

ISABEL ROJAS-FERRER

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EXECUTIVE SUMMARY

- PhD scientist in biology with 11 years of experience studying animal behavior and focusing on cognitive processes and decision-making.
- Science communicator focusing on educating the general public about complex biological topics, research, and methodology.
- Experienced educator with seven years of teaching experience at the university level including lower and upper-level courses.
- Avid mental health advocate with two published articles addressing imposter syndrome, anxiety, and depression in academia.
- Experienced public speaker giving 16 talks (including lectures, science communication efforts, and conferences).

PROFESSIONAL EXPERIENCE

Pontifical Catholic University Puerto Rico, Assistant professor: *I developed, planned, and organized the course curriculum, and developed evaluation rubrics, while also creating and giving oral presentations for a total of five (5) different courses including cellular and organismal biology, genetics, and an integrative biology course. Additional to my course work, I was further tasked with developing and teaching two (2) practice laboratories for cellular biology and genetics. I was tasked with teaching remotely and in a classroom setting* 2021 – present
Arecibo, PR

University of Ottawa, Animal Care and Veterinary Services, Aviary manager: 2016 – 2020
My skills include responsible conduct in animal research, knowledge of the American Association for Laboratory Animal Science's Institutional Animal Care and Use Committee protocols and procedures, and animal husbandry. Ontario, CA

University of Ottawa, Department of Biology, Teaching assistant: *I provided instruction, guidance, training, and mentoring to students within a class and research laboratory setting. My courses ranged from lower (first-year biology) to upper-level courses such as the neural basis of animal behavior (neuroethology), experiments in animal behavior, and population biology. Teaching upper-level courses allowed me the chance to gain a deeper knowledge of specific research areas.* 2016 – 2020
Ontario, CA

University of Missouri- Saint Louis, Department of Biology, Teaching assistant: 2014 – 2016
I developed the skill to teach in a classroom setting, manage my time effectively, plan and organize projects, and provide instruction, guidance, motivation, and constructive feedback to students. I taught animal behavior and evolution. Missouri, USA

EDUCATION

University of Ottawa, Department of Biology, Ph.D. in Biology 2016 – 2021
Ontario, CA

University of Missouri-Saint Louis, Department of Biology, M.Sc. in Ecology, Evolution and Systematics 2014 – 2016
Missouri, USA

University of Puerto Rico- Mayagüez, B.S. in Industrial microbiology 2000 – 2004
Mayagüez, PR

RESEARCH EXPERIENCE

University of Ottawa, Department of Biology, Graduate research assistant, Advisor: Julie Morand-Ferron 2016 – 2021
Ontario, CA

- Thesis title: *Individual variation in information gathering and its use*
- 2 first-author, and 1 second-author peer-reviewed publications

University of Missouri-Saint Louis, Department of Biology, Graduate research assistant, Advisor: Aimee Dunlap 2014 – 2016
Missouri, USA

- Thesis title: *Predicting choices in bumblebees (Bombus impatiens): Learning rules and the two-armed bandit.*
- Research topic: *Learning costs in Drosophila melanogaster.*

University of Puerto Rico-Mayagüez, Undergraduate researcher, Advisor: David Logue 2012 – 2014
Mayagüez, PR

- Research topic: *You either have it, or you don't: Looking for rhythm in songs of the Venezuelan troupial (Icterus icterus).*

Center for the Integrative Study of Animal Behavior, Undergraduate summer researcher, Advisor: Emilia Martins 2012
Indiana, USA

- Research topic: *Habitat heterogeneity influences social interactions in Zebrafish (Danio rerio).*

University of Puerto Rico-Mayagüez, Undergraduate researcher, Advisor: Dimaris Acosta 2011
Mayagüez, PR

- Research topic: *Evaluation of the effect of sampling day in the abundance of ciliates in an artificial micro-cosmos.*

AWARDS & RECOGNITIONS

Yale Ciencia Academy Fellowship: Federally-funded career development program providing doctoral students in the U.S. and Puerto Rico with opportunities for mentoring, networking and peer support; develop skills important for career advancement; and contribute to society through science outreach. 2021-2022
<https://bit.ly/3u3N2Gn>

Roundtable discussion on the next generation of women in STEM with the Minister of Science, Kirsty Duncan, Invited participant: Roundtable discussion commemorating the opening of the National Archive of Women Scientists in Canadian History at the library of the University of Ottawa. <https://bit.ly/3bwnpHR> 2018

Charles H. Turner Award, Animal Behavior Society Conference: Program engages students in professional development activities, cohort building, and identifying tasks that will celebrate the uniqueness of "Being a Turner." Selectees will work one-on-one with mentors and facilitators, in cohorts of their peers, and in individual reflection to understand how graduate education and membership in the Animal Behavior Society may become part of their professional trajectory. 2013
<https://bit.ly/39QCuUh>

