais de distribuição: cosmopolitanismo, provincialismo, disjunção, endemismo. Regiões e províncias florísticas. Escolas da Biogeografia Histórica (princípios e métodos): Dispersalismo, Biogeografia Filogenética.	*: <i>Leitura de textos para GD2:</i> Morrone <i>et al.</i> 1996; McCoy & Heck 1976; Morton 1972; Safford 2007.
<b>05/sala 6 - T:</b>	Escolas da Biogeografia Histórica (princípios e métodos): Panbiogeografia, Biogeografia Cladística.	<b>Sala 6 – ED:</b> Exercício de Biogeografia Histórica (entregar ao professor dia 9, 14 hs). <b>GD2:</b> Centros de origem: Morrone <i>et al.</i> 1996; McCoy & Heck 1976. Flora montana: Morton 1972; Safford 2007.
<b>06/sala 4 - T:</b>	Biogeografia Histórica (princípios e métodos): Áreas de endemismo; Análise de Parcimônia de Endemicidade (PAE). Métodos baseados em eventos (DIVA). A questão temporal.	<b>Sala 4 - ED:</b> Exercício sobre Áreas de Endemismo com PAE. Exercício sobre Fitogeografia: padrões de distribuição (entregar ambos ao professor dia 9, 14 hs). * <i>Leitura de textos para GD3:</i> Crisci & Morrone 1990; Linder & Crisp 1995.
<b>09/sala 6 - T:</b>	Biogeografia Histórica Integrativa (Cronobiogeografia): incorporando temporalidade aos padrões espaciais.	<b>Sala 6 - GD3:</b> Biogeografia e filogenias: Crisci & Morrone 1990; Linder & Crisp 1995. * <i>Leitura de textos para GD4:</i> Davis <i>et al.</i> 2002; Lomolino <i>et al.</i> 2006; Kerkhoff <i>et al.</i> 2014.
<b>10/sala 3 - T:</b>	Filogeografia. <b>ED:</b> Exercício de Filogeografia (entregar ao professor dia 13, 14 hs).	<b>Sala 3 - GD4:</b> Biogeografia Integrativa: Davis <i>et al.</i> 2002; Lomolino <i>et al.</i> 2006; Kerkhoff <i>et al.</i> 2014.
<b>11/sala Multimídia 2 - ED:</b>	Exercício sobre história biogeográfica de um grupo usando S-DIVA.	<b>Sala Multimídia 2 – T:</b> Bases e métodos de datação molecular. <b>ED:</b> Exercício sobre datação usando BEAST.
<b>12/sala 6 – T:</b>	História da vegetação neotropical I: grandes eventos geológicos e paleoclimáticos; Teoria dos Refúgios: bases e controvérsia atual.	* <i>Leitura de textos para GD5:</i> Simon <i>et al.</i> 2009; Pennington & Hughes 2014; Eiserhardt <i>et al.</i> 2017; Antonelli & Sanmartín 2011.
<b>13/sala 6 - T:</b>	História da vegetação neotropical II: modelos atuais explicativos da alta diversidade neotropical; floras e padrões de algumas províncias biogeográficas brasileiras.	<b>Sala 6 - EP:</b> Análise de padrões de distribuição com base em literatura e herbário (início do trabalho em dupla). <b>GD5:</b> Diversificação da Biota Neotropical: Simon <i>et al.</i> 2009; Pennington & Hughes 2014; Eiserhardt <i>et al.</i> 2017; Antonelli & Sanmartín 2011.

<b>14 a 19. *</b> : Preparo da referata e execução do trabalho (ambos em dupla, <b>extra-classe</b> ).	<b>*</b> : Preparo da referata e execução do trabalho (ambos em dupla, <b>extra-classe</b> ).
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<b>20/sala 6 - EP:</b> Apresentação oral da <b>referata</b> em dupla.	<b>Sala 6 - EP:</b> Apresentação oral do <b>trabalho</b> em dupla.
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## BIBLIOGRAFIA FUNDAMENTAL

- CARVALHO, C.J.B. & ALMEIDA, E.A.B. 2016. *Biogeografia da América do Sul. Análise de tempo, espaço e forma*. Ed. 2. GEN, Roca, São Paulo.**
- COX, C.B. & MOORE, P.D. 1993. *Biogeography. An ecological and evolutionary approach*. Ed. 5 Blackwell Science, Oxford.
- CRISCI, J.V., KATINAS, L. & POSADAS, P. 2003. *Historical Biogeography: an introduction*. Harvard University Press, Cambridge.**
- DA LAGE, A. & MÉTAILLIÉ, G. (coord.) 2015. *Dictionnaire de Biogéographie Végétale*. CNRS Editions, Paris.
- GOOD, R. 1974. *The geography of the flowering plants*. 4<sup>a</sup> ed. Longman, London.
- GRAHAM, A. 2010. *Late Cretaceous and Cenozoic history of Latin American vegetation and terrestrial environments*. Missouri Botanical Garden Press, St. Louis.
- HEADS, M. 2012. *Molecular panbiogeography of the tropics*. University of California Press, Berkeley.
- HENGEVELD, R. 1990. *Dynamic Biogeography*. Cambridge University Press, Cambridge.
- HUMPHRIES, C.J. & PARENTI, L.R. 1986. *Cladistic Biogeography*. Clarendon Press, Oxford.
- LOMOLINO, M.V. & HEANEY, L.R. (eds.) 2004. *Frontiers of Biogeography. New directions in the Geography of Nature*. Sinauer Associates, Sunderland.
- LOMOLINO, M.V., RIDDLE, B.R. & BROWN, J.H. 2006. *Biogeography*. Ed. 3. Sinauer Associates, Sunderland.**
- MILLINGTON, A., BLUMLER, M. & SCHICKHOFF, U. (eds.) 2011. *The SAGE book of Biogeography*. SAGE Publ., Los Angeles.
- MORRONE, J.J. & BOUSQUETS, J.L. (eds.) 2002. *Una perspectiva latinoamericana de la Biogeografía*. UNAM, México.
- MORRONE, J.J. 2009. *Evolutionary Biogeography: an integrative approach with case studies*. Columbia University Press, New York.**
- MYERS, A.A., GILLER, P.S. 1988. *Analytical Biogeography*. Chapman & Hall, London.
- PARENTI, L.R. & EBACH, M.C. 2009. *Comparative Biogeography. Discovering and classifying biogeographical patterns of a dynamic Earth*. Univ. California Press, Berkeley.
- PEDROTTI, F. 2013. *Plant and vegetation mapping*. Springer, Berlin.
- RONQUIST, F. & SANMARTÍN, I. 2011. Phylogenetic methods in biogeography. *Annu. Rev. Ecol. Evol. Syst.* 42: 441-464.**
- SADAVA, D., HELLER, H.C., ORIAN, G.H., PURVES, W.K. & HILLIS, D.M. 2009. *Vida. A ciência da Biologia. Vol. II: Evolução, diversidade e ecologia*. Ed. 8. ARTMED, Porto Alegre.
- SALGADO-LABORIAU, M.L. 1994. *História Ecológica da Terra*. Edgard Blücher, São Paulo.**
- SOUZA, C.R.G., SUGUIO, K., OLIVEIRA, A.M.S.P & OLIVEIRA, P.E. (eds.) 2005. *Quaternário do Brasil. Holos, Ribeirão Preto*.**
- TEIXEIRA, W., TOLEDO, C., FAIRCHILD, T. & TAIOLI, F. (orgs.) 2000. *Decifrando a terra*. Oficina de Textos, São Paulo.

**Em negrito: recomendados na disciplina.**

**BIBLIOGRAFIA FUNDAMENTAL SOBRE CONCEITUAÇÃO E CLASSIFICAÇÃO DE BIOMAS,  
ECOSSISTEMAS E REGIÕES BIOGEOGRÁFICAS (ênfase na região Neotropical e Brasil)**

- AB'SABER, A. 2003. Os domínios de natureza no Brasil: potencialidades paisagísticas. Ateliê Editorial, São Paulo.
- ALVARES, C.A., STAPE, J.L., SENTELHAS, P.C., GONÇALVES, J.L.M. & SPAROVEK, G. 2013. Köppen's climate classification map for Brazil. Meteorologische Zeitschrift 22(6): 711-728.
- ARMS, K. 1996. Environmental Science. Holt, Rinehart & Winston, Orlando.
- CABRERA, A.L. & WILLINK, A. 1973. Biogeografía de América Latina. Secretaria General OEA, Washington.**
- COUTINHO, L.M. 1978. O conceito de cerrado. Revta. Bras. Bot. 1(1): 17-23.
- COUTINHO, L.M. 2016. Biomass brasileiros. Oficina de Textos, São Paulo.**
- CROIZAT, L. 1952. Manual of Phytogeography. Uitgeverij Dr. W. Junk, The Hague.
- CROSBY, M.R. (coord.) 1978. Phytogeography of Africa (symposium). Ann. Missouri Bot. Gard. 65: 367-589.
- DIXON, A.P., FABER-LANFENDOEN, D., JOSSE, C., MORRISON, J. & LOUCKS, C.J. 2014. Distribution mapping of world grassland types. J. Biogeogr. 41: 2003-2019.
- DRYFLOR 2016. Plant diversity patterns in neotropical dry forests and their conservation implications. Science 353:1383-1387.
- EISENLOHR, P.V. & OLIVEIRA\_FILHO, A.T. 2015. Revisiting patterns of tree species composition and their driving forces in the Atlantic Forests of Southeastern Brazil. Biotropica 2015.
- EITEN, G. 1970. A vegetação do Estado de São Paulo. Instituto de Botânica, São Paulo.
- EITEN, G. 1983. Classificação da vegetação do Brasil. CNPq, Brasília.
- FERNANDES, A. 2000. Fitogeografia brasileira. Ed. 2. Multigraf, Fortaleza.
- HEADS, M. 2012. Molecular panbiogeography of the tropics. University of California Press, Berkeley.
- HEYWOOD, V.H. (ed.) & WATSON, R.T. (coord.) 1995. Global diversity assessment. Cambridge University Press, Cambridge.
- HOORN, C. & WESSELINGH, F. (eds.) 2010. Amazonia: landscape and species evolution. Wiley-Blackwell, Oxford.
- HUECK, K. 1972. As florestas da América do Sul. (Trad. H. Reichardt). Polígono, São Paulo.
- IBGE. 2012. Manual técnico da vegetação brasileira. Brasília. Ed. 2 revista e ampliada.**
- IVANAUSKAS, N.M., MONTEIRO, R. & RODRIGUES, R.R. 2008. Classificação fitogeográfica das florestas do Alto Rio Xingu. Acta Amazonica 38(3): 387-402.
- JOLY, C.A. et al. 1999. Evolution of the Brazilian phytogeography classification systems: implications for biodiversity conservation. Ciência e Cultura 51(5/6): 331-348.**
- KREFT, H. & JETZ, W. 2007. Global patterns and determinants of vascular plant diversity. PNAS 104(14): 5925-5930.
- LUETZELBURG, P. 1924. Estudo botânico do Nordeste. 3 vols. Inst. Fed. Obras Contra as Secas.
- MAURIN, O., DAVIES, T.J., BURROWS, J.E. et al. 2014. Savanna fire and the origin of the "underground forests" of Africa. New Phytol. 204: 201-2014.
- McGLONE, M. S. 1996. When history matters: scale, time, climate and tree diversity. Global Ecology and Biogeography Letters 5: 309-314.
- MEGGERS, B.J., AYENSU, E.S. & DUCKWORTH, W.D. (eds.) 1973. Tropical forest ecosystems in Africa and South America: a comparative review. Smithsonian Institution Press, Washington.
- MOGNI, V.Y., OAKLEY, L.J., MATURO, H.M., GALETTI, L.A. & PRADO, D.E. 2015. Biogeografía y florística de los Bosques Secos Estacionales Neotropicales (BSEN). Revista OKARA 9(2): 275-296.
- MONCRIEFF, G.R., BOND, W.J. & HIGGINS, S.I. 2016. Revising the biome concept for understanding and predicting global change impacts. J. Biogeogr. 43: 863-873.
- MORO, M.F., NIC LUGHADHA, E., ARAÚJO, F.S. & MARTINS, F.R. 2016. A phytogeographical metaanalysis of the Semiarid Caatinga Domain in Brazil. Bot. Rev. 2016.
- MORRONE, J.J. 1999. Presentación preliminar de un nuevo esquema biogeografico de America del Sur. Biogeographica 75: 1-16.
- MORRONE, J.J. 2001. Biogeografía de América Latina y el Caribe. M&T- Manuales & Tesis SEA, vol. 3. Zaragoza. ([http://www.sciencebuff.org/ftp\\_only/Morrone2001Caribe.pdf](http://www.sciencebuff.org/ftp_only/Morrone2001Caribe.pdf))
- MORRONE, J.J. 2014. Biogeographical regionalisation of the Neotropical region. Zootaxa 3782(1): 1-110.**
- MORRONE, J.J. 2015. Biogeographical regionalisation of the Andean region. Zootaxa 3936(2): 207-236.**
- NAVARRO, G. & MALDONADO, M. 2004. Geografía ecológica de Bolivia. Centro de Ecología Simón I. Patiño, Cochabamba.
- ODUM, E.P. 1997. Fundamentos de ecologia. Ed. 5. Fundação Calouste Gulbenkian, Lisboa.
- OLIVEIRA, P.S. & MARQUIS, R.J. (eds.) 2002. The cerrados of Brazil. Columbia Univ. Press, New York.
- OLIVEIRA-FILHO, A.T. 2009. Classificação das fitofisionomias da América do Sul cisandina tropical e subtropical: proposta de um novo sistema – prático e flexível – ou uma injeção a mais de caos? Rodriguésia 60(2): 237-258.
- OLSON, D. M., E. DINERSTEIN, E. D. WIKRAMANAYAKE, et al. 2001. Terrestrial ecoregions of the world: a new map of life on Earth. Bioscience 51: 933–938.**
- OVERBECK, G.E. et al. 2007. Brazil's neglected biome: the South Brazilian *Campos*. Pl. Ecol. Evol. Syst. 9: 101-116.

