

Hollie Marshall

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Coding

R
Bash
L^AT_EX
Markdown

Languages

English (Native)
German (CEFR: A2)

Societies

European Society for
Evolutionary Biology

The Genetics Society

British Ecological
Society

Royal Entomological
Society

International Union for
the Study of Social
Insects

Twitter

@MooHoll

Professional Experience

15.11.19–Present	Post Doctoral Research Associate Insect epigenetics and reproduction.	University of Edinburgh, UK
15.07.19–11.10.19	Post Doctoral Research Assistant Adaptive Epigenetics of <i>Daphnia magna</i> .	University of Birmingham, UK

Education

28.09.15–06.12.19	PhD The Role of Methylation in Arthropod Plasticity.	University of Leicester, UK
29.09.14–18.09.15	MSc by Research Temporal Genetic Stability and Fitness Responses to Human-Driven Eutrophication in <i>Daphnia magna</i> .	University of Birmingham, UK
28.09.09–15.07.12	BSc (Hons) Animal Biology [1st] Dissertation: Development of a Non-Invasive Method to Genotype Wild Owl Populations.	University of Worcester, UK

Publications

Bain, S., **Marshall, H.** and Ross, L. (in prep). Sex-specific DNA methylation difference in a species of mealybug with paternal genome elimination.

Marshall, H., Jones, A., Lonsdale, Z.N. and Mallon, E.B. (2020). Bumblebee worker castes show differences in allele-specific DNA methylation and allele-specific expression. Under Review. *Genome Biology and Evolution*. Pre-print <https://doi.org/10.1101/2020.02.07.938423>.

Marshall, H., van Zweden, J.S., Van Geystelen, A., Benaets, K., Wäckers, F., Mallon, E.B. and Wenseleers T. (2020). Genome-wide search for parent-of-origin gene expression in *Bombus terrestris*. Under Review. *Evolution Letters*. Pre-print: doi: <https://doi.org/10.1101/2020.01.17.909168>.

Marshall, H., Lonsdale, Z.N. and Mallon, E.B. (2019). Methylation and gene expression differences between bumblebee reproductive castes. *Evolution Letters*. 3 (5), p485-499.

Bebane, P., Hunt, B., Pegoraro, M., Jones, A.R.C., **Marshall, H.**, Rosato, E. and Mallon, E.B. (2019). The effects of the neonicotinoid imidacloprid on gene expression and DNA methylation in the buff-tailed bumblebee *Bombus terrestris*. *Proc. Roy. Soc. B*. 286: 20190718.

Cambroner, M., **Marshall, H.**, De Meester, L., Davidson, T.A., Beckerman, A.P. and Orsini, L. (2018). Predictability of the impact of multiple stressors on the keystone species *Daphnia*. *Scientific Reports*. 8 (1), p17572.

Pegoraro, M., **Marshall, H.**, Lonsdale, Z.N. and Mallon, E.B. (2017). Do social insects support Haig's kin theory for the evolution of genomic imprinting? *Epigenetics*. 12 (9), p725-742.

Orsini, L., **Marshall, H.**, Cuenca-Cambroner, M., Chaturvedi, A., Thomas, K. W., Pfrender, M.E., Spanier, K.I. and De Meester, L. (2016) Temporal genetics stability in natural populations of the waterflea *Daphnia magna* in response to strong selection pressure. *Molecular Ecology*. 25 (24), p6009–6267.

Industrial Innovation

13.02.16–24.02.16	Consultancy: Epigenetic applications in bovine dairy breeding Cogent Breeding Ltd, UK Produced a report to aid the integration of epigenetic research in the bovine dairy industry.
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Awards/Grants

