

Christopher William Dick

2011 Kraus Building, Department of Ecology and Evolutionary
Biology, University of Michigan, Ann Arbor, MI 48109
734-764-9408 (voice) 734-763-0544 (fax) cwdick@umich.edu
<http://www.lsa.umich.edu/eeb/people/cwdick/index.html>

Education

1999 Ph.D. Department of Organismic and Evolutionary Biology, Harvard University
1990 B.A. Hampshire College, Amherst, Massachusetts

Appointments

2005 - Assistant Professor, Ecology and Evolutionary Biology, University of Michigan
2005 - Assistant Curator, University of Michigan Herbarium
2006-2009 Research Associate, Smithsonian Tropical Research Institute
2002-2005 Tupper Postdoctoral Fellow, Smithsonian Tropical Research Institute
2001-2002 Mellon Postdoctoral Fellow, Smithsonian Tropical Research Institute
1999-2001 Molecular Evolution Postdoctoral Fellow, Smithsonian Tropical Research Institute
1992-1999 Graduate student, Harvard University
1992 Field Botanist, Biological Dynamics of Forest Fragments Project, Manaus, Brazil
1991 Field Biologist, U.S. Forest Service, Globe Forest District, Arizona

Grants, Fellowships and Awards

2008	Center for Tropical Forest Sciences (CTFS-STRI) research grant	\$15,000
2008	UM Faculty IT Grant "Web-based interactive key to the woody plants of Michigan"	\$4,500
2008	NSF Research Experience for Undergraduates (REU) award DEB 0822657	\$6,000
2008-10	NSF Doctoral Dissertation Improvement Grant (for Jess Peirson)	\$11,920
2007-10	NSF award DEB 0640379: "Comparative phylogeography of 12 widespread tropical rainforest tree species"	\$484,000
2007	NSF Research Experience for Undergraduates (REU) award DEB 0724690	\$6,000
2004-08	European Union "SeedSource" grant; phylogeography subcontract	□20,000
2005	International Plant Genetics Research Institute (IPGRI) Grant	\$5,000
2003	Center for Tropical Forest Sciences Research Grant	\$6,500
2002-05	Tupper Postdoctoral Fellowship (3 years), Smithsonian Institution	\$150,000
2001	International Plant Genetics Research Institute (IPGRI) Grant	\$17,200
2000	Mellon Foundation Award, with A. Kremer and E. Bermingham	\$100,800
2000	International Plant Genetics Research Institute (IPGRI) Grant	\$5,000
2000	Research Opportunity Award, Smithsonian Institution	\$1,800
1999	OTS/Mellon Fellowship for Field work in Costa Rica	\$2,800
1999-01	Molecular Evolution Postdoctoral Fellowship, Smithsonian Institution	\$66,000
1998	Department of OEB, Harvard University Student Research Grant	\$2,500
1997	Deland Award, Arnold Arboretum	\$5,000
1994	Sigma Xi Grants-in-Aid of Research	\$700
1994	National Science Foundation Doctoral Fellowship Travel Grant	\$1000
1994	Committee on Latin American Studies, Harvard University	\$2200
1993	Department of OEB, Harvard University Student Research Grant	\$2500
1992-95	National Science Foundation Pre-Doctoral Fellowship	\$80,000
1991	Bowman Travel Award	\$800
1990	Hampshire College Senior Thesis Award	\$1000
1988	Explorer's Club Youth of the Year Award	
1987	Explorer's Club Expedition Grant	\$1000
1985	Johnson Academic Scholarship, Hampshire College	\$10,000

