

LEE A. DYER

Professor
Biology Department
University of Nevada Reno
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EDUCATION

B.A. Biochemistry; B.A. English; University of California, Santa Barbara; 1983-1987
Ph.D. Ecology; University of Colorado, Boulder; 1991-1994

RESEARCH

Current research program focused on tritrophic interactions, biodiversity, and conservation in natural and managed ecosystems; currently includes 3 postdoctoral research associates, 3 graduate students, 5 undergraduates, 2 Costa Rican field assistants, 5 Ecuadorian field assistants.

Founder, Western Colorado Center for Tropical Research

Postdoctoral Fellow, University of California, Santa Cruz, 6/94-9/95

Graduate Assistant to Curator, University of Colorado Museum, Entomology, 1/93-6/94

Lab/field technician, Sierra Nevada Aquatic Research Laboratory; 1/86-4/90

TEACHING

Professor, University of Nevada Reno, 7/08 – present; (Assoc. Prof, 7/08 – 6/10)

Professor, Tulane University, 1/01 – 6/08; (Assoc. Prof, 1/01 – 1/05)

Associate Professor, Mesa State College, 8/95 - 12/00 (Assistant Prof, 8/95 – 1/00; taught 19 different courses, 12 credits/semester)

Visiting Professor, Colorado State University, Fort Collins, 8/98 - 12/98

Lecturer, University of California, Santa Cruz, 2/95 - 6/95

TALKS

Invited seminars/colloquia/symposia 1996-2011

University of Costa Rica, 1996

University of Missouri-St. Louis, 1996

University of California Santa Cruz, 1996

University of Colorado-Boulder, 1997

University of Arizona-Tucson, 1997

Colorado State University-Fort Collins, 1998

University of South Dakota, 1998

Annual Earthwatch Symposium, Harvard University, 1998

Boise State University, 1999

East Carolina University, 1999

Boston University, 1999

Entomological Society of America, 1999

Ecological Society of America, 1999

Lepidopterists' Society, 1999

Colorado Native Plant Society, 1999
University of New Orleans, 2001
Tulane University Health Sciences Center, E-hormone symposium, 2002
Auburn University, 2002
University of Southern Mississippi, 2002
Texas A&M, 2003
Amgen, 2003
University of Florida Gainesville, 2003
Eminent Biologist Lecture - University of Pittsburgh, 2003
Southwest Research Station, 2004
Oklahoma University, 2004
Indiana University, 2005
Organization for Tropical Studies, Costa Rica, 1997; yearly, 1999-2008
University of California Davis, 2005
Bodega Marine Laboratory, 2005
Mesa State College, 2005
Rice University, 2005
University of Kentucky, *Graduate Student Select Lecture*, 2005
Louisiana State University, 2005
University of Texas, Austin, 2006
University of Maryland, 2006
Wright State University, 2006
Southeastern Louisiana University, 2006
University of Missouri St. Louis, 2007
University of Nevada Reno 2007
Southwest Research Station, 2008
Wesleyan University, 2008
CUNY Staten Island, 2008
University of Missouri Colombia, 2008
University of Illinois, 2009
Chico State, 2009
University of Brasilia, Brazil, 2009 (3 talks)
University of Campinas, Brazil, 2009
Organization for Tropical Studies, 2010
Occidental University, 2010
UNR College of Science, *Distinguished Faculty Lecture*, 2010
Pittsburgh University, 2011
UC Davis, 2011
University of Washington, *Graduate Student Select Lecture*, 2011

Contributed papers, 1996-2011

Ecological Society of America, Annual Meetings, 1996-2010
Rocky Mountain Population Biologists, Annual Meeting, 1999
Entomological Society of America, Annual Meetings, 1999, 2001, 2003, 2007-2011
International Entomophagous Insects Meeting, 2003
International Caterpillar Biodiversity and Conservation Meeting, 2003
Association of Tropical Biologists, Annual Meetings, 2007
International Congress of Entomology, 2008

OTHER SKILLS AND INTERESTS

Fluent in Spanish; Expert technical rock climber with over 50 first ascents
Active in environmental and political issues; Statistical consultant
Environmental consultant; Published poetry

