

DARWIN INITIATIVE FOR THE SURVIVAL OF SPECIES : APPLICATION FOR GRANT FOR ROUND 9 COMPETITION

Please read the accompanying Guidance Note before completing this form. Give a full answer to each section; applications will be considered on the basis of information submitted on this form. Applicants are asked not to use the form supplied to cross refer to information in separate documents except where this is invited on the form. The space provided indicates the level of detail required but you may provide additional information on a separate sheet if necessary. Copies of this form are available on disk or by e-mail on request. You are asked also to complete the summary sheet attached at the end of this form. Although you may reproduce this sheet in a reasonable font, you should not expand it beyond an A4 sheet (leaving the allocated space for DETR comments to be made) as additional information will not be taken into account.

1. Name and address of organisation

BioNET-INTERNATIONAL, Bakeham Lane, Egham, Surrey, TW20 9TY, UK

2. Principals in project

Details	Project leader	Other UK personnel (if working more than 50% on project)	Main project partner or co-ordinator in host country
Surname	Minter		Rodríguez Hernández
Forename(s)	David William		Miguel
Post held	Principal Scientist		Scientific Director
Institution (if different to the above)			Jardín Botánico Nacional
Department			Departamento de Micología
Telephone			
Fax			
Email			

Please provide a one page CV for each of these named individuals.

3. Project title (not exceeding 10 words)

DARWIN INITIATIVE BIODIVERSITY CONSERVATION IN CUBA

4. Abstract of study (in no more than 750 characters)

Workshop-trained Cuban nature reserve staff will produce new management plans and computerize data for their reserves using donated equipment: computers, microscopes, cameras, video-cameras, literature and other resources will be gathered and sent to Cuban reserves and scientific institutions for *in-* and *ex-situ* biodiversity conservation (any surplus going to schools). Information about neglected groups of organisms will be computerized through a complementary scientific programme, including intensive study of fungi at three key sites, resulting in high quality conventional and electronic scientific publications. A new *Caribbean Fungal Identification Service* will receive initial support.

5. Timing. Give the proposed starting date and duration of the project.

April 2001. Three years.

6. Describe briefly the aims, activities and achievements of your organisation. (Please note that this should describe your unit, institute or department within a university.)

Aims: BioNET-INTERNATIONAL is a partnership to access, build and share capabilities for identifying and characterizing economically and ecologically important organisms. It aims to assist and enable developing countries in sustainable agricultural development and conservation, and sustainable use of their environment and biodiversity, and to facilitate those interventions needed to enable these countries to achieve full implementation of the Convention on Biological Diversity. This is done through LOOPs (Locally Organized & Operated Partnerships). See enclosed annual report and <http://www.bionet-intl.org/> for further information.

Activities: BioNET-INTERNATIONAL works to strengthen biosystematic institutions in developing countries, through transfer of knowledge, skills and technology from world centres; to enhance and thereafter sustain biosystematic capabilities of developing sub-regions and regional partnerships so that corporately they satisfy biosystematic needs of member countries; to provide key institutions with mini libraries and databases, computer equipment and electronic communication systems; to train biosystematists and technicians; to rehabilitate collections and establish new resources; to develop and apply new technologies.

