

Darwin Scholars Latin America

Monitoring and Communicating Biodiversity

September 2015

7th September to
16th September 2015



Field Studies Council (FSC)

The FSC was founded in 1943 with the mission statement of “bringing environmental understanding to all” and is one of the leading environmental education organisations in the United Kingdom. We achieve our goal through a network of seventeen field centres spread across the UK. The FSC employs over 75 trained geography, ecology and biology tutors and each year over 220,000 people experience FSC courses. In addition to running courses we also manage two national nature reserves and have a world respected range of publications, especially in the area of taxonomy.

Please go to our website www.field-studies-council.org for more information.

Quotes from Scholars attending the programme in previous years

*‘Fieldwork is amazing’
‘Came face to face with great thinkers’*

‘Fabulous presentations from scholars’

‘Climbing Cwm Idwal ... new and beautiful experience’

‘Meeting people from similar professions...priceless’

In 1832 Charles Darwin landed at Rio de Janeiro, Brazil. He spent the next few months travelling, recording and monitoring the biodiversity of the region.

The Darwin Scholars Programme Latin America offers you the opportunity to follow in Darwin’s footsteps and discover the amazing biodiversity of this region for yourself, and improve your taxonomy and communication skills.

Why do we need Darwin Scholars?

On a global scale there are a number of key needs related to science education.

- Firstly there is a global shortage of taxonomists and experts with observation and identification skills;
- Secondly there is a need to record biodiversity in a more coherent and robust way both nationally and internationally; and
- Thirdly there is a huge need for scientists to communicate more effectively with a range of different groups from school students and the general public through to decision makers.

The programme focuses on these three needs with the overall goals of the scholarship being to:

- Strengthen the exploration and observational competencies of young field scientists at University level to develop more skilled naturalists;
- Give a greater understanding of the importance of national biodiversity databases and recording;
- Enhance the ability of scientists to communicate effectively with a variety of target groups;
- Build learning partnerships in local communities to monitor local biodiversity; and
- Develop resources and materials that will promote first hand exploration and observation.

Although Darwin is usually remembered for his work on the theory of evolution, much of this work was based on an enthusiasm for the natural world together with first hand observation and exploration of the natural environment. As Charles Darwin said later in his life “I was born a naturalist”.

The FSC aim is to promote the same enthusiasm and understanding of the natural world that Darwin did in order to achieve our goal of “bringing environmental understanding to all”. We want to share our enthusiasm and expertise with young scientists across the world and create a learning community dedicated to enhancing public participation in biodiversity conservation and highlight the importance of exploration and observation to understand the world we live in.

Funding the Programme

The full cost of the 10 day scholars programme is **1400 GBP** per person. This covers the costs of all accommodation, teaching, and local travel in Brazil during the programme. It **does not cover** the cost of international travel to Rio de Janeiro, but does include transfers from Rio International Airport to REGUA. The FSC is offering a limited number of bursaries of **550 GBP**. If you wish to receive a bursary please request this in your application.

The FSC will assist successful applicants in this process and provide suggestions of sources of funding and also letters of support for applications to grant organisations.

Reserva Ecológica de Guapiaçu (REGUA)

The programme is hosted at the Reserva Ecológica de Guapiaçu (REGUA). It was established in 2001 to protect the remaining forests of the Guapiaçu valley, about 70 kilometres north of Rio de Janeiro in south-east Brazil.

REGUA's objective is to protect the remaining forest and biodiversity from deforestation, hunting and over-extraction of natural resources. If we are to be effective then we need to understand what species are present and their status, and so REGUA is developing a comprehensive monitoring programme. REGUA also aims to improve biodiversity by restoring lost and damaged habitats and reintroducing lost species where practical. Our Environmental Education Programme is critical to the long-term success of the project and we work very closely with local communities, especially children, to convince them of the importance of this work.

Find out more: www.regua.co.uk/



The scholars programme is aimed at...

Young Scientists from around the world, probably working for a non-governmental organisation, government department or in a Biology or Ecology faculty at University. You should be under the age of 35 and studying at graduate or post graduate level or be a young lecturer or work for an environmental organisation.

The aim of the Darwin Scholar Programme is to develop “better naturalists” in the spirit of Darwin’s love of nature and observing the natural world. The Scholarship will focus on three areas: skills of observation and identification, skills of recording biodiversity and skills of communicating biodiversity to different target groups.

This is a unique opportunity to work with leading scientists and educators in Brazil and will be based at the Reserva Ecológica de Guapiaçu, a field centre located in the Atlantic Rainforest about two hours drive from Rio de Janeiro.