PEER REVIEW, EDITORIAL, AND PANEL SERVICE 1998 - 2011

Subject Editor, Annals of the Entomological Society of America (2008 - present)
Subject Editor, Biotropica (2005 - 2010)
National Institute of Health (2 panels; most recent panel: 2004)
National Science Foundation (6 panels; most recent panel: 2011)
National Science Foundation (86 proposals)
United States Department of Agriculture (1 panel)
United States Department of Agriculture (16 proposals)
Czech Academy of Sciences (4 proposals)
Biotropica (17 manuscripts reviewed)
Annals of the ESA (19 manuscripts reviewed)
Ecology (15 manuscripts)
Oecologia (15 manuscripts)
Ecology Letters (14 manuscripts)
Book chapters (6 books)
Nature (5 manuscripts)
Ecological Applications (3 manuscripts)
American Naturalist (3 manuscripts)
Oikos (3 manuscripts)
Journal of Tropical Ecology (3 manuscripts)
Journal of the Lepidopterists' Society (2 manuscripts)
Journal of Insect Science (2 manuscripts)
Soil Biology & Biochemistry (3 manuscripts)
Animal Behaviour (2 manuscripts)
DOE (5 proposals)
Journal of Experimental Biology (1 manuscript)
Ecological Monographs (1 manuscript)
Naturwissenschaften (1 manuscript)
Journal of Tropical Forest Science (1 manuscript)
Functional Ecology (1 manuscript)
Conservation Biology (1 manuscript)
Canadian Journal of Zoology (1 manuscript)
Ecological Entomology (1 manuscript)
Environmental Entomology (1 manuscript)
Ecología Austral (1 manuscript)
Annals of Applied Biology (1 manuscript)

GRANT/FELLOWSHIP SUPPORT, 1996-2011

National Science Foundation (NSF), Systematics, ~\$400K (A. Smilanich 1st PI), 1/12-12/14
NSF, Biotic Surveys and Inventories (BSI), ~\$1M, 9/10 - 8/13
NSF, Chemistry, 8/07 - 7/10, \$298K (collaborative budget)
NSF, BSI, 9/07 - 8/10, ~\$600K (collaborative budget)
Tulane University Research Enhancement, 5/07-6/08, \$85K

National Institute for Climate Change Research (NICCR), 6/07-5/12, \$1.3M (CoPI with Tornquist and Chambers; renewed yearly)
 NSF, Ecology, 8/06 – 7/09, \$293K (D. Bowers 1st PI)
 NSF, Ecology (SGER), 2/06 – 2/07, \$60K
 NSF, Dissertation Improvement, 5/05 – 5/07, (for graduate student, M. Fincher) \$9,900
 National Geographic, 9/05 – 10/06, \$25K (awarded directly to PI)
 NSF, BSI, 8/04 – 7/07, \$415K (collaborative budget, includes supplements)
 NSF, Ecology 5/04 – 4/07, \$345,000 (collaborative budget, includes supplements)
 NICCR, 9/04 – 8/07, \$320,000 (with supplements)
 USDA, 9/02 – 5/04, \$79,000
 Louisiana BOR (equipment grant with T. Bianchi), 1/02 – 1/03, \$101,000
 Louisiana BOR (graduate student fellowship grant with D. Heins) 9/04 – 5/08, \$80,000
 NSF, Ecology, 9/00 - 8/02, \$183,000
 OTS, 10/98, 6/03, \$15,000
 Earthwatch Institute, 8/96 - 12/99, \$100,000 (awarded directly to PI)
 Earthwatch Institute, 8/00 - 12/03, \$140,000 (awarded directly to PI)
 Earthwatch Institute, 1/03 – 12/07, \$180,000 (awarded directly to PI)
 Earthwatch Institute, 1/07 – 12/11, \$200,000 (awarded directly to PI)
 Colorado OSC, 7/98 - 6/00, \$33,000
 Lathrop Agricultural Fund, 4/98 - 12/00, \$35,000
 National Geographic, 8/96 - 7/97, \$20,000
 Small external grants, 8/96 – 5/00, \$120,000

SELECTED PUBLICATIONS

Hirsch index: 24 (using Google Scholar and ISI Web of Science); Publications in high impact journals: Nature (1 paper); PNAS (2 papers); Ecology Letters (3 papers); Ecology (11 papers)