- PENNINGTON, R.T. & HUGHES, C.E. 2014. The remarkable congruence of New and Old World savanna origins. New Phytol. 204: 4-6.
- PENNINGTON, R.T., LEWIS, G.P. & RATTER, J.A. (eds.) 2006. Neotropical savannas and seasonally dry forests. Plant diversity, biogeography, and conservation. CRC Press Taylor and Francis Group, Boca Raton.
- PRANCE, G.T. & LOVEJOY, T.E. (eds.) 1985. Amazonia. Pergamon Press, Oxford.
- RIZZINI, C.T. 1979. Tratado de Fitogeografia do Brasil. 2 vols. HUCITEC/EDUSP, São Paulo.**
- RODRIGUES, R.R. & LEITÃO FILHO, H.F. (eds.) Matas ciliares. Conservação e recuperação. EDUSP/FAPESP, São Paulo.
- RUSCHI, A. 1950. Fitogeografia do Espírito Santo. Bol. Mus. Biol. Mello Leitão sér. Bot. 1: 1-352.
- SAMPAIO, E.V.S.B. et al. (eds.) Vegetação e flora da Caatinga. APNE/CNIP, Recife.
- SARMIENTO, G. 1975. The dry plant formations of South America and their floristic connections. J. Biogeogr. 2: 233-251.
- SCHNELL, R. 1987. La flore et la végétation de l'Amérique Tropicale. 2 vols. Masson, Paris.**
- SCHULTZ, J. 2005. The ecozones of the world. The ecological divisions of the geosphere. Ed. 2. Springer, Berlin.**
- SLIK, J.W.F. et al. 2018. Phylogenetic classification of the world's tropical forests. PNAS 2018.**
- THOMAS, W.W. (ed.) 2008. The Atlantic Coastal Forest of Northeastern Brazil. The New York Botanical Garden Press, New York.
- THORNE, R.F. 1992. Classification and geography of the flowering plants. Bot. Rev. 58(3): 225-348.
- TAKHTAJAN, A. 1986. Floristic regions of the world. University of California Press, Berkeley.**
- VELOSO, H.P., RANGEL FILHO, A.L.R. & LIMA, J.C.A. 1991. Classificação da vegetação brasileira, adaptada a um sistema universal. , Rio de Janeiro.
- WHITE, F. 1993. The AETFAT chorological classification of Africa: history, methods and applications. Bull. Jard. Bot. Nat. Belg. 62: 225-281.
- WOODWARD, F.I. 1987. Climate and plant distribution. Cambridge University Press, Cambridge.
- WOODWARD, F.I., LOMAS, M.R. & KELLY, C.K. 2004. Global climate and the distribution of plant biomes. Phil. Trans. Royal Soc. London B 359: 1465-1476.**

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**BIBLIOGRAFIA FUNDAMENTAL sobre PRINCÍPIOS E MÉTODOS nas LINHAS DA BIOGEOGRAFIA HISTÓRICA, destacando-se a BIOGEOGRAFIA CLADÍSTICA e a BIOGEOGRAFIA INTEGRATIVA (\*).**

- ANDERSON, S. 1994. Area and endemism. Quart. Ver. Biol. 69(4): 451-471.
- AVISE, J.C. 2004. Molecular markers, natural history, and evolution. Ed. 2. Sinauer, Sunderland.
- AXELIUS, B. 1991. Areas of distribution and areas of endemism. Cladistics 7: 197-199.
- (\*) BAKER, P.A., FRITZ, S.C., DICK, C.W., ECKERT, A.J., HORTON, B.K., MANZONI, S., RIBAS, C.C., GARZIONE, C.N., BATTISTI, D.S. 2014. The emerging field of Geogenomics: Constraining geological problems with genetic data. Earth-Science Reviews 135: 38-47.
- BOUSQUETS, J.L. (ed.) 1991. Historia de la Biogeografía: Centros de Origen y Vicarianza. Ciencias Servicios Editoriales 1. México.
- BREMER, K. 1992. Ancestral areas: a cladistic reinterpretation of the center of origin concept. Syst. Biol. 41: 436-445.
- BRIGGS, J.C. 1984. Centers of origin in Biogeography. Biogeographical Monographs vol. 1. Univ. of Leeds.
- CECCA, F. & ZARAGÜETA I BAGILS, R. 2015. Paléobiogéographie. EDP Sciences, Les Ulis Cedex.**
- COOK, L.G. & CRISP, M.D. 2005. Directional asymmetry of long-distance dispersal and colonization could mislead reconstructions of biogeography. J. Biogeogr. 32: 741-754.
- COX, C.B. 1998. From generalised tracks to ocean basins - how useful is panbiogeography? J. Biogeogr. 25: 813-828.
- CRISCI, J.V. 2001. The voice of historical biogeography. J. Biogeogr. 28: 157-168.
- (\*) CRISCI, J.V., KATINAS, L. & POSADAS, P. 2000. Introducción a la teoría y práctica de la Biogeografía Histórica. Sociedad Argentina de Botánica, Buenos Aires.
- CRISCI, J.V. & MORRONE, J.J. 1990. En busca del Paraíso perdido: la Biogeografía Histórica. Ciencia Hoy 1(5): 26-34.
- CRISP, M.D., TREWICK, S.A. & COOK, L.G. 2011. Hypothesis testing in biogeography. TREE 26(2): 66-72.
- CROIZAT, L. 1958. Panbiogeography. 3 vols. Publicação do autor, Caracas.
- CROIZAT, L., NELSON, G. & ROSEN, D.E. 1974. Centers of origin and related concepts. Syst. Zool. 23(2): 265-287.
- DE BAETS, K., ANTONELLI, A. & DONOGHUE, P.J. 2016. Tectonic blocks and molecular clocks. Phil. Transact. Biol. Sci. May 2016.
- (\*) DONOGHUE, M.J. 2008. A phylogenetic perspective on the distribution of plant diversity. PNAS 105 (suppl. 1): 11549-11555.

- (\*) DONOGHUE, M.J. & MOORE, B.R. 2003. Toward an Integrative Historical Biogeography. Integr.Comp. Biol. 43: 261-270.
- ECHEVERRY, A. & MORRONE, J.J. 2010. Parsimony analysis of endemism as a panbiogeographical tool: an analysis of Caribbean plant taxa. Biol. J. Linn. Soc. 101: 961-976.
- FATTORINI, S. 2008. Hovenkamp's ostracized vicariance analysis: testing new methods of historical biogeography. Cladistics 24: 611-622.
- FERREIRA, P.M.A. & BOLDRINI, I. 2011. Potential reflection of distinct ecological units in plant endemism categories. Conserv. Biol. 25(4): 672-679.
- FUNK, V.A. & BROOKS, D.R. (eds.) 1981. Advances in Cladistics. The New York Botanical Garden, New York. (cap. Biogeograph and Cladistics. p. 147-228).
- (\*) GRANDCOLAS, P., NATTIER, R., LEGENDRE, F. & PELLENS, R. 2010. Mapping extrinsic traits such as extinction risks or modeled bioclimatic niches on phylogenies: does it make sense at all? Cladistics 26: 1-5.
- GREHAN, J.R. 1994. The beginning and end of dispersal: the representation of "panbiogeography". J. Biogeogr. 21: 451-462.
- GREHAN, J.R. 2001. Panbiogeography from tracks to ocean basins: evolving perspectives. J. Biogeogr. 28: 413-429.
- (\*) HARRIS, A. & XIANG, Q.-Y. 2009. Estimating ancestral distributions of lineages with uncertain sister groups: a statistical approach to Dispersal-Vicariance Analysis and a case using *Aesculus* L. (Sapindaceae) including fossils. J. Syst. Evol. 47(5): 349-368.
- (\*) HEADS, M. 2005. Dating nodes on molecular phylogenies: a critique of molecular biogeography. Cladistics 21: 62-78.
- HEADS, M. 2015. The relationship between biogeography and ecology: envelopes, models, predictions. Biol. J. Linn. Soc. 2015.
- HILL, A.W. & GURALNIK, R.P. 2010. GeoPhylo: an online tool for developing visualizations of phylogenetic trees in geographic space. Ecography 33: 633-636.
- HOVENKAMP, P. 1997. Vicariance events, not areas, should be used in biogeographical analysis. Cladistics 13: 67-79.
- (\*) HUMPHRIES, C.J. & PARENTI, L.R. 1986. Cladistic Biogeography. Clarendon Press, Oxford.
- (\*) HUNN, C.A. & UPCHURCH, P. 2001. The importance of time/space in diagnosing the causality of phylogenetic events: towards a "chronobiogeographical" paradigm. Syst. Biol. 50(3): 391-407.
- KISHINO, H., THORNE, J.L. & BRUNO, W.J. 2001. Performance of a Divergence Time Estimation Method under a probabilistic model of rate evolution. Mol. Biol. Evol. 18: 352-361.
- HURLBERT, A.H. & JETZ, W. 2007. Species richness, hotspots, and the scale dependence of range maps in ecology and conservation. PNAS 104(33): 13384-13389.
- LAFFAN, S.W., LUBARSKY, E. & ROSAUER, D.F. 2010. Biodiverse, a tool for the spatial analysis of biological and related diversity. Ecography 33: 643-647.
- LAVOIE, C. 2013. Biological collections in an ever changing world: Herbaria as tools for biogeographical and environmental studies. Persp. Pl. Ecol. Evol. Syst. 15: 68-76.
- LIEBERMAN, B.S. 2003. Paleobiogeography: the relevance of fossils to biogeography. Ann. Rev. Ecol. Evol. Syst. 34: 51-69.
- (\*) LIEBERMAN, B.S. 2003. Unifying theory and methodology in Biogeography. Evolutionary Biol. 33: 1- 25.
- LOMOLINO, M.V., SAX, D.F. & BROWN, J.H. 2004. Foundations of Biogeography. Classic papers with commentaries. The University of Chicago Press, Chicago.
- LÖWENBERG-NETO, P. & CARVALHO, C.J.B. 2004. Análise Parcimoniosa de Endemidade (PAE) na delimitação de áreas de endemismo: inferências para conservação da biodiversidade na Região Sul do Brasil. Natureza & Conservação 2(2): 58-65.
- LUNA-VEGA, I., MORRONE, J.J., ALCÂNTARA AYALA, O. & ESPINOSA ORGANISTA, D. 2001. Biogeographical affinities among Neotropical cloud forests. Plant Syst. Evol. 228: 229-239.
- McDOWALL, R.M. 2004. What biogeography is: a place for process. J. Biogeogr. 31: 345-351.
- MORRONE, J.J. & CRISCI, J.V. 1990. Panbiogeografía: fundamentos y metodos. Evolución Biológica 4: 119-140.
- MORRONE, J.J., ESPINOSA-ORGANISTA, D. & LLORENTE-BOUSQUETS, J. 1996. Manual de Biogeografía Histórica. Universidad Nacional Autónoma de México, México.
- (\*) MYERS, A.A. & GILLER, P.S. (eds.) 1990. Analytical Biogeography. Chapman & Hall, London. (cap. 11, 12, 13).
- NELSON, G. & LADIGES, P.Y. 2009. Biogeography and the molecular dating game: a futile revival of phenetics? Bull. Soc. géol. Fr. 180(1): 39-43.
- NELSON, G. & PLATNICK, N.I. 1981. Systematics and Biogeography. Cladistics and Vicariance. Columbia Univ. Press, New York.
- NELSON, G. & ROSEN, D.E. 1981. Vicariance biogeography. A Critique. Columbia University Press, New York.
- PAGE, R.D.M. 1994. Maps between trees and cladistic analysis of historical associations among genes, organisms,

