

Geographical Fieldwork Grant

**Royal
Geographical
Society**
with IBG

Advancing geography
and geographical learning

● Recipients 2014

● **Dr Natalya Reznichenko** (Durham University) 'Reinterpreting the palaeogeomorphological record in the Alai Valley, Northern Pamir'

The main purpose of the expedition was to investigate the genesis of landforms of former mountain glaciation and mass movement of the Koman and Achiktash catchments in the Alai Valley, Northern Pamir of Central Asia, in order to identify the past glacial extent, reconstruct its deposition, identify large mass movement deposits and their relation to glacial deposition, and collect samples for dating these landforms (cosmogenic, lichenometry and Schmidt Hammer).

● **Dr Ilya Maclean** (University of Exeter) 'Spatial priorities for papyrus endemic bird conservation'

Papyrus swamps, the most common freshwater wetland in East-central Africa, are under severe threat from drainage, harvesting and habitat degradation. Several bird species are endemic to these wetlands and are among the least adequately protected in the region. The overarching aim of this project was to provide the evidence base that would enable the effective conservation of birds endemic to papyrus swamp. Specific objectives were to (1) repeat a survey carried out 12 years ago, mapping the presence and absence of birds associated with papyrus swamps in SW Uganda; (2) to map the density of birds in a subset of these swamps (3) to quantify the factors that affect bird densities and map densities across the study area; (4) to develop meta-population models to identify (a) critical thresholds of habitat loss beyond which regional extinction is greatly enhanced, and (b) which swamps contribute most to reducing this risk; (5) to work closely with local conservation organisations to ensure that information is used to guide conservation policy and practise.

● **Samuel Crofts and Joseph Cooper** (University of Sussex) 'Habitat use by bats in tropical lowland and mountain forest'

The first objective was to compile species lists for the two reserves visited, (Santa Lucia and Nenquipare). Secondly, the team aimed to build on existing research carried out assessing the effectiveness of bats as indicators of disturbance in primary and secondary forest. In addition to this, we aimed to see the impacts small-scale agriculture has on bat populations. The impact of any disturbance was most likely to be seen on the Phyllostomidae family of bats, the most abundant within forest ecosystems. In terms of sampling the

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project was a success with 16 species found in Santa Lucia and 26 at Nenquipare therefore the reserves are now informed about what species of bat are present.

● **Tesni Woodfall and Rebecca Weighell** (University of Sussex) 'How are women in Bangladesh adapting to Climate Change?'

The purpose of this project was to see how women in Bangladesh are affected by Climate Change, focusing on water and sanitation and migration. Thanks to the active facilitation by Uttaran the team were able to complete the large majority of their research aims. Many more focus groups than expected were carried out, from a wider range of participants from the community. As the research developed and they worked alongside the community, the team members realised a need to slightly alter their research questions to make them more suitable for the research area and participants.

● **Christopher John Thorpe-Dixon** (Plymouth University) 'A comparative biogeographic study of the Sadas, Northern Western Ghats.'

The principal objective was to complete the biological data set for the biogeographical study. As in 2013 an undergraduate student from the UK took part in the fieldwork and encouraged to develop their own network of contacts in India, with shared interests. The Western Ghats are one of the world's three most threatened biodiversity hotspots. The lateritic plateaus are an unknown component in the heterogeneous landscape and may make a considerable contribution to the high levels of endemism in the regional biota. The plateaus are highly stressed and possibly isolated environments leading us to expect their biota to be highly evolved to cope with an environment that ranges from xeric to hydrophilic. To answer the primary question 'are all the plateaus the same'? Three focal taxa were used; amphibians, aquatic coleoptera and ants, to assess the factors regulating the distribution of species.

● **Augusta Thomson** (University of Oxford) 'Evolving Relationships: New Media and Mongolian Women Across the Gobi'

The purpose of this project was to research Mongolian women's' and girls' uses of mobile technologies across the Gobi Desert. Before entering the field the team had planned to use loose surveys and interview questions to gain insight into the pervasiveness of cellphones, radios, televisions, and Internet devices across the Gobi; with the aim of understanding how these new devices might be used by rural herder populations to mobilize against mining companies and become more connected and active in civic engagement. They were also interested in tracing the impacts of new mobile technologies on women's perceptions of self and community. Over the course of five weeks significant data relating to the subject was

collected, and a total of sixty women and girls, from Dornogovi Province to Govi Altai Province, were interviewed. Despite some transportation mishaps the team completed their itinerary, and managed to collect data from across the Gobi Desert, as intended. They have also compiled footage for a documentary film.

● **Natalie Bakker** (King's College London) 'Hydrological and Ecological Impact of Environmental Change at Mangabe, Madagascar'

The expedition to the Mangabe area of Madagascar aimed to investigate environmental land use/land cover changes, and research the influence of this on local hydrology and ecology. This will fill in the gap of environmental knowledge in this area, and can be used to determine optimal management strategies for local communities. Remote sensing and GIS techniques were used to quantify land use/land cover changes, after which an accuracy assessment was carried out in the field. Furthermore, the water budget and leaf area index were studied. A Malagasy student joining the team will tie findings of environmental changes to local ecological changes. The expedition team collaborated with Madagasikara Voakajy, an NGO specialised in biodiversity conservation, as well as receiving help from various universities and the P4GES project.