79. Wilson, J.S., Forister, M.L., Dyer, L.A., O'Connor, J.M., Burls, K., Feldman, C.R., Jaramillo, M.A., Miller, J. S., Rodríguez-Castañeda, G., Tepe, E.J., Whitfield, J.B., Young, B. 2012. Host conservatism, host shifts and diversification across three trophic levels in two Neotropical forests. *Journal of Evolutionary Biology*, in press.
78. Dyer, L.A., Wagner, D.L., Greeney, H.F., Smilanich, A.M., Massad, T.M., Robinson, M. Fox, M., Hazen, R., Glassmire, A., Pardikes, N., Fredrickson, K., Pearson, C., Gentry, G.L., and J.O. Stireman III. 2012. Novel insights into tritrophic interaction diversity and chemical ecology using 16 years of volunteer supported research. *American Entomologist*, in press.
77. Forister, M. L., Dyer, L.A., Singer, M.S., Stireman III, J.O., and J.T. Lill. 2012. Progress and perspectives in the study of ecological specialization, with emphasis on insect-plant interactions. *Ecology*, in press.
76. Lampert, E.C., Dyer, L.A., and M.D. Bowers. 2011. Chemical Defense Across Three Trophic Levels: *Catalpa bignonioides*, the Caterpillar *Ceratomia catalpae*, and its Endoparasitoid *Cotesia congregata*. *Journal of Chemical Ecology*. 37:1063-1070.
75. Greeney, H.F., Whitfield, J.B., Stireman III, J.O., Penz, C.M., and L.A. Dyer. 2011. The natural history of *Eryphanis greeneyi* (Lepidoptera: Nymphalidae) and its enemies, with a description of a new species of braconid parasitoid and notes on its tachinid parasitoid. *Annals of the Entomological Society of America*. 104:1078-1090.
74. Rab Green, S.B., Gentry, G.L., Greeney, H.F., and L.A. Dyer. 2011. Ecology, natural history, and larval descriptions of Arctiinae (Lepidoptera: Noctuoidea: Erebidae) from a cloud forest in

