

Ethan J. Temeles
Curriculum Vitae
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Faculty Positions

Professor, Departments of Biology and Environmental Studies, Amherst College, 2008-present

Chair, Department of Biology, 2004-2006, 2016-2017

Chair, Department of Environmental Studies, 2014-2016

Associate Professor, Department of Biology, Amherst College, 2002-2008

Assistant Professor, Department of Biology, Amherst College, 1997-2001

Visiting Assistant Professor, Department of Biology, Amherst College, 1994-1996

Five College Faculty Member, Graduate Program in Organismic and Evolutionary Biology,
University of Massachusetts at Amherst, 1999-present

Five College Faculty Member, Graduate Program in Wildlife and Fisheries Conservation,
University of Massachusetts at Amherst, 2001-present

College Appointments

Thomas B. Walton, Jr., Memorial Professorship 2013-present (College-wide endowed position)

Thomas F. Pick Reader in Environmental Studies 2003-2006 (An endowment for the development of courses and public lectures in environmental studies)

Other Appointments

Research Associate, National Museum of Natural History, Smithsonian Institution, 2014-2016

Education and Employment

Postdoctoral Positions:

Smithsonian Postdoctoral Fellow, National Zoological Park, 1992-1994

Copeland Research Fellow, Amherst College, 1992

Research Associate, University of Arizona, 1990-1991

NATO/NSF Fellow, University of British Columbia, 1989-1990

Science Alliance Fellow, University of Tennessee, 1987-1988

Ph. D., Zoology, University of California, Davis, 1987

Major Professor: Dr. Thomas W. Schoener

Thesis Title: *Sexual size dimorphism, foraging behavior, and territorial defense in a predatory bird, the northern harrier*

M. Sc., Zoology, Louisiana State University, Baton Rouge, 1980

Major Professor: Dr. J. Van Remsen, Jr.

Thesis title: *Sexual size dimorphism in the New World Falconiformes*

A. B., Biological Sciences, Cornell University, Ithaca, 1978

Research Program

Experimental research in the field and laboratory on behavioral, ecological, and evolutionary aspects of sexual dimorphism and aggression in animals, and plant-pollinator interactions.

Teaching Experience (F = Fall semester; S = Spring Semester)*At Amherst College:*

Biology 18/181 Adaptation and the Organism: S1995-98, S2000-02, S06, S2008-09, S2015-17, F2019.
 Biology 19 Laboratory: Molecules, Genes, and Cells, F1994-96.
 Biology 23/230 Ecology: F1997, F1999-2001, F2007-10, F2012-18; S2004-05, S2012, S2019, F2020-01.
 Biology 42 Seminar on Pollination Biology: Spring 1995.
 Biology 45/46/430 Seminar in Behavioral Ecology: "Sexual dimorphisms", F03, F05, S00, S10, S12, F13, F18, F19.
 Biology 47/434 Seminar in Ecology: "Plant-Animal Interactions", F04, F07, F09, F11; S13, F14, S16, S19, S21.
 Biology 77/78/499 Senior Honors: 1994-1999, 2000-present.
 Biology 97 General Ecology for Hurricane Katrina students, F2005.
 Biology 98 Special Topics on Plant Community Analysis: Jedediah Horwitt, S1999.
 Environmental Studies 51 (formerly Pick 8) Seminar on Invasive Species: S2005; F2008.
 Environmental Studies 52 (formerly Pick 7) Seminar on Sustainable Agriculture: F2004; S2006, S2010.
 Environmental Studies 430 (formerly Pick 5) Seminar on Fisheries: F2003, F2005, S2009, S2013, S2021.
 Environmental Studies 495 Senior Seminar: F2010-2012, F2015-17, F2020-01.
 Pick 1 Seminar on Endangered Species: F2001.
 Pick 6 Seminar on Habitat Fragmentation, Biological Reserves, and Restoration: S2004.

