# Mason Fidino

Quantitative Ecologist

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#### Education

2013-2017 **Ph.D.**, *Ecology and Evolution*, University of Illinois at Chicago.

Advisors: Joel Brown, Seth Magle, and Chris Whelan

2005 – 2009 B.S., Environmental Science, Western Washington University.

Advisor: David Wallin

## Professional Experience

2017 — Quantitative Ecologist, Urban Wildlife Institute, Lincoln Park Zoo, Chicago, IL.

Present In this role I closely collaborate with conservation and science staff at the Lincoln Park Zoo to better manage and analyze data from a wide variety of sources, from touchscreen cognition tests for primates to nation-wide camera trapping projects. My own research in this position primarily focuses on developing new tools and techniques that better incorporate a species natural history into a statistical model and help address basic and applied questions related to how species respond to habitat fragmentation.

2015 – 2017 **Ecological Analyst**, *Urban Wildlife Institute*, Lincoln Park Zoo, Chicago, IL. In this role I worked to develop techniques to better manage and analyze ecological data and assist other science centers across the Lincoln Park Zoo with statistical analyses, data management, and computer programming. I also developed statistics and computer programming workshops for staff. Finally, I helped initiate a large-scale citizen science project, Chicago Wildlife Watch (www.chicagowildlifewatch.org) and have written extensive software to verify and upload data to the project.

2014 - Analytics Advisor, Urban Wildlife Information Network.

Present The Urban Wildlife Information Network (UWIN) is the world's first systematic multi-city urban wildlife monitoring network. To facilitate the collection and analysis of these data I worked closely with a tech company in Chicago to develop a website and SQL datatbase to store camera trapping images, identify species in images, and summarize the data for varying analyses. Furthermore, I work with partners in over 17 cities to answer any database or analysis question they may have.

2012 – 2015 Coordinator of Wildlife Management, Urban Wildlife Institute, Lincoln Park Zoo, Chicago, IL.

Led research of wildlife on zoo grounds, which included daily avian point counts, tracking relocated turtles in a newly restored pond habitat, on grounds rabbit management, arthropod surveys, and monitoring a nesting colony of state-endangered Black-crowned Night Herons (Nycticorax nycticorax). To do all of this work, I managed and trained teams of interns each year, mentored them on urban ecology, and helped them present their work to their peers at the Lincoln Park Zoo. Additionally, I collaborated extensively with the Lincoln Park Zoo's education department on numerous projects to educate zoo visitors on wildlife conservation efforts throughout Chicago.

2011 – 2012 **Research Intern**, *Urban Wildlife Institute*, Lincoln Park Zoo, Chicago, IL. Aided with field work and data entry for the Urban Wildlife Institute's biodiversity monitoring survey, helped with research on zoo grounds, and created year-end permit reports.

2009 – 2010 **Environmental Technician**, *Environmental Assessment Services*, Richland, WA. Assisted with numerous biological research projects at the Hanford superfund site.

#### **Publications**

- \* denotes shared first authorship
- Gallo\*, T., **Fidino\***, **M.**, Lehrer, E. W., and Magle, S. B. (*in review*). Urbanization alters predator avoidance behaviors. *Journal of Animal Ecology*.
- Magle, S. B., **Fidino, M.**, Lehrer, E. W., Gallo, T., Mulligan, M. P., Rios, M. J., Ahlers, A. A., Angstmann, J., Belaire, A., Dugelby, B., Gramza, A., Hartley, L., MacDougall, B., Ryan, T., Salsbury, C., Sander, H., Schell, C., Simon, K., and Drake, D. (in press). Advancing urban wildlife research through a multi-city collaboration. Frontiers in Ecology and the Environment.
- **Fidino, M.**, Herr, S. W., and Magle, S. B. (2018). Assessing online opinions of wildlife through social media. *Human Dimensions of Wildlife*, pages 1–9.
- **Fidino, M.**, Simonis, J. L., and Magle, S. B. (2018). A multi-state dynamic occupancy model to estimate local colonization-extinction rates and patterns of co-occurrence between two or more interacting species. *Methods in Ecology and Evolution*, 0:1–12.
- Gallo, T. and **Fidino**, M. (2018). Biodiversity: Making wildlife welcome in urban areas. eLife, 7:e41348.
- Gallo, T., Lehrer, E. W., **Fidino, M.**, Kilgour, R. J., Wolff, P. J., and Magle, S. B. (2018). Need for multiscale planning for conservation of urban bats. *Conservation Biology*, 32(3):638–647.
- Hopper, L. M., Egelkamp, C. L., **Fidino, M.**, and Ross, S. R. (2018). An assessment of touchscreens for testing primate food preferences and valuations. *Behavior Research Methods*, pages 1–12.
- Magle, S. B. and **Fidino**, **M.** (2018). Long-term declines of a highly interactive urban species. *Biodiversity and Conservation*, 27(14):3693–3706.
- Murray, M. H., Fyffe, R., **Fidino, M.**, Byers, K. A., Rios, M. J., Mulligan, M. P., and Magle, S. B. (2018). Public complaints reflect rat relative abundance across diverse urban neighborhoods. *Frontiers in Ecology and Evolution*, 6:189.
- Saiyed, S. T., Liubicich, R. C., **Fidino**, **M.**, and Ross, S. R. (2018). Stillbirth rates across three ape species in accredited american zoos. *American journal of primatology*, page e22870.
- **Fidino, M.** and Magle, S. B. (2017). Using fourier series to estimate periodic patterns in dynamic occupancy models. *Ecosphere*, 8(9).
- **Fidino, M.** and Magle, S. B. (2017). Trends in long-term urban bird research. In *Ecology and Conservation of Birds in Urban Environments*, pages 161–184. Springer.
- Fidino, M. (2017). Urban Wildlife Through Space and Time. PhD thesis.
- Gallo, T., **Fidino, M.**, Lehrer, E. W., and Magle, S. B. (2017). Mammal diversity and metacommunity dynamics in urban green spaces: implications for urban wildlife conservation. *Ecological Applications*, 27(8):2330–2341.
- Bender, J., **Fidino, M.**, Limbrick, K., and Magle, S. (2016). Assessing nest success of black-capped chickadees (poecile atricapillus) in an urban landscape using artificial cavities. *The Wilson Journal of Ornithology*, 128(2):425–429.
- **Fidino, M.**, Lehrer, E. W., and Magle, S. B. (2016). Habitat dynamics of the virginia opossum in a highly urban landscape. *The American Midland Naturalist*, 175(2):155–167.

