Curriculum Vitae
Eric John Olson

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Current Primary Teaching Position: Senior Lecturer in Ecology. I teach courses in in the following subject areas: Principles of Ecology; Environmental Impact Assessment; Sustainable Agriculture (co-taught); Ecology of Water and Sanitation (co-taught); Tourism and Development (Ecotourism).

Teaching in Local Elementary Schools: I am invited to present to school children aged 5 to 12 in Newton Public Schools. I present on insect and spider biology, forest food webs and seed dispersal, and climate change.

Current Civil Society Work in Energy: My work as a local activist on climate change led to my appointment by municipal leaders to the Newton Citizen's Commission on Energy, which I now Chair. The Energy Commission is an advisory group focused on energy efficiency in all city operations from schools to streetlights. We partnered with ICLEI to produce an Energy Action Plan for the City of Newton, MA. Now I am repeating this process in my town of employment (Waltham, MA, a neighboring town to Newton).

Current Civil Society Work in Conservation Biology: In collaboration with both state and city government I am gradually restoring several small wetland and riparian environments. This work involves invasive plant removal, for which I have formed an Invasive Plant Task Force, and reintroduction of several native plant species and one currently rare butterfly species.

EDUCATION

PhD (1994) Biology. Program in Ecology and Evolutionary Biology, University of Pennsylvania, Philadelphia, PA.

> Dissertation: *The dietary ecology of Rothschildia lebeau (*Lepidoptera: Saturniidae*) in a Costa Rican dry forest*. Daniel H. Janzen, Dissertation Advisor

Masters in Forest Science (1988) Yale School of Forestry and Environmental Studies, New Haven, CT

> Spring 1988 in Costa Rica – Participated in the Organization for Tropical Studies sponsored "Tropical Biology - An Ecological Approach", a nine-week graduate level field course in the national parks and other wildlands of Costa Rica.

Summer Internship, CATIE, 1987 – Studied existing and proposed UN Biosphere Reserves of Costa Rica, Panama, and Honduras while based at the Wildlands Planning Office of the Tropical Agriculture Research and Higher Education Center, Turrialba, Costa Rica

BA Geology (1979). Carleton College, Northfield, MN. Honors for Senior Comprehensive Exercise in Paleobiology.

PUBLICATIONS

Ravin, A., Crossley, D. Olson, E., Brown, H. et al. 2005. Energy Action Plan, City of Newton (available at http://www.ci.newton.ma.us/building/projects.htm#energycommission)

Olson, E.J. 2002. Collections and sorting of insect frass. Pgs. 145-148 in: The Global Canopy Handbook. A.W. Mitchell, K. Secoy, T. Jackson, eds. Global Canopy Foundation, Oxford, UK.

Olson, E.J. 2000. *Parachartergus fraternus* (Bribodo) (Hymenoptera: Vespidae: Polistinae) uses venom when taking caterpillar prey. Psyche 103: 85-93.

Olson, E.J. 1987. Biosphere reserves of Central America: a critique. Pages 242-253 in: Proceedings of the Symposium on Biosphere Reserves. Fourth World Wilderness Congress, September 14-17, 1987. Estes Park, CO.

(Publications, popular press)

Recent articles are archived on the Green Decade Coalition/Newton website and are available as pdf's.

Olson, E.J. 2007 (January 3), Article "Doing the right thing with lovely lumber", Newton Tab newspaper, http://www.greendecade.org/news_LovelyLumber.html

Olson, E.J. 2006 (5 April). Frozen by Uncertainty (support for wind power) Newton Tab newspaper "Environmental Pages", edited by Lois Levin, Green Decade Coalition/Newton media http://www.greendecade.org/download/frozen.pdf

Olson, E.J. 2006 (1 March). Book Review "Divine Wind" has been posted to websites by Newton Green Decade and other organizations in the Boston region. Newton Tab newspaper "Environmental Pages", edited by Lois Levin, Green Decade Coalition/Newton media http://www.greendecade.org/download/wind_lessons.pdf

Olson, E.J. 2005 (7 December). Energy Action Plan Summary, Newton Tab newspaper "Environmental Pages", edited by Lois Levin, Green Decade Coalition/Newton media liason http://www.greendecade.org/download/energy_action_plan.pdf

Olson, E.J. 2005 (7 September). Urban Forestry, Newton Tab newspaper "Environmental Pages", edited by Lois Levin, Green Decade Coalition/Newton media liason http://www.greendecade.org/download/tree_doc.pdf

Olson, E.J. 2003. The truth about hybrids. Newton Tab newspaper "Environmental Pages", edited by Francoise Lamonica, Green Decade Coalition/Newton media liason

CONFERENCES AND PROFESSIONAL PRESENTATIONS

Phenology of herbivorous and predaceous arthropods in a tropical dry forest. Annual Meeting, Ecological Society of America. 1-6 August, 2004. Portland, Oregon.