● **Hannah Smith** (University of Exeter) 'Expedition Loholoka 2014'

This expedition had three main aims; to conduct a full biodiversity survey of the Loholoka forest, understand the needs of the local people and to gain conservation status for the forest. In terms of our biodiversity survey, the team surveyed for amphibians, reptiles, mammals and birds, but did not survey for insects due to time restraints and a lack of specialist knowledge. They worked with the local people to understand their needs and requirements from the forest so that a practical action plan could be created. Meetings were held with the leaders from local communities to decide on an action plan for the future, all necessary and important measures were addressed and solutions were established. No scientific research has ever been carried out in this forest before, however reconnaissance trips reported threats to the forest such as charcoal production. The team mapped these threats along with others such as illegal logging, hunting, slash and burn and zebu farming. The forest holds significant species such as the Crested Ibis, White Fronted Brown Lemur and Fish Scale Gecko, these are clear indications that the forest should be considered for future conservation management schemes.

● **Robert Waugh and Nicola Andrews** (University of Glasgow) 'The University of Glasgow River Survey Expedition'

The aim of the Peru expedition 2014 was to accurately map the exact locations and carry out habitat surveys of 4 tributary rivers of the Madre de Dios, which run through the MLC reserve whilst carrying out habitat

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surveys. Using these maps the team studied mammals, aves, lepidoptera and amphibian distribution and abundance throughout the river system as well as recording the movement of carbon throughout the system. The tributaries pass through areas of differing human disturbance history, which will allow analysis of how disturbance affects wildlife and the ecosystem as a whole.

● **Prince Frank** (Queen Mary, University of London) 'Assessing abiotic and biotic responses within a mangrove ecosystem'

This research project comprised three individual dissertation projects that collectively aimed to build a greater understanding of Barbuda's mangrove environment. The three project aims were: 1) to map the spatial distribution of juvenile reef fish within Codrington Lagoon; 2) to assess the health of mangroves by focusing on water quality and carbon storage and comparing the results to international guidelines for mangrove health; and 3) to investigate the water quality and mangrove environment of various sites situated throughout Codrington Lagoon, using ostracod and foraminifera as bio-indicators.

● **Erin Evans** (University of Glasgow) 'University of Glasgow Exploration Society: Iceland Expedition 2014'

This expedition aimed to increase biological and geographical knowledge of this fragile high latitude environment, directly aiding management plans for the Reserve and developing the students' research and fieldwork skills; the various projects complemented each other and developed the students' skills and the Reserve's knowledge of the land which is suffering ecological stresses. The team consisted of six undergraduate students from various disciplines. Spending six weeks in the field over the summer of 2014, they lived and worked together under the 24 hour sunlight. The six research projects undertaken ranged from biological research, considering the relationships and behaviour that ground nesting birds' nests and wood mice have with the invasive lupin, and an entomological project also relating to the colonising plant. An archaeological project considered the material heritage of sites across Skálanes, which will then be compared to Viking sites on Shetland; and finally human and cultural-based geography projects considered the identity of the Icelandic people, specifically focusing on media and linguistic influences and the geographical and political topic of whaling, with the use of a public-perception study. These projects were conducted in co-operation with the staff at Skálanes, and all project aims were successfully completed.

● **Katie Reinhardt** (Oxford Brookes University) 'Effects of climate change on behaviour of *Nycticebus javanicus*'

The purpose of this project was to determine the influence(s) of climate on behaviour and microhabitat use on the Javan slow loris [*Nycticebus javanicus*] in Cipaganti, Java, Indonesia. Working through the Little

series of 17 interviews with the staff of Bujubuli Secondary Vocational School, and representatives from the implementing bodies that deal with education at Kyaka II. Within the field of refugee studies secondary education has often been overlooked in favour of primary education, which is seen as a basic need. This project has fulfilled the aim of addressing the importance of secondary education for refugees; something that is too often neglected. The team were able to effectively conduct an in-depth qualitative case study that gives a real insight into Bujubuli Vocational Secondary School. Particularly, how a secondary education can help the young refugees' academic and psychosocial development, increasing their sense of agency and aspirations.

● **Katherine Collins** (Queen Mary, University of London) 'Historical glacier fluctuations and landscape evolution in the Zemmgrund, Austria'

The aim of this project was to explore how the landscape of a high-mountain valley of Zemmgrund has evolved over the last few centuries, since the maximum extent of the 'Little Ice Age'. Three glaciers, Waxeggkees, Hornkees and Schwarzensteinkees, are located at the head of the valley and have produced spectacular landform-sediment assemblages that have hitherto not been studied in detail. The overall project aimed to elucidate the pattern of historical glacier fluctuations and understand the evolution of this high-alpine landscape. It was achieved through four closely-linked individual research projects that form the bases for undergraduate (BSc) dissertations.