- and areas. *Syst. Biol.* 43(1): 58-77.
- PLATNICK, N.I. & NELSON, G. 1978. A method of analysis for historical biogeography. *Syst. Zool.* 27: 1-16.
- QUEIROZ, A. 2005. The resurrection of oceanic dispersal in historical biogeography. *TREE* 20: 68-73.
- (#) RAPOPORT, E.H. 1982. *Areography. Geographical strategies of species.* (tradução do espanhol por Barbara Drausal). Pergamon Press, Oxford.
- (\*) REE, D. & SMITH, 2008. Maximum likelihood inference of geographic range evolution by dispersal, local extinction, and cladogenesis. *Syst. Biol.* 57: 4-14.
- RENNER, S.S. 2005. Relaxed molecular clocks for dating historical plant dispersal events. *TREE* 10(11): 550-558.
- RIDDLE, B.R. & HAFNER, D.J. 2010. Integrating pattern with process at biogeographic boundaries: the legacy of Wallace. *Ecography* 33: 321-325.
- RONQUIST, F. 1997. Dispersal-vicariance analysis: a new approach to the quantification of historical biogeography. *Syst. Biol.* 46: 195-203.
- (\*) RONQUIST, F. & SANMARTÍN, I. 2011. **Phylogenetic methods in biogeography.** *Annu. Rev. Ecol. Evol. Syst.* 42: 441-464.
- (\*) ROSAUER, D., LAFFAN, S.W., CRISP, M.D., DONNELLAN, S.C. & COOK, L.G. 2009. **Phylogenetic endemism: a new approach for identifying geographical concentrations of evolutionary history.** *Mol. Ecol.* 18: 4061-4072.
- ROSEN, D.E. 1978. Vicariant patterns and historical explanation in biogeography. *Syst. Zool.* 27: 159-188.
- SALOMON, M. 2001. Evolutionary biogeography and speciation: essay on a synthesis. *J. Biogeogr.* 28: 13-27.
- SALVADOR ARIAS, J., SZUMIK, C.A. & GOLOBOFF, P. 2011. Spatial analysis of vicariance: a method for using direct geographical information in historical biogeography. *Cladistics* 27: 617-628.
- SANDERSON, M.J. 2002. Estimating absolute rates of molecular evolution and divergence times: a penalized likelihood approach. *Mol. Biol. Evol.* 19: 101-109.
- SANTOS, C.M.B. 2011. On the role of assumptions in cladistic biogeographical analyses. *Papéis Avulsos de Zoologia* 51(19): 295-305.
- SANTOS, C.M.D. & AMORIM, D.S. 2007. Why biogeographical hypotheses need a well supported phylogenetic framework: a conceptual evaluation. *Papéis Avulsos de Zoologia* 47(4): 63-73.
- SKOV, F. 2000. Potential plant distribution mapping based on climatic similarity. *Taxon* 49: 503-515.
- SMITH, S.A. & DONOGHUE, M.J. 2008. Rates of molecular evolution are linked to life history in flowering plants. *Science* 322: 86-89.
- STRUWE, L., SMOUSE, P.E., HEIBERG, E., HAAG, S. & LATHROP, R.G. 2011. Spatial evolutionary and ecological vicariance analysis (SEEVA), a novel approach to biogeography and speciation research, with an example from Brazilian Gentianaceae. *J. Biogeogr.*
- SZUMIK, C.A., CUEZZO, F., GOLOBOFF, P.A. & CHALUP, A.E. 2002. An optimality criterion to determine areas of endemism. *Syst. Biol.* 51(5): 806-816.
- SZUMIK, C. et al. 2011. Detecting areas of endemism with a taxonomically diverse data set: plants, mammals, reptiles, amphibians, birds, and insects from Argentina. *Cladistics* 27: 1-13.
- VELLER, M.G.P. van & BROOKS, D.R. 2001. When simplicity is not parsimonious: *a priori* and *a posteriori* methods in historical biogeography. *J. Biogeogr.* 28: 1-11.
- VELLER, M.G.P., KORNET, D.J. & ZANDEE, M. 2002. *A posteriori* and *a priori* methodologies for testing hypothesis of causal processes in vicariance biogeography. *Cladistics* 18: 207-217
- WAGNER, W.L. & FUNK, V.A. (eds.) 1995. *Hawaiian Biogeography. Evolution on a hot spot archipelago.* Smithsonian Institution Press, Washington.
- WEN, J., REE, R.H., ICKERT-BOND, S., NIE, Z. & FUNK, V. 2013. Biogeography: where do we go from here? *Taxon* 62(5): 912-927.
- (\*) WIENS, J.J. & DONOGHUE, M.D. 2004. Historical biogeography, ecology and species richness. *TREE* 19(12): 639-644.
- (\*) WIENS, J.J. & GRAHAM, C.H. 2005. Niche Conservatism: integrating evolution, ecology, and conservation biology. *TAnn. Rev. Ecol. Evol. Syst.* 36: 519-539.
- WILEY, E.O. 1981. *Phylogenetics.* John Wiley & Sons, New York.
- WOJCICKI, M. & BROOKS, D.R. 2005. PACT: an efficient and powerful algorithm for generating area cladograms. *J. Biogeogr.* 32(5): 755-774.
- YU, Y., HARRIS, A.J., HE, X.J. 2010. S-DIVA (statistical dispersal-vicariance analysis): a tool for inferring biogeographic histories. *Mol. Phylogen. Evol.* 56: 848-850.
- YU Y., HARRIS, A.J., HE, X.J. 2011. RASP (Reconstruct Ancestral State in Phylogenies) 1.1. Available at <http://mnh.scu.edu.cn/soft/blog/RASP>. Acesso em: 9 de maio de 2011.
- ZANELLA, F.C.V., OLIVEIRA, M.L. & GAGLIANONE, M.C. 2000. Standardizing lists of locality data for examined specimens in systematics and biogeography studies of New World taxa. *Biogeographica* 76(4): 145-160.
- ZIZKA, A. & ANTONELLI, A. 2015. **speciesgeocodeR: An R package for linking species occurrences, user-**

(\*) Textos mais abrangentes, sintéticos e/ou revisivos.

(#) Livro importante sobre metodologia e análise estatística ref. a áreas de distribuição de espécies.

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**BIBLIOGRAFIA FUNDAMENTAL sobre MUDANÇAS CONTINENTAIS, CLIMÁTICAS E FLORÍSTICAS NO MESOZÓICO E CENOZÓICO (ênfase no QUATERNÁRIO)**

- AB'SABER, A.N. 1977. Espaços ocupados pela expansão dos climas secos na América do Sul, por ocasião dos períodos glaciais quaternários. *Paleoclimas* 3: 1-19.
- ABSY, M.L., SERVANT, M. & ABSY, M.L. 1993. A história do clima e da vegetação pelo estudo do pólen. *Ciência Hoje*. 16(93): 26-30.
- ALMEIDA, F.F.M. & CARNEIRO, C.D.R. 1998. Origem e evolução da Serra do Mar. *Revta. Bras. Geocienc.* 28(2): 135-150.
- ARRUDA, D.M., FERNANDES-FILHO, E.I., SOLAR, R.R. & SCHAEFER, C.E.G.R. 2017. Combining climatic and soil properties better predicts covers of Brazilian biomes. *Sci. Nat.* 104: 32-40.
- ARRUDA, D.M., SHAEFER, C.E.G.R., FONSECA, R.S., SOLAR, R.R. & FERNANDES-FILHO, E.I. 2017. Vegetation cover of Brazil in the last 21 ka: New insights into the Amazonian refugia and Pleistocenic arc hypothesis. *Global Ecol. Biogeogr.* 2017: 1-10.**
- BACON, C.D., MORA, A., WAGNER, W.R. & JARAMILLO, C.A. 2013. Testing geological models of evolution of the Isthmus of Panama in a phylogenetic framework. *Bot. J. Linn. Soc.* 171: 287-300.
- BACON, C.D. et al 2015. Biological evidence supports an early and complex emergence of the Isthmus of Panama. *PNAS* 2015.
- BARNOSKY, A.D. ET AL. 2011. Has the Earth's sixth mass extinction already arrived? *Nature* 471:
- BEERLING, D.J. & OSBORNE, C.P. 2006. The origin of the savanna biome. *Global Change Biology* 12: 2023-2031.
- BEHLING, H., PILLAR, V.D., ORLÓCI, L. & BAUERMANN, S.G. 2004. Late quaternary *Araucaria* forest, grassland (Campos), fire and climate dynamics, studied by high-resolution pollen, charcoal and multivariate analysis of the Camará do Sul core in southern Brazil. *Palaeogeography, Palaeoclimatology, Palaeoecology* 203: 277-297.
- BEHRENSMEYER, A.K. et al. (eds.) 1992. *Terrestrial Ecosystems through time. Evolutionary paleoecology of terrestrial plants and animals.* The University of Chicago.
- BERG, N.G.; HEDDERSON, T.A.; LINDER, H.P. & BOND, W.J. 2007. Palaeoclimate-induced range shifts may explain current patterns of spatial genetic variation in *renosterbos* (*Elytropappus rhinocerotis*, Asteraceae). *Taxon* 56(2): 393-408.
- BIGARELLA, J.J. & ANDRADE-LIMA, D. 1982. Paleoenvironmental changes in Brazil. In: Prance, G.T. (ed.) *Biological diversification in the tropics.* p. 27-40.
- BIGARELLA, J.J.; ANDRADE-LIMA, D. & RIEHS, P.J. 1975. Considerações a respeito das mudanças paleoambientais na distribuição de algumas espécies vegetais e animais no Brasil. *An. Acad. brasil. Cienc.* 47(Supl.): 411-463.
- BOLZON, R.T. 1995. Mudanças florísticas durante o Triássico: o Gondwana no Rio Grande do Sul. *Ciência e Ambiente* 10: 39-48
- BURNHAM, R.J. & GRAHAM, A. 1999. The history of neotropical vegetation: new developments and status. *Ann. Missouri Bot. Gard.* 86: 546-589.**
- BURNHAM, R.J. & JOHNSON, K.R. 2004. South American palaeobotany and the origins of neotropical rainforests. *Phil. Trans. Royal Soc. London B* 369: 1595-1610.
- BUSH, M.B. 1994. Amazonian speciation: a necessarily complex model. *J. Biogeogr.* 21: 5-17.
- BUSH, M.A. & OLIVEIRA, P.E. 2006. The rise and fall of the Refugial Hypothesis of Amazonian speciation: a paleoecological perspective. *Biota Neotropica* 6:-17.
- CARNEIRO FILHO, A. 1993. Cerrados amazônicos: fósseis vivos? *Rev. IG, São Paulo*, 14(1): 63-68.
- CHENG, H., SINHA, A., CRUZ, F.W., WANG, X., EDWARDS, R.L., D'HORTA, F.M., RIBAS, C.C., VUILLE, M., STOTT, L.D. & AULER, A.S. 2012. Climate change patterns in Amazonia and biodiversity. *Nature Communications* 4:1411.
- CLAPPERTON, C. 1993. *Quaternary Geology and Geomorphology of South America.* Elsevier, Amsterdam.
- COLINVAUX, P.A., LIU, K., OLIVEIRA, P.E., BUSH, M.B., MILLER, M.C. & KANNAN, M.S. 1996. Temperature depression in the lowland tropics in glacial times. *Climatic Change* 32: 19-33.
- COLINVAUX, P.A., OLIVEIRA, P.E., MORENO, J.E., MILLER, M.C. & BUSH, M.B. 1996. A long pollen record from lowland Amazonia: forest and cooling in glacial times. *Science* 274: 85-88.
- CRAW, R.C. 1984. Biogeography and biogeographical principles. *New Zealand Entomologist* 8: 49-52.
- CRUZ, F.W., BURNS, S.J., JERCINOVIC, M., KARMAN, I., SHARP, W.D. & VUILLE, M. 2007. Evidence of rainfall



- variations in Southern Brazil from trace element ratios (Mg/Ca and Sr/Ca) in a Late Pleistocene stalagmite. *Geochimica et Cosmochimica Acta* 71: 2250-2263.
- DAVIS, M.B. & SHAW, R.G. 2001. Range shifts and adaptative responses to Quaternary climate changes. *Science* 292: 673-678.
- DICK, C.W., LEWIS, S.L., MASLIN, M. & BIRMINGHAM, E. 2012. Neogene origins and implied warmth tolerance of Amazon tree species. *Ecol. Evol.* 2012.
- FINE, P.V.A. & REE, R.H. 2017. Evidence for a time-integrated species-area effect on the Latitudinal Gradient in tree diversity. *Amer. Natur.* 168S(6):
- FRIIS, E.M., CHALONER, W.G. & CRANE, P.R. 1989. The origins of angiosperms and their biological consequences. Cambridge Univ. Press.
- GARCIA, R.J. & PIRANI, J.R. 2005. Análise florística, ecológica e fitogeográfica do Núcleo Curucutu, Parque Estadual da Serra do Mar, São Paulo, com ênfase nos campos junto à crista da Serra do Mar. *Hoehnea* 32(1): 1-48.
- GENTRY, A.H. 1982. Neotropical floristic diversity: phytogeographical connections between Central and South America, pleistocene climatic fluctuations, or an accident of the Andean orogeny? *Ann. Missouri Bot. Gard.* 69(3): 557-593.
- GOSLING, W.D., MAYLE, F.E., TATE, N.J. & KILLEEN, T.J. 2009. Differentiation between rainforest, dry forest, and savannah ecosystems by their modern pollen spectra and implications for the fossil pollen records. *Rev. Palaeobot. Palynol.* 153: 70-85.
- GOUVEIA, S.E.M., PESSEDA, L.C.R., ARAVENA, R., BOULET, R., ROVERATTI, R. & GOMES, B.M. 1997. Dinâmica de vegetação durante o Quaternário recente no sul do Amazonas, indicada pelos isótopos do Carbono (12C, 13C, 14C) do solo. *Geochimica Brasiliensis* 11(3): 355-367.
- GOUVEIA, S.E.M., PESSEDA, L.C.R., ARAVENA, R., BOULET, R., SCHEEL-YBERT, R., BENDASSOLI, J.A., RIBEIRO, A.S. & FREITAS, H.A. 2002. Carbon isotopes in charcoal and soils in studies of paleovegetation and climate changes during the late Pleistocene and Holocene in the southeast and centerwest regions of Brazil. *Global and Planetary Change* 33: 95-106.
- GRAHAM, A. 1995. Diversification of Gulf/Caribbean mangrove communities through Cenozoic time. *Biotropica* 27(1): 20-27.
- GRAHAM, A. 2010. Late Cretaceous and Cenozoic history of Latin American vegetation and terrestrial environments. Missouri Botanical Garden Press, St. Louis.
- GRANVILLE, J.-J. de 1984. Monocotyledons and pteridophytes indicators of environmental constraints in the tropical vegetation. *Candollea* 39: 265-269.
- HOORN, C. & WESSELINGH, F. (eds.) 2010. Amazonia: landscape and species evolution. Wiley-Blackwell, Oxford.
- JARAMILLO, C., RUEDA, M.J. & MORA, G. 2006. Cenozoic plant diversity in the neotropics. *Science* 311: 1893-1896.
- KRUTZSCH, W. 1989. Paleogeography and historical phytogeography (Paleochorology) in the Neophyticum. *Pl. Syst. Evol.* 162: 5-61.
- LEDO, R.M.D. & COLLI, G.R. 2017. The historical connections between the Amazon and the Atlantic Forest revisited. *J. Biogeogr.* 44: 2551-2563.**
- LEDRU, M.-P. 1993. Late Quaternary environmental and climatic changes in Central Brazil. *Quatern. Research* 39: 90-98.
- LEDRU, M.-P. 2002. Late Quaternary history and evolution of the cerrados as revealed by palynological records. In: OLIVEIRA, P.S. & MARQUIS, R.J. (eds.) 2002. The cerrados of Brazil. Columbia Univ. Press, New York, p. 33-50.
- LEDRU, M.-P., BRAGA, P.I.S., SOUBIÈS, F., FOURNIER, M., MARTIN, L., SUGUIO, K. & TURCQ, B. 1996. The last 50,000 years in the Neotropics (Southern Brazil): evolution of vegetation and climate. *Palaeogeography, Palaeoclimatology, Palaeoecology*: 239-257.
- LEDRU, M.-P., MOURGUIART, P. & RICOMINI, C. 2009. Related changes in biodiversity, insolation and climate in the Atlantic rainforest since the last interglacial. *Palaeogeogr., Palaeoclim., Palaeoecol.*: 140-152.
- LEDRU, M.P., SALATINO, M.L.F., CECANTINI, G., SALATINO, A., PINHEIRO, F. & PINTAUD, J.-C. 2007. Regional assessment of the impact of climatic change on the distribution of a tropical conifer in the lowlands of South America. *Diversity Distrib.* 1-11.
- LEDRU, M.-P., SALGADO-LABORIAU, M.L. & LORSCHTEITER, M.L. 1998. Vegetation dynamics in southern and central Brazil during the last 10,000 yr B.P. *Rev. Palaeobot. Palynol.* 99: 131-142.
- LEHMANN, C.E.R. et al. 2014. Savanna vegetation-fire-climate relationships differ among continents. *Science* 343: 548-552.
- LEIGH, E.G., O'DEA, A. & VERMEIJ, G.J. 2014. Historical biogeography of the Isthmus of Panama. *Biol. Rev.* 89: 148 – 172.
- McCARTHY, D., EBACH, M.C., MORRONE, J.J. & PARENTI, L.R. 2007. An alternative Gondwana: Biota links South America, New Zealand and Australia. *Biogeografía* 2: 2-12.
- McGLONE, M. S. 1996. When history matters: scale, time, climate and tree diversity. *Global Ecology and*



