Building Nicaraguan and Costa Rican capacity in biodiversity conservation

Darwin Initiative Annual Report 2003/2004

Project number: 162/12/020

Darwin Initiative for the Survival of Species

Annual Report 2003/2004

1. Darwin Project Information

Project Ref. Number	*162/12/020*
Project Title	*Building Nicaraguan and Costa Rican capacity in biodiversity conservation*
Country(ies)	*Nicaragua and Costa Rica, Central America*
UK Contractor	*School of Agricultural and Forest Sciences, University of Wales, Bangor*
Partner Organisation(s)	*INBio and CATIE, Costa Rica*
Darwin Grant Value	*£173,661*
Start/End dates	*April 2003 to March 2006*
Reporting period (1 Apr 200x to 31 Mar 200y) and report number (1,2,3..)	*1 April 2003 to 31 March 2004* *Annual Report No. 1*
Project website	
Author(s), date	*Lorraine Gormley and Nelson Zamora*

2. Project Background

The project is located in the Rio San Juan border region of Costa Rica and Nicaragua, Central America. Central America is renowned as a biodiversity hotspot and harbours high species richness. In recognition of this, regional governments have designated the "Mesoamerican biological corridor", considered to be the world's most ambitious conservation initiative, as the major focus in their implementation of the Convention on Biological Diversity. The Rio San Juan border region between Costa Rica and Nicaragua is a key section of this corridor (comprising the largest rain forest area in the Americas north of the Amazon) but has received little conservation attention. Thus the project's focus on this critical "frontier forest" section of the corridor, addresses a major international conservation priority.

Although Costa Rica has a well-developed system of biodiversity inventory and conservation (e.g. through INBio), there has been little coverage of the remoter northern region of San Carlos, which lies within the Rio San Juan basin and where the forest is unprotected and subject to rapid conversion and fragmentation. Similarly, although a large area of intact neighbouring forest in Nicaragua has been given protected status in a new biosphere reserve it has received very little formal biodiversity assessment, or conservation management. There is an urgent need to strengthen the capacity of Nicaraguan and Costa Rican NGOs who have a major responsibility for conservation planning and management in the area.

This project is therefore focusing on building regional conservation capacity through training and staff exchange in biodiversity assessment in fragmented forest landscapes (an increasingly common component of the Mesoamerican biological

corridor). It is formally documenting the distribution and associations of plant and insect biodiversity within the landscape of the border La Cureña area (Costa Rica) using expertise in species identification (INBio), habitat characterisation and rapid biodiversity assessment (UWB, CATIE). The information collected through the project activities will contribute to the planning of the proposed new national park (Parque Nacional Maquenque) by the Costa Rican government's Department of the Environment (MINAE).

3. Project Purpose and Outputs

Purpose:

To build capacity in biodiversity assessment, conservation and management in Nicaragua and Costa Rica, through the facilitation of regional and international knowledge exchange and training.

Outputs:

1. Counterparts from Central American NGOs (Cocilbolca, FUNDAR, Fundación Rio San Juan, Nicaragua; CODEFORSA, Costa Rica) acquire expertise and experience in biodiversity identification, assessment and monitoring in order to build capacity at a regional level.
2. Counterparts from the NGOs acquire expertise and experience in protected area planning and the development of habitat management plans.
3. Analysed and interpreted data on the distribution of plant and insect diversity between disturbed and intact forest types across the fragmented La Cureña forest landscape contributed to the decision-making process over the creation and boundaries of a new national park.
4. Detailed written guidelines, advice and training provided to the Department for the Environment of Costa Rica (MINAE), local NGOs (CODEFORSA) and local communities on their production of participatory biodiversity management plans for key habitats in the La Cureña area.

- Have the outputs or proposed operational plan been modified over the last year, for what reason, and have these changes been approved by the Darwin Secretariat? (Please note that any intended modifications should be discussed with the Secretariat directly rather than making suggestions in this report).

There have been no major changes.

4. Progress

An identified need to evaluate the biodiversity of the San Carlos area of Costa Rica and Nicaragua led to the development of a proposal for this Darwin project. The project was planned to bring together research institutes with local NGOs and government bodies in order to work together to improve capacity in biodiversity conservation and to contribute to the formation of a new National Park in Costa Rica.