Achievements: BioNET-INTERNATIONAL is particularly strong in the Caribbean (fuller information can be supplied on request), but this resumé concentrates on its current Darwin Initiative project *Biodiversity Information in the former Soviet Union* which is similar to the present proposal. BioNET-INTERNATIONAL's work in the former Soviet Union has resulted in successful acquisition of more than 130 computers, printers and other items of computing equipment, literature, and video and photographic equipment, almost all freely donated. Of these more than 90 items, mostly conventional PCs and laptops, have already been delivered to scientists, nature reserve staff, appropriate administrations and schools. Most beneficiaries have been in Ukraine, but computers have also been delivered to Belarus, Georgia, Kazakhstan, Russia (including Vladivostok), Tajikistan, Turkmenistan and Uzbekistan (these 90 items are additional to over 70 computers and printers already delivered to Ukraine, Trinidad & Tobago and Cuba through two earlier Darwin Initiative projects [see section 7]; scientists working in biodiversity in Kenya, Bolivia and Argentina have also, incidentally, received computers because opportunities have arisen during the current project). In addition, workshops have been held in Kazakhstan and Ukraine on use of computerized databases for storing biodiversity information. Over 90,000 records, mainly of fungi, plants and freshwater invertebrates have already been keyboarded on these 90 computers (the cumulative total being now over 350,000 records on 160 computers over three Darwin Initiative projects). Scientific conferences have been organized or otherwise supported and attended in St Petersburg and Novosibirsk, and fieldwork has been carried out in various locations including Crimea and the Altai Mountains (plus additional scientific conferences, courses, study visits and fieldwork in Argentina, Australia, Cuba, Trinidad & Tobago, the UK, USA and Venezuela through the two earlier Darwin Initiative projects). A major scientific meeting in St Petersburg organized jointly by the Russian Academy of Sciences and the *BioNET-INTERNATIONAL Group for Computer Assisted Taxonomy* is now in preparation, as well as two other major meetings in Crimea scheduled for 2002 and 2003 respectively. Two scientists from Ukraine have been helped to attend a workshop in Dundee on peatland conservation organized by a totally different Darwin Initiative project. Several websites have been prepared, or are in preparation, including a site for botanical resources in St Petersburg (<http://binras.newmail.ru/>). The first English-language *Who's Who in Biodiversity in the former Soviet Union*, containing about 10,000 entries, is nearing completion. Other work in Ukraine includes preparation of a new management plan for the *Khomutovskiyi Steppe Nature Reserve*, and of a discussion document examining possible ways to establish a new national biological records centre. Publicity for this work has included television and radio programmes and newspaper articles in Britain and Ukraine, and coverage in several issues of *Zhiva Ukraina*, Ukraine's leading environmental newsletter.

7. Has your organisation received funding under the Initiative before? If so, please give details.

Dr Minter leads the BioNET-INTERNATIONAL Darwin Project *Biodiversity Information in the former Soviet Union* (Ref. 162/8/011, 1999-2002), and led the CABI Darwin Projects *Fungi of the Caribbean* (Ref. 162/6/056, 1997-2000) and *Fungi of Ukraine* (Ref. 162/3/54, 1994-1996).

8. Which overseas institutions, if any, will be involved in the project? Please explain the responsibilities of these institutions.

Jardín Botánico Nacional (HAJB). Co-ordination of project within Cuba; receipt and distribution of equipment; training of nature reserve staff in database techniques; computerization of data on neglected groups of organisms; biodiversity surveys of key sites; generation of materials for electronic products.

Instituto de Ecología y Sistemática (IES). Training of nature reserve staff in producing reserve management plans; supervision of production of reserve management plans; computerization of data on neglected groups of organisms; biodiversity surveys of key sites; generation of materials for electronic products; creation of electronic products.

Empresa Nacional de Flora y Fauna (ENDFYF). Provision of staff for training; production of reserve management plans; computerization of reserve data; use of donated equipment for *in-situ* conservation; implementation of reserve management plans.

Instituto de Investigaciones de la Agricultura Tropical (INIFAT). Computerization of data on neglected groups of organisms; biodiversity surveys of key sites; use of donated equipment for *ex-situ* conservation; generation of materials for electronic products.

Instituto Nacional de Investigaciones de Sanidad Vegetal (INISAV). Organization and administration of the new *Caribbean Fungal Identification Service*.

PROJECT DETAILS

9. Define the purpose (main objective) of the project in line with the logical framework.

The main aims of the present project are:

- To train reserve staff of at least 15 Cuban nature reserves.
- To produce new management plans for those reserves.
- To computerize existing and newly generated information about neglected groups of organisms (at least 30,000 records), using that information to produce conventional and electronic identification guides.
- To build Cuban institutional capacity by pouring as much donated equipment as possible (including at least 45 computers) into its system of nature reserves and biodiversity institutions.