Seasonality of Risk: Why are there so many univoltine caterpillars in Santa Rosa? Caterpillar Workshop sponsored by National Science Foundation, organized by Daniel H. Janzen. Santa Rosa Sector of the Guanacaste Conservation Area, Costa Rica, 19-28 June, 2003.

Human effects on the Nitrogen Cycle, from our Gardens to our Globe. September 1999, Buzzards Bay Chapter, American Garden Club.

Rhythms of Herbivory in a Tropical Dry Forest. Earthwatch Institute Principal Investigators Conference, Harvard University Science Center, November, 1999.

Phytochemistry, predators, and season determine suitability of non-host plants for larvae of *Rothschildia lebeau* (Lepidoptera: Saturniidae). Annual Meeting, Ecological Society of America. 7-11 August, 1994. Knoxville, TN

Growth rates and survivorship of *Rothschildia lebeau* larvae are highest early in the wet season in a Costa Rican dry forest. International Meeting, Society for Conservation Biology and the Association for Tropical Biology. June 7 - 11, 1994. Guadalajara, Jalisco, Mexico.

Biosphere reserves of Central America: a critique. Fourth World Wilderness Congress, September 14-17, 1987. Estes Park, Colorado, USA.

WORKING PAPERS

Olson, E.J., G. Bodner, K. Arakawa, R. Michener. 2005. An omnivorous spider exploits the Neotropical ant-acacia mutualism. Submitted to Nature (rejected); presently under revision for submission to Ecology.

Olson, E.J., G. Bodner, K. Arakawa. A web-based field guide to the salticid spider fauna of the Santa Rosa Sector, Guanacaste Conservation Area, Costa Rica.

ONGOING RESEARCH: BASIC ECOLOGY

<u>Community Level Research</u>

My research interests focus on the annual peaks in abundance of herbivorous insects and their natural enemies in a tropical dry forest in northwestern Costa Rica. In recent years this has taken the form of a long-term (6+ year) community study of peaks in abundance of herbivorous insects and their natural enemies in the Santa Rosa Sector of the Guanacaste Conservation Area. Earthwatch Volunteers provided crucial person-power, and without them this project would have been impossible.

In addition, I have used exclusion cages to examine the role of birds as biological control agents of the herbivores of a common dry forest treelet, *Casearia nitida*. The caterpillars of the moth *Rothschildia lebeau* (Saturniidae**)** feed on this tree, and are used as sentinel species, along with leaf damage studies and counts of naturally-occurring herbivores, to assess the importance of Santa Rosa's foliage-gleaning birds in reducing damage on *C. nitida*.

Species-Level Research:
Seasonal change in first-instar performance and egg parasitism of the caterpillar fauna of *Annona reticulata* (Annonaceae) in a tropical dry forest.

Attack by *Enicospilus lebophagus* (Hymenoptera: Ichneumonidae) a specialist parasitoid, on caterpillars of *Rothschildia lebeau* feeding on novel versus normal host plants.

Biodiversity Inventories
Inventory of Salticidae (Jumping Spiders) of the Santa Rosa Sector, Guanacaste Conservation Area, Costa Rica. With Dr. Gita Bodner (taxonomist, University of Arizona), Ms Kuniko Arakawa (illustrator, Moriya-shi, Japan).

GRANTS AND AWARDS

1998 – 2003: Two three-year grants from Earthwatch Institute, Maynard, MA including all travel, park and lab permits and fees, equipment and supplies, field assistant salaries, and in-kind support in the form of 100+ volunteer project assistants.

During dissertation years (1988-1994): World Wildlife Fund Fellowship in Tropical Botany, funded by the Garden Club of America; Sigma Xi Research Award; Organization for Tropical Studies Post-Course Award funded by the Jessie Smith Noyes Foundation; Shell Foundation Research Support Grant; NIH Graduate Training Fellowship (University of Pennsylvania/Monell Chemical Senses Center)

1987 Three month travel grant from the Tinker Foundation to study existing and proposed UNESCO Biosphere Reserves of Central America (Intern in-residence at the Wildlands Planning Office of CATIE (Tropical Agriculture Research and Higher Education Center), Turrialba, Costa Rica.

1985 Excellence in Teaching Award, Abraham Lincoln High School, Bogota, Colombia.

1979 Honors for Senior Comprehensive Exercise in Paleoecology, Carleton College.

TEACHING EXPERIENCE

FULL COURSES

2001 - 2008 Senior Lecturer in Ecology, Program in Sustainable International Development (SID), Heller School for Social Policy, Brandeis University, Waltham, MA. I teach those fundamentals of environmental science that are particularly useful to people planning to work in some of the world's poorest nations. Other duties include teaching Environmental Impact Assessment and advising masters candidates during their one year field practicums.

