



DARWIN INITIATIVE

APPLICATION FOR DARWIN FELLOWSHIP PROGRAMME 2007

Please read the Guidance Notes before completing this form. Give a full answer to each section; applications will be considered on the basis of information submitted on this form. Please note the additional information requirements (CVs and letters of support as detailed in the Guidance for Applicants). Whilst this form is to be submitted by the host institution the proposed Fellow should be fully involved in development of the proposal. Please keep to word limits as specified and do not use a font size smaller than Arial 11pt for main text, Arial 10pt for financials.

Submit by Friday 16 March 2007

1. Contact Details

Ref. (Defra/ECTF only):
Name and address of UK applicant organisation (results will be sent to the postal address provided here) Department of Plant Sciences, University of Oxford, South Parks Road, Oxford OX1 3RB

2. Darwin Fellow. A one page CV must be enclosed.

Name and official address of proposed Darwin Fellow Mr Seepersad Ramnarine, Deputy Director, Forestry Division Ministry of Public Utility and the Environment Long Circular Road Port of Spain Trinidad & Tobago, W.I.	Tel: E-mail:
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3. Summary of proposed Fellowship (no more than 100 words)

Training in basic forest modelling.
Data spanning 25 years from 170 permanent sample plots scattered across Trinidad's permanent forest estate have never been analysed. We propose to bring the Deputy Director of the Forestry Division, responsible for forestry research, information and management to Oxford for one month to learn techniques for handling PSP data, cleaning, checking and remedying errors. We will provide basic training in the use of database software and work with him to develop simple growth and yield models. This will assist Forestry Division staff to produce information fundamental to sustainable forest management in Trinidad.

4. Principals in Project. Please give the details of the individuals from the UK host organisations (and other institutions if relevant) who would be directly involved in supervising/working with the Darwin Fellow. A 1 page CV on each must be enclosed.

Details	Main UK expert	Other UK expert	Other UK expert
Surname	Brown	Hawthorne	
Forename(s)	Nick	William	
Post held	University Lecturer	Post-doc research assistant	
Institution (if different to above)			
Department			
Telephone			
Fax			
Email			

5. Describe briefly the aims, activities and achievements of the UK applicant organisation. (Large institutions please note that this should describe your unit or department) (150 words)

The Department of Plant Sciences, University of Oxford is recognised as an international centre of excellence in teaching, training and research in the biology of plants at molecular, cellular, tissue, whole-organism and environmental levels.

Main activities: to teach plant biology to undergraduate and graduate students, carry out research, train scientific researchers, contribute to the scientific peer review process, engage in scientific collaborations, engage in scientific dialogue with the public, interface with industry and advise on science policy.

6. Describe briefly the aims, activities and achievements of the proposed Darwin Fellow's organisation. (Large institutions please note that this should describe your unit or department) (150 words)

The role of the Forestry Division is the management of Trinidad and Tobago's forest resources for protection and production. The emphasis has moved in recent decades from timber production to ecosystem management for biodiversity conservation and sustainable development.

Main activities: (i) Integrated Management of forests for protection and production. (ii) Production of national plans, programmes and projects, monitoring. (iii) Training for professional, technical, and field staff. (iv) Research in all aspects of tropical forestry. (v) Park and recreation area management. (vi) Environment education and public relations.

7. Describe briefly the proposed Fellow's current role within their organisation and link to a Darwin project. (150)

Deputy Director of the Forestry Division Ministry of Public Utility and the Environment. He has special responsibility for forest research, information and management. He is a named counterpart on our Darwin Initiative funded research project 162/14/004: A biodiversity monitoring system for Trinidad and Tobago.

