



Whitney R. Harris World Ecology Center

News

[Dr. Aimee Dunlap](#) has joined the [Department of Biology](#) as an Assistant Professor. Previously, a post-doctoral research associate with the [Center for Insect Sciences](#) and the [Department of Ecology and Evolutionary Biology](#) at the [University of Arizona](#), Dr. Dunlap's research investigates the role of environmental variability in the evolution and ecological function of cognition (e.g. learning, memory, and decision making). Dr. Dunlap studies bumblebees, fruit flies, blue jays and pinyon jays.

The Whitney R. Harris World Ecology Center has signed a memorandum of understanding with the [Institute of Ecology](#), A.C. in Xalapa, Veracruz, México with the purpose of promoting "international understanding and scholarly collaboration" between the two institutions. The MOU was signed by [Dr. Thomas George](#), Chancellor, [University of Missouri-St. Louis](#) and [Dr. Martín Ramón Hofer](#), General Director, Institute of Ecology (see Alumni News below).

[Professor Brice Sinsin](#), Rector, [University of Abomey-Calavi](#) in the Republic of Benin visited the Center in August. He also holds the Chair of Tropical Ecology and is the Founder and Director of the [Laboratory of Applied Ecology](#) at the University in Contonou. He was accompanied by Dr. Roland Holou, Research Scientist, Monsanto and International Chair, Sweet Sorghum Ethanol Association.

Maria Pil and Leticia Soares (and former Post-doctoral Fellow Steve Latta) spent two weeks in April in Nevis and St. Kitts (Lesser Antilles) collecting avian blood samples for phylogeographic and avian malaria research. Maria received the John Denver Memorial Scholarship from the Harris Center.

[Gideon Erkenwick](#) completed a successful field season working at El Centro de Investigación y Capacitación Río Los Amigos (CICRA) in southeast Peru. His team studied parasite and pathogen specificity among associating species of callitrichids and they sampled 35 individuals of *Saguinus fuscicollis* (brown-mantled tamarin) and 21 individuals of *Saguinus imperator* (emperor tamarin). Gideon received the Jorie Butler Kent and Henry B. Cowhey Scholarships from the Harris Center.

The Harris Center sponsored the visit of and a talk by [Robert Gallardo](#), author of the upcoming field guide to the birds of Honduras. Accompanying him was Brad Jacobs, of the [Missouri Department of Conservation](#). Brad is the liaison of the MDC to the [Southern Wings Program](#), whose goal it is to conserve wintering habitat of North American summer resident birds, many of which winter in Honduras and neighboring countries.

The Whitney R. Harris World Ecology Center now has a Facebook page. Like us at: <http://www.facebook.com/UMSL.edu#!/HarrisWorldEcologyCenter>.

Research Awards

[Dr. Robert Ricklefs](#) received a research award from the [College of Arts and Sciences](#) Research Review Committee for his project: *Dynamics of the distribution of birds and their malaria parasites in the West Indies*.

Leticia Gutiérrez received research funding from [Sigma Xi Grants-in-Aid of Research](#), University of Wyoming and National Parks Service Research Center Small Grant Program, [St. Louis Audubon Society](#) and the [Lewis and Clark Fund for Exploration and Field Research](#) in support of her field season at Grand Teton National Park-Wyoming. Leticia was also awarded the Stokes Family Scholarship and the Leo and Kay Drey Scholarship from the Harris Center.

[Daniel Hartman](#) received a [Saint Louis Zoo's](#) Field Research for Conservation grant to support his research: *Transmission of Plasmodium in the Galapagos Islands*.

[Alonso Bussalleu](#) received a [Saint Louis Zoo's](#) Field Research for Conservation grant to support his research: *Effects of conservation efforts on breeding success of Humboldt penguins*. Alonso also received the Jane and Stanley Birge and the Mary Osborne Scholarships from the Harris Center.

Doctoral Theses

The following graduate students in Ecology, Evolution and Systematics have completed the Ph.D. program:

Dr. Eloisa Sari, Colonization history and origin of the Galapagos flycatcher (*Myiarchus magnirostris*) and its parasites (Advisor: [Dr. Patricia Parker](#)).

