

# Jarome Russell Ali

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## Education

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PhD	2017-present	<b>Princeton University</b> PhD Ecology and Evolutionary Biology (expected completion 2022)
MA	2019	<b>Princeton University</b> MA Ecology and Evolutionary Biology
MSc	2016	<b>Imperial College London</b> MSc Ecology, Evolution and Conservation (First Class Honours)
BSc	2014	<b>University College London (UCL)</b> BSc Zoology (First Class Honours)

## Publications

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- Ali, J.R.**, Blonder, B, Pigot, A. L. & Tobias, J. A. (2021, in prep) Bird extinctions threaten to cause disproportionate reductions of functional diversity and uniqueness.
- Ali, J. R.**, Deacon, A. E., Mahabir, K., Ramnarine, I. W., & Magurran, A. E. (2018). Heterospecific shoaling in an invasive poeciliid: shared history does not affect shoal cohesion. *Animal Behaviour*, 138, 1-8.
- Morris, J., Ford, A. G., **Ali, J. R.**, Peart, C. R., Bills, R., & Day, J. J. (2016). High levels of genetic structure and striking phenotypic variability in a sexually dimorphic suckermouth catfish from the African Highveld. *Biological journal of the Linnean Society*, 117(3), 528-546.

## Presentations & Conferences

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2021	Plumage evolution in a putative ring species	Living Light Conference 2021
2021	Plumage Evolution in Amazon parrots	Society for Integrative and Comparative Biology (SICB)
2019	Ring Around the Rosellas: Plumage evolution in a putative ring species	Evolution in Philadelphia Conference (EPiC)
2018	Plumage Evolution in Amazon parrots	Evolution in Philadelphia Conference (EPiC)
2018	Plumage Evolution in Amazon parrots	International Society for Behavioural Ecology (ISBE) Conference
2017	Shoaling with strangers: heterospecific shoaling in an invasive poeciliid	The University of the West Indies Faculty of Science and Technology Research Symposium

## Fellowships & Grants

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2021	American Ornithological Society Student Research Award (\$1880)
2019	Princeton University Department of Ecology and Evolutionary Biology Graduate Research Fund (\$2500)
2019	Zoological Lighting Institute Grants-in-Aid of Photobiology Research (\$500)

- 2018 Princeton University Program in Latin American Studies Summer Research Grant (\$1000)
- 2018 Student travel award (International Society for Behavioural Ecology \$500)
- 2017 Outstanding Scholar Fellowship (University of Connecticut, not accepted)
- 2016 Advanced Level Scholarship – Awarded by the Government of Trinidad and Tobago for studies at the graduate level (\$20000)
- 2010 National Open Science Scholarship– awarded by the Government of Trinidad and Tobago to students who perform exceptionally at the Caribbean Advanced Proficiency Examination (\$70000).

## Awards & Honours

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- 2021 Petrie Fellowship—awarded by the Princeton University Graduate School to outstanding students.
- 2013 Lillian Clarke Prize – Awarded to the most advanced student in the Department of Biology, UCL.
- 2013 Francis Perch Bedford Prize – Awarded for the best performance in the final year of Zoology, as determined by the Head of Department of Biology, UCL.
- 2013 Nominated for the ZSL Charles Darwin Award and Marsh Prize 2013 – Awarded for an outstanding zoological research project, carried out and written by an undergraduate attending a university in the UK.
- 2012, 2013 Dean’s List (UCL)

## Science communication

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- 2021 Mechanisms and functions of bird colouration Trinidad and Tobago Field Naturalists’ Club (Invited talk)
- 2020-present Writer for Princeton Insights

## Teaching Experience

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- 2021 EEB 308 Conservation Biology (Fall semester)
- 2019 EEB 329 Sensory Ecology (Fall semester)
- 2018 EEB 309 Evolutionary Biology (Fall semester)
- 2017 EEB 211 Life on Earth: Chaos and Clockwork (Fall semester)