- the eastern Andes of Ecuador. *Annals of the Entomological Society of America* 104:1135-1148.
73. Dyer, L.A. 2011. New Synthesis. Back to the future: New approaches and directions in chemical studies of coevolution. *Journal of Chemical Ecology* 37:669.
 72. Dyer, L.A., Carson, W.P., Leigh, E.G. 2012. Insect Outbreaks in Tropical Forests: Patterns, Mechanisms, and Consequences. In: Barbosa, P., Letourneau, D.K. and Agrawal, A.A. *Insect Outbreaks Revisited*. Wiley-Blackwell, New Jersey. In press.
 71. Dyer, L.A. 2011. Trophic levels. In: Gibson, D. (editor). *Oxford Bibliographies Online: Ecology*. Oxford University Press, New York.
 70. Massad, T.J., Fincher, R.M., Smilanich, A.M., and L.A. Dyer. 2011. A quantitative evaluation of major plant defense hypotheses, nature versus nurture, and chemistry versus ants. Arthropod-Plant Interactions. *Arthropod-Plant Interactions* 5:125-139.
 69. Greeney, H.F., Dyer L.A., Pyrcz T.W. 2011. First description of the early stage biology of the genus *Mygona*: The natural history of the saturniid butterfly, *Mygona irmina* in eastern Ecuador. *Journal of Insect Science* 11:5; available online: insectscience.org/11.5
 68. Rodriguez-Castaneda, G., Forkner, R. E., Tepe, E.J., Gentry, G. L., and L. A. Dyer. 2011. Weighing defensive and nutritive roles of ant mutualists across a tropical altitudinal gradient. *Biotropica* 43:343-350.
 67. Dyer, L.A., Richards, L.A., Dodson, C.D. and S. Short. 2011. Synergistic and interacting effects of CO₂ and temperature on tritrophic interactions.
 66. Smilanich, A.M., J. Vargas, L.A. Dyer, and M.D. Bowers. 2011. Effects of ingested secondary metabolites on the immune response of a polyphagous caterpillar (*Grammia incorrupta*, Arctiidae). *Journal of Chemical Ecology* 37:239-245.
 65. Dyer, L.A., Letourneau, D.K., Vega Chavarria, G. and D. Salazar Amoretti. 2010. Herbivores on a dominant understory shrub increase local plant diversity in rain forest communities. *Ecology* 91:3707-3718.
 64. Rodriguez-Castaneda, G., Dyer, L.A., Brehm, G., Connahs, H., Forkner, R.E., and T.R. Walla. 2010. Tropical forests are not flat: how mountains affect herbivore diversity. *Ecology Letters* 13:1348-1357.
 63. Lampert, E.C., Dyer, L.A., and M.D. Bowers. 2010. Caterpillar Chemical Defense and Parasitoid Success: *Cotesia congregata* Parasitism of *Ceratonia catalpa*. *Journal of Chemical Ecology* 36:992-998.
 62. Richards, L., Dyer, L.A., Smilanich, A.M., and C.D. Dodson. 2010. Synergistic effects of amides from two *Piper* species on generalist and specialist herbivores. *Journal of Chemical Ecology* 36:1105-1113.
 61. Massad, T.J. and L.A. Dyer. 2010. A meta-analysis of the effects of global environmental change on plant-herbivore interactions. *Arthropod-Plant Interactions* 4:181-188.
 60. Massad, T.J., Chambers, J.Q., Rolim, S.G., Renato, M.J., and L.A. Dyer. 2010. Restoration of pasture to forest in Brazil's Mata Atlântica: The roles of herbivory, seedling defenses, and plot design in reforestation. *Restoration Ecology* 19: 257-267.
 59. Greeney, H.F., Pyrcz, T.W. Dyer, L.A., Sánchez Z., M., and T.R. Walla. 2010. The early stages and natural history of *Corades medeba* Hewitson, 1850 in eastern Ecuador (Lepidoptera: Nymphalidae: Satyrinae : Pronophilina). *Tropical Lepidoptera Research* 20:8-13.
 58. Greeney, H.F., Dyer, L.A., DeVries, P.J., Walla, T. R., Salazar Vega, L., Simbaña, W. and L. Salagaje. 2010. Early stages and natural history of *Perisama oppelii* (Latreille, 1811) (Nymphalidae, Lepidoptera) in Eastern Ecuador. *Kempffiana* 6:16-30
 57. Dyer, L.A. and D.K. Letourneau. 2010. Diversity cascades in terrestrial ecosystems.
 56. Dyer, L.A., T.R. Walla, H.F. Greeney, J.O. Stireman III, and R.F. Hazen. 2010. Diversity of interactions: A metric for studies of biodiversity. *Biotropica* 42:281-289 – invited manuscript.