Postdoctoral Fellows

Steven E. Travers (1999-2000)

Senior Honors Research Biology

Rachel Bonkovsky ('95)	Jodi Stevens ('95)	Catherine Smith ('95)	Adam Rankin ('96)
Jessica Green ('97)	Emily Barrett ('98)	Susan Darling ('98)	Irvin Pan ('99)
Amanda Muir ('01)	Lauren Peloquin ('02)	Elon Slutsky ('02)	Maren Vitousek ('02)
Robin Goldman ('03)	Alexei Kudla ('04)	Jazmine Arroyo ('04)	Kathryn Shaw ('05)
Carolyn Koulouris ('06)	Sarah Sander ('06)	Katerina Byanova ('09)	Joanna Rifkin ('09)
Jonathan Andicoechea ('09)	Alanna Darling ('09)	Shaylon Stolk ('10)	Geoffrey Giller ('10)
Yoon Rah ('11)	Rose Larios ('12)	Meredith LaRose ('12)	Julia Newman ('13)
Mark Kahan ('13)	Jennifer Newman ('14)	Se Yeon Cho ('14)	Molly Levy ('15)
Alexandra Mazzotta ('16)	Jia Liang ('17)		

Senior Environmental Studies and Independent Major Thesis Committees

Maura Klugman ('05), Samuel Sperling ('12), Katherine Eisen ('12), Pir Granoff ('12), Catherine Morse ('14), Gabriella Bishop ('18), Nicole Roberts ('18)

Summer Programs

Erin Koster ('95)	Anna Heineman ('96)	Jill Saunders ('97)
Jedediah Horwitt ('98, '99)	Jillian Brennan ('99)	Alexei Kudla ('02)
Sarah Sander ('04)	Jeffrey Tucker ('06)	Kade Pettie ('15)
Ellen von zur Muehlen ('18)		

At Organization For Tropical Studies (Organización para Estudios Tropicales):

Resource faculty, OTS-Duke Undergraduate Semester Abroad Program, Costa Rica, December 1998.

At the University of Massachusetts, Amherst (Graduate Program in Organismal and Evolutionary Biology):

Directed reading on habitat fragmentation, Liv Baker, Fall semester 2000.

Committee Service

At Amherst College:

Biology 3+4 Committee 1996-2002, 2005, 2008
Lecture Committee 1999-2002
Environmental Science Committee 1999-present
Interterm Development Committee 2004-2005
Parking Committee 2004-2006
First-Year Seminar Committee 2007-2009
IACUC Committee 2012-present
Faculty Research Awards Committee 2016-2017
Faculty Library Committee 2018-2020
Committee on Fellowships 2020-2021

At the University of Massachusetts, Amherst:

Steering Committee, Graduate Program in Organismal and Evolutionary Biology, 1999-2002.
Seminar Committee, Graduate Program in Organismal and Evolutionary Biology, 1999-2002.
M. Sci. Committee, Liv Baker, Graduate Program in Organismal and Evolutionary Biology, 2001-2003.
M. Sci. Committee, Alwin Dornelly (St. Lucian), Wildlife and Fisheries Conservation, 2003-2005.
Darwin Fellow Search Committee, 2004.

At Mt. Holyoke College:

Senior Honors Thesis Committee, Katherine K. Thorington, Department of Biology, 1999-2000.

At Hampshire College:

Senior Honors Thesis Committee, Cora Ann Johnston, Ecology Division III, 2007.