Year 1 project implementation timetable. Progress is shown in italics.

Project implementation timetable	
Date	**Key milestones**
Aug. 2003	Key stakeholders attend project planning workshops/meetings in Nicaragua and Costa Rica, recommendations written up and implemented. *Meetings with project collaborators were held in Costa Rica and both meetings with and presentations to other stakeholders (NGOs and government organisations) were held in Costa Rica in August and in Nicaragua in September.*
Oct. 2003	Two week workshop-based training in methods, techniques and theory of taxonomy and biodiversity studies, species identification and rapid biodiversity assessment (Teaching input from INBio, UWB and CATIE). *This course was delayed until February 2004 in order to provide sufficient time for NGO course participants to organise time away from their everyday duties.*
Oct. 2003	Circumscription of biodiversity assessment area and establishment of GIS. Consultation with landowners and proposed national park committee. *The area to be assessed by the project within the proposed Maquenque National Park was decided upon in September and initial maps obtained. The GIS will be available by June 2004. Consultation with landowners has been facilitated by CODEFORSA and meetings held with MINAE and others involved in the national park proposal.*
Oct. 2003	Agreement with stakeholders (including land owners) on selection of 6 field sites/permanent plots. *The field sites were designated upon in October.*
Oct. 2003, April-May 2004	Two months of hands-on field training, followed by one month of practical experience (report by participants to be submitted). First phase of rapid biodiversity assessment (RBA) completed. Conservation priority habitats identified. *Two weeks of hands on field training were completed in March 2004 (as previously mentioned the training course was delayed to accommodate NGO personnel). Further fieldwork will be carried out in the next year of the project. The first phase of the RBA of both vegetation and insects is underway and the results of these will be used to identify priority habitats for conservation. As planned, this will be achieved in the second year of the project.*

The project has forged links both between the project partners and with a variety of NGOs and government organisations. These linkages have contributed to the progress made in the first year. By employing each organisation's expertise the project has carried out an initial biodiversity assessment of the project area and the successful completion of the first 'Biodiversity identification, evaluation and monitoring course' as part of this Darwin project.

The project has employed a variety of biodiversity monitoring techniques to assess the biodiversity of the proposed Maquenque National Park including botanical and entomological inventory and collection using existing methods employed by INBio, and methods of rapid biodiversity assessment. The data collected during the first year of the project including the data collected by trainees on the first training course are presently being analysed and results will be available in the second year of the project. Similarly, publications from the first year's work will be available in the second year of the project.

- Discuss any significant difficulties encountered during the year and steps taken to overcome them.

The project has achieved the majority of its planned activities for its first year. Few difficulties were encountered, however the principal stumbling block proved to be securing time away from normal duties for the course participants from both NGOs and government organisations. Although the NGOs and government organisations fully endorse the need for (and value of) the training provided by this Darwin project, this still does not make it easy for them to release staff from their current activities. The limited budgets and low staffing levels, but pressing urgent responsibilities that these organisations are faced with can account for this. This may result in a revision of the original number of months planned for field training, as it now seems unlikely that participants will be able to attend the full number of weeks planned for in the project proposal.

In addition, the pregnancy of Dr. Lorraine Gormley (University of Wales Bangor) prevented her attending the first biodiversity training course in February 2004. She will be able to travel again in Year 2 of the project and will attend the second training course as planned. Colleagues from partner organisations carried out the first training course and the project outputs were not affected by Dr. Gormley's absence (see Annex 2 for the program of the course held in February 2004).

- Has the design of the project been enhanced over the last year, e.g. refining methods, indicators for measuring achievements, exit strategy?

A project meeting was held in INBio in March 2004 in order to refine the sampling methodologies in the light of the training course and the collection of plants and insects in the first year of the project.