Dr. Edgar Javier Hernandez, The effect of photoperiod on regulation of key components of the life cycle in the bumble bee *Bombus impatiens* L. (Hymenoptera: Apidae) (Co-Advisors: [Dr. James Hunt](#) and [Dr. Zuleyma Tang-Martinez](#)).

Dr. Cynthia Hong-Wa, Diversification and coexistence in the Madagascar olive (*Noronhia*, Oleaceae) (Advisor: [Dr. Peter Stevens](#)).

Dr. Linda Maria Elenor Svensson, Community organization of avian malaria parasites in lowland Amazonia: Prevalence, diversity, and specialization in a local assemblage (Advisor: [Dr. Robert Ricklefs](#)).

New Students

The Center welcomes the following new Ph.D. students to the graduate program in the [Department of Biology](#): Samoa Asigau (Papua New Guinea), Haydee Hernandez (México), Mari Cruz Jaramillo (Ecuador), Gyanpriya Maharaj (Guyana) and Patrick Raines (USA).

Upcoming Events

The 2012 Saint Louis Inter-Institution Council on Ecology, Evolution and Conservation annual research retreat will be held on Saturday, September 29 at [Principia College](#) in Elsah, Illinois.

The 2012 Whitney and Anna Harris Conservation Forum will be held on Thursday, November 8 at the Living World, [Saint Louis Zoo](#). The theme this year is: *Environmental issues of St. Louis: Past, present, and future*.

Alumni News

Dr. Elizabeth Congdon (Ph.D., 2007) has been appointed to a tenure-track assistant professorship at [Bethune-Cookman University](#) in Daytona Beach.

[Dr. Danielle Lee](#) (Ph.D., 2010) is a post-doctoral fellow at [Oklahoma State University](#), Stillwater, and is studying giant African pouched rats in Tanzania. These rats have been shown to be able to detect explosives (e.g., land mine, and IEDs) and also tuberculosis and her work is being supported by a grant for the US Department of Defense.

[Dr. Debbie Boege-Tobin](#) (Ph.D., 2005) has been awarded tenure at the [University of Alaska](#).

[Dr. Lucia Lohmann](#), Professor at the [University of São Paulo](#), Brazil and member of the Harris Center's Scientific Board is the current president of the [Association of Tropical Biology and Conservation](#).

The [Institute of Ecology AC \(INECOL\)](#), Xalapa, Mexico employs four scientists formerly associated with the Harris Center and the Department of Biology: Drs. Carolina Valdespina (Ph.D.,1999), Juan Martinez (Ph.D.,2007), Diego Santiago-Alarcon (Ph.D.,2008), and Antonio Guillen (former Post-doctoral fellow).

Maria Svensson Coelho (Ph.D., 2012) has been appointed as a Post-doctoral fellow at the Universidade de Sao Paulo in Brazil.

[Dr. Nick Barber](#) (Ph.D., 2009) has just joined the Department of Biological Sciences at the [Northern Illinois University](#) as a tenure-track assistant professor.

Conferences

The [Whitney R. Harris World Ecology Center](#) was well represented at the [Association of Tropical Biology and Conservation](#) conference held in Bonito, Brazil in June. The following papers were given at [ATBC2012](#) by Center Associates:

[Ricklefs, R.E.](#): *The historical assembly of ecological communities.*

[Marquis, R.J.](#), Salazar, D., Barnett, K., O'Brien, D., Priest, G., Baer, C., Reinhardt, J.: *Herbivore-driven plant speciation in tropical forests, a return to Ehrlich and Raven.*

Coelho, M.S., Blake, J.G., Loiselle, B.A., [Parker, P.G.](#), Penrose, A.S., [Ellis, V.A.](#) and [Ricklefs, R.E.](#): *Organization of a tropical and a temperate assemblage of avian malaria parasites.*

[Parker, P.G.](#), [Levin, I.I.](#), Zwiwers, P., Geest, E., Perlut, N., Kim, D. and Renfrew, R. *Galapagos birds and their blood parasites.*

