

James B. Barnett

Psychology, Neuroscience & Behaviour
McMaster University
1280 Main Street West
Hamilton L8S 4K1
ON, Canada

CURRENT POSITION

2019-Present **Postdoctoral Fellow**
Department of Psychology, Neuroscience & Behaviour
McMaster University, ON, Canada
Project: Amphibian visual and behavioural ecology
Funding: NSERC (Canada 150)
PI: Professor Jonathan N. Pruitt
Further Roles: Advisor for PhD research projects

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RESEARCH POSITIONS

2018 **FRQ-NT Postdoctoral Fellow**
Redpath Museum
McGill University, QC, Canada
Project: Visual ecology and anthropogenic change
Funding: FRQ-NT Fellowship
PI: Professor David M. Green
Further Roles: Advisor for undergraduate and PhD research projects

2016-2017 **Postdoctoral Fellow**
Redpath Museum
McGill University, QC, Canada
Project: Behavioural and visual ecology of amphibians
Funding: NSERC
PI: Professor David M. Green
Further Roles: Advisor for undergraduate research projects

TEACHING POSITIONS

2017-2018 **Course Lecturer**
Department of Biology
McGill University, QC, Canada
Undergraduate courses: conservation biology (BIOL 465) and herpetology (BIOL 427)

2011-2016 **Teaching Assistant**
School of Biological Sciences
University of Bristol, UK
Postgraduate courses: advanced postgraduate statistics in R
Undergraduate courses: animal behaviour, botanical diversity, early life forms, evolutionary biology, laboratory techniques, vertebrate dissection, and the residential animal behaviour field course
Primary school courses: invertebrate dissection and field ecology

PROFESSIONAL DEVELOPMENT

2020-Present **McCall MacBain Postdoctoral Fellows Teaching & Leadership Program**
Faculty of Science
McMaster University, ON, Canada

EDUCATION2012-2016 **PhD**

School of Biological Sciences

University of Bristol, UK

Thesis: Camouflage of conspicuous signals

Supervisors: Professor Innes C. Cuthill & Professor Nicholas E. Scott-Samuel

Further Roles: Advisor for undergraduate and MSc research projects

2011-2012 **MSc by Research**

School of Biological Sciences

University of Bristol, UK

Thesis: Distance-dependent defensive colouration

Supervisor: Professor Innes C. Cuthill

2008-2011 **BSc (Hons) Zoology - First Class Honours**

School of Biological Sciences

University of Reading, UK

Thesis: The anuran species diversity associated with human environments in Selangor, Malaysia

Supervisor: Professor Mark D. E. Fellowes

Further Roles: President – Reading University Zoological Society

FUNDING & AWARDS2018 **Programme de Bourses d'Excellence pour Étudiants Étrangers**

Postdoctoral fellowship

\$35000 CAD

FRQ-NT, QC, Canada

2015 **Travel Grant**

Behaviour 2015 travel grant

£550 GBP

Bristol University Alumni, UK

2014 **ISBE Travel Grant**

ISBE 2014 travel grant

\$2500 USD

ISBE, UK

2014 **Research Grant**

Nouragues research grant

€4700 EUR

CNRS (Labex CEBA), France

2013 **Troscianko Prize for Outstanding Excellence in Presenting Research**

Award for conference presentations

£100 GBP

University of Bristol, UK

2013 **Geoffrey J. Burton Memorial Award**

Conference travel grant

£750 GBP

The AVA, UK

2012 **Postgraduate Research Scholarship**

PhD research funding

£55000 GBP

University of Bristol, UK

2011 **Colin Morely – Glyn Williams Prize in Zoology**

Graduating with top degree in zoology

£20 GBP

University of Reading, UK

2010 **Part 2 Achievement Prize**

Finishing top of class undergraduate second year

£1000 GBP

University of Reading, UK

2008 **Entrance Scholarship**

Exceeding entrance requirements

£2000 GBP

University of Reading, UK

CONFERENCE PRESENTATIONS

2020	Animal Behavior Society 2020 (Discussion moderator)	Talk	Online Virtual Conference
2019	Ecology, Evolution, & Behaviour Seminar Series	Talk	McMaster University, Canada
2019	PNB Research Seminar	Talk	McMaster University, Canada
2018	Biology Seminar Series	Invited Talk	Carleton University, Canada
2018	Canadian Society for Ecology & Evolution	Talk	University of Guelph, Canada
2018	CamoCon 2018	Talk	University of Bristol, UK
2017	Organismal Seminar Series	Talk	McGill University, Canada
2016	Redpath Museum Symposium	Talk	McGill University, Canada
2016	Canadian Herpetological Society Annual Conference	Talk	Toronto Zoo, Canada
2016	Anti-Predator Colouration Symposium (Discussion organiser)	Talk	University of Exeter, UK
2015	CamoCon 2015	Poster	University of Liverpool, UK
2015	Behaviour 2015	Talk	Cairns, Australia
2015	Natural Systems Poster Session	Poster	University of Bristol, UK
2014	ISBE 2014 (Symposium organiser)	Talk	New York, USA
2014	BVI Young Researchers Colloquium	Poster	University of Bristol, UK
2014	Experimental Psychology Postgraduate Conference	Talk	University of Bristol, UK
2014	Amphibian Conservation Research Symposium	Poster	ZSL, UK
2014	Natural Systems Poster Session	Poster	University of Bristol, UK
2014	Festival of Postgraduate Research	Poster	Bristol Doctoral College, UK
2013	Biological Sciences Postgraduate Symposium	Poster	University of Bristol, UK
2013	Behaviour 2013	Talk	Newcastle-Gateshead, UK
2013	BVI Young Researchers Colloquium	Poster	University of Cardiff, UK
2013	Experimental Psychology Postgraduate Conference	Talk	University of Bristol, UK
2013	CamoCon 2013 (Discussion leader)	Talk	University of Bristol, UK
2013	Round Table Talks (Host)	Talk	University of Bristol, UK
2012	BVI Young Researchers Colloquium	Talk	University of Bristol, UK
2012	Natural Systems Poster Session	Poster	University of Bristol, UK
2012	Camouflage Workshop	Talk	University of Bristol, UK