- *Present a timetable (workplan) for the next reporting period.*

Project implementation timetable	
Date	**Key milestones**
April 2004	Integration of information into a geographical information system (CATIE). Develop a full classification of forest types in the area of the proposed Maquenque National Park (MSc student thesis, CATIE).
May 2004	First phase of rapid biodiversity assessment (RBA) completed. Carry out assessment of forest condition in study area. Identify conservation priority habitats.
June - July 2004	Establishment of 12 permanent sample plots
June – Dec. 2004	Identification of trees in permanent sample plots. Ongoing sampling of plants and insects in project area according to defined methodology.
July. 2004	Analysis of RBA data completed: phase 1.
Aug.-Dec. 2004	Ongoing planning of second training course in methods, techniques and theory of taxonomy and biodiversity studies, species identification and rapid biodiversity assessment (Teaching input from INBio, UWB and CATIE).
November 2004	Scoping visit to field sites in Nicaragua for field based training component of second course.
Nov.2004 – April 2005	Progress in priority habitat management plans.
Feb.-March 2005	Two week workshop-based training in INBio followed by 2 weeks hands-on field training in Nicaragua, followed by one month of practical experience carried out by participants independently (report by participants to be submitted). Second phase of rapid biodiversity assessment (RBA) completed.
April 2005	Preparation of second annual report. Ongoing analysis of RBA data; phase 2
Throughout project	Bi-annual project newsletters produced in Spanish and distributed to all stakeholders throughout the project, national and international press, and local radio and television.

5. Actions taken in response to previous reviews (if applicable)

- Have you responded to issues raised in the review of your last year's annual report? Have you discussed the review with your collaborators? Briefly describe what actions have been taken as a result of recommendations from last year's review.

Not applicable, as yet.

6. Partnerships

Collaboration between UK and host country partners has been continuous throughout the year. Over the last year regular contact regarding project matters has been maintained by email. In addition in-country visits have been made by both Dr Lorraine Gormley (UWB) and Dr John Healey (UWB).

The project has been very successful in strengthening existing links and forging new ones between the research organisations involved (UWB, INBio and CATIE) and Nicaraguan and Costa Rican NGOs (CODEFORSA, WWF, Proyecto Lapa Verde, Center for Tropical Studies in Costa Rica and FUNDAR and Fundacion Rio San Juan in Nicaragua and MINAE, the Ministry of the Environment in Costa Rica).

7. Impact and Sustainability

The project has been presented to government departments in Costa Rica and Nicaragua and to a variety of other organisations involved in biodiversity conservation (WWF, CODEFORSA, Centre for Tropical Studies (Lapa Verde project)). The launch of the first biodiversity training course was attended by a variety of key stakeholders involved in biodiversity conservation including Dr. Carlos Rodriguez, Minister of the Environment, Costa Rica; Dr. Rodrigo Gamez, President of INBio; Dr. Pedro Ferreira, Director of CATIE; Dr Jose Joaquin Campos, Director of the Natural Resources and Environment Department, CATIE; Jhonny Mendez, the Director of CODEFORSA; Fausto Alfaro, Director of the Arenal Conservation Area, Ministry of the Environment Costa Rica (the proposed area of the Maquenque National Park falls within the Arenal Conservation Area); senior staff from the Lapa Verde Project, Oliver and Guiselle Monge (this is an ongoing research project examining the ecology and conservation of the Great Green Macaw which is seriously endangered in Costa Rica and now only found in the Maquenque area). The British Ambassador, Dr. Georgina Butler also attended the launch of the training course.

8. Post-Project Follow up Activities (max 300 words)

Not applicable, as yet.

9. Outputs, Outcomes and Dissemination

The project implementation timetable presented in Section 4 of this report details progress in Year 1 of the project against the original project milestones. The principal change from the planned 'Project Outputs' was the delay of the workshop-based training from October 2003 to February 2004. In addition the completion of the GIS will be delayed until June 2004. Field sites were assigned in Year 1 of the project but the setting up of the permanent sample plots will be delayed until Year 2. However, instead of the original six plots planned, 12 will be established in Year 2.

The project was disseminated in Year 1 through various meetings and presentations to stakeholders involved in biodiversity conservation. Dissemination activities will be continued throughout the project and the first planned project newsletter will be produced in the first half of Year 2. This has been delayed from Year 1 due to the delay of the training course, the principal output of Year 1 of the project. The newsletter is currently being written including details of the course which finished in March 2004. A project website is also currently being developed and will include information about the training course.