In addition, in recent years I have developed four new courses, Ecology of Disease (still in preparation, for the Brandeis Undergraduate College program, Health: Science, Society, and Policy). Sustainable Agriculture (co-taught with Paul Hepperly of Rodale Institute); Right to Water (co-taught with Maria Green); Tourism and Development (Ecotourism)

Fall 2007 — Evolutionary Ecology, Brandeis University Department of Biology (to be repeated fall of 2008)

2001-2002 — Visiting Assistant Professor, Department of Biology, Wellesley College, Wellesley, MA. I taught three courses while visiting at Wellesley: Part 2 of the sequence in Introductory Biology. a Conservation Biology Senior Seminar, and Introduction to Ecology.

Spring 2000 — Lecturer, Biology Department, Boston University, Boston, MA. Taught Conservation Biology

Spring 1999 — Lecturer, Department of Biology, Brandeis University, Waltham, MA. Taught a Seminar in Tropical Ecology

Winter 1999 — Coordinator, Field Course in Tropical Ecology for Undergraduates from Bradford College, Tiputini Biodiversity Station, Ecuador, program organized by Boston University

Fall 1998 — Lecturer, Department of Biology, Boston University, Boston, MA. Co-taught Introductory Biology (Part One) to freshman undergraduates

1995 – 1997 — Coordinator, Organization for Tropical Studies graduate field course Tropical Biology: An Ecological Approach, San Jose, Costa Rica. Designed and led two eight-week long field courses for two years (four courses in total). This work requires teaching, coordinating visiting faculty, managing a course budget and drivers and 2 full-time assistants, and 22 doctoral students throughout Costa Rica, visiting as large a variety of tropical habitats as possible. At the end of each course I edited and had bound a compendium of all field projects and species lists, etc., produced during the course.

SHORT COURSES, WORKSHOPS, ADVISING

2005 - 2008 — Advising several graduate students each year in the Sustainable International Development program. My advisees typically work on protected area management and integrated conservation and development projects in places like Burkina Faso, Uganda, and Vietnam.

2005 - 2008 — Invited faculty to the Graduate Course in Tropical Biology, Organization for Tropical Studies, Palo Verde, Costa Rica. I lead orientation walks, lead faculty field problems and give lectures on the climate of Costa Rica, unique spider-plant interactions, and terrestrial arthropod taxonomy and ecology.

1997 Advisor, Associated Colleges of the Midwest Costa Rican Tropical Biology Program, San Jose, Costa Rica. Supervised undergraduate students from three mid-western U. S. colleges in field projects in mangrove, cloud forest, and high tropical oak forest habitats

1997 Invited faculty, one week, University of California Field Course in Costa Rica. Taught mangrove ecology at Rio Sierpe, Osa Peninsula.

1997 Invited faculty, one week, University of California Field Course in Costa Rica. Taught epiphyte biology in the Guanacaste Conservation Area.

1997 Trainer for approx. three weeks of incoming OTS graduate course coordinator, San Jose, Costa Rica. Led field trip to Palo Verde National Park wetland sites

1990 – 1992 Graduate Teaching Fellow, University of Pennsylvania, Philadelphia, PA. Assisted with teaching of undergraduate Ecology Field Course in Costa Rica.

1988 – 1990 Graduate Teaching Fellow, Biology Department, University of Pennsylvania, Philadelphia, PA. Taught Introductory Biology Laboratory (Honors Section).

Fall 1987 Graduate Teaching Assistant, Yale School of Forestry and Environmental Studies, New Haven. Taught field course Patterns and Processes in Terrestrial Ecosystems.

OTHER TEACHING EXPERIENCE

1979 - 1983 Naturalist, Westwood Hills Nature Center, St. Louis Park, MN and Elmer Nature Center, West Irondequoit (Rochester), New York

1983-1984 Science teacher at Elementary School level (1983-84) and Biology Teacher at High School level (1984-85), Abraham Lincoln School, Bogotá, Colombia

1986 Summer Naturalist, Rochester Museum and Science Center, Rochester, NY

1998 - present Visiting Scientist, Newton Creative Arts and Sciences Council, Newton, MA

ADDITIONAL COMMUNITY ACTIVITIES IN THE BOSTON AREA

2000 – 2008 Member, Board of Directors, Green Decade Coalition of Newton (grassroots non-profit environmental organization). Chair of Energy Committee, Green Decade Coalition. Organize tours of High Performance Homes, including homes with solar energy systems installed (PV, hot water, and “passive” solar systems)

SECOND LANGUAGES

Spanish (fluent)