55. Smilanich, A.M., L.A. Dyer, M.D. Bowers, and J.Q. Chambers. 2009. Immunological costs to specialization and the evolution of insect diet breadth. *Ecology Letters* 12:612-621.
54. Smilanich, A.M., L.A. Dyer, and G. L. Gentry. 2009. The insect immune response and other putative defenses as effective predictors of parasitism. *Ecology* 90:1434-1440.
53. Carlson, J.C., L.A. Dyer, F.X. Omlin, and J.C. Beier. 2009. Diversity Cascades and Malaria Vectors. *Journal of Medical Entomology*. 46:460-464.
52. Miller, J. and L.A. Dyer. 2009. Special Feature: Diversity of insect-plant interactions in the eastern Andes of Ecuador. *Journal of Insect Science* 9:26, available online: insectscience.org/9.26.
51. Stireman III, J.O., H.F. Greeney, and L.A. Dyer. 2009. Species richness and host associations of Lepidoptera-attacking Tachinidae in the northeast Ecuadorian Andes. *Journal of Insect Science* 9:39, available online: insectscience.org/9.39.
50. Tepe, E.J., W.A. Kelley, G. Rodríguez-Castañeda, and L.A. Dyer. 2009. Characterizing the cauline domatia of two newly discovered Ecuadorian ant-plants in *Piper*: an example of convergent evolution. *Journal of Insect Science* 9:27, available online: insectscience.org/9.27.
49. Connahs, H., G. Rodríguez-Castañeda, T. Walters, T.R. Walla and L.A. Dyer. 2009. Geographical variation in host-specificity and parasitoid pressure of an herbivore (Geometridae) associated with the tropical genus *Piper*. *Journal of Insect Science* 9:28, available online: insectscience.org/9.28.
48. Greeney, H.F., T.W. Pyrcz, M.R. Hualingua, P.J. DeVries, and L.A. Dyer. 2009. The early stages of *Pedaliodes poesia* (Hewitson, 1862) in eastern Ecuador (Lepidoptera, Satyrinae, Pronophilina). *Journal of Insect Science* 9:38, available online: insectscience.org/9.38.
47. Greeney, H.F., P.J. DeVries, C.M. Penz, R.B. Granizo-T, H. Connahs, J.O. Stireman III, T.R. Walla, and L.A. Dyer. 2009. The early stages and natural history of *Antirrhea adoptive porphyrosticta* (Watkins, 1928) in eastern Ecuador (Lepidoptera, Nymphalidae, Morphinae). *Journal of Insect Science* 9:26, available online: insectscience.org/9.26.
46. Grinter, C.C., J.B. Whitfield, H. Connahs, L.A. Dyer, W. Hallwachs, and D.H. Janzen. 2009. Review of Neotropical *Distatrix* Mason (Hymenoptera: Braconidae), with descriptions of six new reared species. *Journal of Insect Science* 9:29, available online: insectscience.org/9.29.
45. Pearson, C.V., T.J. Massad, L.A. Dyer. 2008. Diversity cascades in alfalfa fields: from plant quality to agroecosystem diversity. *Environmental Entomology* 37:947-955.
44. Fincher, R.M., L.A. Dyer, C.D. Dodson, J. L. Richards, M.A. Tobler, J. Searcy, J. E. Mather, A. J. Reid, J. S. Rolig and W. Pidcock. 2008. Inter- and Intraspecific comparisons of antiherbivore defenses in three species of rainforest understory shrubs. *Journal of Chemical Ecology* 34:558-574.
43. Dyer, L.A. 2008. The ecology of tri-trophic interactions in the tropics. Pages 275-293 in: Carson, W.P. and S.A. Schnitzer (editors). *Tropical Forest Community Ecology*. Blackwell Science, Oxford, UK.
42. Dyer, L.A., M.S. Singer, J.T. Lill, J.O. Stireman III, G.L. Gentry, R.J. Marquis, R.E. Ricklefs, H.F. Greeney, D.L. Wagner, H.C. Morais, I.R. Diniz, T.A. Kursar, and P.D. Coley. 2007. Host specificity of Lepidoptera in tropical and temperate forests. *Nature* 448:696-699.
41. Dyer, L.A. and D.K. Letourneau. 2007. Determinants of lichen diversity in a rainforest understory. *Biotropica* 39:525-539.
40. Dyer, L.A. 2007. Large scale gradients in tritrophic interactions. *Tropinet* 18:1-3.
39. Dyer, L.A. and R.E. Forkner. 2007. Why are agroecosystems green? *Ecology* 88:1606-1607.
38. Armstrong, M., Berkowitz, A.R., Dyer, L.A. and J. Taylor. 2007. Understanding why students underrepresented in ecology pursue ecology careers: a preliminary case study of 39 African American students. *Frontiers in Ecology and the Environment* 5:415-420.
37. Dyer, L.A. 2008. Do not go gentle into that tropical night. In: Adams, R. (ed.). *Reflections by Moonlight*. University Press of Colorado.