- Biogeography Letters 5: 309-314.
- McLOUGHLIN, S. 2001. The breakup history of Gondwana and its impact on pre-Cenozoic floristic provincialism. Austr. J. Bot. 49: 271-300.
- MONTES, C. et al. 2012. Evidence for middle Eocene and younger land emergence in central Panama: Implications for Isthmus closure. Geological Society of America Bulletin 124(5-6): 780-799.
- MORO, M.F., NIC LUGHADHA, E., ARAÚJO, F.S. & MARTINS, F.R. 2016. A phytogeographical metaanalysis of the Semiarid Caatinga Domain in Brazil. Bot. Rev. 2016.
- OLIVEIRA, P.E. 1996. Glacial cooling and forest disequilibrium in western Amazonia. An. Acad. Bras. Ci. 68 (supl.): 129-138.
- OLIVEIRA, P.E. 2000. Esfriamento glacial e expansão de florestas úmidas e frias no ultimo máximo glacial da Amazônia. In CAVALCANTE & WALTER (orgs.) Tópicos atuais em Botânica. Congresso Nacional de Botânica, SBB, Brasília, p. 396-398.
- OLIVEIRA, P.E., BARRETO, A.M.F. & SUGUIO, K. 1999. Late Pleistocene/Holocene climatic and vegetational history of the Brazilian caatinga: the fossil dunes of the middle São Francisco River. Palaeogeogr., Palaeoclim., Palaeoecol. 152: 319-337.
- OLIVEIRA, P.S. & MARQUIS, R.J. (eds.) 2002. The cerrados of Brazil. Columbia Univ. Press, New York.
- ORTIZ-JAUREGUIZAR, E. & CLADERA, G.A. 2006. Paleoenvironmental evolution of southern South America during Cenozoic. J. Arid Environments 66: 498-532.
- PENNINGTON, R.T., LAVIN, M., PRADO, D.E., PENDRY, C.A., PELL, S.K. & BUTTERWORTH, C.A. 2003. Historical climate change and speciation: neotropical seasonally dry forest plants show patterns of both Tertiary and Quaternary diversification. Phil. Trans. Royal Soc. London B.
- PENNINGTON, R.T., LEWIS, G.P. & RATTER, J.A. 2006. An overview of the plant diversity, biogeography and conservation of neotropical savannas and seasonally dry forests. In R.T. Pennington, G.P. Lewis & J.A. Ratter (eds.) 2006. Neotropical savannas and seasonally dry forests. Plant diversity, biogeography, and conservation. CRC Press Taylor and Francis Group, Boca Raton, p. 1-29.
- PENNINGTON, R.T., PRADO, D.E. & PENDRY, C.A. 2000. Neotropical seasonally dry forests and Quaternary vegetation changes. J. Biogeogr. 27(2): 261-273.
- PINHEIRO, M.H.O. & MONTEIRO, R. 2010. Contribution to the discussions on the origin of the cerrado biome: Brazilian savanna. Braz. J. Biol. 70(1): 95-102.
- PRANCE, G.T. 1982. A review of the phytogeographic evidences for pleistocene climate changes in the neotropics. Ann. Missouri Bot. Gard. 69: 594-624.
- PRANCE, G.T. (ed.) 1982. Biological diversification in the Tropics. Columbia Univ. Press, New York.
- RABASSA, J. & SALEMME, M. (eds.) 1983-1999. Quaternary of South America and Antarctic Peninsula. 12 vols. Balkema, Rotterdam.
- RAVEN, P.H. & AXELROD, D.J. 1974. Angiosperm biogeography and past continental movements. Ann. Missouri Bot. Gard. 61: 539-673.
- RUIZ PESSEDA, L.C.R. et al. 2009. The evolution of a tropical rainforest/grassland mosaic in southeastern Brazil since 28,000 14C yr BP based on carbon isotopes and pollen records. Quaternary Research.
- SALGADO-LABORIAU, M.L. 1994. História ecológica da terra. Edgard Blücher Ltda., São Paulo (caps. 6 e 9).
- SALGADO-LABORIAU, M.L. 1997. Late Quaternary vegetational and climatic changes in cerrado and palm swamp from Central Brazil. Palaeogeography, Palaeoclimatology, Palaeoecology 128: 215-226.
- SEWARD, A.C. 1959. Plant life through the ages. Hafner Publ. Co.
- STEWART, W.N. & ROTHWELL, G.W. 1993. Paleobotany and the evolution of plants. Ed.2. Cambridge Univ. Press, Cambridge.
- SCHUSTER, R.M. 1976. Plate tectonics and its bearing on the geographical origin and dispersal of angiosperms. In BECK, C.B. (ed.) Origin and early evolution of angiosperms. Columbia University Press, New York, p. 48-138.
- SILBERBAUER-GOTTSBERGER, I., MORAWETZ, W. & GOTTSBERGER, G. 1977. Frost damage of cerrado plants in Botucatu, Brazil, as related to the geographical distribution of the species. Biotropica 9(4): 253-261.
- STEHLI, F.G. & WEBB, S.D. (eds.) 1985. The great American biotic interchange. Plenum Press, New York.
- SUGUIO, K. 1999. Geologia do Quaternário e mudanças ambientais. Paulo's Comunicação e Artes Gráficas, São Paulo.
- Symposium Plant Geographical Results of Changing Cenozoic Barriers (4 artigos). 1982. Ann. Missouri Bot. Gard. 69(3): 594-734.
- TAYLOR, T.N. 2009. Paleobotany. The biology and evolution of fossil plants. Ed. 2. Elsevier, Amsterdam.
- TRICART, J. 1974. Existence de périodes sèches au Quaternaire em Amazonie et dans lês régions voisines. Revue Geomorph. Dyn. 23(4): 145-158.
- TRICART, J. 1993. Paléoclimats et paléomilieus écologiques de part et d'autre de l'Atlantique equatoriale (Afrique occidentale, nord-est de l'Amérique du Sud). Biogeographica 69(2) 51-72.
- TURCQ, B. et al. 2007. Mudanças paleoclimáticas na Amazônia durante o Holoceno. Ciência & Ambiente 34: 69-96.
- VALENTINE, J.W. (ed.) 1985. Phanerozoic diversity patterns. Profiles in macroevolution. Princeton Univ. Press, Princeton.

- VAN DEN ENDE, C., WHITE, L.T. & VAN WELZEN, P.C. 2017. The existence and break-up of the Antarctic land bridge as indicated by both amphi-Pacific distributions and tectonics. Gondwana Research 44.
- VAN DEN HAMMEN, T. 1988. South America. In Huntley, B. & Webb III T. Vegetation history. Kluwer Acad. Pubs.
- VAN DEN HAMMEM, T. 2001. Paleocology of Amazonia. In VIEIRA, I.C.B. et al. (orgs.) Diversidade biológica e cultural da Amazônia. Museu Paraense Emilio Goeldi, Belém, p. 19-44.
- WANG, X., EDWARDS, R.L., AULER, A.S. et al. 2017. Hydroclimate changes across the Amazon lowlands over the past 45,000 years. Nature 541: 204-210.
- WERNECK, F.P. 2011. The diversification of eastern South American open vegetation biomes: Historical biogeography and perspectives. Quaternary Science Reviews (2011): 1-19.
- WERNECK, F.P., COSTA, G.C., COLLI, G.R., PRADO, D.E. & SITES Jr., J.W. 2011. Revisiting the historical distribution of Seasonally Dry Tropical Forests: new insights based on palaeodistribution modelling and palynological evidence. Global Ecol. Biogeogr. 20: 272–288.
- WERNECK, F.P., GAMBLE, T., COLLI, G.R., RODRIGUES, M.T. & SITES Jr., J.W. 2012. Deep diversification and long-persistence in the South American “dry diagonal”: integrating continent-wide phylogeography and distribution modeling of geckos.
- WHITE, F. 1993. Refuge theory, ice-age aridity and the history of tropical biotas: an essay in plant geography. Fragm. Flor. Geobot. Suppl. 2(2): 385-409.
- WHITMORE, T.C. & PRANCE, G.T. (eds.) 1987. Biogeography and Quaternary History of Tropical America. Clarendon Press, Oxford.
- WICANDER, R. & MONROE, J.S. 2010. Historical Geology. Evolution of Earth and life through time. Ed. 6. Brooks/Cole, Belmont.
- WILLIS, K.J. & NIKLAS, K.J. 2011. The role of Quaternary environmental change in plant macroevolution: the exception or the rule? Phil. Trans. R. Soc. Lond. B 359: 159-172.
- WINDLEY, B.F. 1995. The Evolving Continents. ed. 3. John Wiley & sons, Chichester.
- ZINCK, J.A. & HUBER, O. 2011. Peatlands of the Western Guayana Highlands, Venezuela. Properties and Paleogeographic Significance of Peats. Cambridge Univ., Press, Cambridge.

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**BIBLIOGRAFIA SELECIONADA SOBRE PADRÕES DE DISTRIBUIÇÃO e DIVERSIFICAÇÃO DE TAXONS NO ESPAÇO E NO TEMPO E REGIÕES FLORÍSTICAS (CÓRIONS).**

- ALVES, R.V., CARDIN, L. & KROPF, M.S. 2007. Angiosperm disjunction “Campos rupestres - restingas”: a re-evaluation. Acta Bot. Brasil. 21(3): 675-685.
- AMORIM, D. & PIRES,, M.R.S. 1996. Neotropical biogeography and a method for maximum biodiversity estimation. In BICUDO, C.E.M. & MENEZES, N.A. (eds.) Biodiversity in Brazil. A first approach. CNPq, São Paulo, p 183-219.
- ANTONELLI, A., NYLANDER, J.A.A., PERSSON, C. & SANMARTÍN, I. 2009. Tracing the impact of the Andean uplift on Neotropical plant evolution. PNAS 106(24): 9749-9754.
- ANTONELLI, A. & SANMARTÍN, I. 2011. Why are there so many plant species in the Neotropics? Taxon 60(2): 403-414.
- ANTONELLI, A., ZIZKA, A., SILVESTRO, D., SCHARN, R., CASCALES-MIÑANA, B. & BACON, C.D. 2014. An engine for global plant diversity: highest evolutionary turnover and emigration in the American tropics. Front. Genet. 6: 130. doi: 10.3389/fgene.2015.00130
- APPELHANS, M.S., KEBLER, P.J.A., SMETS, E., RAZAFIMANDIMBISON, S.G. & JANSSENS, S.B. 2012. Age and historical biogeography of the pantropically distributed Spathelioideae (Rutaceae, Sapindales). J. Biogeogr. 39: 1235-1250.
- ARAKAKI, M., CHRISTIN, P.-A., NYFFELERB, R., LENDELB, A., EGGLI, U., OGBURN, M., SPRIGGS, E., MOORE, M.J. & EDWARDS, E.J. 2011. Contemporaneous and recent radiations of the world’s major succulent plant lineages. PNAS 108: 8379-8384.
- ARNAUD-HAOND, S. et al. 2007. Vicariance patterns in the Mediterranean Sea: east-west cleavage and low dispersal in the endemic seagrass *Posidonia oceanica*. J. Biogeogr. 34(6): 963-976.
- BACON, C.D., MORAES R., M., JARAMILLO, C. & ANTONELLI, A. 2017. Endemic palm species shed light on habitat shifts and assembly of the Cerrado and Restinga floras. Mol. Phyl. Evol. 110: 127-133.
- BAKER, W.J. & DRANSFIELD, J. 2000. Towards a biogeographic explanation of the calamoid palms. In WILSON, K.R. & MORRISON, D.A. (eds.) Monocots: systematics and evolution. CSIRO, Melbourne, p. 545-553.
- BARDON, L., CHAMAGNE, J., DEXTER, K.G., SOTHERS, C.A., PRANCE, G.T. & CHAVE, J. 2013. Origin and evolution of Chrysobalanaceae: insights into the evolution of plants in the Neotropics. Bot. J. Linn. Soc. 171: 19-37.
- BARKER, N.P. et al. 2007. Molecular dating of the ‘Gondwanan’ plant family Proteaceae is only partially congruent