Organizations and Memberships

American Association for the Advancement of Science	American Ornithologists' Union (Elective Member)
American Society of Naturalists	Animal Behavior Society
Association for Tropical Biology and Conservation	The Hummingbird Society
Ecological Society of America	The Society for the Study and Conservation of Caribbean Birds

Editorial and Advisory Service

Science Editor, *The Hummingbird Connection* (The Hummingbird Society), 2004-present
Scientific Advisory Board, *The Hummingbird Society*, 1998-present

Reviewer for Granting Organizations and Institutions

Panel Member, *National Science Foundation* (8 times, 3 programs, 2001-2014)
Committee for Research and Exploration (National Geographic Society)
M. J. Murdock Charitable Trust
Natural Sciences and Engineering Research Council (Canada)
Swiss National Science Foundation

Reviewer for Scientific Publications (66 journals, 5+ texts and other books)

The American Journal of Botany
The American Naturalist
Annals of Botany
Animal Behaviour
The Auk
Behavioral Ecology
Behavioral Ecology and Sociobiology
Behaviour
Behavioural Processes
Biological Journal of the Linnean Society
Biological Reviews
Biology Letters
Biotropica
Bird Behavior
Birds of North America
Botanical Studies
Canadian Journal of Zoology
Caribbean Journal of Ornithology
The Condor
Ecography
Ecology
Ecosphere
Evolution
Evolutionary Ecology
Evolutionary Ecology Research
Firefly Books, Ltd.
Frontiers in Ecology and Evolution
Functional Ecology
Herpetologica
Ibis
Integrative Organismal Biology
International Journal of Plant Sciences
International Journal of Zoology
Journal of Animal Ecology
Journal of Avian Biology
Journal of Biogeography
Journal of Experimental Biology
Journal of Field Ornithology
Journal of Herpetology
Journal of Insect Behavior
Journal of Morphology
Journal of Ornithology
Journal of Pollination Ecology
Journal of Raptor Research
Journal of Theoretical Biology
Journal of Tropical Ecology
Journal of Zoology
Nature
New Phytologist
Northwest Science
Oecologia
Oikos
Open Ecology Journal
Open Ornithology Journal
Ornithological Monographs
Ornitologia Neotropical
PEERJ
Plant Biology
PLoS One
Prentice-Hall ESM Division
Proceedings of the Royal Society B
Science
Scientific Reports
The University of Chicago Press
The Hummingbird Connection
The Northeastern Naturalist
The Southwestern Naturalist
The Wilson Journal of Ornithology
Trends in Ecology and Evolution
W. H. Freeman

Research Grants and Awards (at Amherst College)

- 2017. National Science Foundation Program in Population and Community Ecology (DEB-1616174). REU Supplement. \$6,220.
- 2016. National Science Foundation Program in Population and Community Ecology (DEB-1616174). REU Supplement. \$5,775.
- 2015. National Science Foundation Program in Population and Community Ecology (DEB-1520187). REU Supplement. \$5,000.
- 2014. National Science Foundation Program in Population and Community Ecology (DEB-1353783). “SG: RUI: Pollinator competition and plant competition as mechanisms for evolutionary diversification in two hummingbird-pollinated plants of the Caribbean”. (With W. J. Kress co-PI). \$139,078.
- 2013. Amherst College Faculty Research Award for experimental study of mechanisms for floral divergence in hummingbird-pollinated plants of the Caribbean. \$19,474.
- 2006. National Science Foundation Program in Ecology (DEB-0614218). “RUI: Coevolutionary convergence and displacement across a geographic mosaic: Hummingbirds and heliconias of the Lesser Antilles”. (W. J. Kress co-PI). \$240,000.
- 2006. Amherst College Faculty Research Award for phylogenetic and geographic analyses of floral dimorphism in Caribbean *Heliconia* species and sexual dimorphisms in Caribbean hummingbirds. \$20,862.
- 2003. Amherst College Faculty Research Award for geographic analyses of floral dimorphism in *Heliconia* species and sexual dimorphisms hummingbirds of the Caribbean. \$5,000.
- 2001. Amherst College Faculty Research Award for research on the maintenance of floral dimorphism in Caribbean *Heliconia* species. \$4,131.
- 2000. National Science Foundation Program in Animal Behavior (IBN-0078483). “RUI: Evaluating mechanisms of natural and sexual selection for the maintenance of sexual dimorphism: experiments on a rain forest hummingbird”. \$170,416.
- 2000. Amherst College Faculty Research Award for research on the evolution of sexual dimorphism in hummingbirds and their coevolution with *Heliconia* flowers in St. Lucia, West Indies. \$3,210.
- 1998. Amherst College Faculty Research Award for research on hummingbird-flower coevolution. \$10,000.

