**Georgina Milne**   
Georgina Milne graduated from the University of Cambridge in 2008 with a Masters in Natural Sciences (MA). She completed a Masters (MSc) in Management at Queen's University Belfast before joining Deloitte consulting as a trainee analyst in database development, data warehousing and data analytics. Georgina later moved to Citigroup as a software developer in a data warehouse team, working to develop reports for the business and analyse data for the financial markets. Georgina was subsequently awarded a fully funded PhD at Queen’s University, Belfast in theoretical ecology. **Education**

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| **PhD Biological Sciences** | **Queen’s University, Belfast** | **September 2012** | **November 2015** |

*Environmental niche evolution and ancestral niche reconstruction*

I am currently developing a novel method of ancestral niche reconstruction. By linking modern climatic niche traits (via niche modelling) to the phylogenetic history of a clade, I can use Bayesian modelling to generate an estimate of the ancestral climate niche for internal nodes in a phylogenetic tree. This PhD is draws on themes from on ecological modelling, bioinformatics, historical biogeography and Quaternary science.   
*Skills: Coding in R, Python, and SQL ● GIS (Geographic Information Systems) ● Phylogenetics ● Bioinformatics ● niche modelling● Data handling and data manipulation ● Historical biogeography*

**Ch1** **In Prep** “Modelling the stability of climatic niches throughout the LateGlacial”

**Ch2** ***Submitted*** “Climate envelopes updated for the 21st Century; modern modelling tools improve the reliability of palaeo-climate reconstructions”

**Ch3** **In Prep** “Quaternary processes explain the modern diversity of the Hydroporus genus.”  
**Ch4** **In Prep** “Using Bayesian modelling to reconstruct the ancestral climatic niche of water beetles”

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| **Masters (MSc) Management** | **Queen’s University, Belfast** | **September 2009** | **September 2010** |

**Dissertation Topic:** “*Limiting factors of RFID update within small business.”*

This research investigated the technology behind RFID and its benefits and limitations to small businesses. The investigation was largely quantitative; I prepared technical documentation, interviewed business owners and conducted an intensive statistical analysis of my findings.

*Skills: Quantitative and qualitative research techniques ● Statistical analysis ● financial awareness*

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| **MA Natural Sciences 2:1** | **University of Cambridge** | **September 2005** | **June 2008** |

**Dissertation Topic (now published)** “The influence of pigmentation patterning on bumblebee foraging from flowers of Antirrhinum majus.”

**Employment History**

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| **Analyst Software Developer** | **Citibank** | **December 2010** | **August 2012** |

As an analyst software developer in a global data mining team I worked on a multi-terabyte database in MS-SQL server which housed the aggregation and reporting of global foreign exchange data. The data mining team developed and managed the database and also processed the data into reports and charts to help the business manage currency sales. The position also demanded extensive knowledge of MS-SQL/VBA/MDX and general data warehousing tools.  
*Skills: Data warehousing ● Database design and development ● Reporting in SSRS ● Data Integration in SSIS ● OLAP and Development in SSAS ● System support and bug fixes*

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| **IT consultant/analyst** | **Deloitte** | **September 2009** | **December 2010** |

As a graduate analyst consultant I trained extensively in the basics of software development, project lifecycles and stakeholder engagement. Clients included the NHS and Invest NI, where I specifically assisted in the design, development and implementation of data warehouse solutions for data storage, aggregation and analytics. Technical skills for this role include coding in MS-SQL /VBA and also extensive knowledge of all MS Office tools.   
*Skills: ● MS-SQL ● Data analytics ● COGNOS Business intelligence tools ● Data warehousing ●*

**Technical skills**

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| **Operating systems**  OS Windows  OS Ubuntu  **Code and data**  R  Python | ❶❷❸❹❺  ❶❷③④⑤  ❶❷❸❹⑤  ❶❷③④⑤ | **MS Office Package**  *MS Word*  *Excel*  *Access*  *PowerPoint* | ❶❷❸❹⑤  ❶❷❸❹❺  ❶❷❸④⑤  ❶❷❸❹⑤ |
| MS-SQL  MySQL  HTML/CSS  VBA  **Niche Modelling**  Maxent  Arc-GIS  DIVA-GIS | ❶❷❸④⑤  ❶❷③④⑤  ❶❷③④⑤  ❶❷③④⑤  ❶❷❸❹❺❶❷③④⑤  ❶❷❸❹⑤ | **Phylogenetics**  Bayestraits  BayesPhylogenies  MrBayes  Mesquite  Phylip  Mega6  RAxML | ❶❷❸④⑤  ❶❷❸④⑤  ❶❷③④⑤  ❶❷❸④⑤  ❶❷③④⑤  ❶❷❸❹⑤  ❶❷❸④⑤ |
| GIS (R)  ENM Tools | ❶❷❸④⑤  ❶❷❸④⑤ |  |  |

**Publications**

Whitney, H.M., **Milne, G.**, Rands, S.A., Vignolini, S., Martin, C., Glover, B.J., 2013. *The influence of pigmentation patterning on bumblebee foraging from flowers of Antirrhinum majus***.** Naturwissenschaften 100, 249–256. *[undergraduate thesis]*

**Milne, G**., Cameron, A., Whitehouse, N.J., Buckland, P.I., 2015. Climate envelopes updated for the 21st Century; modern modelling tools improve the reliability of palaeo-climate predictions. *[submitted]*

**Professional qualifications and membership**

* 2010ISEB (Information Systems Examinations Board) certified Software Development & Testing
* Member of: Royal Entomology Society ● British Ecological Society ● Quaternary Research Assoc.

**Teaching and communication**

* 2013- Demonstrator for Environmental Biology first year field course. Duties included explaining concepts and principles of hedgerow ecology, assisting student practical and written work and general duties of assembling equipment and assisting lead lecturer.
* Volunteered at NI Science Festival 2015 ● Member of STEMNet

**Grants, awards and prizes**

2013 ● E500 ● COST INTIMATE ● Travel & accommodation for INTIMATE conference.

2013 ● £500 ● QUB ● co-applicant for provision of R training course.

2014 ● £100 ● QUB entrepreneurial award ● Winner of QUB “What’s the Big Idea?”

2014 ● SET for Britain ● Shortlisted for science communication award.

2015 ● £600 ● INQUA QRA (Quaternary Research Association) ● Travel for INQUA Conference.

2015● £1000 ● William and Betty McQuitty QUB travel scholarship

**Research interests**Niche Modelling ● Palaeoecology ● Quaternary Science ● Phylogenetics ● Palaeoclimate reconstructions ● Databases and data management● software development ● Process Automation ● Data Science ●