Publications

1. Stork N. E., T. Brooks, J. Coddington, R. K. Colwell, R. L. Chazdon, **C. W. Dick**, S. Miller, C. Moritz, C. A. Peres, S. Williams, K. Willis (in review) Vulnerability and resilience of tropical forest species to land-use change: an historical and multi-taxon synthesis. *Conservation Biology*
2. **Dick, C. W.** and W. J. Kress (in press) Dissecting tropical plant diversity with forest plots and a molecular toolkit. *BioScience*
3. Draheim, H., M. Cui and **C. W. Dick** (in press) Characterization of 14 microsatellite markers for the tropical forest tree *Virola surinamensis* (Rol.) Warb. (Myristicaceae). *Molecular Ecology Resources*
4. Pennington, R. T., **C. W. Dick** (in press) Diversification of the Amazonian flora and its relation to key geological and environmental events: a molecular perspective. In C. Hoorn, H. Vonhof and F. Wesselingh (eds) Neogene history of Western Amazonia and its significance for modern biodiversity. Blackwell Publishing, Oxford, UK.
5. Jha, S., **C. W. Dick**. (2009) Isolation and characterization of nine microsatellite loci for the tropical understory tree *Miconia affinis* Wurdack (Melastomataceae). *Molecular Ecology Resources* 9: 344-345.
6. Jha, S., **C. W. Dick**. (2008) Shade coffee farm promote genetic diversity of native trees. *Current Biology* 18: 1126-1128.
7. **Dick, C. W.**, M. Heuertz (2008) The complex biogeographic history of a widespread tropical tree species. *Evolution* 62: 2760-2774.
8. Petit, R. J., F. S. Hu, **C. W. Dick** (2008) Forests of the past: a window to future changes. *Science* 320: 1450-1452.
9. **Dick, C. W.** (2008) New interpretations of fine scale spatial genetic structure. *Molecular Ecology* 17: 1873-1874.
10. **Dick, C. W.**, F. A. Jones, O. J. Hardy, R. Petit (2008) Spatial scales of seed and pollen-mediated gene flow in tropical forest trees. *Tropical Plant Biology* 1: 20-33.
11. **Dick, C. W.**, E. Bermingham, M. Lemes, and R. Gribel (2007) Extreme long distance dispersal of the lowland rainforest tree *Ceiba pentandra* L. (Malvaceae) in Africa and the Neotropics. *Molecular Ecology* 16: 3039-3049.
12. Ward, M., **C. W. Dick**, R. Gribel, A. J. Lowe (2005) To self or not to self... A review of outcrossing and pollen mediated gene flow in neotropical trees. *Heredity* 95: 246-254.
13. Hardesty, B. D., **C. W. Dick**, A. Kremer, S. P. Hubbell, and E. Bermingham (2005) Fine scale spatial genetic structure of *Simarouba amara* Aubl. (Simaroubaceae), a dioecious, animal-dispersed Neotropical tree, on Barro Colorado Island, Panama. *Heredity* 95: 290-297.
14. **Dick, C. W.**, S. J. Wright (2005) Tropical mountain cradles of dry forest diversity. *Proceedings of the National Academy of Sciences USA* 102 (31): 10757-10758.
15. Laurance, W. F., A. A. Oliveira, S. G. Laurance, R. Condit, H. E. M. Nascimento, **C. W. Dick**, A. C. Sanchez-Thorin, T. E. Lovejoy, and J. E. L. S. Ribeiro (2005). Late twentieth-century trends in tree-community composition in an Amazonian forest. Chapter 9 in Tropical Forests and Global Atmospheric Change (Y. Mahli and O. Phillips, eds.), pp 97-106.
16. Laurance, W. F., A. A. Oliveira, S. G. Laurance, R. Condit, **C. W. Dick**, A. Andrade, H. E. M. Nascimento, T. E. Lovejoy, and J. E. Ribeiro (2005). Altered tree communities in undisturbed Amazonian forests: A consequence of global change? *Biotropica* 37 (2): 160-162.
17. **Dick, C. W.**, R. Condit and E. Bermingham (2005) Biogeographic history and the high β -diversity of rainforest trees in Panamá. Chapter 6 in Rio Chagres: A multi-disciplinary profile of a tropical watershed (R. Harmon, ed), pp. 259-268. New York, Springer Publishing Company.
18. Moritz, C., **C. W. Dick**, and E. Bermingham (2005) From the past to the future: evolution, ecology and conservation of tropical rainforests. Chapter 1 in Tropical Rain Forests: Past, Present and Future (E. Bermingham, C. W. Dick and C. Moritz, eds.), pp. 1-6. Chicago, University of Chicago Press.
19. Bermingham, E. and **C. W. Dick** (2005) The history and ecology of tropical rainforest communities. Chapter 2 in Tropical Rain Forests: Past, Present and Future (E. Bermingham, C. W. Dick and C. Moritz, eds.), pp. 7-15. Chicago, University of Chicago Press.
20. Moritz, C., **C. W. Dick**, and E. Bermingham (2005) Processes, people and the prospects for tropical rainforests. Chapter 25 in Tropical Rain Forests: Past, Present and Future (E. Bermingham, C. W. Dick and C. Moritz, eds.), pp. 529-531. Chicago, University of Chicago Press.
21. Pennington, R. T., **C. W. Dick** (2004) The role of immigrants in the assembly of the South American rainforest tree flora. *Philosophical Transactions of the Royal Society of London* 359: 1611-1622.