04.02.20	Marie Skłodowska-Curie Actions Independent Fellowship: Seal of Excellence Scored 92.2% on a MSCA Independent Fellowship application. Funding cut-off for 2019 in the life sciences was 92.6%.	Horizon2020 European Commission
05.12.19	Fisher Memorial Trust Bursary: £250 Received a bursary to attend and present at PopGroup53 in Leicester, UK.	Fisher Memorial Trust
15.11.19	Runner-Up Poster Award: £30 Won a runner-up prize in the poster competition.	IUSSI Winter Meeting, UK
15.11.19	Gold Poster Award: £380 Won the prize for the best poster in the Epigenetics session at the 'Centenary of Genetics' conference.	The Genetics Society, UK
27.06.18	Junior Scientist Conference Grant: £350 Received funding to aid travel costs to the ESEB conference in Montpellier, France.	The Genetics Society, UK
10.05.18	Annette Cashmore Award: £200 Winner of the Annette Cashmore postgraduate researcher award for the best student seminar talk in 2018.	University of Leicester, UK
15.09.17	1st Place Poster Award: £100 Won first prize in the poster competition in the annual CENTA student conference.	Loughborough University, UK
21.10.16	Innovation Placement Award: £960 Received funding for an industrial placement. Spent two weeks applying epigenetics to the dairy bovine genetics industry through COGENT UK.	CENTA, NERC, UK
05.01.16	Travel Grant: 600€ Received funding to aid travel costs for a bioinformatics training course in Leipzig, Germany.	Programming for Evolutionary Biology, Germany
20.03.15	PhD Scholarship: ~£75,000 Awarded a competitively funded scholarship for PhD study, this includes a stipend for 3.5 years, all tuition fees and £8000 in research funding. NERC ref: 1645174.	CENTA, NERC, UK

Conference Presentations

05-08.01.20	53rd Population Genetics Group Oral presentation for a specialist audience.	Leicester, UK
16.12.19	IUSSI North-Western European Section Poster for a specialist audience.	London, UK
13.11.19 – 15.11.19	A Centenary of Genetics, The Genetics Society Lightening talk and poster for s specialist audience.	Edinburgh, UK
14.09.18	Genomics Special Interest Group, Royal Entomological Society Poster for specialist audience.	Leicester, UK
19.08.18–22.08.18	Evolution Poster for specialist audience.	Montpellier, France
18.12.17–19.12.17	IUSSI North-Western European Section Received an 'honourable mention' for an oral presentation.	York, UK
15.09.17	CENTA Student Conference Won first prize in the poster competition.	Loughborough, UK
16.09.17–20.09.17	Programming for Evolutionary Biology Oral presentation with a focus on bioinformatics.	Bialowieza, Poland
16.05.17	Genomics SIG, Royal Entomology Society Poster for specialist audience.	Rothamsted Research, Harpenden, UK
02.05.17	Royal Society of Biology: Festival of Biology Poster for a scientific but non-specialist audience, with a focus on public engagement.	Lincoln, UK
09.02.17	NERC Festival of Research Poster for a scientific but non-specialist audience.	Leicester, UK
16.09.16	CENTA Student Conference 3 minute 'flash talk' for a scientific but non-specialist audience.	Leicester, UK
08.09.16–11.09.16	Programming for Evolutionary Biology Oral presentation with a focus on bioinformatics.	Belgrade, Serbia
15.06.15	Molecular and Genome Evolution Symposium Poster for specialist audience.	Manchester, UK

Conference Organisation

16.05.17–14.09.18	Genomics Special Interest Group Lead organiser and chair of the annual one day meeting. Secured additional funding of £250 .	Royal Society of Entomology, UK
29.01.16–16.09.16	CENTA Student Conference Worked alongside two other students to organise and chair a one-day student conference. We secured sponsorship from numerous organisations, totalling: £658 . We also ran a careers webinar from the Cheeky Scientist company and secured a British TV presenter/palaeontologist as keynote speaker for public engagement with science.	CENTA, NERC, UK

Undergraduate Teaching and Supervision

23.08.19	Fellow of the Higher Education Academy Awarded full fellowship to the HEA in recognition of higher education teaching excellence.	AdvanceHE, UK
14.11.18	Invited Speaker: GTAs/PGRs who teach event Invited to give a short presentation on challenges, experiences and advice regarding teaching whilst completing a PhD.	University of Leicester, UK
24.09.17-30.06.19	International Foundation Year Tutor Module leader for biology on the Science International Foundation Year. This involves full module design and delivery, including practical sessions, all assessments and 5hrs teaching time per week each semester. I will be applying for full fellowship to the Higher Education Academy this July.	University of Leicester, UK
01.07.15–15.11.19	Student Supervision Supervised two undergraduate students (Lucy Day, 2019 and Marine Bochsler, 2019) and one undergraduate Erasmus student through successful research projects (Henar Tomero, 2018). Co-supervised three other undergraduate students and one masters student.	University of Birmingham, UK
01.02.15–31.03.19	Demonstrating/Marking Demonstrated on various undergraduate biology modules, including: wet lab, computer based practicals and small tutorial groups. Additionally helped teach a PhD beginner level course on the programming language R.	University of Leicester, University of Birmingham, UK
29.10.15–31.12.19	STEM Ambassador Regularly give educational/career talks to students from ages 13-18.	UK