## Service

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- **Assistant Editor:** Living World, Journal of the Trinidad and Tobago Field Naturalists’ Club
- **Reviewer:** Nature Communications, Evolution
- **Princeton University EEB Scholars Program: Coordinator (2 years)**
  - Each year 2-3 graduate students run a visitation program for students from backgrounds historically underrepresented in STEM. This program aims to demystify the graduate school application process, to help prepare participants to apply to graduate school, and to provide them with an opportunity to network with scientists in their field.
- **Princeton University Graduate Scholars Program: Peer Mentor**

- Mentors provide support to a small group of incoming graduate students
- **Committee on Climate for All in EEB: Graduate student representative**
  - This committee aims to promote and sustain diversity, inclusivity and transparency across the department of Ecology and Evolutionary Biology at Princeton University. Activities included preparing proposals for departmental initiatives, organising panel discussions and relaying student concerns to faculty via the committee.
- **Princeton Prison Teaching Initiative: Syllabus development team member**
  - Development of an Environmental Science Syllabus.
- **Princeton Ornithological Collection**
  - Assisted in design of ornithological displays for a new Princeton EEB building.

## Research Experience

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During the first year of my PhD, I have investigated the origin and diversity of plumage colouration in parrots. Specifically, I have been testing hypotheses for the diversity of colouration in *Amazona* parrots. In order to do this, I needed to be able to compare entire plumage patterns. Making such comparisons which incorporate the inherent geometry of plumage patterns i.e. not just the colours in a plumage pattern but also the relative placement of these colours, is non-trivial and is crucial to our understanding of colour evolution. I have developed an approach that achieves the incorporation of chromatic and geometric components of colour patterns, allowing these comparisons to be made.

As a research assistant at the University of the West Indies, I designed and performed behavioural experiments with guppies, and assisted undergraduate students with final year projects, under the supervision of Dr Amy Deacon. This involved fieldwork as well as lab experiments.

My master's thesis, under the supervision of Dr Joseph Tobias and Dr Benjamin Blonder, aimed to explore the geometry of avian trait space using multidimensional shapes or hypervolumes. Using this method, I found that more threatened (IUCN threat level) species are morphologically distinct from and more functionally unique than less threatened species. This work is currently being prepared for publication.

My undergraduate research project involved morphometric analysis of caudal fin and body variation among geographic populations of a sexually dimorphic catfish, *Chiloglanis anoterus*. It was found that males differed significantly among but not within populations, while females showed no significant differences. This work formed part of a paper on which I was a co-author.

I undertook a research project under the supervision of Dr. Amy Deacon at the University of the West Indies for approximately two months (July & August, 2013). This was aimed at investigating social behaviour in the Trinidadian guppy. This project required field collection of specimens, drafting of an experimental protocol, lab skills to execute the research and statistical skills to investigate the data acquired.

## Work Experience

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- 2017  
(January – September)      **Research Assistant**  
Ministry of Education, Trinidad and Tobago
- My master’s degree was funded by the Government of Trinidad and Tobago. As part of the scholarship agreement, I was appointed as a research assistant in the Department of Life Sciences at the University of the West Indies.
- 2014 – 2015  
(September – August)      **Secondary School Teacher**  
Ministry of Public Administration, Trinidad and Tobago
- My undergraduate degree was funded by the Government of Trinidad and Tobago. As part of the scholarship agreement, I was appointed as a secondary school teacher, teaching biology, chemistry and integrated science.
- 2011  
(February – August)      **Social Surveyor**  
Ministry of Housing, Trinidad and Tobago
- This job entailed collection of biographical and geographical data relevant to land use and ownership in various areas in Trinidad.
- 2009  
(June- August)      **Volunteer**  
Point a Pierre Wildfowl Trust, Trinidad
- I worked along with conservation and public education staff as part of a wildfowl and wetland conservation program.

## Memberships

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- British Ornithologists’ Union
- Trinidad and Tobago Field Naturalists’ Club
- British Ecological Society
- International Society of Behavioural Ecology
- World Parrot Trust
- Society for the Study of Evolution
- New Jersey Audubon
- Society for Integrative and Comparative Biology
- American Ornithological Society