RESEARCH SKILLS**Fieldwork**

2019	Pichincha & Napo, Ecuador
2018	Laurentides, QC, Canada
2017-2018	Long Point, ON, Canada
2017	Bocas del Toro, Panama
2014-2015	Nouragues, French Guiana
2011-2016	England, United Kingdom
2010	Selangor, Malaysia
2008	Kalimantan, Indonesia

Programming

MATLAB	image analysis
	visual modelling
	population modelling
	psychophysics
R	statistical analysis
	visual modelling
ImageJ	image analysis

PUBLICATIONS

- Yeager J & **Barnett JB**. Ultraviolet components offer minimal contrast enhancement to an aposematic signal. *Ecology and Evolution* In Press.
- Culbert BM, Talagala S, **Barnett JB**, Stanbrook E, Smale P & Balshine S. Context-dependent consequences of colour preferences in a social fish. *Behavioral Ecology* Advanced Access: araa099.
- Barnett JB**, Michalis C, Anderson HM, McEwan BL, Yeager J, Pruitt JN, Scott-Samuel NE & Cuthill IC. 2020. Imperfect transparency and camouflage in glass frogs. *Proc Natl Acad Sci USA* **117**: 12885-12890.
- Doering GN, Sheehy KA, **Barnett JB** & Pruitt JN. 2020. Colony size and initial conditions combine to shape reunification dynamics. *Behavioural Processes* **170**: 103994.
- Barnett JB**, Michalis C, Scott-Samuel NE & Cuthill IC. 2018. Distance-dependent defensive coloration in the poison frog *Dendrobates tinctorius*, Dendrobatidae. *Proc Natl Acad Sci USA* **115**: 6416-6421.
- Barnett JB**, Cuthill IC & Scott-Samuel NE. 2018. Distance-dependent aposematism and camouflage in the cinnabar moth caterpillar (*Tyria jacobaeae*, Erebidae). *Royal Society Open Science* **5**: 171396.
- Barnett JB**, Cuthill IC & Scott-Samuel NE. 2017. Distance-dependent pattern blending can camouflage salient aposematic signals. *Proceedings of the Royal Society B* **284**: 20170128.
- Barnett JB**, Redfern AS, Bhattacharyya-Dickson R, Clifton O, Courty T, Ho T, Hopes A, McPhee T, Merrison K, Owen R, Scott-Samuel NE & Cuthill IC. 2016. Stripes for warning and stripes for hiding: spatial frequency and detection distance. *Behavioral Ecology* **28**: 373-381.
- Barnett JB**, Scott-Samuel NE & Cuthill IC. 2016. Aposematism: balancing salience and camouflage. *Biology Letters* **12**: 20160335.
- Barnett JB** & Cuthill IC. 2014. Distance-dependent defensive coloration. *Current Biology* **24**: R1157-R1158.
- Barnett JB**, Benbow RL, Ismail A & Fellowes MDE. 2013. Abundance and diversity of anurans in a regenerating former oil palm plantation in Selangor, Peninsular Malaysia. *Herpetological Bulletin* **125**: 1-9.
- Barnett JB**. 2011. Pigmentation loss and regeneration in a captive wild type axolotl, *Ambystoma mexicanum*. *Herpetological Bulletin* **115**: 17-18.

PUBLICATIONS IN REVIEW

- Anderson HM, Fisher DN, McEwan BL, Yeager J, Pruitt JN & **Barnett JB**. Episodic correlations in behavioural lateralisation differ between a poison frog and its mimic. Submitted.
- Barnett JB**, Michalis C, Scott-Samuel NE & Cuthill IC. Color pattern variation forms local background matching camouflage in leaf-mimicking toad. Submitted.
- Barnett JB**, Varela BJ, Jennings B, Lesbarrères D, Pruitt JN, & Green DM. Habitat change alters color contrast and the detectability of cryptic and aposematic frogs. Submitted.
- Larter L, **Barnett JB**, Keiser CN, Moeller HV & Pruitt JN. The evolutionary ecology of faking sick. Submitted.
- Varela BJ, Lesbarrères D, Ibáñez R, Green DM & **Barnett JB**. Partial recovery and community change two decades after chytrid induced decline. Submitted.

POPULAR ARTICLES & BOOKS

- Barnett JB**. 2020. Translucent camouflage in glass frogs. *The Science Breaker*. Submitted.
- Fellowes MDE. ed. 2020. *30-Second Zoology*. Brighton, UK: The Ivy Press.
- Barnett JB**. 2013. Camouflage and the Amphibia. *FrogLog* **107** 12-14.
- Barnett RJ & **Barnett JB**. 2009. Bristol and district reptiles and amphibian report, 2009. *Nature in Avon: Proceedings of the Bristol Naturalists Society* **69**: 49.

REFEREES

Professor Sigal Balshine
 Professor David M. Green
 Professor Innes C. Cuthill

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 McGill University, Canada
 University of Bristol, UK

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