

# Holly L. Lutz

1400 S. Lake Shore Drive  
Field Museum of Natural History  
Chicago, IL 60605

email: hlutz@fieldmuseum.org  
Phone: (817) 683-3244  
www.hollylutz.com

---

## EDUCATION

---

- PhD** Cornell University August 2011 – August 2016  
Department of Ecology and Evolutionary Biology  
Department of Population Medicine and Diagnostic Sciences  
Lab of Ornithology  
Advisors: André A. Dhondt, Michael J. Stanhope
- BA** University of Chicago September 2005 – June 2009  
Department of Biological Sciences  
Specialization in Ecology and Evolutionary Biology
- The Athens Centre, Civilization and Language Program Spring 2008  
Athens, Greece

---

## FELLOWSHIPS & GRANTS

---

### Fellowships:

- 2017 - 2018 Postdoctoral Research Fellowship in Biology, National Science Foundation  
2015 Bouchet Graduate Diversity Fellow, Edward A. Bouchet Graduate Honor Society  
2014 - 2015 Lester Armour, William A. & Stella Rowley Fellow, Field Museum of Natural History  
2013 - 2016 Graduate Research Fellow, National Science Foundation  
2011 - 2012 Presidential Life Sciences Fellow, Cornell University  
2008 - 2009 REU Research Fellow, Field Museum of Natural History

### Grants:

- 2015 Athena Fund, Cornell Lab of Ornithology (\$4,000)  
2014 Illumina MiSeq Grant, Pritzker Laboratory of Molecular Systematics & Evolution (\$5,000)  
2014 CALS Alumni Association Grant (\$545)  
2014 Cornell Center for Comparative and Population Genomics (\$750)  
2013 NSF Malaria Research Coordination Network (\$1,975)  
2013 American Society of Naturalists (\$200)  
2013 Athena Fund, Cornell Lab of Ornithology (\$1,800)  
2012 Sigma Xi, Cornell Chapter (\$400)  
2012 Andrew W. Mellon Grant (\$1,000)  
2012 NSF Malaria Research Coordination Network (\$3,000)  
2011 Krammer Graduate Research Grant (\$1,000)

## PUBLICATIONS

---

- Lutz, H. L., Ramírez-Puebla, T., Abbo, L., Schlundt, C., Sjaarda, A. K., Durand, A., Hanlon, R. T., Gilbert, J. A., Mark Welch, J. L. *In Review*. A simple microbiome in the European common Cuttlefish, *Sepia officinalis*. BioRxiv doi: <https://doi.org/10.1101/440677>
- Lutz, H. L., Jackson E. W., Webala, P. W., Babyesiza, W. S., Kerbis Peterhans, J. C., Demos, T. C., Patterson, B. D., Gilbert, J. A. *In Review*. Associations between Afrotropical bats, parasites, and microbial symbionts. BioRxiv doi: <https://doi.org/10.1101/340109>
- Barrow, L. N., McNew, S. M., Mitchell, N., Galen, S. C., Lutz, H. L., Skeen, H., Valqui, T., Weckstein, J. D., Witt, C. C. *In Review*. Deeply conserved susceptibility in a multi-host, multi-parasite system. BioRxiv doi: <https://doi.org/10.1101/424549>
- Fecchio, A., Bosholn, M., Bell, J. A., **Lutz, H. L.**, Cueto, V. R., González-Acuña, D., Vaughan, J. A., Stromlund, C., Kvasager, D., Pinho, J. B., Berv, J, Anciães, M., Zyskowski, K., Dispoto, J. H., Tkach, V. V., Weckstein, J. D. *In Review*. Diversity and distributions of *Leucocytozoon* in New World birds.
- Fecchio, A., Wells, K., Bell, J. A., Tkach, V. V., **Lutz, H. L.**, Weckstein, J. D., Clegg, S. M., Clark, N. J. *In Review*. Climate variation influences host specificity in avian malaria parasites.
- \* Lutz, H. L., Carryl, S., Santymire, R. M. *In Press*. Wildlife Microbial Genomics and Endocrinology. In D. Marco (editor). Microbial Ecology: Current advances from genomics, metagenomics, and other “omics” approaches. Horizon/Caister Academic Press, Poole, UK.
- \* Lutz, H. L., Tkach, V. T., Weckstein, J. D. 2017. Methods for Specimen-based Studies of Avian Symbionts. Pp. 157-183 in M. S. Webster (editor). The Extended Specimen: Emerging Frontiers in Collections-based Ornithological Research. Studies in Avian Biology (no. 50). CRC Press, Boca Raton, FL.
- Lutz, H. L., Marra, N. J., Grewe, F., Carlson, J., Palinauskas, V. Valkiunas, G., Stanhope, M. J. 2016. Laser capture microdissection microscopy and genome sequencing of the avian malaria parasite, *Plasmodium relictum*. *Parasitology Research*, 115, 4503 – 4510.
- Lutz, H. L., Patterson, B. D., Kerbis, J. C., Webala, P. W., Stanley, W. T., Gnoske, T. P., Hackett, S. J., Stanhope, M. J. 2016. Diverse sampling of East African bats and birds supports a chiropteran origin of malaria parasites in primates and rodents. *Molecular Phylogenetics and Evolution*, 99, 7-15.
- Lutz, H. L., Hochachka, W. M., Engel, J. I., Bell, J. A., Tkach, V. V., Bates, J. M., Hackett, S. J., Weckstein, J. D. 2015. Parasite prevalence corresponds to host life history in a diverse assemblage of Afrotropical birds and haemosporidian parasites. *PLOS ONE*, 10(4):e0121254.
- Lutz, H. L., Weckstein, J. D., Patané, J. L., Bates, J. M., Aleixo, A. 2013. Biogeography and spatio-temporal diversification of *Selenidera* and *Andigena* toucans (Aves: Ramphastidae). *Molecular Phylogenetics and Evolution*, 69, 873 – 883.