Table 1. Project Outputs (According to Standard Output Measures)

Code No.	Quantity	Description
6A/6B	10	Costa Rican and Nicaraguan NGO and government staff receive 2-week course in species identification and biodiversity assessment.
6A/6B	10	Costa Rican and Nicaraguan NGO and government staff receive 2 weeks of hands-on field training in biodiversity inventory, identification and assessment.
8	8	UWB staff time in Costa Rica and Nicaragua.
15C	1	Press release to UK national press
15D	1	Press release to Welsh national press
17A	1	Project website: Darwin.bangor.ac.uk (under development)

- In Table 2, provide full details of all publications and material produced over the last year that can be publicly accessed, e.g. title, name of publisher, contact details, cost. Details will be recorded on the Darwin Monitoring Website Publications Database. Mark (*) all publications and other material that you have included with this report.

As this is the first year of the project, data to produce publications and develop databases is still being analysed.

10. Project Expenditure

Table 3: Project expenditure during the reporting period (Defra Financial Year 01 April to 31 March)

Item	Budget (please indicate which document you refer to if other than your project schedule)	Expenditure	Balance

11. Monitoring, Evaluation and Lessons

The measurable outputs listed in the original project proposal and in Section 9 of this report provide a clear criterion against which to measure and monitor progress. Project collaborators are in regular contact which enables continual monitoring of project progress and expenditure. In addition, participants in the biodiversity training course carried out in February – March 2004 have been sent evaluation forms which will contribute to our monitoring of the capacity building component of the project.

The project plan set out in the original proposal assumed that NGO staff in both project countries would be able to carry out extensive fieldwork as a part of the training component. During the selection process for training course participants it became obvious that participants found it difficult to arrange time away from work. This resulted in a delay to the start of the training course as participants required time to organise their absence. As yet, the full complement of fieldwork has not been completed and course participants will add to this through hands on experience with their NGOs in Year 2, as planned in the original implementation timetable. Participants will produce reports from this hands-on experience for Darwin project staff. Participants will then received feedback and advice on data analysis and interpretation in order to enhance their training.

12. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum)

■ **I agree for ECTF and the Darwin Secretariat to publish the content of this section**

The Darwin project “Building Nicaraguan and Costa Rican capacity in biodiversity conservation” has had a successful first year, carrying out a training course to build capacity in biodiversity conservation in the trans-boundary area of the Rio San Juan, a critical section of the Mesoamerican biological corridor. It has also made good progress in the inventory of plants and insects in the San Carlos area of Costa Rica, an area proposed for the new Maquenque National Park.

Central America is renowned as a biodiversity hotspot with high species richness and endemism. In recognition of this regional governments have designated the “Mesoamerican biological corridor”, considered to be the world’s most ambitious conservation initiative, as the major focus in their implementation of the Convention on Biological Diversity. The Rio San Juan border region between Costa Rica and Nicaragua is a key section of this corridor (comprising the largest rain forest area in the Americas north of the Amazon) but has received little conservation attention. Thus the project’s focus on this critical “frontier forest” section of the corridor, addresses a major international conservation priority. In an innovative bi-national course, the project has trained Nicaraguan and Costa Rican NGO and government staff, who currently work in the conservation of biodiversity in the Rio San Juan area, in plant and insect identification, and the evaluation and monitoring of biodiversity.

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2003/2004

Project summary	**Measurable Indicators**	**Progress and Achievements April 2003-Mar 2004**	**Actions required/planned for next period**
Goal*:* To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve • The conservation of biological diversity, • The sustainable use of its components, and • The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources			
Purpose *(insert original project purpose statement)* Capacity built in biodiversity conservation and management in Nicaragua and Costa Rica, through the facilitation of regional and international exchange of knowledge and skills.	*(insert original purpose level indicators)* • Increased NGO capacity in biodiversity conservation and management. • Improved biodiversity assessment and monitoring in both Nicaragua and Costa Rica (Rio San Juan basin). • Documentation and learning materials available to Central American NGOs/institutions .	*(report impacts and achievements resulting from the project against purpose indicators – if any)* • NGO capacity increased as a result of biodiversity inventory, monitoring and evaluation course (see Annex 2). • The increase capacity provided by project training has contributed to improved biodiversity assessment and is ongoing in both countries. • Documentation and learning materials will be produced at a later stage of the project.	*(report any lessons learned resulting from the project & highlight key actions planning for next period)* • Further training will be provided in Year 2 of the project. Participants will be given more time to plan their absence from their everyday duties. • Ongoing inventory and assessment of the biodiversity of the area of the proposed Maquenque National Park including assessment of forest condition.