Camarota, F., Vasconcelos, H., Powell, S., Priest, G. and [Marquis, R.J.](#): *The influence of extrafloral nectaries on the structure of a cerrado arboreal ant community.*

Sari, E.H.R., Klompen, H. and [Parker, P.G.](#): *Colonization history and origin of the Galápagos flycatcher (*Myiarchus magnirostris*; *Passeriformes: Tyrannidae*) and its parasites.*

Pil, M.W. and [Ricklefs, R.E.](#): *Using genetic variation to infer the history of *Coereba flaveola* in the West Indies.*

Salazar, D. and [Marquis, R.J.](#) *Linking community phylogenetic and functional diversity with herbivory in a tropical ecosystem.*

Center alumni participating in the conference included: [Dr. Karina Boege](#) (Ph.D.,2004), Dr. Cintia Cornelius (Ph.D.,2006), Dr. David Kenfack (Ph.D.,2008), [Dr. Iris Levin](#) (Ph.D.,2011), [Dr. Lucia Lohmann](#) (Ph.D.,2003), Dr. Marcos Maldonado-Coelho (Ph.D.,2010), Dr. Eloisa Sari (Ph.D.,2012), [Dr. Diego Pérez-Salicrup](#) (Ph.D.,1998) and Dr. Beto Vicentini (Ph.D.,2007).

[Eliot Miller](#) attended the [First Joint Congress on Evolutionary Biology](#) in Ottawa, and delivered a paper entitled *The Meliphagidae: Honeyeater foraging in a phylogenetic context.*

[Dr. Robert Ricklefs](#) attended the [North American Ornithological Congress](#) in Vancouver in August and gave a symposium presentation entitled: *What fundamental things can a tree of all birds (not) tell us?*

[Dr. Patricia Parker](#) attended the Midwest Ecology and Evolution Conference at the University of Cincinnati in May and gave the plenary lecture entitled: *Galápagos birds and their pathogens: Understanding the history.*

[Dr. Patricia Parker](#) attended the Midwest Conference of Parasitologists at Truman State University in June and gave the plenary lecture entitled: *Galápagos birds and their pathogens: Can we control them?*

Publications

- Bataille, A., Fournie, G., Cruz, M., Cedeno, V., Parker, P.G., Cunningham, A.A. and Goodman, S.J. (2012). [Host selection and parasite infection in *Aedes taeniorhynchus*, endemic disease vector in the Galapagos Islands.](#) *Infection, Genetics, and Evolution.*
- Bellemain, E., Gaggiotti, O.E., Fahey, A., Bermingham, E. and [Ricklefs, R.E.](#) (2012). [Demographic history and genetic diversity in West Indian *Coereba flaveola* populations.](#) *Genetica.* doi: 10.1007/s10709-012-9665-6.
- Belo, N.O., Rodríguez-Ferraro, A., Braga, E.M. and [Ricklefs, R.E.](#) (2012). [Diversity of avian haemosporidians in arid zones of northern Venezuela.](#) *Parasitology* 1(1): 1-8. doi: <http://dx.doi.org/10.1017/S003118201200039X>.
- [Deem, S.L.](#), Cruz, M.B., Higashiguchi, J.M. and [Parker, P.G.](#) (2012). [Diseases of poultry and endemic birds in Galapagos: Implications for the reintroduction of native species.](#) *Animal Conservation* 15: 73-82. doi: 10.1111/j.1469-1795.2011.00489.x.
- Deem, S.L., [Rivera-Parra, J.L.](#) and [Parker, P.G.](#) (2012). [Health status of Galapagos hawks on Santiago Island, Galapagos.](#) *Journal of Wildlife Diseases* 48: 39-46.
- Fahey, A.L. [Ricklefs, R.E.](#), Latta, S.C. and DeWoody, J.A. (2012). [Comparative historical demography of migratory and nonmigratory birds from the Caribbean island of Hispaniola.](#) *Evolutionary Biology* 39: 400-414. doi: 10.1007/s11692-012-9164-9.
- Gerlach, N.M., McGlothlin, J., [Parker, P.G.](#) and Ketterson, E.D. (2012). [Promiscuous mating produces offspring with higher lifetime fitness.](#) *Proceedings of the Royal Society B* 279: 860-866. doi: 10.1098/rspb.2011.1547.
- Gerlach, N.M., McGlothlin, J., [Parker, P.G.](#) and Ketterson, E.D. (2012). [Reinterpreting Bateman gradients: Multiple mating and sexual selection in males and females of a socially monogamous songbird.](#) *Behavioral Ecology.* doi: 10.1093/beheco/ars077.
- Krijgsveld, K.L., [Ricklefs, R.E.](#) and Visser, G.H. (2012). [Daily energy expenditure in precocial shorebird chicks: smaller species perform at higher levels.](#) *Journal of Ornithology.* doi: 10.1007/s10336-012-0851-1.
- [Levin, I.I.](#) and [Parker, P.G.](#) (2012). Philopatry drives genetic differentiation in an island archipelago: Comparative population genetics of Galapagos Nazca boobies (*Sula granti*) and great frigatebirds (*Fregata minor*). *Ecology and Evolution.*
- [Levin, I.I.](#), Valkiunas G., Iezhova, T.A., O'Brien, S.L., and [Parker, P.G.](#) (2012). [Novel *Haemoproteus* species \(Haemosporida: Haemoproteidae\) from the swallow-tailed gull \(Lariidae\), with remarks on the host range of hippoboscid-transmitted avian hemoproteids.](#) *Journal of Parasitology* 98: 847-854. doi: <http://dx.doi.org/10.1645/GE-3007.1>.