Cuba is very special among countries of similar GDP: there is an excellent infrastructure and high levels of education and health. In biodiversity conservation, severe lack of modern equipment is the limiting factor. The Darwin Initiative project *Fungi of the Caribbean* showed that even modest inputs to Cuba can produce impressive results. The practical help proposed here for nature reserve staff, scientists and other people working with biodiversity and conservation in Cuba will permit objective management plans to be written for a wide range of nature reserves based, for the first time, on easy access to data, and will enable thousands of biological records currently on paper to be computerized. The proposer knows at least one British organization which will shortly release a large consignment of computers which it no longer needs. He has been promised first call on this freely donated equipment if it is used for conservation of biodiversity, and has promises of help from the Cuban Embassy in London and the *Solidarity with Cuba Campaign* to transport and import this equipment to Cuba free of charge, making the present proposal very cost-effective, realistic and timely.

The impact of these resources on Cuban biodiversity conservation work will be enormous, with very substantial outputs. In addition to computerizing biological records and producing new reserve management plans in many Cuban nature reserves, this project will transfer equipment for *ex-situ* conservation (the proposer is currently, for example, seeking freeze-drying equipment for INIFAT's fungal culture collection). It will also extend computerization of HAJB, IES and other institutions far beyond what was achieved during the Darwin Initiative project *Fungi of the Caribbean*. That project promoted access by Cuban scientists to e-mail: the present proposal will promote access to the internet. Support of this project will furthermore enable computerization of biological records in these big central institutions to be extended beyond the fungi. Neglected groups, such as insects and other arthropods, nematodes and molluscs, bacteria, protozoans and cryptogamic plants will be prioritized.

The Darwin Initiative project *Fungi of the Caribbean* produced a guide to fungal biodiversity on sugar cane. The present project will produce a guide to insects on this important tropical crop, and the detailed information on which the guides are based will be used to analyse processes influencing sugar cane biodiversity. Another output will be an electronic identification guide to common Caribbean plants by their leaves, twigs, and wood anatomy. This will be useful not only to botanists, but also mycologists, entomologists, nematologists and others who need to identify plants associated with their organisms. The project's electronic products will be placed on CD-ROM and/or suitable internet locations, prioritizing those already funded by the Darwin Initiative.

The present project will also enable existing mycological collaboration to continue. A research programme to improve the information base on fungi (still among the most neglected organisms in Cuba) will form part of this project. Three locations (Reserva Ecológica Alturas de Banao, Ciénaga de Zapata, and the Viñales Valley) were identified during the last Darwin Initiative project as being simultaneously of critical importance, easily reached from Havana, and accessible for study. This project will initiate a detailed mycological survey of each site with the long-term aim of establishing in the tropics, for the first time, places directly comparable with well-studied temperate sites like Esher Common and Slapton Ley in the UK. Information generated in these surveys is expected to have conservation implications, and will be used in management plans for those three places. Continued mycological collaboration will also help to establish the now long-overdue *Cuban Mycological Society*.

A main objective of the Darwin Initiative project *Fungi of the Caribbean* was to put in place infrastructure for a *Caribbean Fungal Identification Service*. That proposed service is currently at business plan stage. Support of the present proposal will enable Dr Minter to supervise, help and seek long-term financial support for this new service in its first years. Finally, as with previous Darwin Initiative projects, every opportunity will be taken to encourage and enable collaborators to participate in appropriate conferences and other meetings, to generate lively activities and debates relating to biodiversity conservation in Cuba, and to help integrate their activities with those of similar organizations in other countries of the region.

10. Is this a new project or the continuation of an existing one?

This is a new project, but it builds on the Darwin Initiative project *Fungi of the Caribbean*, completed in March 2000. Some activities of the current Darwin Initiative project *Biodiversity Information in the former Soviet Union* also occur in the present proposal (for example accumulation of donated equipment). The economies of scale they offer by running concurrently have been incorporated in the costings of this proposal.

11. What is the evidence for a demand or need for the work? How is the project related to conservation priorities in the host country(ies)? How would the project assist the host country with its obligations under the Biodiversity Convention?

How was the work identified? Dr Minter has visited Cuba many times, and knows all proposed participants well. During those visits, proposed collaborators have repeatedly requested such work. Ideas have also been discussed with staff at the Cuban Embassy in London and with Miss Marcantonio at the Royal Society. Dr Minter has made grass roots visits to reserves for direct discussion with reserve staff. The thirst for this sort of work is exemplified by the enthusiasm of the young director of the Reserva Ecológica Alturas de Banao who, to demonstrate that an electricity supply for computers was possible at his field station, without being asked, located an old generator and, himself, brought it up the mountain by mule in the dark.