8. Provide a concept note on the Darwin Fellowship. This should include:

- a clear outline of the aim and objectives of the Fellowship
- the programme of work, including key milestones through the duration of the Fellowship and their timing
- the role of the UK applicant organisation, and others where relevant (including contacts)
- where appropriate, how the Fellowship will contribute towards sustainable development or sustainable livelihoods

In Trinidad, a network of 170 permanent sample plots (PSPs) was set-up in 1981 by the Forestry Division. All trees with stems greater than 10 cm in diameter (dbh) belonging to a group of 18 commercially important tree species were mapped and measured. Individuals with stems greater than 20 cm dbh of all other species were also included. Over 100 of these plots have been re-enumerated on at least four occasions and some six times. The plots are located in a range of forest types, including worked forests, and have not been treated differently to the surrounding forest so they accurately reflect the habitat conditions. We have used some of these plots as the basis for more detailed botanical inventory as part of our Darwin Initiative project.

Although the botanical information from these PSPs is useful in mapping plant biodiversity the greatest value in these plots is in the information they hold on the population dynamics, and growth of all of important tree species. This data is valuable because it will reveal population trends over a period of 25 years and will allow the modelling of potential sustainable yields of timber species. Trinidad lacks growth and yield models for all of the major timber species that are harvested – a major constraint on sustainable forest management.

At present, the PSP data only exists as vulnerable paper records. It has never been collated, checked for errors and consistency, or analyzed. As part of our on-going Darwin project we are entering components of this data into a BRAHMs database (<http://herbaria.plants.ox.ac.uk/BOL/home/>).

Objectives

1. Mr Ramnerine will receive training in basic database construction and use. We show him how to create specific functions for facilitating rapid data entry and error checking. We will advise him how to handle common problems with PSP data (shrinking and disappearing trees, changes in individual identity, changes in species identity). One of the most important reasons why little use has been made of the PSP data so far is the lack of basic data-handling skills in Forestry Division. We envisage that by providing Mr Ramnerine with training in the input and processing of PSP data we will enable him to train others in his organisation.
2. We will train Mr Ramnarine in basic forest modelling using standard dedicated software applications. We will assist him to construct basic growth and yield models for key natural forest species.

Milestones:

1. Training in basic design, construction and use of database software (3 days)
2. Input of raw data completed (2 weeks)
3. Cleaning and error checking functions designed and implemented (1 week)
4. Training in use of basic forest modelling tools – construction of simple growth and yield models (2 weeks).

Contribution to sustainable livelihoods

Forest growth modelling is an important tool for sustainable forest management for timber. Although the state-managed forests of Trinidad and Tobago have been cited as an important example of sustainable management of mixed tropical forest, many experienced foresters believe that current harvesting regimes are not sustainable and that estimates of forest growth and yields have been over-optimistic. We hope that using robust long-term data sets to parameterise growth and yield models should provide a sound basis for designing future management.

9. Legacy. Provide information on how the Darwin Fellow will utilise, promote and disseminate the benefits of the Fellowship on return to his/her home country. Will a strategy be developed during the Fellowship to ensure this is achieved? (200 words)

Mr Ramnarine is closely involved in developing forest policy for Trinidad and Tobago. He is therefore ideally placed to use the outputs from forest modelling in determining future management strategies. His responsibility for forest research, information and management mean that he is also well placed to pass his skills on to others.

10. How will the Fellowship assist the Fellow's organisation and/or local communities and/or home country in working towards the objectives (or implementation) of the Convention on Biological Diversity? References to the Convention should be specific, for example, by referring to articles, cross-cutting or thematic issues¹. (200 words)

This fellowship will assist Forestry Division contribute to meeting T&T's obligations under CBD Article 10 – sustainable use of component of biological diversity, in particular, integrating consideration of the sustainable use of forest resources into national decision-making. It will also meet provide capacity within Forestry Division to train staff in basic forest modelling. This meets obligations under Article 12 – to establish and maintain programmes for technical education and training in measures for the sustainable use of biological diversity.