- with the timing of the break-up of Gondwana. *J. Biogeogr.* 34.
- BARRINGTON, D.S. 1993. Ecological and historical factors in fern biogeography. *J. Biogeogr.* 20: 275-280.
- BARROS, F. 2004. Distribuição geográfica de orquídeas do Planalto Central do Brasil. In BARROS, F. & KERBAUY, G.B. (orgs.) *Orquidologia sul-americana: uma compilação científica*. São Paulo, p 147-153.
- BARTHLOTT, W. 1983. Biogeography and evolution in neo- and paleotropical Rhipsalinae (Cactaceae). *Sonderbd. naturwiss. Ver. Hamburg* 7: 241-248.
- BELL, C.D. & DONOGHUE, M.J. 2005. Phylogeny and biogeography of Valerianaceae (Dipsacales) with special reference to the South American valerians. *Org. Divers. & Evol.* 5: 147-159.
- BERRY, P.E. & RIINA, R. Insights into the diversity of the Pantepui flora and the biogeographic complexity of the Guayana Shield. *Biol. Skr.* 55: 145-167.
- BOUCHENAK-KHELLADI, Y., VERBOOM, G.A., SAVOLAINEN, V. & HODKINSON, T.R. 2010. Biogeography of the grasses (Poaceae): a phylogenetic approach to reveal evolutionary history in geographical space and geological time. *Bot. J. Linn. Soc.* 162: 543-557.
- CANTLEY, J.T., SWENSON, N.G., MARKEY, A. & KEELEY, S.C. 2014. Biogeographic insights on Pacific *Coprosma* (Rubiaceae) indicate two colonizations to the Hawaiian Islands. *Bot. J. Linn. Soc.* 174: 412-424.
- CARVALHO, M.R., HERRERA, F.A., JARAMILLO, C.A., WING, S.L. & CALLEJAS, R. 2011. Paleocene Malvaceae from Northern South America and their biogeographic implications. *Amer. J. Bot.* 98(8): 1337-1355.
- CHACON, J., ASSIS, M.C., MEEROW, A.W. & RENNER, S.S. 2012. From East Gondwana to Central America: historical biogeography of the Alstroemeriaceae. *J. Biogeogr.* 39: 1806-1818.
- CHANDERBALI, A.S., VAN DER WERFF, H. & RENNER, S.S. 2001. Phylogeny and historical biogeography of Lauraceae: evidence from the chloroplast and nuclear genomes. *Ann. Missouri Bot. Gard.* 88(1): 104-134.
- CHRISTENHUSZ, M.J.M. & CHASE, M.K. 2013. Biogeographical patterns of plants in the Neotropics – dispersal rather than plate tectonics is most explanatory. *Bot. J. Linn. Soc.* 171: 277-286.**
- CLAYTON, J.W., SOLTIS, P.S. & SOLTIS, D.E. 2009. Recent long-distance dispersal overshadows ancient biogeographical patterns in a pantropical angiosperm family (Simaroubaceae, Sapindales). *Syst. Biol.* 58(4): 395-410.
- CODY, S., RICHARDSON, J.E., RULL, V., ELLIS, C. & PENNINGTON, R.T. 2010. The Great American Biotic Interchange revisited. *Ecography* 33: 326-332.
- CONCEIÇÃO, A.A., RAPINI, A., CARMO, F.F., BRITO, J.C., SILVA, G.A., NEVES, S.P.S. & JACOBI, C.M. 2016. Rupestrian grassland vegetation, diversity, and origin. In G.W. Fernandes (ed.) *Ecology and conservation of mountaintop grasslands in Brazil*, p. 105-127. Springer, Basel.
- CONRAN, J.G. 1995. Family distributions in the Liliiflorae and their biogeographical implications. *J. Biogeogr.* 22: 1023-1034.
- COOK, L.G. & CRISP, M.D. 2005. Directional asymmetry of long-distance dispersal and colonization could mislead reconstructions of biogeography. *J. Biogeogr.* 32: 741-754.
- COX, C.B. 2001. The biogeographic regions reconsidered. *J. Biogeogr.* 28: 511-523.
- CRISP, M.D. & COOK, L.G. 2007. A congruent molecular signature of vicariance across multiple plant lineages. *Mol. Phylogen. Evol.* 43(3): 1106-1117.
- CRISP, M.D. & COOK, L.G. 2012. Phylogenetic niche conservatism: what are the underlying evolutionary and ecological causes? *New Phytologist* 2012.
- CROIZAT, L. 1952. *Manual of Phytogeography*. Uitgeverij Dr. W. Junk, The Hague.
- CRONK, Q.C.B. 1992. Relict floras of Atlantic islands: patterns assessed. *Biol. J. Linn. Soc.* 46: 91-103.
- DAMASCENO, R., STRANGAS, M.L., CARNAVAL, A.C., RODRIGUES, M.T. & MORITZ, C. 2014. Revisiting the vanishing refuge model of diversification. *Front. Genet.* 6. doi: 10.3389/fgene.2014.00353
- DAVIS, C.C., BELL, C.D., MATHEWS, S. & DONOGHUE, M.J. 2002. Laurasian migration explains Gondwanan disjunctions: evidence from Malpighiaceae. *Proc. Nat. Acad. Sci.* 99(10): 6833-6837.
- DAVIS, C.C., FRITSCH, P.W., BELL, C.D. & MATHEWS, S. 2004. High-latitude Tertiary migrations of an exclusively tropical clade: evidence from Malpighiaceae. *Int. J. Pl. Sci.* 165(4 Suppl.): S107-S121.
- DAVIS, C.C., WEBB, C.O., WURDACK, K.J., JARAMILLO, C.A. & DONOGHUE, M.J. 2005. Explosive radiation of Malpighiales supports a Mid-Cretaceous origin of modern tropical rain forests. *Amer. Natur.* 165(3): E36-E65.
- DIAS, P., UDULUTSCH, R.G. & PIRANI, J.R. 2015. Molecular phylogeny and biogeography of the South American genus *Metrodorea* (Rutaceae). *Turkish Journal of Botany* 39. doi:10.3906/bot-1410-49.
- DICK, C.W., BERMINGHAM, E., LEMES, M.R. & GRIBEL, R. 2007. Extreme long-distance dispersal of the lowland tropical rainforest tree *Ceiba pentandra* L. (Malvaceae) in Africa and the Neotropics. *Mol. Ecol.* 16: 3039-3049.
- DICK, C.W. & HEUERTZ, M. 2008. The complex biogeographic history of a widespread tropical tree species. *Evolution* 62: 2760-2774.
- DONOGHUE, M.J., BELL, C.D. & LI, J. 2001. Phylogenetic patterns in northern hemisphere plant geography. *Int. J. Plant Sci.* 162(6 Suppl.): S41-S52.
- DONOGHUE, M.J. & EDWARDS, E.J. 2014. Biome shifts and niche evolution in plants. *Annu. Rev. Ecol. Syst.* 45: 547-572.**

- DOYLE, J.A., SAUQUET, H., SCHARASCHKIN, T. & LE THOMAS, A. 2004. Phylogeny, molecular and fossil dating, and biogeographic history of Annonaceae and Myristicaceae (Magnoliales). Int. J. Pl. Sci. 165(4 Suppl.): S55-S67.
- DUARTE, L.S., BERGAMIN, R.S., MARCÍLIO-SILVA, V., SEGER, G.D.S. & MARQUES, M.C.M. 2014. Phylobetadiversity among forest types in the Brazilian Atlantic Forest Complex. PlosOne 9.
- DRYFLOR 2016. Plant diversity patterns in neotropical dry forests and their conservation implications. Science 353:1383-1387.
- DUPUTIÉ, A., SALICK, J. & McKEY, D. 2011. Evolutionary biogeography of *Manihot* (Euphorbiaceae), a rapidly radiating Neotropical genus restricted to dry environments. J. Biogeogr. 38: 1033-1043.
- ECHTERNACHT, L., TROVÓ, M., OLIVEIRA, C.T. & PIRANI, J.R. 2011. Areas of endemism in the Espinhaço Range in Minas Gerais, Brazil. Flora 206: 782-791.
- EISERHARDT, W.L., COUVREUR, T.L.P. & BAKER, W.J. 2017. Plant phylogeny as a window on the evolution of hyperdiversity in the tropical rainforest biome. New Phytol. 214: 1408-1422.**
- EMERSON, B.C. 2002. Evolution on oceanic islands: molecular phylogenetic approaches to understanding pattern and process. Mol. Ecol. 11: 951-966.
- EXELL & STACE 1972. Patterns of distribution in the Combretaceae in VALENTINE, D.H. (ed.) Taxonomy, Phytogeography and Evolution. Academic Press, London, p. 307-323.
- EZCURRA, C., BACCALÁ, N. & WARDLE, P. 2008. Floristic relationships among vegetation types of New Zealand and the Southern Andes: similarities and biogeographic implications. Ann. Bot. 101: 1401-1412.
- FELFILI, J.M. & SILVA JR., M.C. (org.) 2001. Biogeografia do bioma cerrado. Estudo fitofisionômico na Chapada do Espigão Mestre do São Francisco. Universidade de Brasília. Brasília.
- FERES, F., Zucchi, M.I., Souza, A.P., Amaral, M.C.E. & Bittrich, V. 2009. Phylogeographic studies of Brazilian “campo-rupestre” species: *Wunderlichia mirabilis* Riedel ex Baker (Asteraceae). Biotemas 22(1): 17-26.
- FIASCHI, P. & PIRANI, J.R. 2008. Padrões de distribuição geográfica das espécies de *Schefflera* (Araliaceae) do Brasil extra-amazônico. Revta Brasil. Bot. 31(4): 633-644.
- FIASCHI, P. & PIRANI, J.R. 2009. Review of plant biogeographic studies in Brazil. J.Syst. Evol. 47(5): 477-496.**
- FIASCHI, P., PIRANI, J.R., HEIDEN, G. & ANTONELLI, A. 2016. Biogeografia da flora da América do Sul. In: Carvalho, C. & Almeida, E.AB. (orgs.) Biogeografia da América do Sul. Ed. 2. GEN, Roca, São Paulo.**
- FINE, P.V.A. et al. 2005. The contribution of edaphic heterogeneity to the evolution and diversity of Burseraceae trees in the Western Amazon. Evolution 59(7): 1464-1478.
- FLORES, A.S. & TOZZI, A.M.G.A. 2008. Phytogeographical patterns of *Crotalaria* species (Leguminosae-Papilionoideae) in Brazil. Rodriguésia 59(3): 477-486.
- FLORIM, R. 1963. The distribution of conifer and taxad genera in time and space. Acta Hort. Berg. 20(4): 121-312.
- FORD, K.A., WARD, J.M., SMISSSEN, R.D., WAGSTAFF, R.D. & BREITWIESER, I. 2007. Phylogeny and biogeography of *Craspedia* (Asteraceae: Gnaphalieae) based on ITS, ETS and *psbA-trnH* sequence data. Taxon 56(2): 783-794.
- FRIS, E.M., CRANE, P.R. & PEDERSEN, K.R. 2011. Early flowers and angiosperm evolution. Cambridge Univ. Press, Cambridge.**
- GALLEY, C. & LINDER, H.P. 2006. Geographical affinities of Cape flora, South Africa. J. Biogeogr. 33: 236-250.
- GARCÍA-VERDUGO, C., MAIRAL, M., MONROY, P., SAJEVA, M. & CAUJAPÉ-CASTELLS, J. 2017. The loss of dispersal on islands hypothesis revisited: Implementing phylogeography to investigate evolution of dispersal traits in *Periploca* (Apocynaceae). J. Biogeogr. 44: 2595-2606.
- GARCIA, R.J.F., LONGHI-WAGNER, H.M., PIRANI, J.R. & MEIRELLES, S.T. 2009. A contribution to the phytogeography of Brazilian *campos*: an analysis based on Poaceae. Revta Bras. Bot. 32(4): 703-713.
- GASTON, K.J. 2003. The structure and dynamics of geographic ranges. Oxford University Press, Oxford.
- GEIGER, J.M.O., RANKER, T.A., NEALE, J.M.R. & KLIMAS, S.T. 2007. Molecular biogeography and origins of the Hawaiian fern flora. Brittonia 59(2): 142-158.
- GENTRY, A.H. 1986. Endemism in tropical versus temperate plant communities. In SOULÉ, M. (ed.) Conservation Biology: the science of scarcity and diversity. Sinauer Associates, Sunderland, p. 153-181.
- GIULIETTI, A.M. & PIRANI, J.R. 1988. Patterns of geographic distribution of some species from the Espinhaço Range, Minas Gerais and Bahia, Brazil. In: VANZOLINI, P.E. & HEYER, W.R. (eds). Proceedings of a workshop on Neotropical distribution patterns, p. 39-69. Academia Brasileira de Ciências, Rio de Janeiro.
- GIVNISH, T.J., EVANS, T.M., ZJHRA, M.L., PATTERSON, T.B., BERRY, P.E. & SYTSMA, K.J. 2000. Molecular evolution, adaptative radiation, and geographic diversification in the amphiatlantic family Rapateaceae: evidence from *ndhF* sequences and morphology. Evolution 54(6): 1915-1937.
- GIVNISH, T.J., MILLAN, K.C., EVANS, T.M., HALL, J.C., PIRES, J.C., BERRY, P.E. & SYTSMA, K.J. 2004. Ancient vicariance or recent long-distance dispersal? Inferences about phylogeny and South American-African disjunctions in Rapateaceae: and Bromeliaceae based on *ndhF* sequence data. Int. J. Pl. Sci. 165 (4 Suppl.): S35-S54.
- GIVNISH, T.J. & RENNER, S.S 2004. Tropical intercontinental disjunctions: Gondwana breakup, immigration from