Outputs			
(insert original outputs – one per line)	*(insert original output level indicators)*	*(report completed activities and outcomes that contribute toward outputs and indicators)*	*(report any lessons learned resulting from the project & highlight key actions planning for next period)*
1. Enhanced expertise of Nicaraguan/Costa Rican NGO staff in biodiversity assessment & protected area management.	1. Increased quality and quantity of NGO biodiversity assessment and conservation work.	Nicaraguan and Costa Rican NGO and government staff have increased expertise in biodiversity conservation as a result of project training in inventory, biodiversity evaluation and monitoring.	Further training courses will be held in Year 2.
2. Biodiversity of the La Cureña area formally described	2. Report (identifying priority habitats/species) and species database produced and in use; two international peer-reviewed papers.	Inventory of plants and insects in the La Cureña/Maquenque area underway. Year 1 data are currently being processed.	Ongoing inventory of plants and insects in Year 2.
3. Priority habitat management plans and local tree and insect species identification guides.	3. Management plans and identification guides produced and in use by local NGOs and institutions.	Plant and insect inventories in Year 1 will contribute to both the habitat management plans and ID guides to be developed at later stages of the project.	Ongoing inventory of plants and insects in Year 2 will contribute to management plans and guides.
4. Guidelines for national park biodiversity management plan.	4. Guidelines produced and in use by MINAE and CODEFORSA.	Biodiversity inventory carried out in Year 1 will contribute to guidelines at later stages of the project.	Ongoing inventory of plants and insects in Year 2 will contribute to the production of guidelines.
5. La Cureña area given protected status by designation of a new national park.	5. National park created	Collaboration with key stakeholders in the formation of the park (Lapa Verde project; MINAE) established.	Ongoing collaboration and provision of biodiversity data to support park designation.

Note: Please do NOT expand rows to include activities since their completion and outcomes should be reported under the column on progress and achievements at output and purpose levels.

Annex 2

BIODIVERSITY IDENTIFICATION, EVALUATION AND MONITORING COURSE

February - March 2004

Course program, list of participants and photos

PROGRAMA DEL CURSO

IDENTIFICACIÓN, EVALUACIÓN Y MONITOREO DE LA BIODIVERSIDAD

Del 9 de febrero al 2 de marzo del 2004, Costa Rica

Fecha	***Actividad***
D 8 Feb	*Llegada de los participantes al país*
L 9 Feb	*Inauguración del curso* *Sesión de charlas introductorias* *Técnicas de muestreo, F. Casanoves/CATIE*
M 10 Feb	*Técnicas de muestreo, Ángel Solís/INBio*
M 11 Feb	*Inventario de Insectos, Ángel Solís/INBio*
J 12 Feb	*Inventario de Insectos, Ángel Solís/INBio*
V 13 Feb	*Visita al Programa de Inventario del INBio e INBioparque (N. Zamora)* *Charlas por los participantes del curso (5 expositores)*
S 14 Feb	*Importancia de las Reservas Biológicas Privadas en la conservación de la biodiversidad, Carlos Chavarría/Tirimbina Rain Forest Center* *Proyecto Lapa Verde, Olivier Chassot/CCT* *Charlas por los participantes del curso (5 expositores)* *Tarde libre*
D 15 Feb	*Libre*
L 16 Feb	*Inventario de plantas, N. Zamora/INBio*
K 17 Feb	*Inventario de plantas, N. Zamora/INBio*
M 18 Feb	*Módulo I* *Caracterización a nivel de paisaje y comunidad, B. Finegan, Z. Ramos (CATIE) Proyecto ECOMAPAS/INBio*