What scholars will do in more detail

We aim to train a group of 25 young “up and coming” scientists:

- Techniques for biodiversity monitoring and identification;
- The creation and management of national databases and recording networks;
- Fundamental approaches to communicating biodiversity to a range of audiences;
- How to lead and manage school and community based biodiversity monitoring projects; and
- How to develop biodiversity education materials for different groups based on FSC expertise.

To achieve this we will provide training using the expertise of the Field Studies Council and other biodiversity organisations. One of the goals of the course is the sharing of positive ideas and solutions to the biodiversity challenges that we face on a local through to a global scale.

The scholarship programme will involve a number of different kinds of activities:

- Training workshop activities focusing specifically on identification and observation skills, the development of identification keys and communication skills;
- Lectures from FSC and other organisations;
- Meetings with leading ecological organisations;
- An opportunity for you to meet with leading scientists that work in your research area; and
- Sharing your experience through a formal presentation to other scholars on the programme and learning more about biodiversity in other parts of the world.

Darwin Scholars Programme

The REGUA reserve offers a fantastic opportunity to get first-hand experience in a range of field techniques to monitor and record a variety of species. Replanting, forest restoration and wetland creation at the reserve provides a range of habitats to explore conservation ecology in action and develop taxonomy skills.

The programme will be based around the work undertaken at REGUA, allowing us to witness the journey they have taken to 'plant' a rainforest. The workshops below indicate the breadth and depth of workshops you will participate in.

Introduction to REGUA and tropical forest ecology: a guided walk through the reserve to orient ourselves to the area and habitats

Importance of Taxonomy and Collections: why taxonomy is important and how to develop your taxonomy skills. We will have a particular focus on collecting biodiversity information with a minimum amount of specimen collecting, exploring alternative strategies for data collection with the minimum of damage to animals and plants.

Vegetation assessment: techniques to produce a rapid assessment of the ecological and social value of habitats.

Trees: working in a range of forest types to assess forest diversity and influence on other species.

Leaf litter and mycelia: exploring why this is the 'engine house' of the rain forest and identifying what composes it.

Aquatic species and water monitoring: investigating the whole stream and lake system through identifying its species and building up a picture of their ecosystem services.

Birds: field visit and explanation of data collection and rationale (there will be a pre-breakfast walk to put theory into practice).

Identification of invertebrates: excursion and workshop to collect and return to identify a selection of invertebrates, including Lepidoptera and a night-time visit to find Arachnids.

Developing identification guides: a workshop on producing simple identification guides to aid in the identification of species.

Recording schemes and recording programmes: exploring examples of different types of recording schemes and to share examples of recording programmes that scholars might like to use in their own work.

Education and communication: looking at how we successfully communicate about biodiversity to others from school children to presidents, and exploring what current approaches often fail to deliver.

In addition to the workshops, Scholars will present their own work and there will be opportunities to explore specific themes of interest.

The programme will culminate with a BioBlitz where we put all our new skills into action to rapidly assess an area.



Scholarship Contacts

Email: global@field-studies-council.org

Website:

Phone: +44 1743 852126



How do you apply?

We are looking for up to 25 scholars from countries across the world to join this Darwin Scholars Programme.

Before you apply please make sure that you are able to meet these criteria:

- You are aged 35 or under;
- You are studying for or have a degree in Ecology, Biology or related subject;
- You are an undergraduate, postgraduate, postdoctoral student, young lecturer or work for an environmental organisation;
- You can speak and read English well. **This is very important.** There will be no interpretation or translation facilities; and
- You have the support of your University or other organisation for the Scholarship programme.

There is no application form. To apply you will need to send us:

1. **Your CV**

Your CV can be in any format that is usual for your country – but must include your home and work addresses, email and telephone contacts, and skype address if you have one. You must also include the name of two referees we can write to. Please do not include reference letters with your application. Do try and keep to less than 5 pages.

2. **A short letter in English**

Your letter should be of no more than two sides of A4, explaining why you want to take part in the scholarship programme. It should provide the following information – why you want to become a Darwin scholar, your personal assessment of your identification/observation capacity, your views on how well science is communicated to a wider audience and the role of scientists in education and what you will do with the new skills that you gain through the scholarship. You need to persuade us that you are the young, dynamic and enthusiastic scientist we are looking for from your country.

3. **A letter of support**

A letter from your University or organisation that states clearly that you have permission to take part in the scholarship programme.

4. **Bursary**

We are offering a limited number of bursaries of 550 GBP. Please state if you wish to be considered for the bursary.

Your application should reach the Field Studies Council not later than 15th March 2015. It is not necessary to have guaranteed funding before making your application.

Your application should be emailed to

global@field-studies-council.org

Contact person is Janet Jones