How is the project related to conservation priorities in the host country? The project is fully in line with Cuba's general strategy for biodiversity conservation, and is an expression of concern to ensure sites under growing pressure from tourism, such as the Viñales valley, have adequate management plans in place. The highly motivated teams of nature reserve staff need training and tools for this job, and acquisition of those tools is now a major priority. This proposal, much of which deals with neglected groups of organisms, comes from the team which produced Cuba's draft national strategy for fungal conservation, and is a reflexion of that document.

How will the project assist the host country meet its obligations under the Biodiversity Convention? To help Cuba meet obligations under the Biodiversity Convention [relevant Articles of the Convention in **bold**] the project will: assist the Cuban government to integrate conservation and sustainable use into relevant plans, programmes and policies [**6b**], and to develop and maintain legislation for protection of threatened species and populations [**8k**]; collect, organize and maintain biodiversity data [**7d**], enabling development of national strategies [**6a**] and guidelines for management of protected areas [**8b**]; establish and maintain facilities for *ex-situ* conservation [**9b**]; promote and encourage research which contributes to conservation and sustainable use of biological diversity [**12b**], establishing and maintaining programmes for scientific and technical education and training [**12a**], and identifying components of biological diversity [**7a**].

12 In what ways can this project be considered a Darwin project? How does the project relate to the Darwin principles? How would the project be advertised as a Darwin project and in what ways would the Darwin name and logo be used?

Rich in biodiversity but poor in resources. Cuba has the highest endemism in a region famed for biodiversity. Resources are, however, poor following collapse of its historical ally, the Soviet Union, and because of the USA's almost universally condemned blockade. The project prioritizes work on Cuba's neglected groups of organisms. All proposed work is **additional**: none is funded by other programmes.

Helping to eliminate poverty. Cuban nature reserves, many in the poorest regions, will receive large amounts of serviceable equipment and appropriate training, helping local people to manage natural resources sustainably. The project is holistic, helping eliminate poverty by providing tools and education in poor areas, with surplus equipment going to schools, adding an **educational** element to the project.

Drawing on British expertise. The leader of this project has a long history of innovative work in recording and managing biodiversity of neglected groups of organisms, particularly in the former Soviet bloc. British expertise will train Cuban collaborators in computerizing their reserves' paper-based records, and in preparing reserve management plans. By the project's end, implementation of these plans will have started, providing the project with **real and lasting impact**.

Collaborative. The team assembled for this proposal has an excellent track record of collaboration which it strongly desires to continue through the present project. Cuban scientists working with biodiversity are very highly regarded internationally. The present proposal involves several of the country's best, all world class. Their outputs, like the many publications produced during the earlier Darwin Initiative project, will be subjected to peer-group review, thereby ensuring **high quality and scientific excellence**.

Catalytic. Providing Cuban scientists with modern equipment, together with suitable training, will ensure they exit this project able to locate and successfully compete for future international funding. Support of this project will result in **leverage of funding** in the form of donated equipment, and of time and in-kind resources from the Cuban side.

Distinctive and innovative. This project is scientifically distinctive and innovative, with proposals to produce electronic guides, and further work on agricultural biodiversity of a major tropical crop. Like the already active Darwin Initiative project *Biodiversity Information in the former Soviet Union*, this proposal capitalizes on the west's enormous waste of computer equipment resulting from technological revolution. It is, however, additionally distinctive and innovative in recognizing that this revolution now extends far beyond computers, to many other products: digital cameras and video-cameras, for example, are starting to replace conventional (and perfectly servicable) SLR cameras and analogue video-cameras. The project will provide **value for money**, because at least 45 computers, and many other items of equipment will be obtained through free donations, and delivered to Cuba without transportation costs or customs duties.