J 19 Feb	*Módulo II* *Caracterización a nivel local: plantas, D. Delgado/CATIE*
V 20 Feb	*Módulo III* *Restauración, B. Finegan/CATIE* *Bases de Datos sobre biodiversidad y su análisis, H. Brenes/CATIE*
S 21 Feb	*Bases de Datos de Biodiversidad y su manejo, W. Ulate/INBio* *Salida hacia La Cureña* *Charla introductoria sobre la zona, O. Quirós/CODEFORSA*
D 22 Feb	*Inventario de insectos/plantas* *A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio.*
L 23 Feb	*Inventario de insectos/plantas* *A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio.*
K 24 Feb	*Inventario de insectos/plantas* *A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio.*
M 25 Feb	*Inventario de insectos/plantas* *A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio.*
J 26 Feb	*Inventario de insectos/plantas* *A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio.*
V 27 Feb	*Inventario de insectos/plantas* *Solis, B. Hernández, N. Zamora, R. Kriebel/INBio.* *Digitación, análisis e interpretación de información de campo*
S 28 Feb	*Regreso a INBio*
D 29 Feb	*Análisis de datos*
L 1 Mar	*Análisis e interpretación de información de campo y elaboración de informe escrito*
K 2 Mar	*Presentación de informes y sesión plenaria* *12:00 m.d. Clausura de la actividad*
M 3 Mar	*Salida de los participantes extrajeros del país*

PROGRAMA PRIMER CURSO: Febrero, 2004

"Identificación, evaluación y monitoreo de la biodiversidad"

I FASE: SESION DE LABORATORIO: 9-21 Febrero.

Día 1. Lunes 9 febrero

9:00-10:00 Inauguración

Invitados especiales:

Embajadora Británica: Dra. Georgina Butler
Ministro-MINAE: Dr. Carlos Manuel Rodríguez
Presidente-INBio: Dr. Rodrigo Gámez
Director-CATIE: Dr. Pedro Ferreira
Director Dept. Recursos Naturales y Ambiente, CATIE: Dr. José Joaquin Campos
Director Ejecutivo CODEFORSA: Msc. Johnny Méndez
Director Area de Conservación Huetar Norte: Msc. Fausto Alfaro
Investigadores Proy. Lapa Verde, CCT: Oliver y Guiselle Chassot

10:15-12:00 Introducción

Sesión de Charlas:

1. Presentación Proyecto Darwin: N. Zamora
2. Proyecto de Investigación y Conservación Lapa Verde: Olivier Chassot
3. CATIE: objetivos, proyectos: B. Finegan
4. INBio: objetivos, proyectos: J. Ugalde, o A. Herrera
5. Programa evento, estructura del curso y procesos administrativos: N. Zamora y P. Hurtado

12:00: 14:30 almuerzo y trámites administrativos

14:30-18:00
Técnicas de muestreo (F. Casanoves/CATIE)

Día 2. Martes 10
8:00 – 18:00
Técnicas de muestreo (F. Casanoves/CATIE)

Día 3. Miércoles 11
8:00 – 18:00
Tema 1: Inventario de insectos (A. Solis/INBio)

Día 4. Jueves 12
8:00 – 18:00
Tema 1: Inventario de insectos (A. Solis/INBio)

Día 5. Viernes 13
8:00 – 12:00
Recorrido por inventarios del INBio y por el INBioparque (N. Zamora)

14:00-17:00
Recorrido por inventarios del INBio y por el INBioparque (N. Zamora)
Charla participantes del curso (5 expositores)

Día 6. Sábado 14
Charlas
8:00 – 9:00
Importancia de las Reservas Biológicas Privadas en la conservación de la biodiversidad (Carlos Chavarría, Tirimbina Rain Forest Center)

9:00 – 10:00
Proyecto Lapa Verde (Olivier Chassot, CCT)

10:15-12:00
Charlas
Charla participantes del curso (5 expositores)

Día 7. Domingo 15
Libre

Día 8. Lunes 16
8:00 –18:00
Inventario de plantas (N. Zamora/INBio)

Día 9. Martes 17
8:00 – 18:00
Inventario de plantas(N. Zamora/INBio)

Día 10. Miércoles 18
8:00 – 18:00
Módulo 1. Caracterización a nivel de paisaje y comunidad. (B. Finegan, Z. Ramos (CATIE), Proyecto ECOMAPAS/INBio