Fellowships and Honors (at Amherst College)

- 2021. Elected Fellow, American Association for the Advancement of Science.
- 2020. Senior Sabbatical Fellowship, Amherst College.
- 2017. Senior Sabbatical Fellowship, Amherst College.
- 2014. Certificate of Appreciation, Department of Forestry, Commonwealth of Dominica.
- 2013. Senior Sabbatical Fellowship, Amherst College.
- 2010. Senior Sabbatical Fellowship, Amherst College.
- 2006. Smithsonian Institution Senior Fellowship. Departments of Botany and Ornithology, United States National Museum.
- 2006. Senior Sabbatical Fellowship, Amherst College.
- 2006. Elective Member, American Ornithologists’ Union.
- 2002. Senior Sabbatical Fellowship, Amherst College.
- 1998. Trustee Faculty Fellowship, Amherst College.

Publications in Scientific Journals (* = undergraduate student authors)

- Temeles, E. J. 1985. Sexual size dimorphism of bird-eating hawks: the effect of prey vulnerability. *American Naturalist* 125:485-499.
- Temeles, E. J. 1986. Reversed sexual size dimorphism: effect on resource defense and foraging behaviors of nonbreeding northern harriers. *Auk* 103:70-78.
- Temeles, E. J. 1987. The relative importance of prey availability and intruder pressure in feeding territory size regulation by harriers, *Circus cyaneus*. *Oecologia* 74:286-297.
- Temeles, E. J. 1989. The effect of prey consumption on territorial defense by harriers: differential responses to neighbors versus floaters. *Behavioral Ecology and Sociobiology* 24:239-243.
- Hedrick, A. V. and E. J. Temeles. 1989. The evolution of sexual dimorphism in animals: hypotheses and tests. *Trends in Ecology and Evolution* 4:136-138.
- Temeles, E. J. 1989. Effect of prey consumption on foraging activity of northern harriers. *Auk* 106:353-357.
- Temeles, E. J. 1990. Northern harriers on feeding territories respond more aggressively to neighbors than to floaters. *Behavioral Ecology and Sociobiology* 26:57-63.
- Temeles, E. J. 1990. Interspecific territoriality of northern harriers: the role of kleptoparasitism. *Animal Behaviour* 40:361-366.
- Carpenter, F. L., Hixon, M. A., Paton, D. C., Temeles, E. J., and R. W. Russell. 1991. Sexual differences in resource acquisition by migrant hummingbirds. *Acta XX Congressus Internationalis Ornithologici* 2:1156-1165.
- Temeles, E. J. and T. I. Wellicome*. 1992. Weather-dependent kleptoparasitism and aggression in a raptor guild. *Auk* 109:920-923.
- Grant, V., and E. J. Temeles. 1992. Foraging ability of rufous hummingbirds on hummingbird flowers and hawkmoth flowers. *Proceedings of the National Academy of Sciences* 89:9400-9404.
- Temeles, E. J. and W. M. Roberts*. 1993. Effect of sexual dimorphism in bill length on foraging behavior: an experimental analysis of hummingbirds. *Oecologia* 94:87-94.
- Carpenter, F. L., Hixon, M. A., Russell, R. W., Paton, D. C., and E. J. Temeles. 1993. Interference asymmetries among age-sex classes of migrant rufous hummingbirds on refuelling stopovers. *Behavioral Ecology and Sociobiology* 33:297-304.
- Carpenter, F. L., Hixon, M. A., Temeles, E. J., Russell, R. W., and D. C. Paton. 1993. Exploitative compensation by subordinate age-sex classes of migrant rufous hummingbirds. *Behavioral Ecology and Sociobiology* 33:305-312.
- Temeles, E. J. 1994. The role of neighbours in territorial systems: when are they "dear enemies"? *Animal Behaviour* 47:339-350.