Publicity. All outputs will be explicitly associated with the Darwin Initiative and its logo. The project's title will be *Darwin Initiative Biodiversity Conservation in Cuba*. Any website established through the project will display the Darwin Initiative name and logo on the home page, with hyperlinks to the Darwin Initiative's own home page. Press releases and other publicity measures associated with the project will draw the attention of the media to the project in Cuba and the UK. The project will also be publicized through BioNET-INTERNATIONAL's worldwide literature, and in literature of collaborating institutions. The Darwin Initiative name and logo will be displayed by each reserve participating in the project, and on all equipment purchased or otherwise obtained through the project, and will be included on the cover of all publications, electronic or conventional, produced from the project.

13. Set out the proposed timetable for the work, including the programme's measurable outputs using the attached list of output measures.

[text in bold identifies Darwin output codes]

2001. April. Project starts; accumulation of equipment begins. **May.** Dr Minter visits Cuba to brief collaborators [**Output 8**]; scientific programme begins; preparations for start of *Caribbean Fungal Identification Service*; fieldwork in Viñales generating records and reference collection specimens [**Output 12B, 13B**]. **June.** First consignment of donated equipment packed and sent; management plan workshop for first 10 nature reserve staff [**Output 6A, 6B, 14A**]. **July.** Fieldwork in Ciénaga de Zapata generating records and reference collection specimens [**Output 12B, 13B**]. **September.** Cuban scientist visits UK [**Output 6A**]. **October.** Dr Minter visits Cuba [**Output 8**]; publicity for *Caribbean Fungal Identification Service* begins; field work in Alturas de Banao generating records and reference collection specimens [**Output 12B, 13B**]. **November.** Equipment arrives in Cuba; computers are checked, and prepared for use. **December.** Distribution of equipment, at least 15 computers distributed by this point [**Output 20**]; database workshop for first 10 nature reserve staff [**Output 6A, 6B, 14A**].

2002. February. Dr Minter visits Cuba [Output 8]; *Caribbean Fungal Identification Service* begins [Output 10]; fieldwork in Viñales generating records and reference collection specimens [Output 12B, 13B]. **March.** At least 10,000 biological records keyboarded and edited by this point [Output 12B, 13B]; fieldwork in Ciénaga de Zapata generating records and reference collection specimens [Output 12B, 13B]. **April.** Management plan workshop for second 10 nature reserve staff [Output 6A, 6B, 14A]. **May.** Cuban scientist visits UK [Output 6A]. **June.** Second consignment of donated equipment packed and sent. **November.** Equipment arrives in Cuba; computers are checked, and prepared for use. **December.** Dr Minter visits Cuba [Output 8]; distribution of equipment, at least 30 computers distributed by this point [Output 20]; database workshop for second 10 nature reserve staff [Output 6A, 6B, 14A]; performance review of *Caribbean Fungal Identification Service*; field work in Alturas de Banao generating records and reference collection specimens [Output 12B, 13B].

2003. March. At least 20,000 biological records keyboarded and edited by this point [Output 12B, 13B]. **April.** Dr Minter visits Cuba [Output 8]; management plan workshop for third 10 nature reserve staff [Output 6A, 6B, 14A]; performance review of *Caribbean Fungal Identification Service*; fieldwork in Viñales generating records and reference collection specimens [Output 12B, 13B]. **May.** Guide to insects on sugar cane published by this point [Output 10]. **June.** Third consignment of donated equipment packed and sent. **September.** Cuban scientist visits UK [Output 6A]. **October.** At least 5 reserve management plans completed by this point [Output 9]. **November.** Equipment arrives in Cuba; computers are checked, and prepared for use. **December.** Dr Minter visits Cuba [Output 8]; distribution of equipment, at least 45 computers distributed by this point [Output 20]; database workshop for third 10 nature reserve staff [Output 6A, 6B, 14A]; performance review of *Caribbean Fungal Identification Service*; fieldwork in Viñales generating records and reference collection specimens [Output 12B, 13B].

2004. January. At least 15 reserve management plans completed by this point (including the 5 scheduled for completion in October 2003) [Output 9]. **February.** Electronic identification guide to common Caribbean plants published by this point [Output 10]. **March.** At least 30,000 biological records keyboarded and edited by this point [Output 12B, 13B] (estimates of numbers of records keyboarded are conservative; similar estimates were greatly exceeded in earlier Darwin Initiative projects); Dr Minter visits Cuba [Output 8]; project finishes.