SELECTED SCIENCE COMMUNICATION, OUTREACH & EDUCATION ACTIVITIES

Voices in Academia, Invited blog post: Online journal that seeks to normalize conversations about mental health and mental illness in academia, provide a voice for academics to share their experiences and encourage cultural change based on these experiences, and amplify marginalized voices and support practical changes in higher education to create a culture of inclusivity and equity. 2021

- Article title: *A thesis with a side of depression.* <https://bit.ly/3xV5To3>

Lifeology: Women in STEM who inspire, *Featured*: Platform and communication tool that engages broader audiences in science, health and research in a fun, accessible way. <https://bit.ly/3OK6Oi8> 2020

Soapbox Science, Ottawa Ontario, *Invited speaker*: Non-profit initiative that encourages gender diversity within science, technology, engineering, mathematics, and medicine (STEMM) fields, particularly the work done by women in the sciences (Soapbox Science has an inclusive definition of female that also includes the trans* community). 2019

- Presentation title: *Are we smarter than birds?*
- Featured on *Fulcrum: The University of Ottawa's independent student news outlet*. <https://bit.ly/3A86zJA>

Animal Ecology in Focus: Diversity in Ecology, *Invited guest post*: The Journal of Animal Ecology, established by the British Ecological Society, is a respected and established publication catering for up-and-coming as well as eminent authors and researchers of ecology. 2018

- Article title: *Did they choose my brain, my gender, or my race?*
<https://bit.ly/3OK6Oi8>

SELECTED TALKS & TEACHING

- **BIOL107: Introduction to cellular biology with laboratory.** Assistant professor, Pontifical Catholic University Puerto Rico – Arecibo (2021-2022)
- **BIOL108: Introduction to organismal biology.** Assistant professor, Pontifical Catholic University Puerto Rico – Arecibo (2022)
- **BIOL427: Introduction to genetics with laboratory.** Assistant professor, Pontifical Catholic University Puerto Rico – Arecibo (2021-2022)
- **BIOL498: Integrative biology course** Assistant professor, Pontifical Catholic University Puerto Rico – Arecibo (2022)
- **Lo que saben las abejas y otras especies.** Organización MatCien: Conferencias Educativas en la Semana de Concienciación sobre nuestras especies en peligro de extinción, PR (2021)
- **The neural basis of signal detection theory.** Special lecture for Neuroethology course at the University of Ottawa, ON, Canada (2018)
- **Individual variation in information gathering and its use.** Thesis defense, University of Ottawa, ON, Canada (2020)
- **What makes a producer? Experience, fear, and learning performance as predictors for social-foraging strategy.** Virtual presentation, Animal Behavioral Society Conference (2020)
- **The developmental effects of information-gathering on animal personalities of captive zebra finches (*Taeniopygia guttata*).** Presentation. Société Québécoise pour l'Étude Biologique du Comportement. McGill University, Montreal, QC, Canada (2019)
- **Is exploration a metric for information gathering? Attraction to novelty and plasticity in black-capped chickadees.** Presentation. Ontario Ecology, Ethology, and Evolution Colloquium. McMaster University, Hamilton, ON, Canada
- **El valor de la información en el comportamiento animal.** Invited speaker, UPRM Undergraduate Research Symposium, Presentation. Universidad de Puerto Rico – Mayagüez, PR (2018)
- **Predicting choices in bumblebees (*Bombus impatiens*): Learning rules and the two-armed bandit.** Thesis defense. University of Missouri – Saint Louis, MO, USA (2016)

SELECTED VOLUNTEER SERVICE & LEADERSHIP

- **Founder of the Animal Behavior Discussion Group.** University of Ottawa, ON, Canada (2017-2020)

Organized and moderated scientific journal articles discussions on a weekly basis

- **(Elected) Vice-President of the Biology Graduate Student Association.** University of Ottawa, Canada, ON, Canada (2018)
Lead the implementation of Equity, Diversity, and Inclusivity Efforts within the Department of Biology.
- **Member of the organizing committee for the 42nd annual meeting of SQEBC.** University of Ottawa, ON, Canada (2017)
- **Mentor in Project Lead the Way, Jennings Senior High School.** Saint Louis, Missouri, USA (2016)

PEER-REVIEWED PUBLICATIONS

1. St. Lawrence, Sophia, Isabel Rojas-Ferrer, and Julie Morand-Ferron. "Does the presence of a conspecific increase or decrease fear? Neophobia and habituation in zebra finches." *Ethology*. [doi.org/10.1111/eth.13224]
2. Rojas-Ferrer, Isabel, and Julie Morand-Ferron. "The impact of learning opportunities on the development of learning and decision-making: an experiment with passerine birds." *Philosophical Transactions of the Royal Society B* 375.1803 (2020): 20190496. [doi.org/10.1098/rstb.2019.0496]
3. Rojas-Ferrer, Isabel, Megan Joy Thompson, and Julie Morand-Ferron. "Is exploration a metric for information gathering? Attraction to novelty and plasticity in black-capped chickadees." *Ethology* 126.4 (2020): 383-392. [doi.org/10.1111/eth.12982]