Publications in Scientific Journals, continued

- Hurlbert*, A. H., Hosoi*, S. A., Temeles, E. J., and P. W. Ewald. 1996. Mobility of *Impatiens capensis* flowers: effect on pollen deposition and hummingbird foraging. *Oecologia* 105:243-246.
- Temeles, E. J. 1996. A new dimension to hummingbird - flower relationships. *Oecologia* 105:517-523.
- Smith*, C. E., Stevens*, J. T., Temeles, E. J., Ewald, P. W., Hebert, R. J., and R. L. Bonkovsky*. 1996. Effect of floral orifice width and shape on hummingbird-flower interactions. *Oecologia* 106:482-492.
- Temeles, E. J., Pan*, I. L., Brennan*, J. L., and J. N. Horwitt*. 2000. Evidence for ecological causation of sexual dimorphism in a hummingbird. *Science* 289:441-443.
- Temeles, E. J. and A. G. Rankin*. 2000. Effect of the lower lip of *Monarda didyma* on pollen removal by hummingbirds. *Canadian Journal of Botany* 78:1164-1168.
- Temeles, E. J., Linhart, Y. B., Masonjones, M., and H. D. Masonjones. 2002. The role of flower width in hummingbird bill length – flower length relationships. *Biotropica* 34:68-80.
- Temeles, E. J., and I. L. Pan*. 2002. Effect of nectar robbery on phase duration, nectar volume, and pollination in a protandrous plant. *International Journal of Plant Sciences* 163:803-808.
- Travers, S. E., Temeles, E. J., and I. L. Pan*. 2003. The relationship between nectar spur curvature in jewelweed (*Impatiens capensis*) and pollen removal by hummingbird pollinators. *Canadian Journal of Botany* 81:164-170.
- Temeles, E. J. and W. J. Kress. 2003. Adaptation in a plant-hummingbird association. *Science* 300:630-633.
- Temeles, E. J., Muir*, A. B., Slutsky*, E. B., and M. N. Vitousek*. 2004. Effect of food reductions on territorial behavior of Purple-throated Caribs, *Eulampis jugularis*. *Condor* 106:691-695.
- Temeles, E. J., Goldman*, R. S., and A. U. Kudla*. 2005. Foraging and territory economics of sexually-dimorphic Purple-throated Caribs, *Eulampis jugularis*, at three heliconias. *Auk* 122:187-204.
- Temeles, E. J., Shaw*, K. C., Kudla*, A. U., and S. E. Sander*. 2006. Traplining by purple-throated carib hummingbirds: behavioral responses to competition and nectar availability. *Behavioral Ecology and Sociobiology* 61:163-172.
- Temeles, E. J., Koulouris*, C. R., Sander*, S. E., and W. J. Kress. 2009. Effect of flower shape and size on foraging performance and trade-offs in a tropical hummingbird. *Ecology* 90:1147-1161.
- Temeles, E. J. and W. J. Kress. 2010. Mate choice and mate competition by a tropical hummingbird at a floral resource. *Proceedings of the Royal Society B*, 207:1607-1613.