11. What collaboration has there been with the Darwin Fellow to date in developing the proposal, and what collaboration is planned for the duration of the Fellowship? Where relevant, describe any consultation or collaboration by the proposed Fellow within his/her own country. (200 words)

This proposal is being submitted at Mr Ramnarine's suggestion. He has been centrally involved in identifying the objectives for the visit and his training needs. He has consulted with the Conservator of Forests (his line manager) who has granted permission for him to take leave to cover the fellowship period.

¹ Refer to the Guidance Notes for Applicants for further information

12. Provide details of the Darwin Initiative project (including the reference number) that the proposed Fellow was associated with, including his/her role in that project and any ongoing involvement. (200 words)

Darwin Project 162/14/004: A biodiversity monitoring system for Trinidad and Tobago

Mr Ramnarine has been a key partner in this project. He was a principal participant during planning meetings for the project and played a major role in the design and implementation of the project. He has authorised and overseen a large Forestry Division field team who have played a central role in botanical surveys over the last year. He has co-ordinated the collection of data from permanent sample plot across Trinidad for the last 25 years.

13. Duration of the Fellowship: what are the intended start and finish dates?

1 month: 28/07/07 to 25/08/07

14. Where will the Darwin Fellow be based? Please be specific with organisational details and dates (where more than one location). (200 words)

Mr Ramnarine will be based in the Department of Plant Sciences, University of Oxford for the duration of the fellowship.

15. Financial Aspects. Please use UK Government Financial Years ie April 2007 – March 2008 etc)

Fellow payment			
	07/08	08/09	
London: £1200/month	Number of months	2007/08	2008/09
		£	£
UK (outside London): £1000/month	Number of months 1.0	£	£
Overseas location £ /month*	Number of months	£	£
Host Organisations' costs			
	07/08	08/09	
UK: £300/month	Number of months 1	2007/08	2008/09
		£	£
Overseas location: £ /month*	Number of months		£
A. Total Fellow & Host Organisation Costs		£	£

* Figures available from Margaret Okot on 0207 082 8430

Actual travel costs (Return journey to Fellowship location)		
	2007/08	2008/09
Return airfare. <i>Details</i> Return flight Trinidad (Port of Spain) to London (Gatwick)		£
Travel to/from airports. <i>Details</i> Return bus fare Gatwick to Oxford		£
Visas etc. <i>Details</i>		£
B. Total Fellowship Travel Costs (Actual costs up to £2000 will be paid)		£

Actual travel costs 'Additional Travel'		
Specify purpose. Maximum £500 within country of Fellowship location, £1500 for international travel.		
	2007/08	2008/09
Airfares <i>Details</i>	£	£
Subsistence <i>Details (including number of days)</i> <i>Contact Defra for rates</i>	£	£
Travel to/from airports. <i>Details</i>	£	£
Visas etc. <i>Details</i>	£	£
C. Total (Other travel) costs	£	£

D. ACADEMIC FEES	2007/08	2008/09
<i>Details</i>	£	£

TOTAL FELLOWSHIP COSTS (A + B + C + D)		£
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16. Other sources of funding: provide details and amounts

We are presently funding data entry by Oxford student from departmental sources. Total amount: £
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FCO NOTIFICATION

Please check the box if you think that there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise details of the Darwin Fellowship and the resultant work in the UK or the Darwin Fellow's home country

CERTIFICATION

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful.

I enclose CVs for project principals and letters of support as requested in the Guidance Notes.

Name (block capitals)	Dr Nick Brown
Position in the organisation	University Lecturer

Signed

Nick D. Brown.

Date:

15/03/07

Please return completed form to The Edinburgh Centre for Tropical Forests (ECTF) by 16 March 2007 (to arrive by midnight) by email to darwin-applications@ectf-ed.org.uk. A hard copy of the full application should also be sent to ECTF, Darwin Applications Unit, Pentlands Science Park, Bush Loan, Penicuik, Edinburgh EH26 OPH and should be postmarked 16 March 2007.