Gil J. B. Henriques

PHD IN MATHEMATICAL EVOLUTIONARY BIOLOGY

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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 BC, Canada

UNIVERSITY OF BRITISH COLUMBIA

2015-21

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

MSc Erasmus Mundus in Evolutionary Biology (summa cum laude)

Sweden & Netherlands

UPPSALA UNIVERSITY & GRONINGEN UNIVERSITY (DUAL DEGREE)

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)

Portugal 2010–13

University of Lisbon

Teaching and Outreach

Teaching experience

Workshop coordinator BC, Canada

University of British Columbia • ECOSCOPE • EDUCE

2020-21

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

Graduate Teaching Assistant & Senior Teaching Assistant

BC, Canada

University of British Columbia

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 BC, Canada

University of British Columbia

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 Workship (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)
- **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 BC, Canada

MacMillan Learning 2020

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

Survey coordinator BC, Canada

UBC Graduate Student Society 2018–19

- Responsible for running and analysing the annual Student Satisfaction Survey

Note taker BC, Canada

UBC Centre for Accessibility 2018–19

MSc research intern

University of Montpellier

2014

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

Undergraduate researcher (Amadeu Dias fellow)

Portugal

University of Lisbon

2012-13

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

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	PLOS Comp. Biol.
2021	distributions on evolutionary diversification.	17:2 e1008733
2020	Gil J B Henriques & Matthew M Osmond: Cooperation can promote rescue or lead to evolutionary suicide	Evolution
2020	during environmental change. [pdf]	74:7 1255–1273
2020	Andrés E Quiñones, Gil J B Henriques , & Ido Pen: Queen-worker conflict can drive the evolution of social	Evolution
2020	plymorphism and split sex ratios in facultatively eusocial life cycles. [pdf • digest]	74:1 15–28
2019	Gil J B Henriques, Simon Burton, Yaroslav Ispolatov & Michael Doebeli: Acculturation drives the evolution of	PNAS
2019	intergroup conflict. [pdf • press • press]	116:28 14089-14097
2016	Eva J P Lievens, Gil J B Henriques , Yannis Michalakis & Thomas Lenormand: Maladaptive sex ratio	Current Biology
2016	adjustment in the invasive brine shrimp Artemia franciscana. [pdf • digest]	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

R (advanced) • Mathematica (intermediate) • C++ (beginner) • Matlab (beginner) • Python (beginner)

• SQL (beginner)

Portuguese (first language) • English (fluent, C2) • French (intermediate, B1) • Swedish (intermediate, B1)

• Spanish (elementary, A2) • Latin (beginner, A1) • Codes indicate CEF reference levels

Service.

Natural

2020–21 **Peer reviewer** for Ecological Complexity, Ecology and Evolution, and PLOS Biology

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