Publications in Scientific Journals, continued

- Temeles, E. J., Miller, J. S., and J. L. Rifkin*. 2010. Evolution of sexual dimorphism in bill size and shape of hermit hummingbirds (Phaethornithinae): a role for ecological causation. *Philosophical Transactions of the Royal Society of London, B* 365:1053-1063.
- Martén-Rodríguez, S., Kress, W. J., Temeles, E. J., and E. Mélen-dez-Ackerman. 2011. Plant-pollinator interactions and floral convergence in two species of *Heliconia* from the Caribbean islands. *Oecologia* 167:1075-1083.
- Gowda, V., Temeles, E. J., and W. J. Kress. 2012. Territory fidelity to nectar sources by Purple-throated Caribs, *Eulampis jugularis*. *The Wilson Journal of Ornithology* 124:81-86.
- Temeles, E. J., *Rah, Y. J., *Andicoechea, J., *Byanova, K. L., *Giller, G. S. J., *Stolk, S. B., and W. J. Kress. 2013. Pollinator-mediated selection in a specialized hummingbird-*Heliconia* system in the Eastern Caribbean. *Journal of Evolutionary Biology* 26:347-356.
- Temeles, E. J., *Newman, J. T., *Newman, J. H., *Cho, S. Y., *Mazzotta, A. R., and W. J. Kress. 2016. Pollinator competition as a driver of floral divergence: an experimental test. *PLoS ONE* 11(1): e0146431.
- Temeles, E. J., *Mazzotta, A. R., and A. Williamson. 2017. Resource partitioning by color in a tropical hummingbird. *Behavioral Ecology and Sociobiology* 81:129.
- Temeles, E. J. and G. A. Bishop*. 2019. A hurricane alters pollinator relationships and natural selection on an introduced island plant. *Biotropica* 51:129-138.
- Temeles, E. J., *Liang, J., *Levy, M. C., and Y-L Fan. 2019. Floral isolation and pollination in two hummingbird-pollinated plants: the roles of exploitation barriers and pollinator competition. *Evolutionary Ecology* 33:481-497.
- Temeles, E. J. 2022. The effects of prey availability and capture success on the foraging and territory economics of a predatory bird, *Circus hudsonius*. *Journal of Ornithology*. <https://doi.org/10.1007/s10336-022-01979-0>.
- Maglianesi, M. A., Maruyama, P. K., Temeles, E. J., Schleuning, M., Zanata, T. B., Sazima, M., Gutiérrez-Zamora, A., Marín-Gómez, O. H., Rosero-Lasprilla, L., Ramírez-Burbano, M. B., Ruffini, A. E., Salamanca-Reyes, J. R., Sazima, I., Nuñez-Rosas, L. E., del Coro Arizmendi, M., Rahbek, C., & Dalsgaard, B. 2022. Behavioural and morphological traits influence sex-specific floral resource use by hummingbirds. *Journal of Animal Ecology*, 00, 1– 10. <https://doi-org.amherst.idm.oclc.org/10.1111/1365-2656.13746>

Publications in Popular Magazines

- Temeles, E. J. and P. W. Ewald. 1999. Fitting the bill? *Natural History Magazine* 108(5):52-55.
Temeles, E. J. 2002. All the right curves. *Natural History Magazine* 111(9):52-56.
Temeles, E. J. 2015. Say it with flowers. *The Hummingbird Connection* 11(1):9-11.
Temeles, E. J. 2015. Bathing beauty. *Natural History Magazine* 123(4):48.

Book Reviews

- Temeles, E. J. 2006. The geographic mosaic of coevolution. Book Review. *Auk* 123:605-607.

Invited Seminars (last 20 years)

- University of Missouri-St. Louis, Department of Biology (2018)
Dominica State College, Commonwealth of Dominica, West Indies (2010)
Harvard University, Herbarium and Organismal and Evolutionary Biology (2008)
Dartmouth College, Department of Biological Sciences (2008)
Eastern Connecticut State University, Tropical Biology Program (2008)
Hampshire College, Environmental Science and Sustainability Series (2007)
National Zoological Park, Dept. Conservation Biology (2007)
University of Maryland, Graduate Program in Ecology, Evolution, and Behavior (2006)
National Museum of Natural History, Depts. of Botany and Vertebrate Zoology (2006)
University of Rhode Island, Department of Biology (2004)
National Museum of Natural History, Department of Botany (2003)
Tufts University, Department of Biology (2003)

Invited Presentations at Symposia (excludes presentations by co-authors)

