

Jacob Brown

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Personal Profile and Career Aims

My primary interests fall broadly under evolutionary ecology, specifically assessing genetic and genomic data on an environmental and spatial scale. I equally enjoy field and analytical computational work - of which I have experience in both. After spending the last year managing a field research project, assisting with the implementation of experiments and maintenance of long-term data collection, I intend to focus on answering my own research questions.

Education

BSc (Hon) Zoology, Second Class First Division (3.61 GPA equivalent) - Cardiff University (2013 - 2016).

Relevant Skills

Quantitative and Analytical Skills

MySQL - Working with a large MySQL database at the Kalahari Meerkat Project, I achieved a vast understanding of MySQL - both in selecting data from, and establishing new databases.

R - My primary means of analysing and handling data - I have a high level of understanding, specifically with *tidyverse*. Through the package *Shiny*, combined with MySQL, I developed a number of applications for displaying, entering, and checking data.

Python - Fundamental understanding of Python, with specific application of monitoring server synchronisations and data collection levels.

Spatial Data Analysis - Calculating kernel density home-ranges for groups of meerkats from GPS data in R, and creating orientation maps in QGIS.

Markdown - Familiar with markdown and R-markdown - primarily for generating reports and experiment protocols.

L^AT_EX - Basic understanding for generating and formatting documents.

Git - With many computing languages, versions of scripts, and projects I saw it fit to learn git.

Practical and Field-Based Skills

Capturing and Sampling - Upwards of 250 procedures on habituated meerkats, involving catching, drawing blood, measuring morphometrics, and taking x-rays, with periodic attachment of VHF, GPS, and accelerometer collars. Equally comfortable with operating Havahart cage-traps for un-habituated individuals.

Collection of Life-History Data - Recording data for individual meerkats, monitoring potential pregnancies, health status, and dominance hierarchies.

VHF tracking - Two years experience tracking collared meerkats.

Behavioural Observation Data Collection - Adlib, focal, and scans observations on habituated meerkat groups.

Driving - Experience of 4x4 driving off-road, additionally competent pulling a trailer - both of which carried out on loose sand and dirt roads.

Managerial and Organisational Skills

Scheduling Data Collection - Arranging daily data collection for 8-12 research assistants, whilst routinely sampling a population of meerkats.

Logistics of Field-Site Living - Arranging travel for new arrivals to and from the site, stocking of food, and general site organisation.

Working with Film Crews - Planning and accommodating film crew visits, around long-term data collection.

Learning of Programming Languages - Arranging my working time such that, in my spare time, I was able to learn a number of programming languages (namely those described above).

Relevant Experience

Kalahari Meerkat Project Manager (2017 - present)

I currently hold the position of Project Manager at the Kalahari Meerkat Project, a behavioural and evolutionary biology research field site in the southern tip of the Kalahari desert, South Africa. My role is to facilitate data collection primarily for two research groups, at Cambridge and Zurich, along with a number of collaborators. I lead a team of 8-12 assistants, arranging their working schedule and ensuring their well-being & enthusiasm remains high during their stay - a challenging task in a remote and highly demanding environment. Alongside coordinating the

collection of long-term data, I have organised and implemented a number of experiments for off-site researchers. Additional responsibilities consist of collecting tissue and morphometric data from, and attaching VHF, GPS, and accelerometer collars to, habituated meerkats. I also have experience using cage traps, in which I have caught and collared a number of un-habituated individuals - facilitating tracking of and visits to their groups. Complimentary to the field work, I developed a strong understanding of handling data and using large datasets.

Kalahari Meerkat Project Research Assistant (2016 - 2017)

As an assistant, I focused primarily on behavioural, life history, and weight data collection of meerkats. I worked as part of a small, research driven, team. Tasks were carried out at a remote field site in extremely dry conditions - with temperatures varying from sub 0°C to above 40°C.

Comparing Sampling Capabilities of Two Widely Used Moth Traps (2016)

Undergraduate Dissertation Project - Using long-term data to compare capture efficiencies of Actinic and Black light moth traps, highlighting discrepancies in the species composition caught between the two trapping methods.

Other Field Experience

Damselfish behaviour and tropical reef fish surveying (2015) - An independent project, undertaken in Tobago as part of a university field course, assessing damselfish aggression in relation to density and algae coverage. Additionally, fish surveying on several reefs in Tobago.

Bird Ringing of Small Woodland Birds (2015) - Assisted with catching a number of British passerine species using mist nets.

Bat Surveying (2015) - Assisted with recording bat calls in a number of city parks across Cardiff.

Small Mammal Trapping (2015) - Capture-mark-recapture survey of field mice and bank voles, using Ugglan cage-traps.

Insect Surveying (2015) - Assisting with research on ground beetle abundance - predominantly setting and checking pit-fall traps.

Other Employment, Volunteering, etc.

Exeter's Horizon Club Volunteer (2011 - 2013) - Assisting at a social club for adults with learning difficulties.

High School Science Club Leader (2011 - 2013) - Organising and running of a weekly lunch-time science club for students aged 11-15.

UK Sports Leaders (2011 - 2013) - Teaching of core sports skills to approximately 30 children, aged 6 to 12 years, one afternoon a week.

Young Ambassador for Sport (2009 - 2012) - Representing my school, at a regional level, to plan and implement sports events within my schooling group.

Forest Cycle Hire Bicycle Assistant (2014 - 2015) - Part-time work, fixing and selling bicycles.

Interests and Achievements

Sports Leaders UK Level 2 Award in Community Sports Leaders (2013) - For my work as a Sports Leader and involvement in promoting sport in the local schooling community.

CREST Award: Gold (2010) - Organised by the British Science Association, and aimed at high-school students. Achieved the highest level (Gold) for a project on hypertension.

Rugby Ready Coaching Course (2010) - A weekend course followed by several years of part-time weekly coaching.

Student of the Year (2009) - Awarded at Clyst Vale Community College for my positive attitude and extra-curricular contributions.

Entry Level Referee Award: Levels 1 and 2 for Rugby (2009) - Associated with my local rugby club, allowing myself to referee club matches at the junior level.

Orienteering and Hiking - Primarily local routes across Dartmoor and the South-West of England.

Mountain Biking - Downhill and cross-country disciplines, representing Cardiff University at BUCS 2014 and 2016.

Photography and Videography - Specifically, wildlife, landscape, and nature, although I have a wider appreciation and interest throughout photography and film.

Skeleton Articulation - During my spare time at the Kalahari Meerkat Project, I cleaned, re-constructed, and mounted a Red Hartebeest skeleton - a novice attempt, however now in search of future challenges.

Referees

Available upon request.