In addition to outputs listed in the foregoing timetable, two Havana scientists will receive additional training in database techniques [Output 6A, 6B], at least six peer-reviewed papers are expected to be produced [Output 11A, 11B], at least 15 computerized databases will be established in various nature reserves [Output 12A] and at least 6 computerized databases will be enhanced in Havana [Output 12B], over 500 new fungal specimens will be added to at least 2 reference collections in Havana [Output 13A], Cuban scientists are expected to participate in at least one international congress (Mexico, 2002) to present their results [Output 14B], various press releases will be made at local and national levels [Output 15A, 15B, 15C, 15D], and the project will be publicized in at least one international newsletter [Output 16A, 16B, 16C]. Thousands of pounds worth of freely donated equipment will be delivered to Cuban beneficiaries [Output 20, 23] (estimates of donated equipment are conservative; similar estimates for the former Soviet Union project were greatly exceeded in reality).

14. Do you know of any other individual/organisation carrying out similar work? Give the details of the work, explaining the similarities and differences.

No. Cuba has been subjected to an economic blockade by the USA for many years (the USA is almost totally isolated in maintaining this policy: like most other countries, and all EC countries, Britain has repeatedly voted against the blockade in the United Nations). The blockade prevents US organizations and citizens from collaborating with Cuba. Cuba's traditional allies, former Soviet Union countries, are in no position to carry out this work. Other main countries from which collaboration might stem are Canada, Spain and Mexico. Cuban scientists receive some help from these countries, but nothing like the present proposal. In the UK, the support organization *Solidarity with Cuba Campaign* sends equipment (and transported much equipment for the earlier Darwin Initiative project), but its own resources are targeted at Cuban schools and hospitals, not science or nature conservation.

15. Will the project include training and development? Please indicate how many trainees will be involved, from which countries and what will be the criteria for selection. How will you measure the effectiveness of the training and will those trained then be able to train others? Where appropriate give the length of any training course.

At least six workshops will be held in various parts of Cuba to train nature reserve staff. Three will concentrate on production of reserve management plans. The remainder will deal with use of computers, data standards, and software for keyboarding. All trainees will be local people. Where possible, scientists trained through the earlier Darwin Initiative project *Fungi of the Caribbean* will lead teaching. In addition, the project involves considerable further training in computing skills for the main Cuban scientists involved, especially in handling computerized relational databases and associated programming languages, and use of computerized databases for presentation of information in HTML and other formats. In particular (although no funding from the Darwin Initiative will be involved), success of the present application is likely to generate an opportunity for Lic. Hugo Iglesias Brito (the Caribbean's only lichenologist, and one of five people receiving masters degrees with help from the last Darwin Initiative project) to study for a PhD. As BioNET-INTERNATIONAL Link Scientist for Latin America, Dr Minter is familiar with the need to maintain contact with project staff after projects end, and to involve them in other projects so that their skills continue to develop. In this proposal great emphasis is placed on such continuing contact.

16. How will trainee outcomes/destinations be monitored after the end of the training?

Lic. Hugo Iglesias Brito (Instituto de Ecología y Sistemática) and Lic. Mayra Camino Villaro (Jardín Botánico Nacional) will continue to monitor trainees after the end of the project. They are in ideal positions, as each was responsible for database maintenance in their respective institutions during the Darwin Initiative project *Fungi of the Caribbean*, and each has subsequently continued in that rôle. The proposer will maintain contact with them, and will continue to receive reports and assessments from them after the end of the project.

17. How is the work of the project expected to continue after the end of grant period? A clear exit strategy must be included.

The exit strategy is based on BioNET-INTERNATIONAL LOOPS (see 6). The prime function of these LOOPS is to provide a structured environment for acquisition of funding for biodiversity and conservation research in the countries covered. At present, Cuba is not a member of CARINET, the Caribbean LOOP, but the present project will provide the opportunity for Cuba and CARINET to examine jointly the possibility of Cuban membership. With this in mind, the Project Leader will liaise closely with BioNET-INTERNATIONAL's Technical Secretariat.

