

Gil J. B. Henriques

PHD IN MATHEMATICAL EVOLUTIONARY BIOLOGY

Biodiversity Research Centre • University of British Columbia, Vancouver

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*I am a mathematical evolutionary biologist. In my research, I use analytical and numerical modeling, computer simulations, and data analysis. I am proficient in the **R** programming language and familiar with **Mathematica**, **Matlab**, and a little bit of **C++**, **Python**, and **SQL**. Some of my interests include: data analysis, data visualization, evolutionary game theory, science communication and teaching.*

Education

PhD in Zoology

UNIVERSITY OF BRITISH COLUMBIA

BC, Canada

2015–21

- **Supervised by Michael Doebeli:** Evolutionary theory of cooperation and group life

MSc Erasmus Mundus in Evolutionary Biology (*summa cum laude*)

UPPSALA UNIVERSITY & GRONINGEN UNIVERSITY (DUAL DEGREE)

Sweden & Netherlands

2013–15

- **Supervised by Claus Rueffler & Simone Immler (Uppsala):** Recombination and diversification in multidimensional phenotypes
- **Supervised by Ido Pen (Groningen):** Queen-worker conflict and sex ratio adjustment in social insects

BSc in Biology (Evolutionary and Developmental Biology)

UNIVERSITY OF LISBON

Portugal

2010–13

Teaching and Outreach

Teaching experience

Workshop coordinator

UNIVERSITY OF BRITISH COLUMBIA • [ECOSCOPE](#) • [EDUCE](#)

BC, Canada

2020–21

- Developing & teaching workshops: Introductory R, Intermediate R, Science Reproducibility, the R tidyverse, Statistical Models in R

Graduate Teaching Assistant & Senior Teaching Assistant

UNIVERSITY OF BRITISH COLUMBIA

BC, Canada

2015–20

- Biology Program Graduate Teaching Award (Honorable mention, 2019)
- **BIOL 111** (Intro Biology), **BIOL 121** (Genetics, Ecology and Evolution), **BIOL 234** (Genetics), **BIOL 300** (Biostatistics), **BIOL 301** (Biomathematics), **BIOL 336** (Fundamentals of Evolutionary Biology), **ISCI 320** (Research Development Retreat)
- Responsibilities have included, among others: teaching tutorials and labs, developing curricular material, supervising other TAs, marking

Guest Lecturer

UNIVERSITY OF BRITISH COLUMBIA

BC, Canada

2016–18

- **LAW 524** (Methodologies in Law and Policy): two guest lectures on game theory
- **BIOL 121** (Genetics, Ecology, and Evolution): guest lecture on speciation

Teaching training

- 2019 **Foundations of Pedagogy (FOP):** one-term course about evidence-based teaching. Run by [CIRTL](#)
- 2016 **Instructional Skills Workshop (ISW):** 24h comprehensive instructor development program. Run by [CIRTL](#)
- 2015 **Biology TA Professional Development (BioTAP):** 14h workshop series about practical teaching skills

Outreach and science communication

- 2020 **Freelance science writer** • Published at [IGSN](#)
- 2016 **3 Minute Thesis competition:** • Finalist at University of British Columbia, Vancouver
- 2015–16 **Beaty Biodiversity Museum:** Museum educator (volunteer)
- 2015–16 **Let's Talk Science:** Teacher Partnership Program (classroom science teaching at Gibson Elementary K-7 school) • Educational activities at the TELUS World of Science Museum

Other Employment

Textbook reviewer

MACMILLAN LEARNING

- Reviewed content for the 3rd edition of Whitlock and Schluter's *The Analysis of Biological Data*

BC, Canada

2020

Survey coordinator

UBC GRADUATE STUDENT SOCIETY

- Responsible for running and analysing the annual Student Satisfaction Survey

BC, Canada

2018–19

Note taker

UBC CENTRE FOR ACCESSIBILITY

BC, Canada

2018–19

MSc research intern

UNIVERSITY OF MONTPELLIER

- Supervised by Thomas Lenormand & Yannis Michalakis:** Maladaptive sex ratio manipulation in *Artemia* brine shrimp

France

2014

Undergraduate researcher (Amadeu Dias fellow)

UNIVERSITY OF LISBON

- Supervised by Francisco Dionisio:** Use of λ -virus as biological weapons by *E. coli*

Portugal

2012–13

Publications

Preprint	Gil J B Henriques , Simon van Vliet & Michael Doebeli: Multilevel selection favors fragmentation modes that maintain cooperative interactions in multispecies communities.	BioRxiv
2021	Gil J B Henriques , Koichi Ito, Christoph Hauert & Michael Doebeli: On the importance of evolving phenotype distributions on evolutionary diversification.	PLOS Comp. Biol. 17:2 e1008733
2020	Gil J B Henriques & Matthew M Osmond: Cooperation can promote rescue or lead to evolutionary suicide during environmental change. [pdf]	Evolution 74:7 1255–1273
2020	Andrés E Quiñones, Gil J B Henriques , & Ido Pen: Queen-worker conflict can drive the evolution of social polymorphism and split sex ratios in facultatively eusocial life cycles. [pdf] • digest	Evolution 74:1 15–28
2019	Gil J B Henriques , Simon Burton, Yaroslav Ispolatov & Michael Doebeli: Acculturation drives the evolution of intergroup conflict. [pdf] • press • press	PNAS 116:28 14089–14097
2016	Eva J P Lievens, Gil J B Henriques , Yannis Michalakis & Thomas Lenormand: Maladaptive sex ratio adjustment in the invasive brine shrimp <i>Artemia franciscana</i> . [pdf] • digest	Current Biology 26:11 1463–1467

Competitive (merit-based) fellowships, scholarships and awards

2019	Zoology Graduate Fellowship: awarded by the Zoology Department at UBC	15,000 CAD
2019	Biology Graduate TA Award: awarded by the Biology Program at UBC	Honorable Mention
2017	Ruth Patrick Student Poster Award: awarded by the American Society of Naturalists	1000 USD
2017	Charles CC Wong & George Shen Fellowships: awarded by St John's College at UBC	4000 CAD
2013–15	MEME Consortium Scholarship: awarded by the European Commission	21,500 EUR
2012–13	Amadeu Dias Fellowship: awarded by the Amadeu Dias Foundation	1900 EUR

Languages

Coding	R (advanced) • Mathematica (intermediate) • C++ (beginner) • Matlab (beginner) • Python (beginner) • SQL (beginner)
Natural	Portuguese (first language) • English (fluent, C2) • French (intermediate, B1) • Swedish (intermediate, B1) • Spanish (elementary, A2) • Latin (beginner, A1) • <i>Codes indicate CEF reference levels</i>

Service

2020–21	Peer reviewer for <i>Ecological Complexity</i> , <i>Ecology and Evolution</i> , and <i>PLOS Biology</i>
2018–20	Executive Committee & Bargaining Committee at CUPE 2278 , UBC
2016–17	Social Justice Committee co-chair at St John's College, UBC
2011–12	Pedagogic Board alternate member at Faculty of Science, University of Lisbon