- the Boreotropics, and transoceanic dispersal. *Int. J. Pl. Sci.* 165(4 Suppl.): S1-S6.
- GIVNISH, T.J., BARFUSS, M.H.G., VAN EE, B., RIINA, R., SCHULTE, K., HORRES, R., GONSISKA, P.A., JABAILY, R.S., CRAYN, D.M., SMITH, J.A.C., WINTER, K., BROWN, G.K., EVANS, T.M., HOLST, B.K., LUTHER, H., TILL, W., ZIZKA, G., BERRY, P.E. & SYTSMA, K.J. 2011. Phylogeny, adaptive radiation, and historical biogeography in Bromeliaceae: insights from an eight-locus plastid phylogeny. *Amer. J. Bot.* 98(5): 872–895.
- GOLDBLATT, P. (ed.) 1993. *Biological relationships between Africa and South America*. Yale Univ. Press, New Haven.
- GONÇALVES, E.G., MAYO, S.J., SLUYS, M.A.V. & SALATINO, A. 2007. Combined genotypic-phenotypic phylogeny of the tribe Spathicarpeae (Araceae) with reference to independent events of invasion to Andean regions. *Mol. Phylogen. Evol.* 43(3): 1033-1039.
- GOOD, R. 1964. *The geography of flowering plants*. (ed. 3) Longman Group, London.
- GOTTSCHING, M., DIANE, N., HILGER, H.H. & WEIGEND, M. 2004. Testing hypotheses on disjunctions present in the primarily woody Boraginales: Ehretiaceae, Cordiaceae, and Heliotropiaceae, inferred from *ITS1* sequence data. *Int. J. Pl. Sci.* 165(4 Suppl.): S123-S135.
- GRAHAM, A. 2003. Historical phylogeography of the Greater Antilles. *Brittonia* 55(4): 357-383.
- GRANVILLE, J.J. 1992. Un cas de distribution particulier: les espèces forestières peri-amazoniennes. *Rendu Soc. Biogéogr.* 68(1): 1-33.
- GRAVENDEEL, B., SCHUITEMAN, A. & VOGEL, E.F. 2005. Molecular dating and vicariance analysis of Coelogyninae (Orchidaceae). In BAKKER, F.T. et al. (eds.) *Plant species-level systematics. New perspectives on patterns and process*. A.R.G. Gantner Verlag, Ruggell.
- GREHAN, J.R. 2016. Biogeographic relationships between Macaronesia and the Americas. *Austr. Syst. Bot.* 29: 447-472.
- HAFFER, J. 2001. Hypotheses to explain the origin of species in Amazonia. In VIEIRA, I.C.B. et al. (orgs.) *Diversidade biológica e cultural da Amazônia*. Museu Paraense Emilio Goeldi, Belém, p. 45-118.
- HARBAUGH, D.T. et al. 2009. The Hawaiian Archipelago is a stepping stone for dispersal in the Pacific : an example from the plant genus *Melicope* (Rutaceae). *J. Biogeogr.* 36: 230-241.
- HARLEY, R.M. 1988. Evolution and distribution of *Eriope* (Labiatae), and its relatives, in Brazil. In: VANZOLINI, P.E. & HEYER, W.R. (eds). *Proceedings of a workshop on Neotropical distribution patterns*, p. 71-120. Academia Brasileira de Ciências, Rio de Janeiro.
- HARRIS, A.J. & XIANG, Q.-Y. 2009. Estimating ancestral distributions of lineages with uncertain sister groups: a statistical approach to Dispersal-Vicariance Analysis and a case using *Aesculus* L. (Sapindaceae) including fossils. *J. Syst. Evol.* 47: 349-368.
- HAUFLER, C.H. 2007. Genetics, phylogenetics, and biogeography: considering how shifting paradigms and continents influence fern diversity. *Brittonia* 56(2): 108-114.
- HEADS, M. 2017. Metapopulation vicariance explains old endemics on young volcanic islands. *Cladistics* 2017: 1-20.
- HOHMANN, S., KADEREIT, J.W. & KADEREIT, G. 2006. Understanding Mediterranean-Californian disjunctions: molecular evidence from Chenopodiaceae-Betoideae. *Taxon* 55(1): 67-78.
- HUBBELL, S.P. 2001. *The Unified Theory of Biodiversity and Biogeography*. Princeton University Press, Princeton.
- HUBER, O. 1994. Recent advances in the phylogeography of the Guyana region, South America. *Mém. Soc. Biogéogr.* (sér. 3) 4: 53-63.
- HUGHES, C.E., PENNINGTON, R.T. & ANTONELLI, A. 2013. Neotropical plant evolution: assembling the big picture. *Bot. J. Linn. Soc.* 171: 1-18.**
- HUMPHRIES, C.J. 1981. Biogeographical methods and the Southern Beeches (Fagaceae: *Nothofagus*). In FUNK, V.A. & BROOKS, D.R. (eds.) *Advances in Cladistics*. The New York Botanical Garden, New York. p. 177-207.
- IGANCI, J.R.V., HEIDEN, G., MIOTTO, S.T.S. & PENNINGTON, R.T. 2011. Campos de Cima da Serra: the Brazilian Subtropical Highland Grasslands show an unexpected level of plant endemism. *Bot. J. Linn. Soc.* 2011.
- JABAILY, R.S. & SYTSMA, K.J. 2013. Historical biogeography and life-history evolution of Andean *Puya* (Bromeliaceae). *Bot. J. Linn. Soc.* 171: 201-224.
- JANSSEN, T., KREIER, H.-P. & SCHNEIDER, H. 2007. Origin and diversification of African ferns with special emphasis on Polypodiaceae. *Brittonia* 59(2): 159-181.
- KADEREIT, H.J. & BALDWIN, B.G. 2012. Western Eurasian-western North American disjunct plant taxa: The dry-adapted ends of formerly widespread north temperate mesic lineages—and examples of long-distance dispersal. *Taxon* 61(1): 3-17.
- KADEREIT, H.J. et al. 2005. Terrestrial growth and marine dispersal? Comparative phylogeography of coastal plant species at a European scale. *Taxon* 54(4): 861-876.
- KATINAS, L. & CRISCI, J.V. 2008. Reconstructing the biogeographical history of two plant genera with different dispersion capabilities. *J. Biogeogr.* 35: 1374-1384.
- KATO, M. 1993. Biogeography of ferns: dispersal nad vicariance. *J. Biogeogr.* 20: 265-274.
- KEELEY, S.C., FORSMAN, Z.H. & CHAN, R. 2006. A phylogeny of the “evil-tribe” (Veronieae: Compositae)

- reveals Old/New World dispersal: support from separate and combined congruent data sets (*trnL-F*, *ndhF*, ITS). Mol. Phylog. Evol. 2006.
- KERKHOFF, A.J., MORIARTY, P.E. & WEISER, M.D. 2014. The latitudinal species richness gradient in New World woody angiosperms is consistent with the tropical conservatism hypothesis. PNAS 11(22): 8125-8130.**
- KRAMER, K.U. 1993. Distribution patterns in major pteridophyte taxa relative to those of angiosperms. J. Biogeogr. 20: 287-291.
- LAGOMARSINO, L.P., CONDAMINE, F.L., ANTONELLI, A., MULCH, A. & DAVIS, C.C. 2016. The abiotic and biotic drivers of rapid diversification in Andean bellflowers (Campanulaceae). New Phytol. 210: 1430-1442.
- LAVIN, M. 1998. Origin, diversity, and biogeography of neotropical Fabaceae. Proceedings of the VI Congreso Latinoamericano de Botánica. Mon. Syst. Bot. Missouri Bot. Gard. 68: 131-145.
- LAVIN, M., THULIN, M., LABAT, J.-N. & PENNINGTON, R.T. 2000. Africa, the odd man out: molecular biogeography of dalbergioid legumes suggests otherwise. Syst. Biol. 25(3): 449-467.
- LAVIN, M. et al. 2004. Metacommunity processes rather than continental tectonic history better explain geographically structured phylogenies in legumes. Phil. Trans. Royal Soc. London B 359: 150-.
- LEITE, Y.L.R. et al. 2016. Neotropical forest expansion during the last glacial period challenges refuge hypothesis. PNAS 113(4): 1008-1013.**
- LINDER, H.P. 2014. The origin of African plant diversity. Front. Genet. 6: doi: 10.3389/fevo.2014.00038.
- LINDER, H.P. & CRISP, M.D. 1995. *Nothofagus* and Pacific biogeography. Cladistics 11: 5-32.
- LONGHI-WAGNER, H.M. & ZANIN, A. 1998. Padrões de distribuição geográfica de *Stipa*. Revta. bras. Bot. 21(2): 167-175.
- LOHMANN, L.G., BELL, C.D., CALIÓ, M.F. & WINKWORTH, R.C. 2013. Pattern and timing of biogeographical history in the Neotropical tribe Bignoniaceae (Bignoniaceae). Bot. J. Linn. Soc. 171(1): 154-170.
- LÖHNE, C. et al. 2008. Biogeography of Nymphaeales: extant patterns and historical events. Taxon 57(4): 1123-1146.
- LÖWENBERG-NETO, P. & CARVALHO, C.J.B. 2004. Análise Parcimoniosa de Endemicidade (PAE) na delimitação de áreas de endemismos: inferências para conservação da biodiversidade na Região Sul do Brasil. Natureza & Conservação 2(2): 58-65.
- MACHADO, A.F.P., ROSTED, N., BRUUN-LUND, S., PEREIRA, R.A.S. & QUEIROZ, L.P. 2018. Atlantic forests to all Americas: Biogeographical history and divergence times of Neotropical *Ficus* (moraceae). Mol. Phylog. Evol. 122: 46-58.
- MAGALLÓN, S.A. 2004. Dating lineages: molecular and paleontological approaches to the temporal framework of clades. Int. J. Pl. Sci. 165(4 Suppl.): S7-S21.
- MAO, K., MILNE, R.I., ZHANG, L., PENG, Y., LIU, J., THOMAS, P., MILL, R.R. & RENNER, S.S. 2012. Distribution of living Cupressaceae reflects the breakup of Pangea. PNAS 2012.
- MARTINS, F.M. 2011. Historical biogeography of the Brazilian Atlantic forest and the Carnaval–Moritz model of Pleistocene refugia: what do phylogeographical studies tell us? Biol. J. Linn. Soc.
- MARSHALL, C.R. 2017. Five palaeobiological laws needed to understand the evolution of the living biota. Nat. Ecol. Evol. 1.
- MARX, H.E., DENTANT, C., RENAUD, J., DELUNEL, R., TANK, D.C. & LAVERGNE, S. 2017. Riders in the sky (islands): Using a mega-phylogenetic approach to understand plant species distribution and coexistence at the altitudinal limits of angiosperm plant life. J. Biogeogr. 44: 2618-2630.
- MAURIN O., DAVIES, T.J., BURROWS, J.E., DARU, B.H., YESSOUFOU, K., MUASYA, A.M., van der BANK, M. & BOND, W.J. 2014. Savanna fire and the origin of the “underground forests” of Africa. New Phytol. 204: 201-214.
- McCOY, E.D. & HECK, K.L. 1976. Biogeography of corals seagrasses, and mangroves: an alternative to the center of origin concept. Syst. Zool. 25(3): 201-210.
- McGLONE, M. S. 1996. When history matters: scale, time, climate and tree diversity. Global Ecology and Biogeography Letters 5: 309-314.
- McGLONE, M.S. 2005. Goodbye Gondwana. J. Biogeogr. 32: 739-740.
- MEIADO, M.V., MACHADO, M.C., ZAPPI, D.C., TAYLOR, N.P. & SIQUEIRA FILHO, J.A. 2015. Ecological attributes, geographic distribution and endemism of cacti from the São Francisco watershed. Gaia Scientia 9(2): 40-53.
- MENINI-NETO, L., FURTADO, S.G., ZAPPI, D.C., OLIVEIRA FILHO, A.T. & FORZZA, R.C. 2015. Biogeography of epiphytic angiosperms in the Brazilian Atlantic forest, a world biodiversity hotspot. Braz. J. Bot. 2015.
- MELLO-SILVA, R. et al. 2011. Five vicarious genera from Gondwana: the Velloziaceae as shown by molecules and morphology. Ann. Bot. 108: 87-102.
- MENEZES, M.O., ZAPPI, D.C., MORAES, E.M., FRANCO, F.F., TAYLOR, N.P., COSTA, I.R. & LOIOLA, M.I.B. 2016. Pleistocene radiation of coastal species of *Pilosocereus* (Cactaceae) in eastern Brazil. J. Arid Environ. 135: 22-32.