Collaborations

01.10.18–Present	Dr. Luisa Orsini Epigenetic adaptation and recovery in <i>Daphnia magna</i> . Project included a year long stay in Birmingham to conduct sample collection, lab work and analysis.	University of Birmingham, UK
12.02.16–Present	Prof. Tom Wenseleers Exploration of parent-of-origin gene expression and methylation in <i>Bombus terrestris</i> as a test for Haig's Kinship Theory. Project included a week long visit to Leuven for data analysis.	KU Leuven, Belgium

Public Engagement and Outreach

26.10.19	British Entomological Natural History Society: Student meeting Invited speaker for entomological career options.	Reading, UK
01.06.19	Soapbox Science Selected for the Leicester Soapbox Science event. Talk title: "Time-travelling water fleas and all girl bees!"	Leicester, UK
20.07.18	PhDetails Interview Interviewed about life as a PhD student for a blog called 'PhDetails'.	Online
13.09.18 13.09.17–14.09.17	Genetics Education Networking for Innovation and Excellence Volunteer Activity leader for banana DNA extraction for around 600 students aged 13-14 years.	Leicester, UK
08.11.17	HOPE Against Cancer Charity Evening Ran public engagement activities around cancer research.	Leicester, UK
16.08.17	Biomedical Research CPD: Public Engagement Training Aided the GENIE department in delivering public engagement training during the Chinese Biomedical Science Continuing Professional Development course.	Leicester, UK
17.03.17–18.03.17	Big Bang Fair Volunteer Volunteered for two days representing ecological genetics as a career path at a national STEM conference for school children.	Birmingham, UK
07.02.17	Cafe Research Gave a 10 minute public talk to members of the University of Leicester's research community.	Leicester, UK
27.01.17	Public Engagement Training Obtained a place on a competitive training course for public engagement. It focused on science communication using techniques other than the a standard lecture/talk. E.g. science busking.	British Ecological Society, UK
01.02.17	PodhD Podcast Invited for an interview about my research which was broadcast as a podcast online (episode 5). Part of the PubhD brand.	Online
14.06.16	PubhD Talk Gave a 20 minute talk to the general public in a pub using only a whiteboard to explain my research.	Leicester, UK

Research Career Breaks

01.01.10–30.09.17 **Manager / Live Presenter**
Gala Bingo: five locations UK

I have worked part-time through out my undergraduate degree, masters degree and PhD. I also worked full-time in between education in order to pay for a masters degree (15.07.2012 – 29.09.2014). **Having worked in a managerial role for six years I have excellent people management skills** and the ability to work to strict financial targets. I also worked as a stage presenter within the company earning 'platinum mic' recognition, which was the **highest company standard of live public entertainment**.

Relevant Training

04.04.19	Continuing Professional Development: Inspiring young people in STEM Two week course, self-paced.	STEM Ambassadors, UK
14.11.18	Introduction to Python Programming Half day session on basic python syntax.	University of Leicester, UK
04.06.18–25.06.18	Intermediate Course in R: Programming Four half day sessions on intermediate R programming.	University of Leicester, UK
04.05.18	Continuing Professional Development: Assessment for learning Tutoring Continuing Professional Development course: how to use formative assessment and feedback effectively.	University of Sheffield, UK
16.01.17–18.01.17	Population Genomics Workshop Secured a place on a competitive week long training course analysing whole genome population data using BASH.	University of Sheffield, UK
09.02.16–27.02.16	Programming for Evolutionary Biology Won a place on a prestigious three week long training course covering many aspects of bioinformatics within the fields of evolution and ecology. Including coding courses on: R, BASH (Linux) and Python.	University of Leipzig, Germany
22.03.15–27.03.15	NERC-MDIBL Evolutionary Genomics Attended a week long course on RNA-Seq data analysis.	University of Birmingham, UK
24.05.11–27.05.11	Molecular Ecology Techniques Secured a place as the only undergraduate student (that year) to attend a week long course on DNA extraction, microsatellite amplification and population genetic analysis.	University of Sheffield, UK