## SELECTED TALKS (\*Invited)

---

- \***Lutz, H. L.** 2017. Host-symbiont ecology of Afrotropical vertebrates. Conservation and Science Lecture Series, Lincoln Park Zoo, Chicago, IL.
- \***Lutz, H. L.** 2017. Bats and birds and bugs and things. Moore Lab of Zoology, Occidental College, Los Angeles, CA.
- \***Lutz, H. L.** 2017. Wildlife microbiome and host-symbiont biology in Afrotropical birds and bats. A. Watson Armour Seminar Series, Field Museum of Natural History, Chicago, IL.
- Lutz, H. L.,** Patterson, B. D., Kerbis Peterhans, J. C., Webala, P. W., Stanley, W. T., Gnoske, T. P., Hackett, S. J., Stanhope, M. J. 2015. Phylogenetic analysis of Afrotropical malaria parasites identifies bats as ancestral hosts, presented at the 45<sup>th</sup> Annual Symposium of the North American Society for Bat Research, Monterey, CA, USA.
- \***Lutz, H. L.** 2015. Phylogenetics of haemosporidia in Afrotropical vertebrates, presented at the Annual Yale Bouchet Conference on Diversity and Graduate Education, Yale University, New Haven, CT.
- \***Lutz, H. L.** 2014. Evolution of malaria parasites in African vertebrates, presented to the Council on Africa, Field Museum of Natural History, Chicago, IL, USA.
- Lutz, H. L.,** Hochachka, M. W., Engel, J. I., Tkach, V. T., Bates, J. M., Hackett, S. J., Weckstein, J. D. 2013. Ecological determinants of haemosporidian prevalence in tropical African birds, presented at the International Conference on Malaria and Related Haemosporidian Parasites of Wildlife, Vilnius, Lithuania.
- Lutz, H. L.,** Jiang, Z., Skeen, H. R., Hackett, S. J., Weckstein, J. D. 2013. The evolution of scientific collecting: Comprehensive biodiversity surveys of avian parasites and pathogens can produce important baseline data and lead to novel eco-evolutionary insights, presented at the 131<sup>st</sup> Meeting of the American Ornithologists Union, Chicago, IL, USA.
- \***Lutz, H. L.,** Weckstein, J. D., Engel, J. I., Bates, J. M., Hackett, S. J. 2013. Evolution and diversity of malarial parasites in the African tropics, presented at Makerere University Department of Biological Sciences Symposium on Afrotropical Biodiversity, Kampala, Uganda.
- Lutz, H. L.,** Weckstein, J. D., Engel, J. I., Bates, J. M., Hackett, S. J. 2012. Diversity and host specificity of avian malarial parasites in Afrotropical forests and miombo woodlands, presented at the Cornell University Department of Ecology and Evolutionary Biology Symposium, Ithaca, NY, USA.