- MENINI NETO, L., FURTADO, S.G., ZAPPI, D.C., OLIVEIRA FILHO, A.T. & FORZZA, R.C. 2015. Biogeography of epiphytic Angiosperms in the Brazilian Atlantic forest, a world biodiversity hotspot. Braz. J. Bot. 2015.
- MILNE, R.I. 2006. Northern Hemisphere plant disjunctions: a window on Tertiary land bridges and climate changes? Ann. Bot. 98: 465-472.
- MILNE, R.I. & ABBOTT, R.J. 2002. The origin and evolution of Tertiary relict floras. Adv. Bot. Res. 38: 281-314.
- MITTELBACH, G.G. et al. 2007. Evolution and the latitudinal diversity gradient: speciation, extinction and biogeography. Ecology Letters 10: 315-331.
- MOORE, A.J., BARTOLI, A., TORTOSA, R.D. & BALDWIN, B.G. 2012. Phylogeny, biogeography, and chromosome evolution of the amphitropical genus *Grindelia* (Asteraceae) inferred from nuclear ribosomal and chloroplast sequence data. Taxon 61(1): 211-230.
- MOREIRA, G.R.P., FERRARI, A., MONDIN, C.A. & CERVI, A.C. 2011. Panbiogeographical analysis of passion vines at their southern limit of distribution in the Neotropics. Revta. bras. Biociências, Porto Alegre, 9, supl.1: 28-40.
- MOREIRA-MUÑOZ, A. 2007. The Austral floristic realm revisited. J. Biogeogr. 34.
- MOREIRA-MUÑOZ, A. 2011. Plant geography of Chile. Springer, Dordrecht.
- MORRONE, J.J. 2010. Fundamental biogeographic patterns across the Mexican Transition Zone: an evolutionary approach. Ecography 33: 355-361.
- MORTON, J.K. 1972. Phytogeography of the West African mountains. In VALENTINE, D.H. (ed.) Taxonomy, phytogeography and evolution. Academic Press, London. p. 221-236.
- MUELLNER, A.N., SAVOLAINEN, V., SAMUEL, R. & CHASE, M.W. 2006. The mahogany family “out-of-Africa”: divergence time estimation, global biogeographic patterns inferred from plastid *rbcL* DNA sequences, extant, and fossil distribution of diversity. Mol. Phyl. Evol. 2006.
- NAUHEIMER, L., METZLER, D. & RENNER, S.S. 2012. Global history of the ancient monocot family Araceae inferred with models accounting for past continental positions and previous ranges based on fossils. New Phytol. 195: 938-950.
- NELSON, B.W., FERREIRA, C.A.C., SILVA, M.F. & KAWASAKI, M.L. 1990. Endemism centres, refugia and botanical collection density in Brazilian Amazonia. Nature 345: 714-715.
- NIE, Z., DENG, T., MENG, Y., SUN, H. & WEN, J. 2013. Post-Boreotropical dispersals explain the pantropical disjunction in *Paederia* (Rubiaceae). Ann. Bot. 111: 873-886.
- NOBEN, S., KESSLER, M., QUANDT, D., WEIGAND, A., WICKE, S., KRUG, M. & LEHNERT, M. 2017. Biogeography of the Gondwanan tree fern family Dicksoniaceae – A tale of vicariance, dispersal and extinction. J. Biogeogr. 44: 2648-2659.
- NOVAES, R.M.L., LEMOS-FILHO, J.P., RIBEIRO, R.A. & LOVATO, M.B. 2010. Phylogeography of *Plathymenia reticulata* (Leguminosae) reveals patterns of recent expansion towards Northeastern Brazil and Southern cerrados in Eastern Tropical South America. Mol. Ecol. 19: 985-998.
- OLIVEIRA, A.A. & DALY, D. 1999. Geographic distribution of tree species in the region of Manaus, Brazil: implications for regional diversity and conservation. Biodiversity and Conservation 8: 1231-1245.
- OLIVEIRA, L.O., ROSSI, A.A.B., MARTINS, E.R., BATISTA, F.R.C. & SILVA, R.S. 2010. Molecular phylogeography of *Carapichea ipecacuanha*, an amphitropical shrub that occurs in the understory of both semideciduous and evergreen forests. Mol. Ecol. 19: 1410-1422.
- OLIVEIRA-FILHO, A.T. & FONTES, M.A.L. 2000. Patterns of floristic differentiation among Atlantic Forests in Southeastern Brazil and the influence of climate. Biotropica 32(4b): 739-810.
- OLIVEIRA-FILHO, A.T., JARENKOW, J.A. & RODAL, M.J.N. 2006. Floristic relationships of seasonally dry forests of Eastern South America based on tree species distribution patterns. In R.T. Pennington, G.P. Lewis & J.A. Ratter (eds) Neotropical savannas and seasonally dry forests. Plant diversity, biogeography and conservation. CRC Press Taylor & Francis Group. Boca Raton, p. 159-192.
- OLIVEIRA-FILHO, A.T. & RATTER, J.A. 1995. A study of the origin of central Brazilian forests by the analysis of plant species distribution patterns. Edinb. J. Bot. 52(2): 141-194.
- PAPADOPULOS, A.S.T., KAYE, M., DEVAUX, C. et al. 2014. Evaluation of genetic isolation within an island flora reveals unusually widespread local adaptation and supports sympatric speciation. Phil. Trans. Royal Soc. B 2014.
- PENNINGTON, R.T. & DICK, C.W. 2004. The role of immigrants in the assembly of the South American rainforest tree flora. Phil. Trans. Royal Soc. London B 359: 1611-1622.
- PENNINGTON, R.T. & HUGHES, C.E. 2014. The remarkable congruence of New and Old World savanna origins. New Phytol. 204: 4-6.
- PENNINGTON, R.T., HUGHES, M. & MOONLIGHT, P.W. 2015. The origins of the tropical rainforest hyperdiversity. Trends Pl. Sci. 20 (11): 693-695.
- PENNINGTON, R.T., LAVIN, M., SÄRKINEN, T., LEWIS, G.P., KLIGAARD, B.B. & HUGHES, C.E. 2010. Contrasting plant diversification histories within the Andean biodiversity hotspot. PNAS 107(31): 13783-13787.
- PENNINGTON, R.T., LEWIS, G.P. & RATTER, J.A. (eds.) 2006. Neotropical savannas and seasonally dry



**forests. Plant diversity, biogeography, and conservation. CRC Press Taylor and Francis Group, Boca Raton.**

- PENNINGTON, R.T., PRADO, D.E. & PENDY, C.A. 2000. Neotropical seasonally dry forests and Quaternary vegetation changes. J. Biogeogr. 27(2): 261-273.
- PENNINGTON, R.T., RICHARDSON, J.E. & LAVIN, M. 2006. Insights into the historical construction of species-rich biomes from dated phylogenies, neutral ecological theory and phylogenetic community structure. New Phytol. 2006: 605-614.
- PÉREZ-CRESPO, M.J., ORNELAS, J.F., GONZÁLEZ-RODRÍGUEZ, A. RUIZ-SABCHEZ, E., VÁSQUEZ-AGUILAR, A.A. & RAMÍREZ-BARAHONA, S. 2017. Phylogeography and population differentiation in the *Psittacanthus calyculatus* (Loranthaceae) mistletoe: a complex scenario of climate-volcanism interaction along the Trans-Mexican Volcanic Belt. J. Biogeogr. 44: 2501-2514.
- PÉREZ-ESCOBAR, O.A., CHOMICHI, G., CONDAMINE, F.L. et al. 2017. Recent origin and rapid speciation of Neotropical orchids in the world's richest plant diversity hotspot. New Phytol. 215: 891-905.
- PERRET, M., CHAUTEMS, A. & SPICHIGER, R. 2006. Dispersal-vicariance analyses in the tribe Sinningieae (Gesneriaceae): a clue to understanding biogeographical history of Brazilian Atlantic Forest. Annals of the Missouri Botanical Garden 93: 340-358.
- PFEIL, B.E. & CRISP, M.D. 2008. The age and biogeography of *Citrus* and the orange subfamily (Rutaceae: Aurantioideae) in Australasia and New Caledonia. Amer. J. Bot. 95(12): 1621-1631.
- PINHEIRO, F., COZZOLINO, S., DRAPER, D., BARROS, F., FÉLIX, L.P., FAY, M.F. & PALMA-SILVA, C. 2014. Rock outcrop orchids reveal the genetic connectivity and diversity of inselbergs of northeastern Brazil. BMC Evol. Biol. 14: 49-57.
- PIRANI, J.R. 1989. Diversidade taxonômica e padrões de distribuição geográfica em *Picramnia* (Simaroubaceae) no Brasil. Acta bot. bras. 4(1): 19-44.
- PIRES, M.M., GALETTI, M., DONATTI, C.I., PIZO, M.A., DIRZO, R. & GUIMARÃES JR., P.R. 2014. Reconstructing past ecological networks: the reconfiguration of seed-dispersal interactions after megafaunal extinction. Oecologia 175: 1247-1256.
- PIRIE, M.D., KLITGAARD, B.B. & PENNINGTON, R.T. 2009. Revision and biogeography of *Centrolobium* (Leguminosae – Papilionoideae). Syst. Bot. 34(2): 345-359.
- PLANA, V., GASCOIGNE, A., FORREST, L.L., HARRIS, D. & PENNINGTON, R.T. 2004. Pleistocene and pre-Pleistocene *Begonia* speciation in Africa. Mol. Phylog. Evol. 31: 449-461.
- PRADO, D.E. 2000. Seasonally dry forests of Tropical South America: from forgotten ecosystems to a new phytogeographic unit. Edinb. J. Bot. 57(3): 437-461.
- PRADO, D.E. & GIBBS, P.E. 1993. Patterns of species distribution in the dry seasonal forests of South America. Ann. Missouri Bot. Gard. 80: 902-927.
- PRANCE, G.T. 1988. Padrões de distribuição e especiação em Chrysobalanaceae e outras famílias de plantas amazônicas. Acta bot. bras. 1(2): 1-25. (supl.).
- PRANCE, G.T. 1994. A comparison of the efficacy of higher taxa and species numbers in the assessment of biodiversity in the neotropics. Phil. Trans. Royal Soc. Lond. B 345: 89-99.
- PRANCE, G.T. & MORI, S.A. 1983. Dispersal and distribution of Lecythidaceae and Chrysobalanaceae. Sonderbd. naturwiss. Ver. Hamburg 7: 163-186.
- PREBBLE, J.M., CUPIDO, C.N., MEUDT, H.M. & GARNOCK-JONES, P.J. 2011. First phylogenetic and biogeographical study of the southern bluebells (*Wahlenbergia*, Campanulaceae). Mol. Phylog. Evol. 59: 636-648.
- PUNYASENA, S.W., ESCHER, G. & McELWAIN, J.C. 2007. The influence of climate on spatial patterning of Neotropical plant families. J. Biogeogr.
- QUEIROZ, L.P. 2006. The Brazilian Caatinga: phytogeographical patterns inferred from distribution data of the Leguminosae. In R.T. Pennington, G.P. Lewis & J.A. Ratter (eds.) 2006. Neotropical savannas and seasonally dry forests. Plant diversity, biogeography, and conservation. CRC Press Taylor and Francis Group, Boca Raton, p. 121-157.
- QUINT, M. & CLASSEN-BOCKHOFF, R. 2008. Ancient or recent? Insights into the temporal evolution of the Bruniaceae. Org. Div. Evol. 8: 293-304.
- RAMOS, A.C.S., LEMOS-FILHO, J.P. & LOVATO, M.B. 2009. Phylogeographical structure of the neotropical Forest tree *Hymenaea courbaril* (Leguminosae: Caesalpinioideae) and its relationship with the vicariant *Hymenaea stigonocarpa* from cerrado. J. Heredity 100(2): 206-216.
- RANDO, J.G. & PIRANI, J.R. 2011. Padrões de distribuição geográfica das espécies de *Chamaecrista* sect. *Chamaecrista* ser. *Coriaceae* (Benth.) H. S. Irwin & Barneby, Leguminosae – Caesalpinioideae. Revta. Bras. Bot. 34(4): 499-513.
- RATTER, J.A., BRIDGEWATER, S., ATKINSON, R. & RIBEIRO, J.F. 1996. Analysis of the floristic composition of the Brazilian cerrado vegetation II: comparison of the woody vegetation of 98 areas. Edinb. J. Bot. 53(2): 153-180.

- RAVEN, P.H. & AXELROD, D.J. 1974. Angiosperm biogeography and past continental movements. Ann. Missouri Bot. Gard. 61: 539-673.
- RENNER, S.S. 2004. Plant dispersal across the Tropical Atlantic by wind and sea currents. Int. J. Pl. Sci. 165(4 Suppl.): S23-S33.
- RENNER, S.S., CLAUSING, G. & MEYER, K. 2001. Historical biogeography of Melastomataceae: the roles of Tertiary migration and long-distance dispersal. Amer. J. Bot. 88(7): 1290-1300.
- RIBA, M., MAYOL, M., GILES, B.E. et al. 2009. Darwin's wind hypothesis: does it work for plant dispersal in fragmented habitats? New Phytol. 183: 667-677.
- RIBEIRO, P.L., RAPINI, A., SOARES E SILVA, U.C., KONNO, T.U.P., DAMASCENA, L.S. & VAN DEN BERG, C. 2012. Spatial analyses of the phylogenetic diversity of *Minaria* (Apocynaceae): assessing priority areas for conservation in the Espinhaço Range, Brazil. Syst. Biodiv. (2012).
- RICHARDSON, J.E., PENNINGTON, R.T., PENNINGTON, T.D. & HOLLINGSWORTH, P.M. 2001. Rapid diversification of a genus of neotropical rain forest trees. Science 293: 2242-2245.
- RICHARDSON, J.E., WHITLOCK, B.A., MEEROW, A.W. & MADRIÑÁN, S. 2014. The age of chocolate: a diversification history of *Theobroma* and Malvaceae. Front. Genet. 6. doi: 10.3389/fevo.2015.00120.
- RICKLEFS, R.E. & BERMINGHAM, E. 2002. The concept of the taxon cycle in biogeography. Global Ecology & Biogeography 11: 353-361.
- RITZ, C.M., MARTINS, L., MACKLENBURG, R., GOREMYKIN, V. & HELLWIG, F.H. 2007. The molecular phylogeny of *Rebutia* (Cactaceae) and its allies demonstrates the influence of paleogeography on the evolution of South American mountain cacti. Amer. J. Bot. 94: 1321-1332.
- RIZZINI, C.T. 1979. Tratado de fitogeografia do Brasil. vol. 2 Ed. HUCITEC, EDUSP, São Paulo.
- RONCAL, J., BORCHSENIUS, F., ASMUSSEN-LANGE, C. & BALSLEV, H. 2010. Divergence times in the tribe Geonomateae (Arecaceae) coincide with Tertiary geological events. In Seberg, Petersen, Barfod & Davis (eds.) Diversity, phylogeny, and evolution in the monocotyledons. Aarhus Univ. Press, Aarhus.
- RONCAL, J., KAHN, F., MILLAN, B., COUVREUR, T.L.P. & PINTAUD, J.-C. 2013. Cenozoic colonization and diversification patterns of tropical American palms: evidence from *Astrocaryum* (Arecaceae). Bot. J. Linn. Soc. 171: 120-139.
- ROSENZWEIG, M.L. 1995. Species diversity in space and time. Cambridge University Press, Cambridge.
- RULL, V. 2007. On the origin of present Neotropical biodiversity: a preliminary meta-analysis about speciation timing using molecular phylogenies. Orsis 22: 105-119.
- RULL, V. 2011. Neotropical biodiversity: timing and potential drivers. TREE 1404.
- SAFFORD, H.DeF. 2007. Brazilian Páramos IV. Phytogeography of the campos de altitude. J. Biogeogr. 34: 1701-1722.
- SANMARTIN, I. & MESEGUER, A.S. 2016. Extinction in Phylogenetics and Biogeography: From timetrees to patterns of biotic assemblage. Frontiers in Genetics 7.
- SANMARTIN, I. & RONQUIST, F. 2004. Southern Hemisphere biogeography inferred by event-based models: plant versus animal patterns. Syst. Biol. 53: 216-243.
- SANTOS, A.M.M.; CAVALCANTI, D.R.; SILVA, J.M.C. & TABARELLI, M. 2007. Biogeographical relationships among tropical forests in north-eastern Brazil. J. Biogeogr. 34: 437-446.
- SANTOS, E.P. 1994. Paleoclimats, biodiversité et speciation, incidence sur la taxonomie de quelques espèces du genre *Salvia* L., sect. *Rudes* (Benth.) Epl. (Lamiaceae). Mém. Soc. Biogéogr. (sér. 3) 4: 11-20.
- SÄRKINEN, T.E., NEWMAN, M.F., MAAS, P.J.M., MAAS, H., POULSEN, A.D., HARRIS, D.J., RICHARDSON, J.E., CLARK, A., HOLLINGSWORTH, M. & PENNINGTON, R.T. 2007. Recent oceanic long-distance dispersal and divergence in the amphi-Atlantic rain forest genus *Renealmia* L.f. (Zingiberaceae). Mol. Phylogen. Evol. 44(3): 968-980.
- SCHNEIDER, H., SCHUETTPELZ, E., PRYER, K.M., CRANFILL, R., MAGALLÓN, S. & LUPIA, R. 2004. Ferns diversified in the shadow of the angiosperms. Nature 428: 553-557.
- SCHNITZLER, J. et al. 2011. Causes of plant diversification in the Cape Biodiversity Hotspot of South Africa. Syst. Biol. 60(3): 343-357.
- SCHRIRE, B.D., LEWIS, G.P. & LAVIN, M. 2005. Biogeography of the Leguminosae. In LEWIS, G.P. et al. (eds.) Legumes of the world. Royal Botanic Gardens, Kew, p. 21-54.
- SCOTTI-SAINTAGNE, C., DICK, C.W., CARON, H., VENDRAMIN, G.G., GUICHOUX, E., BUONANICI, A., DURET, C., SIRE, P., VALENCIA, R., LEMES, M.R., GRIBEL, R. & SCOTTI, I. 2012. Phylogeography of a species complex of lowland Neotropical rain forest trees (*Carapa*, Meliaceae). J. Biogeogr. 2012.
- SÉRSIC, A.N. et al. 2011. Emerging phylogeographic patterns of plants and terrestrial vertebrates from Patagonia. Biol. J. Linn. Soc. 103: 475-494.
- SIGRIST, M.S. & CARVALHO, C.J.B. 2008. Detection of áreas of endemismo on two spatial scales using Parsimony Analysis of Endemicity (PAE): the Neotropical region and the Atlantic Forest. Biota Neotropica 8(4).
- SILVEIRA, F.O., NEGREIROS, D., BARBOSA, N.P.U. et al. 2016. Ecology and evolution of plant diversity in the endangered *campo rupestre* a neglected conservation priority. Plant Soil 403: 129-152.