Magle, S., Lehrer, E., and **Fidino, M.** (2016). Urban mesopredator distribution: examining the relative effects of landscape and socioeconomic factors. *Animal Conservation*, 19(2):163–175.

#### Selected Scientific Presentations

- 2018 Advancing urban wildlife knowledge through a multi-city collaboration. The Wildlife Society. Cincinnati, Ohio.
  - Long-term declines of a highly interactive species. Society for Conservation Biology. Toronto, Ontario.
  - Long-term declines of a highly interactive species. International Association for Landscape Ecology. Chicago, Illinois.
- 2017 Using Fourier series to predict periodic patterns in dynamic occupancy models. Ecological Society of America. Portland, Oregon.
  - Quantifying the structural and functional connectivity of habitat patches for Chicago area mesocarnivores. International Urban Wildlife Conference. San Diego, California.
- 2016 A Bayesian approach to incorporate patterns of co-occurrence into multi-species occupancy models. Society for Conservation Biology. Madison, Wisconsin.
- 2015 Mesocarnivore dynamics in a highly fragmented, yet highly permeable urban landscape. Ecological Society of America. Baltimore, Maryland.
- 2014 Habitat dynamics of the Virginia opossum (*Didelphis virginiana*) in a highly urban landscape. The Wildlife Society. Pittsburg, Pennsylvania.

#### Selected Invited Presentations

- 2018 Advancing urban wildlife knowledge through a multi-city collaboration. International workshop on biodiveristy and the urban-rural interface. Linde, Germany.
  - Urban wildlife through space and time. Seminar series at Butler University. Indianapolis, Indiana.
- 2016 A historical analysis of bird species diversity in Lincoln Park, Chicago during spring migration. Seminar series for the Fort Dearborn Audubon Society. Chicago, Illinois.
- 2014 A review of bird count methods. Chicago Audubon Society. Chicago, Illinois.

#### Grants and Awards

- 2018 Grainger Urban Wildlife Information Network expansion (Co-PI, \$250,000).
- Present
- 2014 **Abra Prentice Wilkins** Urban Wildlife Institute Expansion (Co-PI, \$1,500,000). Present
  - 2014 **The American Bluebird Society** Assessing the nest success of urban cavity nesting birds (Co-PI, \$600).

## Teaching Experience

- 2017 **Software Carpentry course on R programming:** Assisted with course held at University of Illinois at Chicago.
- 2016 **R programming and occupancy modeling:** Developed a two-day workshop to Present teach students, faculty and new partners to the Urban Wildlife Information Network the basics of R programming and how to model detection/non-detection data collected via camera trapping.

2016 Workshop on generalized linear models, power analysis, and simulations in R: Developed workshop to teach Lincoln Park Zoo staff on basics of generalized linear models and how to simulate data in R.

### Reviewer

Biological Conservation
Canadian Journal of Zoology
Ecological Applications
Ecology Letters
Journal of Fish and Wildlife Management
Urban Ecosystems
The Wildlife Society Bulletin

#### Service and Outreach

Ph.D. Committee member for Anna Kase at University of South Dakota. Thesis topic: False map turtle (*Graptemys pseudogeographica*) abundance and habitat utilization in the Missouri River, South Dakota.

## Academic Organizations

2015 – Ecological Society of America

Present

2017 - Society for Conservation Biology

Present

2014 - The Wildlife Society

Present