- [Parker, P.G.](#) and [Deem, S.L.](#) (2012). Wildlife health monitoring and disease management: Protecting the biodiversity of Galapagos. In: Wolff, M. and Gardener, M. (Editors), *The role of science for conservation*, pp 165-176. Routledge, New York.
- [Parker, P.G.](#) and Whiteman, N.K. (2012). Evolution of pathogens and parasites on the Galapagos Islands. In: Wolff, M. and Gardener, M. (Editors), *The role of science for conservation*, pp 35-51. Routledge, New York.
- Pettitt, B.A., [Bourne, G.R.](#) and Bee, M.A. (2012). [Quantitative acoustic analysis of the vocal repertoire of the golden rocket frog \(*Anomaloglossus beebei*\)](#). *Journal of the Acoustical Society of America* 131(6): 4811-20.
- [Ricklefs, R.E.](#) (2012). [Habitat-independent structure in populations of some forest birds in eastern North America](#). *Journal of Animal Ecology*. doi: 10.1111/j.1365-2656.2012.02024.x.
- [Ricklefs, R.E.](#) (2012). [Species richness and morphological diversity of passerine birds](#). *Proceedings of the National Academy of Sciences*. doi: www.pnas.org/cgi/doi/10.1073/pnas.121207910.
- [Ricklefs, R.E.](#), and Renner, S.S. (2012). [Response to comments on “global correlations in tropical tree species richness and abundance reject neutrality](#). *Science* 336(6089): 1639-1640. doi: 10.1126/science.1222685.
- [Rivera-Parra, J.L.](#), Levenstein, K.M., Bednarz, J.C., Vargas, F.H., Carrion, V. and [Parker, P.G.](#) (2012). [Implications of goat eradication on survivorship of the Galapagos Hawk](#). *Journal of Wildlife Management* 76(6): 1197–1204. doi: 10.1002/jwmg.372.
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- [Tang-Martínez, Z.](#) (2012). [Repetition of Bateman challenges the paradigm](#). *Proceedings of the National Academy of Sciences*. doi:10.1073/pnas.1209394109.
- Valle, C.A. and [Parker, P.G.](#) (2012). Research on evolutionary principles in Galápagos: An overview of the past 50 Years. In: Wolff, M. and Gardener, M. (Editors), *The role of science for conservation*, pp 16–34. Routledge, New York.
- Zhang, G., [Parker, P.G.](#), Li, B., Li, H. and Wang, J. (2012). [The genome of Darwin’s Finch \(*Geospiza fortis*\)](#). *GigaScience*. <http://dx.doi.org/10.5524/100040>.