- SILVESTRO, D. ZIZKA, A., BACON, C.D., CASCALES-MIÑANA, B., SALAMIN, N. & ANTONELLI, A. 2016. Fossil biogeography: a new model to infer dispersal, extinction and sampling from palaeontological data. Phylos. Transact. Royal Soc. 2016.
- SIMON, M.F., GREYER, R., QUEIROZ, L.P., SKEMA, C., PENNINGTON, R.T. & HUGHES, C.E. 2009. Recent assembly of the Cerrado, a neotropical plant diversity hotspot, by in situ evolution of adaptations to fire. PNAS 106(48): 20359-20364.
- SIMON, M.F. & PROENÇA, C. 2000. Phytogeographic patterns of *Mimosa* (Mimosoideae, Leguminosae) in the Cerrado biome of Brazil: an indicator genus of high-altitude centers of endemism? Biol. Conserv. 96: 279-296.
- SIMPSON, M.G., JOHNSON, L.A., VILLAVERDE, T. & MATT, C. 2017. American amphitropical disjuncts: Perspectives from vascular plant analyses and prospects for future research. Amer. J. Bot. 104(11): 1600-1650.
- SOLBRIG, O.T. et al. 1972. Disjunctions in plants: a symposium. Ann. Missouri Bot. Gard. 59(2): 1-246.
- SOSA, V. et al. 2009. Hidden phylogeographic complexity in the Sierra Madre Oriental: the case of the Mexican tulip poppy *Hunnemannia fumariifolia* (Papaveraceae). J. Biogeogr. 36: 18-27.
- SOUZA-NETO, A.C., CIANCIARUSO, M.V., & COLLEVATTI, R.G. 2016. Habitat shifts shaping the diversity of a biodiversity hotspot through time: Insights from the phylogenetic structure of Caesalpinioideae in the Brazilian Cerrado. J. Biogeogr. 43(2): 340–350. <http://doi.org/10.1111/jbi.12634>
- SPICHTIGER, R., BISE, B., CALENGE, C. & CHATELAIN, C. 2006. Biogeography of the forests of the Paraguay-Paraná Basin. In R.T. Pennington, G.P. Lewis & J.A. Ratter (eds.) 2006. Neotropical savannas and seasonally dry forests. Plant diversity, biogeography, and conservation. CRC Press Taylor and Francis Group, Boca Raton, p. 193-211.
- STRÖMBERG, C.A.E. 2011. Evolution of grasses and grassland ecosystems. Ann. Rev. Earth Planet. Sci. 39: 517-544.
- STRUWE, L., HAAG, S., HEIBERG, E. & GRANT, J.R. 2011. Andean speciation and vicariance in neotropical *Macrocarpaea* (Gentianaceae–Helieae). Ann. Missouri Bot. Gard. 96: 450-469.
- SUNDUE, M.A., PARRIS, B.S., RANKER, T.A., SMITH, A.R., FUJIMOTO, E.L., ZAMORA-CROSBY, D., MORDEN, C.W., CHIOU, W.-L., CHEN, C-W., ROUHAN, G., HIRAI, R.Y. & PRADO, J. 2014. Global phylogeny and biogeography of grammitid ferns (Polypodiaceae). Mol. Phyl. Evol. 2014.
- SYTSMA, K.J., LITT, A., ZHARA, M.L., PIRES, J.C., NEPOKROEFF, M., CONTI, E., EALKER, J. & WILSON, P.G. 2004. Clades, clocks, and continents: historical and biogeographical analysis of Myrtaceae, Vochysiaceae, and relatives in the Southern Hemisphere. Int. J. Pl. Sci. 165(4 Suppl.): S85-S105.
- TERRA-ARAÚJO, M., FARIA, A.D., VICENTINI, A., NYLANDER, S. & SWENSON, U. 2015. Species tree phylogeny and biogeography of the Neotropical genus *Pradosia* (Sapotaceae, Chrysophylloideae). Mol. Phyl. Evol. 87.
- THOMAS, W.W., CARVALHO, A.M., AMORIM, A.M.A., GARRISON, J. & ARBELÁEZ, A.L. 1998. Plant endemism in two forests in southern Bahia, Brazil. Biodiversity and Conservation 7: 311-322.
- THORNE, R.F. 1972. Major disjunctions in the geographic ranges of seed plants. Quart. Rev. Biol. 47: 365-411.
- THORNE, R.F. 2004. Tropical plant disjunctions: a personal reflection. Int. J. Pl. Sci. 165(4 Suppl.): S137-S138.
- THULIN, M., RAZAFIMANDIMBISON, S.G., CHAFE, P., HEIDARI, N. & KOOL, A. 2012. Phylogeny of the Turneraceae clade (Passifloraceae s.l.): Trans-Atlantic disjunctions and two new genera in Africa. Taxon 61(2): 308-323.
- THORNE, R.F. 1992. Classification and geography of the flowering plants. Bot. Rev. 58(3): 225-348.
- TROVÓ, M., ANDRADE, M.J.G., SANO, P.T., RIBEIRO, P.L. & VAN DEN BERG, C. 2013. Molecular phylogenetics and biogeography of Neotropical Paepalanthoideae with emphasis on Brazilian *Paepalanthus* (Eriocaulaceae). Bot. J. Linn. Soc. 171: 225-243.
- TUOMISTO, H., RUOKOLAINEN, K. & YLI-HALLA, M. 2003. Dispersal, environment, and floristic variation in Western Amazonian forests. Science 299: 241-244.
- TURCHETTO-ZOLET, A.C., PINHEIRO, F., SALGUEIRO, F. & PALMA-SILVA, C. 2012. Phylogeographical patterns shed light on evolutionary process in South America. Mol. Ecol. 2012.
- UEHARA-PRADO, M. & FONSECA, R.L. 2007. Urbanization and mismatch with protected areas place the conservation of a threatened species at risk. Biotropica.
- VALENTINE, J.W. (ed.) 1985. Phanerozoic diversity patterns. Profiles in macroevolution. Princeton Univ. Press, Princeton.
- VAMOSI, J.C. & VAMOSI, S.M. 2011. Factors influencing diversification in Angiosperms: at the crossroads of intrinsic and extrinsic traits. Amer. J. Bot. 98(3): 460-471.
- VAN DEN HAMMEM, T. 2001. Paleocology of Amazonia. In VIEIRA, I.C.B. et al. (orgs.) Diversidade biológica e cultural da Amazônia. Museu Paraense Emilio Goeldi, Belém, p. 19-44.
- VICENTINI, A. 2016. The evolutionary history of *Pagamea* (Rubiaceae), a white-sand specialist lineage in Tropical South America. Biotropica 48(1): 58-69.
- VIEIRA, I.C.G., SILVA, J.M.C., OREN, D.C. & D'INCAO, M.A. (orgs.) 2001. Diversidade biológica e cultural da Amazônia. Museu Paraense Emilio Goeldi, Belém.
- VINNERSTEN, A. & BREMER, K. 2001. Age and biogeography of major clades in Liliales. Amer. J. Bot. 88(9): 1695-

- WAECHTER, J.L. 2002. Padrões geográficos na flora atual do Rio Grande do Sul. *Ciência & Ambiente* 24: 93-108.
- WEEKS, A., DALY, D.C. & SIMPSON, B.B. 2005. The phylogenetic history and biogeography of the frankincense and myrrh family (Burseraceae) based upon nuclear and chloroplast sequence. *Mol. Phylogen. Evol.* 35: 85-.
- WEEKS, A. & SIMPSON, B.B. 2006. Molecular phylogenetics analysis of *Commiphora* (Burseraceae) yields insight on the evolution and historical biogeography of an impossible” genus. *Mol. Phylogen. Evol.* 42(1): 62-79.
- WEEKS, A. et al. 2014. To move or to evolve: contrasting patterns of intercontinental connectivity and climatic niche evolution in “Terebinthaceae” (Anacardiaceae and Burseraceae). *Front. Genet.* 6. doi: 10.3389/fgene.2014.00409.
- WELZEN, P.C. van, TURNER, H. & ROSS, M.C. 2001. New Guinea: a correlation between accreting areas and dispersing Sapindaceae. *Cladistics* 17: 242-247.
- WEN, J. 1999. Evolution of Eastern Asian and Eastern North American disjunct distributions in flowering plants. *Ann. Rev. Ecol. Syst.* 30: 421-455.
- WHITE, F. 1983. Long distance dispersal, overland migration and extinction in the shaping of tropical African floras. *Bothalia* 14 (3-4): 395-403.
- WINKWORTH, R.C., WAGSTAFF, S.J., GLENNY, D. & LOCKHART, P.J. 2005. Evolution of the New Zealand mountain flora: origins, diversification and dispersal. *Org. Div. Evol.* 5: 237-247.
- WOOD 1972. Morphology and phytogeography: The classical approach to the study of disjunctions. *Ann. Missouri Bot. Gard.* 59: 107-124.
- XIANG, Q.-Y. & SOLTIS, D.E. 2001. Dispersal-vicariance analyses of intercontinental disjuncts: historical biogeographical implications for angiosperms in the northern hemisphere.
- XIANG, Q.-Y., THOMAS, D.T., ZHANG, W., MANCHESTER, S.R. & MURRELL, Z. 2006. Species level phylogeny of the genus *Cornus* (Cornaceae) based on molecular and morphological evidence – implications for taxonomy and Tertiary intercontinental migration. *Taxon* 55(1): 9-30.
- YODER, A.D. & NOWAK, M.D. 2006. Has vicariance or dispersal been the predominant force in Madagascar? Only time will tell. *Ann. Rev. Ecol. Evol. Syst.* 37: 405-431.
- ZHANG, L.-B., SIMMONS, M.P. & RENNER, S.S. 2007. A phylogeny of Anisophylleaceae based on six nuclear and plastid loci: ancient disjunctions and recent dispersal between South America, Africa and Asia. *Mol. Evol.* 44(3): 1057-1067.
- Vários autores. 1970-2015. Monografias da Série *Flora Neotropica*. The New York Botanical Garden, New York.

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**Livro sobre Biogeografia Aplicada, essencialmente voltada a aspectos socio-culturais, de conservação, planejamento, manejo sustentado:**

SPELLERBERG, I.F. & SAWYER, W.D. 1999. *An introduction to applied biogeography*. Cambridge Univ. Press, Cambridge.

(o cap. sobre a Teoria de Biogeografia de Ilhas é particularmente bem estruturado).

**Livro sobre História da Botânica, cujo capítulo IX traz breve história da Fitogeografia no século XIX:**

REED, H.S. 1942. *A short history of the plant sciences*. Waltham, Massachusetts.

BIB-5772 -Biogeografia de Plantas Vasculares  
 Prof. José Rubens Pirani, Depto de Botânica - I.B. USP