Specific aspects of the proposed work are, however, expected to be self-supporting. By the end of this project, nature reserve staff and other scientists and institutions will be much better equipped than before, and will enjoy continued use of donated equipment, enabling them to continue in the huge amount of work needed for conservation of Cuba's biodiversity. The computers will not be used solely for keyboarding reserve biodiversity data: they will also be used to produce reserve leaflets and other documents, particularly for sustainable tourism. These products, which will also carry the Darwin Initiative's name and logo, add a long-term dimension of environmental education to the project.

MONITORING AND EVALUATION

18. Describe how progress on the project would be monitored and evaluated in terms of achieving its aims and objectives, both during the lifetime of the project and at its conclusion. How would you ensure that it achieves value for money? What arrangements will be made for disseminating results? If applicable, how would you seek the views of clients/customers?

Dr Minter will visit Cuba at least twice each year to check progress, will provide regular reports to the Darwin Initiative, and will ensure that the Darwin Initiative administration is kept informed of all significant developments. Specific targets will be set for numbers of records keyboarded and other quantitative work. Each record will be checked for quality using now well-established standards for all data elements being collected. These include authority databases against which many data elements can be checked mechanically to ensure correct spelling of scientific names, correct use of indexing terms, viable dates, and many other aspects. Cuban scientists will be trained to proof-read each record. Records will be subjected to further proof-reading in Britain.

Value for money will be assessed taking into account numbers of records keyboarded and their quality measured against these standards. Regular monitoring of the project by Dr Minter will ensure that, if for any reason progress is not being made or the quality of data is inadequate, financial support can be speedily withdrawn or re-allocated following consultation with staff of the Darwin Initiative. In the first instance, the results of work will be disseminated by production in printed and electronic form of a range of mechanically compiled scientific publications. The number of visitors to any web-site will be monitored.

The project is designed to be flexible. Levels of work, and coverage of reserves and different biological groups could be increased or decreased according to availability of funds. Problems with quality of work are not expected, as the collaborating scientists are already known to be excellent.

19. Logical framework. Please enter the details of your project onto the matrix using the note at Annex B of the Guidance Note.

Project summary	Measurable indicators	Means of verification	Important assumptions
<p>Goal</p> <p>To assist countries rich in biodiversity but poor in resources with the conservation of biological diversity and implementation of the Biodiversity Convention</p>	<p>Cuba helped with conservation of biological diversity and implementation of the Biodiversity Convention through equipment, training and new management plans; other Caribbean countries helped through the identification service</p>	<p>political feedback from Cuba evaluating long-term effect of project on Cuba's conservation work</p>	<p>Cuba and the UK maintain good relations; Darwin Initiative continues to receive funding</p>
<p>Purpose</p> <p>To equip Cuba with tools and skills necessary for conserving the country's biodiversity; to start running a <i>Caribbean Fungal Identification Service</i></p>	<p>reserve employees trained; plans implemented; computerized data used for biodiversity conservation; effective operation of identification service</p>	<p>scientific feedback from Cuba with evaluation of effectiveness of programme, and from other Caribbean countries with evaluation of effectiveness of identification service</p>	<p>Cuban collaborators able to use provided resources effectively; issues of biosecurity can be resolved in running the identification service</p>
<p>Outputs</p> <p>Trained and equipped reserve employees; reserve management plans; computerized biodiversity data; scientific publications; fungal identifications</p>	<p>physical copies of plans; numbers of records keyboarded; copies of scientific publications; copies of identification reports</p>	<p>periodic reports to the Darwin Initiative from the Project Leader</p>	<p>equipment arrives intact; reserves able to cope with 220 volt computers (not a problem in the past); potential clients of the identification service can be reached, and respond; requests for identification work can be received in a timely fashion</p>
<p>Activities</p> <p>Organizing workshops to train Cuban participants; producing reserve management plans; keyboarding biodiversity data; using that data in scientific works; gathering, delivering and distributing donated equipment; starting the <i>Caribbean Fungal Identification Service</i></p>	<p>participants; workshops; equipment for producing plans and computerizing data; identification service operational plans, project budget</p>	<p>lists of workshops participants; photos of workshops; statistics of keyboarded data; lists of donated equipment; photos of piles of boxes, publicity material for the identification service</p>	<p>donated equipment will be forthcoming, and can be transported and delivered</p>

FINANCIAL ASPECTS

20. Please state gross expenditure on the programme of work. Please work by financial year (defined as April to March), using 2000/2001 prices throughout - do not include any allowance for assumed future inflation. Indicate salary costs on Table A and total costs on Table B. For programmes of less than 3 years' duration, enter 'nil' as appropriate for future years. It would be helpful to highlight (by bold, italics or underlining) the areas for which Darwin funding is requested.