22. Leigh, E.G., P. Davidar, **C. Dick**, J. P. Puyravaud, J. Terborgh, H. T. Steege, S. J. Wright (2004) Why do some tropical forests have so many kinds of trees? *Biotropica* 36 (4): 447-473.
23. **Dick, C. W.**, D. W. Roubik, K. Gruber and E. Bermingham (2004) Long distance gene flow and cross-Andean dispersal of lowland rainforest bees (Apidae: Euglossini) revealed by comparative mtDNA phylogeography. *Molecular Ecology* 13: 3775-3785.
24. Laurance, W. F., A. A. Oliveira, S. G. Laurance, R. Condit, H. E. M. Nascimento, A. C. Sanchez-Thorin, T. E. Lovejoy, A. Andrade, S. D'Angelo, J. E. Ribeiro and **C. W. Dick** (2004) Pervasive alteration of tree communities in undisturbed Amazonian forests. *Nature* 428: 171-175.
25. Austerlitz, F., **C. W. Dick**, C. Dutech, E. Klein, S. Oddou-Muratoria, P. E. Smouse, V. L. Sork (2004) Using genetic markers to estimate the pollen dispersal curve. *Molecular Ecology* 13: 937-954.
26. **Dick, C. W.**, K. Abdul-Salim and E. Bermingham (2003) Molecular systematics reveals cryptic Tertiary diversification of a widespread tropical rainforest tree. *American Naturalist* 160 (12): 691-703.
27. Novick, R. S., **C. W. Dick**, M. Lemes, C. Navarro, A. Caccone and E. Bermingham (2003) Genetic structure of Mesoamerican populations of big-leaf mahogany (*Swietenia macrophylla*) inferred by microsatellite analysis. *Molecular Ecology* 12: 2885-2893.
28. **Dick, C. W.**, G. Etchelecu and F. Austerlitz (2003) Pollen dispersal of tropical trees (*Dinizia excelsa*: Fabaceae) by native insects and African honeybees in pristine and fragmented Amazonian rainforest. *Molecular Ecology* 12: 753-764.
29. Morley, R. J. and **C. W. Dick** (2003) Missing fossils, molecular clocks and the origin of the Melastomataceae. *American Journal of Botany* 90: 1638-1645.
30. **Dick, C. W.** (2002) Genetic relationships of plants in the CTFS network. *Inside CTFS*, summer 2002, Center for Tropical Forest Sciences, pp. 1-6.
31. **Dick, C. W.** (2002) Effect of pollinator composition on the breeding structure of tropical timber trees. Pp. 140-152 in B. Degen, M. Loveless and A. Kremer (eds) Modeling and experimental research on genetic processes in tropical and temperate forests, EMBRAPA, Belém.
32. **Dick, C. W.** (2001) Genetic rescue of remnant tropical trees by an alien pollinator. *Proceedings of the Royal Society of London B*. 268: 2391-2397.
33. Bermingham, E. and **Dick, C. W.** (2001) The *Inga*: Newcomer or museum antiquity? *Science* 293: 2214-2216.
34. **Dick, C. W.** (2001) Habitat change, African honeybees and fecundity in the Amazonian tree *Dinizia excelsa* (Fabaceae). In Lessons from Amazonia: The Ecology and Conservation of a Fragmented Tropical Forest (eds. R. O. Bierregaard, C. Gascon, T. E. Lovejoy and R. Mesquita), pp. 146-157. New Haven, CT: Yale University Press.
35. **Dick, C. W.** and M. Hamilton (1999) Microsatellites from the Amazonian tree *Dinizia excelsa* (Fabaceae). *Molecular Ecology* 8: 1765-66.
36. **Dick, C. W.** 1999. Effect of Habitat Fragmentation on the Breeding Structure of Amazonian Rain Forest Trees. Harvard University, Cambridge, MA.
37. Mindell, D., **Dick, C. W.** and R. Baker (1991) Phylogenetic relationships among microbats, megabats and primates. *Proceedings of the National Academy of Sciences USA* 88: 10322-10326.

Edited volume

38. Bermingham, E., **C. W. Dick**, and C. Moritz, editors (2005) Tropical Rain Forests: Past, Present and Future, University of Chicago Press, Chicago.

Teaching experience

I teach two classes at the University of Michigan: (1) Molecular Ecology (EEB 412; winter term) and (2) Woody Plants (SNRE 436; fall term). I was a graduate teaching fellow at Harvard for *Organismic and Evolutionary Biology* (1992) and *Botany* (1993), *Evolution* (1998), and *Tropical Ecology* (including the field course to Venezuela; 1992 and 1994). I led nine expeditions along the Amazon River and Rio Negro as a biological guide from 1994-1998.