- Effect of Hurricane Maria on pollination and natural selection in a specialized hummingbird-plant pollination system in the Eastern Caribbean.* National Science Foundation Hurricane Ecosystem Response Synthesis Webinar Series, March 2022. <https://youtu.be/LGLgsuRWdbI>
- Hurricane Maria alters pollination relationships and natural selection on an introduced island plant in Dominica, W.I.* Symposium: Birds and hurricanes: effects, responses, resilience, and conservation. North American Ornithological Congress VII, San Juan, Puerto Rico, August 2020.
- Pollinator generalization and specialization across a geographic mosaic: hummingbirds and heliconias of the Eastern Caribbean.* Symposium: Coevolution. The American Ornithologists' Union 125th Meeting, Laramie, Wyoming, August 2007.
- Pollinator generalization and specialization across a geographic mosaic: hummingbirds and heliconias of the Eastern Caribbean.* Symposium: Diversity and Evolution of Pollination and Mating Systems of Tropical Plants. The Association for Tropical Biology and Conservation Annual Meeting, Morelia, Mexico, July 2007.

Invited Presentations at Symposia, cont.

Foraging and territory economics of sexually-dimorphic Purple-throated Caribs, Eulampis jugularis, at three heliconias. Symposium: The Unselfish Gene: Honoring E. S. Morton's contributions to ornithology. Joint meeting of the Wilson Ornithological Society and the Association of Field Ornithologists, Beltsville, Maryland, April 2005.

Sexual dimorphism and coevolution: intra- and inter-island studies of a hummingbird – Heliconia system. Symposium: Linking physiology, morphology, and ecology in nectar-feeding birds. Third North American Ornithological Conference, New Orleans, Louisiana, September 2002.

Symposium: *Hummingbirds as Model Systems*, 21st International Ornithological Congress, Vienna, Austria (August 1994).

The Avian Crop: a limit to ingestion rate. Symposium: Avian Foregut Function, sponsored by the American Physiological Society. Federation of American Societies for Experimental Biology 1991 meeting, Atlanta, Georgia.

Public Lectures

Food, sex, and a hummingbird: Coevolution between the purple-throated carib and its Heliconia food plants of the Lesser Antilles. Ministry of Agriculture and the Environment, Commonwealth of Dominica, May, 2016. (televised).

Food, sex, and a hummingbird: Coevolution between the purple-throated carib and its Heliconia food plants of the Lesser Antilles. Amherst College Virtual Lecture, 30 September, 2014.

Food, sex, and a hummingbird: Coevolution between the purple-throated carib and its Heliconia food plants of the Lesser Antilles. Sedona, Arizona Hummingbird Festival 1, 3 August 2014.

Why Birds Matter. University of the West Indies Open Campus, Dominica. 8 May, 2014.

Hummingbirds and heliconias of the Lesser Antilles. Sanibel-Captiva Audubon Society, Sanibel, Florida, 23 January 2014.

Biological research at Amherst College: A passion with a mission. Sun Coast Amherst Alumni Association, Naples, Florida, 23 January 2014.

A threatened biological legacy, Amherst Today Workshop on The Coming Environmental Crisis: Reality and Response, 8 March 2007.

The ecology of sexual dimorphism: food, sex, and a hummingbird. Faculty Lecture, Parent's Weekend, Amherst College, 1 November 2003.

The ecology of sexual dimorphism: inter- and intra-island studies of a hummingbird-flower system. The Isabelle Sprague Lecture sponsored by the Department of Biological Sciences, Mt. Holyoke College, South Hadley, Massachusetts, 29 October 2001.

Public Lectures, cont.

Funny things happen on the way to flowers: tricks flowers play on hummingbirds. Keynote Address, Albuquerque Hummingbird Festival, sponsored by the Friends of the Rio Grande Nature Center, Albuquerque, New Mexico, 9 August 1997.

The ornithophilous flower syndrome: a new diagnosis. Western Massachusetts Audubon Society-Hampshire Bird Club, Amherst, Massachusetts, 14 April 1997.