## RESEARCH & PROFESSIONAL EXPERIENCE

---

<b>NSF Postdoctoral Fellow</b> <i>University of Chicago, Department of Surgery</i> <i>Argonne National Laboratory</i>	January 2017 - present
<b>Research Associate</b> <i>Field Museum of Natural History</i>	January 2017 - present
<b>Staff Scientist</b>	September 2016 – December 2016

*Field Museum of Natural History*  
*Integrative Research Center*

**Graduate Student**

August 2011 – August 2016

*Cornell University, Ithaca, NY*  
*Department of Ecology and Evolutionary Biology*  
*Department of Population Medicine and Diagnostic Sciences*

**Resident Graduate Student**

August 2014 – August 2015

*Field Museum of Natural History, Chicago, IL*

**Research Assistant, Emerging Pathogens Project**

October 2009 – August 2011

*Field Museum of Natural History, Chicago, IL*  
*University of Chicago, Chicago, IL*

PIs: Shannon J. Hackett, Kevin P. White

Collaborating Institutions and Field Locations: CORBIDI (Peru); Gorongosa National Park (Mozambique); Museums of Malawi (Malawi); UWA & Makerere University (Uganda); Bat Conservation African (Kenya). Collection and preparation of bird and mammal voucher specimens, as well parasite and pathogen data. Training of local assistants and collaboration with local institutions.

**Veterinary Assistant**

November 2010 – April 2011

*Hyde Park Animal Clinic, Chicago, IL*

**Animal Keeper**

December 2009 – May 2010

*Lincoln Park Zoo, Chicago, IL*  
*Regenstein Small Mammal and Reptile House*

**TEACHING EXPERIENCE**

---

**Teaching Assistant**

Winter 2016

*Cornell University, Ithaca, NY*  
*Department of Ecology and Evolution, CALS*  
Course: BIOEE2640 Tropical Field Ornithology in the Dominican Republic  
Center for Biodiversity and Sustainability, Punta Cana Ecological Foundation  
Instructor: André Dhondt

**Teaching Assistant**

Spring 2014

*Cornell University, Ithaca, NY*  
*Department of Ecology and Evolution, CALS*  
Course: BIOEE1780 Introduction to Evolutionary Biology and Diversity  
Lead Instructor: Robert Reed

**Head Teaching Assistant**

Fall 2012

*Cornell University, Ithaca, NY*

*Department of Ecology and Evolution, CALS*

Course: BIOEE1780 Introduction to Evolutionary Biology and Diversity

Lead Instructor: Brian Lazzaro

**Residency Advisor**

Summer 2010, 2011, 2012

*Field Museum of Natural History, Chicago, IL*

*Pritzker Laboratory for Molecular Systematics and Evolution*

Program: DNA Research Summer Residency for high school students

Design of residency projects and training of high school students and instructors in molecular research methods, e.g., screening African birds for malarial parasites, molecular identification of cryptic species in African rodents, and analysis of host-parasite associations between birds and blood parasites from Peruvian cloud forests.

**Teaching Assistant**

Fall 2008

*The University of Chicago, Chicago, IL*

*Department of Biological Sciences*

Course: BIOSCI20184 Biodiversity

Instructor: Michael LaBarbera

**SERVICE & OUTREACH**

---

**Contributing Writer**

January

2017 - 2018

[www.micronow.com](http://www.micronow.com)

*American Society of Microbiology*

**Graduate and Professional Student Assembly**

2011 - 2014

*Student Advocacy Committee, Cornell University, Ithaca, NY*

**Editorial review**

Backyard Biology: Investigate Habitats Outside Your Door with 25 Projects (Build it Yourself Series), Authors: Donna Latham, Beth Hetland, Nomad Press: White River Junction, VT. 2012.

Peer review for American Naturalist, EcoHealth, Folia Zooligica, International Journal of Parasitology, Journal of Ornithology, Parasitology, Parasitology Research, Zoologica Scripta, Journal of Biogeography, Malaria Journal

**PROFESSIONAL SOCIETIES & MEMBERSHIPS**

---

American Ornithologists Union

American Society for Microbiology

American Society of Parasitologists

Association of Field Ornithologists

Bat Conservation International

Society for the Study of Evolution