Peer Review Activities (26 journals)

American Journal of Botany, *American Naturalist*, *Annals of Botany*, *Biological Conservation*, *Biological Journal of the Linnean Society*, *Biotropica*, *Canadian Journal of Botany*, *Condollea*, *Conservation Genetics*, *Evolution*, *Forest Ecology and Management*, *Heredity*, *Journal of Biogeography*, *Journal of Ecology*, *Journal of Heredity*,

Journal of Tropical Ecology, Molecular Ecology, Molecular Phylogenetics and Evolution, Philosophical Transactions of the Royal Society, PloS ONE, Proceedings of the Royal Society, Silvae Genetica, Symbiosis, Systematic Biology, Tree Genetics and Genomes, Trends in Ecology and Evolution, World Book Encyclopedia, National Geographic Society, National Science Foundation, Netherlands Science Foundation

Associate Editor – *Tropical Plant Biology* (Springer)

Service:

Chair, EEB Department Seminar committee (2007-2009)
Graduate affairs committee (2005)
Diversity committee (2006)
University of Michigan Early Career Scientist Symposium committee (2006-2007)
University of Michigan Early Career Scientist Symposium committee (2008-2009)
Faculty search committee, School of Natural Resources and Environment (2006-2007)
Faculty search committee, Ecology and Evolutionary Biology (2007-2008)
NSF Phylogeography Panel (2007)

Talks and meetings

2008 Plenary speaker, Association for Tropical Biology and Conservation, Suriname
2008 Invited Biology Dept. Seminar speaker, Bowler Green University, OH
2008 Invited Biology Dept. Seminar speaker, Eastern Michigan University, MI
2007 Invited keynote speaker, 9th International Pollination Symposium, Ames, Iowa.
2007 Invited lecture, Association for Tropical Biology and Conservation, Morelias, Mexico.
2007 Invited Tupper Seminar, Smithsonian Tropical Research Institute, Panama City, Panama
2007 Poster, Association for the Taxonomic Study of the Flora of Tropical Africa (AETFAT), Cameroon
2006 Invited lecture, Michigan State University, Kellogg Biological Station, Lansing, MI.
2006 Two invited lectures, Endowed Bennett lecture series, UM Biological Station, Pelham, MI.
2006 Invited lecture, Museu Noel Koempf, Santa Cruz, Bolivia.
2006 Invited lecture, Center for Tropical Forest Sciences, STRI, Panama City.
2005 Lecture; Association for Tropical Biology and Conservation. Uberlandia, Brazil.
2005 Invited lecture. Center for Tropical Forest Sciences, 25th year symposium. Panama City, Panama.
2005 Invited lecture (Spanish). Reunión del Red de Herbarios de Mesoamerica y el Caribe. Panama City.
2004 Invited lecture (Spanish). Colombian National Botanical Congress, Popayán, Colombia.
2004 Lecture. Association for Tropical Biology and Conservation, Miami, Florida.
2004 Poster, Society for the Study of Evolution, Ft. Collins, Colorado.
2003 Invited lecture, Association for Tropical Biology and Conservation, Aberdeen, Scotland.
2003 Invited lecture. International Symposium: “Rio Chagres: profile of a tropical watershed”, Panama.
2002 Two invited lectures, Association for Tropical Biology and Conservation, Panama City, Panama.
2001 Invited keynote address (Spanish), Congreso Nacional de Ciencia y Tecnología, Panama City, Panama.
2001 Lecture. Society for the Study of Evolution, Knoxville, Tennessee.
2000 Invited lecture. “Genetic processes in tropical and temperate forests” INRA, Kourou, French Guiana.
1999 Invited symposium speaker. International Botanical Congress, St. Louis, Missouri.
1999 Invited lecture (Portuguese) “Seminario da Amazônia”, INPA campus, Manaus, Brazil.
1998 Invited symposium speaker. Ecological Society of America, Baltimore, Maryland. Symposium organizer.

Symposium organizer

2004 “Plant phylogeny and the origin of major biomes”, Royal Society of London, Symposium Chair
2003 Association for Tropical Biology, Aberdeen Scotland, “Why are there so many kinds of tropical trees? A historical perspective”, with Elizabeth Stacy
1998 Ecological Society of America, Baltimore, “Population genetics of tropical trees”, with M. Hamilton.

Languages

Portuguese, Spanish and basic French