Hummingbirds and flowers: biology and natural history. Friends of the Smith College Botanical Garden, Northampton, Massachusetts, 3 December 1996.

Media Attention

BBC Earth. *The Mating Game. 3. Jungles: In the thick of it.* Sir David Attenborough, 2021.

Spector D (2021) Earth Matters: Hummingbirds part of intricate web of relationships. *Hampshire Gazette*, 28 May.

Crask P. (2016) The private lives of hummingbirds. *Dominica Traveller 2*.

Anonymous. *Pollinator competition may drive flower diversification.* January, 2016. Phys.org, News United, and multiple other online news outlets.

Nash, D. The huia and its sexually dimorphic bill. *Scientific American Tetrapod Zoology*, 19 March 2015.

Marpin Television Studios, Commonwealth of Dominica. *Why Birds Matter.* University of West Indies and You Television Series, 15 May, 2014.

Environment Corner Television, Commonwealth of Dominica. *The Value of Birds.* Government Information Service and Forestry, Wildlife and Parks Environmental Education unit, 15 April 2014.

Manning, S. 2013. *Spring means yard work for hummingbird watchers.* Associated Press, 26 March.

Johnson, C. Y. 2012. Enemy me on Facebook: In a friend-obsessed world, research is uncovering real benefits to having a nemesis. *Boston Globe*, 26 February.

Freeman, S. 2010. These hummers mate for nectar. *Springfield (MA) Republican*, 5 May.

Landon, A. *Hummingbirds find love with flowers and a place for romance.* Medill Reports, Northwestern University, Chicago. 22 April 2010.

Birdwatch. *Flowers and sweet things attract a female.* 15 April 2010. www.birdwatch.co.uk.

Dye, L. *Forget the flash: let's see your nectar.* ABCnews.go.com, 14 April 2010.

Media Attention, cont.

- Gibbons, J. *A well-defended territory is what some female hummingbirds find most attractive in a mate.* Smithsonian Research Online (smithsonianscience.org), 31 March 2010. Reprinted by Sciencedaily.com, Escience.news, and Physorg.com.
- Hanna, C. *Hummingbirds support Darwin's theories.* STLtoday.com, 30 March 2010.
- Nature-PBS. *Hummingbirds: Magic in the Air.* Ann Prum, Producer, Coneflower Productions. 10 January 2010 release date. <http://www.pbs.org/wnet/nature/episodes/hummingbirds-magic-in-the-air/video-full-episode/5475/>
- BBC. *Life: Plants.* Neil Lucas, Producer. UK Broadcast 7 December 2009.
- Smithsonian National Museum of Natural History. Featured exhibit on hummingbirds and *Heliconia* coevolution in the museum's *Since Darwin: The Evolution of Evolution* exhibit, opening 12 September 2009.
- Buckley, C. 2009. Battle of the sexes: competition and evolution in tropical hummingbirds. Ecological Society of America Podcast 28 May 2009. (<http://www.esa.org/podcast/?p=105>).
- Buchan, U. 2008. *Chelsea flower show: a cut above the competition.* London Telegraph, 21 May 2008.
- Smithsonian National Museum of Natural History. Featured exhibit on Purple-throated carib hummingbirds and *Heliconia* coevolution in the museum's *Partners in Evolution* exhibit, opening 14 February 2008.
- Pollick, S. and J. Basting. 2005. These birds aren't tongue-tied. *Toledo Blade Sunday Magazine*, 3 April.
- Mikołusko, M. 2004. Dwa dzioby kolibra. *Wieda i Życie* (Nov):32-34.
- McFarland, K. 2004. Nature: Long and varied, bird tongues do the job. *Rutland Herald Sunday Magazine*, 15 August.
- Gibbons, J. W. 2004. Life Sciences, Zoology. *2004 Encyclopedia Britannica Book of the Year*, pp. 215-216.
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