Table A Salary costs

	2001/2002 (£)	2002/2003 (£)	2003/2004 (£)
List each member of the team and their role in the project			
a) UK Dr D.W. Minter (Project leader)			
b) collaborators Dr M. Rodríguez Hernández (HAJB , Co-ordinator) Lic. M. Camino Villaro (HAJB) Dr R. Castañeda Ruíz (INIFAT) Lic. H. Iglesias Brito (IES) Dra M. Lopez Mesa (INISAV) Dr J. Mena Portales (IES) Cuban nature reserve staff (ENDFYF , 10, 20, 30)			
Show the % of time each person would spend on this work			
Dr D.W. Minter Dr M. Rodríguez Hernández Dra M. Camino Villaro Dr R. Castañeda Ruíz Dr H. Iglesias Brito Dra M. Lopez Mesa Dr J. Mena Portales Cuban nature reserve staff			
Total cost of salaries			

Table B Other costs

	2001/2002	2002/2003	2003/2004
Rents, rates, heating, lighting, cleaning or overheads			
Office costs eg. postage, telephone and stationery			
Travel and subsistence			
Printing CD-ROMs			
Conferences, seminars etc			
Capital items/equipment (please specify) computers, printers, modems, cd-writers, scanners, cameras, video-cameras, microscopes, literature, laboratory equipment etc.)			
Other (please specify) BioNET-INTERNATIONAL and CABI Bioscience facilities, transportation of donated equipment to Cuba			
Sub-total			
Cost of salaries (from previous table)			
Total of spend*			

* Grants may be limited to a percentage of the total cost of the project. The Department will look for balancing income from non-public sources (eg. private sector funding, subscriptions, donations, fees).

21. How is your organisation currently funded?

BioNET-INTERNATIONAL is a not-for-profit inter-governmental organization owned by the governments establishing it. It operates on a not-for-profit and fee-for-service basis. Fuller information about funding is in the annual report accompanying this proposal

22. Please give details of resources you have sought from the host country partner institution(s) for this project. Include donations in kind eg. accommodation with these costed where possible. Indicate any income or donations which are confirmed.

Time of Cuban nature reserve staff (10, 20, 30)
Rents, rates etc. for Cuban nature reserve staff (10, 20, 30)

23 Please state all other sources of income and amounts to be put towards the costs of the project (including any income from other public bodies, private sponsorship, trusts, fees or trading activity).

Donated equipment
Transportation of equipment to Cuba
Travel already covered
BioNET-INTERNATIONAL and CABI
Bioscience facilities

24. Please deduct any confirmed income or donations from elsewhere (where these may be costed) and indicate in Table C the amounts of grant requested under the Darwin Initiative.

Table C Darwin funding request

	2001/2002	2002/2003	2003/2004
Income to be deducted			
Amount of Darwin Initiative funding requested			

FCO NOTIFICATION

25. Please tick 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 the project's success in the Darwin competition in the host country

CERTIFICATION

On behalf of the trustees/company (delete as appropriate) **BioNET-INTERNATIONAL** I apply for a grant of £41800.. in respect of expenditure to be incurred in the financial year ending 31 March 2002 on the activities specified in paragraph 13.

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 enclose a copy of the organisation's most recent audited accounts and annual report.

Name (block capitals) **Dr D.W. Minter**

Position in the organisation **BioNET-INTERNATIONAL Link Scientist for Latin America**

Signed Date 20 October 2000

Please return completed form to the Department of the Environment, Transport and the Regions, 4/A2 Ashdown House, 123 Victoria Street London SW1E 6DE.

Department of the Environment, Transport and the Regions
August 2000