36. Pearson, C.V. and L.A. Dyer. 2006. Trophic diversity in two grassland ecosystems. *Journal of Insect Science* 6:23.
35. Stireman III, J.O., L.A. Dyer, D.H. Janzen, M.S. Singer, J.T. Lill, R.J. Marquis, R.E. Ricklefs, G.L. Gentry, W. Hallwachs, P.D. Coley, J.A. Barone, H.F. Greeney, H. Connahs, P. Barbosa, H.C. Morais, and I.R. Diniz. 2005. Climatic unpredictability and caterpillar parasitism: implications of global warming. *Proceedings of the National Academy of Sciences* 102:17384-17387.
34. Dyer, L.A., Matlock, R.M., Cherezad, D., and R. O'Malley. 2005. Predicting successful biological control in banana plantations. *Environmental Entomology* 34:403-409.
33. Stireman, J.O. III, Dyer, L.A., and R.M. Matlock. 2005. Top-down forces in managed versus unmanaged habitats. Pages 303-323 in: Barbosa, P. and I. Castellanos (eds.). *Ecology of Predator-Prey Interactions*. Oxford University Press, Oxford.
32. Letourneau, D.K. and L.A. Dyer. 2005. Multi-trophic interactions and biodiversity: beetles, ants, caterpillars, and plants. Pages 366-385 in: Burslem, D.F.R.P.; Pinard, M.A.; Hartley, S.E. (eds.). *Biotic Interactions in the Tropics: Their Role in the Maintenance of Species Diversity*. Cambridge University Press, Cambridge, UK.
31. Irschick, D., Dyer, L.A., and T. Sherry. 2005. Phylogenetic methods for studying specialization. *Oikos* 110:404-408.
30. Dyer, L.A., Dodson, C.D., Letourneau, D.K., Tobler, M.A., Hsu, A., and J.O. Stireman III. 2004. Ecological causes and consequences of variation in defensive chemistry of a neotropical shrub. *Ecology* 85:2795-2803.
29. Letourneau, D.K., Dyer, L.A., and G. Vega. 2004. Indirect effects of top predator on rain forest understory plant community. *Ecology* 85:2144-2152.
28. Dyer, L.A. and A.N. Palmer. 2004. *Piper*. A model genus for studies of evolution, chemical ecology, and trophic interactions. Kluwer Academic Publishers, Boston.
27. Dyer, L.A., Dodson, C.D., and J. Richards. 2004. Isolation, synthesis, and evolutionary ecology of *Piper* amides. Pages 117-139 in: Dyer, L.A. and A.N. Palmer (eds.). *Piper*. A model genus for studies of evolution, chemical ecology, and trophic interactions. Kluwer Academic Publishers, Boston.
26. Dyer, L.A., Gentry, G. and M. Tobler. 2004. Fitness consequences of herbivory: impacts on asexual reproduction of tropical rainforest understory plants. *Biotropica* 36:68-73.
25. Dyer, L.A., Dodson, C.D., Gentry, G. 2003. A bioassay for insect deterrent compounds found in plant and animal tissues. *Phytochemical Analysis* 14:381-388.
24. Dyer, L.A. and J.O. Stireman III. 2003. Community-wide trophic cascades and other indirect interactions in an agricultural community. *Basic and Applied Ecology* 4:423-432.
23. Dyer, L.A., Dodson, C.D., Stireman, J.O., Tobler, M.A., Smilanich, A.M., Fincher, R.M., and D.K. Letourneau. 2003. Synergistic effects of three *Piper* amides on generalist and specialist herbivores. *Journal of Chemical Ecology* 29:2499-2514.
22. Dyer, L.A. and D.K. Letourneau. 2003. Top-down and bottom-up diversity cascades in detrital versus living food webs. *Ecology Letters* 6:60-68.
21. Gentry, G.L. and L.A. Dyer. 2002. On the conditional nature of neotropical caterpillar defenses against their natural enemies. *Ecology* 83:3108-3119.
20. Dyer, L.A. 2002. Jungle phobias. *Earthwatch* 21:10-11.
19. Dyer, L.A. 2002. A quantification of predation rates, indirect positive effects on plants, and foraging variation of the giant tropical ant, *Paraponera clavata*. *Journal of Insect Science* 2.18:1-7.
18. Dyer, L.A. and G.L. Gentry. 2002. Caterpillars and parasitoids of a tropical lowland wet forest. <http://www.caterpillars.org>.
17. Dyer, L.A. and N. Bishop. 2001. In defense of caterpillars. *Natural History* 110:42-47.