Día 11. Jueves 19
8:00 – 18:00
Módulo 2. Caracterización a nivel local: plantas (D. Delgado, CATIE)

Día 12. Viernes 20
8:00 –12:00
Módulo 3. Restauración. (B. Finegan/CATIE)

14:00 – 18:00
Bases de Datos de Biodiversidad y su análisis (H. Brenes/CATIE)

Día 13. Sábado 21
8:00-12:00
Bases de Datos de Biodiversidad y su manejo (W. Ulate/INBio)

II FASE: TRABAJO DE CAMPO: 21-29 Febrero

12:00 Salida a la Cureña
19:00 – 20:00 Charla general sobre la zona (O. Quirós/CODEFORSA)

Día 14. Domingo 22
8:00-20:00
Inventario de insectos/plantas (A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio)

Día 15. Lunes 23
8:00-20:00
Inventario de insectos/plantas (A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio)

Día 16. Martes 24
8:00-20:00
Inventario de insectos/plantas (A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio)

Día 17. Miércoles 25
8:00-20:00
Inventario de insectos/plantas (A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio)

Día 18. Jueves 26
8:00-20:00
Inventario de insectos/plantas (A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio)

Día 19. Viernes 27
8:00-20:00
Inventario de insectos/plantas (A. Solis, B. Hernández, N. Zamora, R. Kriebel/INBio)
Digitación, análisis e interpretación de información de campo

Día 20. Sábado 28
8:00-18:00
Visita a sitios específicos de la zona

Día 21. Domingo 29
8:00
Regreso a INBio

Día 22. Lunes 1
8:00-18:00
Análisis e interpretación de información de campo y elaboración de informe escrito

Día 23. Martes 2
8:00-12:00
Presentación de informes y sesión plenaria

12:00 Clausura evento

BIODIVERSITY IDENTIFICATION, EVALUATION AND MONITORING COURSE 2004

List of participants

Nombre	País	Institución	Cargo
Participantes			
Daniel Solano Peralta	C.R.	U.Latina de C.R.	Estudiante
Oscar Quirós	C.R.	CODEFORSA	Ing. Forestal
Robel Asdrúbal Alvarado Ortíz	C.R.	CODEFORSA	Tec. Forestal
Carlos Eduardo Quesada León	C.R.	ACA-HN/MINAE	Ing. Agrónomo
Miguel A. Garmendia Zapata	Nic.	UNAN-León	Biólogo
Nelson Toval Herrera	Nic.	UNAN-León	Biólogo
Braulio Hernández Bogantes	C.R.	INBio	Parataxónomo
Hilario Ramón Mendoza Martinez	Nic.	FUNDAR	Biólogo
Guillermo José Páiz Salgado	Nic.	FUNDAR	Ecólogo
Alfredo Noel Figueroa Rodríguez	Nic.	Fundación del Río	Biólogo
Jessica Patricia Sandoval	Nic.	Fundación del Río	Ing. Forestal
Instructores y expositores			
Nelson Zamora	C.R.	INBio	Líder Botánica
Ángel Solís	C.R.	INBio	Curador
Diego Delgado	C.R.	CATIE	Forestales
Bryan Finegan	C.R.	CATIE	Forestales
Hugo Brenes	C.R.	CATIE	Forestales
Fernando Casanoves	C.R.	CATIE	Centro Cómputo
José González	C.R.	INBio	Curador
Alexander Rodríguez	C.R.	INBio	Curador
Ricardo Kriebel	C.R.	INBio	Curador
Oliver Chassot	C.R.	CCT	Proyecto Lapa V.
Carlos Roberto Chavarría	C.R.	Tirimbina	Gerente General
Apoyo logístico			
Hazel Ramírez	C.R.	INBio	Serv. Generales
Priscilla Hurtado	C.R.	INBio	Capacitación

Photos

1. Launch of the ‘Biodiversity identification, evaluation and monitoring course 2004’. Speech by the British Ambassador.

2. Course participants and lecturers during the biodiversity course.

3. Learning insect identification skills.

4. Some course participants at the field station.

5. Data collection by course participants.

6. Identification of beetles.

7. Data analysis at the field station.

8. Beetle reference collection, INBio.