16. Dyer, L.A. and P.D. Coley. 2001. Latitudinal gradients in tri-trophic interactions. Pages 67-88 in: Tscharnkte, T. and Hawkins, B.A. (editors). *Multitrophic Level Interactions*. Cambridge University Press.
15. Dyer, L.A., Dodson, C.D., Beihoffer, J. and D.K. Letourneau. 2001. Trade offs in anti-herbivore defenses in *Piper cenocladum*: ant mutualists versus plant secondary metabolites. *Journal of Chemical Ecology* 27:581-592.
14. Dodson, C.D., Dyer, L.A., Searcy, J., Wright, Z., and D.K. Letourneau. 2000. Cenocladamide, a dihydropyridone alkaloid from *Piper cenocladum*. *Phytochemistry* 53:51-54.
13. Dyer, L.A., Williams, W., Dodson, C., and D.K. Letourneau. 2000. A commensalism between *Piper marginatum* Jacq. (Piperaceae) and a coccinellid beetle. *Journal of Tropical Ecology* 15:841-846.
12. Dyer, L.A. 2000. Cybernetic insect outbreaks. *Ecology* 81:3262-3263.
11. Dyer, L.A. and D.K. Letourneau. 1999. Trophic cascades in a complex, terrestrial community. *Proceedings of the National Academy of Sciences* 96:5072-5076.
10. Dyer, L.A. and D.K. Letourneau. 1999. Relative strengths of top-down and bottom-up forces in a tropical forest community. *Oecologia* 119:265-274.
9. Dyer, L.A. and Gentry, G. 1999. Larval defensive mechanisms as predictors of successful biological control. *Ecological Applications* 9:402-408.
8. Letourneau, D.K. and L.A. Dyer. 1998. Density patterns of *Piper* ant-plants and associated arthropods: Top predator cascades in a terrestrial system? *Biotropica* 30:162-169.
7. Letourneau, D.K. and L.A. Dyer. 1998. Experimental manipulations in lowland tropical forest demonstrate top-down cascades through four trophic levels. *Ecology* 79:1678-1687.
6. Dyer, L.A. 1997. Effectiveness of caterpillar defenses against three species of invertebrate predators. *Journal of Research on the Lepidoptera* 34:48-68.
5. Dyer, L.A. and M.D. Bowers. 1996. The importance of sequestered iridoid glycosides as a defense against an ant predator. *Journal of Chemical Ecology* 22:1527-1539.
4. Folgarait, P.J., L.A. Dyer, R.J. Marquis, and H.E. Braker. 1996. Leaf-cutting ant (*Atta cephalotes*) preferences for five native tropical plantation tree species growing under different light conditions. *Entomologia Experimentalis et Applicata* 80:521-531.
3. Dyer, L.A. 1995. Tasty generalists and nasty specialists? A comparative study of antipredator mechanisms in tropical lepidopteran larvae. *Ecology* 76:1483-1496.
2. De la Fuente, M.A., L.A. Dyer, and M.D. Bowers. 1994. The iridoid glycoside, catalpol, as a deterrent to the predator *Camponotus floridanus* (Formicidae). *Chemoecology* 5/6:13-18.
1. Dyer, L.A. and T. Floyd. 1993. Determinants of predation on phytophagous insects: the importance of diet breadth. *Oecologia* 96:575-582.

AWARDS

- 1999 – Mesa State College Distinguished Faculty Award
- 2000 – Mesa County Colorado, Leader for the New Millennium Award
- 2002 – New Orleans 40 under 40, young people making remarkable contributions locally and globally
- 2004 – University of Pittsburgh, Distinguished Ecologist Award

OUTREACH

- Earthwatch Institute, 7/96 - present: teach, train, and conduct research with over 50 volunteers per year (approximately 1100 total volunteers to date); provide experience in Ecology and Evolutionary Biology for teachers, high school students, and the general public. Teams of volunteers last 2-3 weeks. This is the focus of all my laboratory's outreach efforts.
- Research Experience for Teachers (funded by NSF), 2007.

- Founder, Western Colorado Center for Tropical Research; 8/97 – WCCTR is still active and provides tropical research experience, grants, tropical biology courses, and trips to the tropics.
- Serve as scientist for public lands agencies (BLM RAC and USFS committees).
- Worked with local K-12 schools in New Orleans and Reno to expose students to Entomology and Ecology (3 schools per year).

REFERENCES

Doctoral Advisor:

Dr. Deane Bowers
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 University of Colorado
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Postdoctoral Advisor:

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 Biology Department
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