

Darwin Initiative Annual Report

Darwin Project Information

Project Ref Number	14-037
Project Title	Building University Capacity to Train Future Cambodian Conservationists
Country	Cambodia
UK Contract Holder Institution	Fauna & Flora International
UK Partner Institutions	The Harrison Institute, The Natural History Museum, Frontier, and Royal Botanic Gardens, Edinburgh are collaborating on certain project activities.
Host country Partner Institutions	Royal University of Phnom Penh (RUPP), Ministry of Environment (MoE) and Ministry of Agriculture, Forestry & Fisheries (MAFF)
Darwin Grant Value	£ 154,484
Start/End dates of Project	1 June 2005 to 1 September 2008
Reporting period and annual report number	1 Apr 2006 to 31 Mar 2007 Annual Report No. 2
Project Leader Name	Jenny Daltry, PhD
Project website	Project website will be online May 2007. An interim web page (with links to Darwin Initiative) can be found at: http://www.fauna-flora.org/cambodiauniversity.php
Author(s), date	Jenny Daltry, PhD (Project Leader) and Callum McCulloch (Project Coordinator), 30 April, 2007

1. Project Background

There is a severe lack of capacity within Cambodia to conserve wildlife and ensure that post-war development is environmentally sustainable. It is not uncommon, for example, to find forestry officials who are unaware of the link between deforestation and soil erosion, park directors who cannot name more than ten species living in their area, and EIAs for major developments being omitted due to the lack of competent practitioners. Many new jobs are opening in the fields of biodiversity conservation and natural resource management in Cambodia, but there are far too few qualified nationals to fill them. Consequently, short-term foreign environmental experts are often engaged to fill some of the gaps, but according to the recent National Biodiversity Strategy and Action Plan, what the kingdom really needs are more Cambodians with the necessary knowledge and tools to manage their biodiversity themselves.

This project is working to address a number of underlying problems and constraints to effective biodiversity conservation in this country:

1. There are limited training or educational opportunities within Cambodia, and the cost of going overseas to study is prohibitive for most Cambodians.
2. There has been very little exchange of information or experience among the universities, government and NGO sectors, or with scientists overseas.
3. Cambodia's university departments conduct little or no original research. Most lecturers are underqualified and have little or no practical experience.
4. There is a severe lack of biodiversity research aids available to Cambodians, e.g., technical books, survey equipment or any form of herbarium/ zoological reference collection.

2. Project Partnerships

Project partnerships:

Fauna & Flora International (FFI)'s principal partner for this Darwin Project is the Royal University of Phnom Penh (RUPP). The FFI-RUPP Steering Committee continued to meet monthly through Year 2, and our two organisations have achieved a good relationship to ensure smooth implementation and joint ownership of the project. Day-to-day activities on the ground are handled by two co-ordinators: one (Callum McCulloch) employed by FFI and the other (Rath Sethik) representing RUPP. The co-ordinators report back to their parent organisations every week or as often as needed.

The content of the Masters curriculum has largely been directed by FFI's Chief Lecturer, Project Co-ordinator and Project Leader, with input from expert trainers from a wide range of institutions (see below). The integration of the students and curriculum into the university system is under the direction of RUPP, but FFI team has introduced a number of precautionary measures to ensure that the students will be awarded their degrees based on merit alone. For example, decisions on which students qualify to enter the Masters programme is made jointly by the RUPP/FFI Steering Committee, not by any single individual, and this decision is based on academic prowess alone (students are anonymously denoted by a reference number not name, to avoid nepotism). The fact that RUPP has accepted these principles is a sign of their trust in FFI's staff.

There has been much greater integration of this programme within the university structure during Year 2. The Masters students now have official university student cards (not previously issued to postgraduates), for example, which gives them access to the main library and other facilities. Many aspects of student administration have moved from the programme office to the appropriate departments within the university, which is important for enhancing sustainability and local ownership of the Masters course.

The development of office rooms and the new reference collection rooms (quarantine area, herbarium and zoological collection) has been a joint effort, with RUPP staff taking an active role in selecting the rooms and approving structural changes. In 2006, the project office at RUPP was officially renamed the "Centre for Biodiversity Conservation", and a handsome new logo/ header was donated by a local graphical designer (Annex 3c). There has been a recent proposal from within RUPP to upgrade the Centre to a new Department for Biodiversity Conservation, which further signifies that RUPP does have a strong sense of ownership and views the Darwin Project as the beginning of a significant, long term programme.

The other project partners – the two ministries most directly involved in biodiversity management in Cambodia – have also been closely involved, and a number of trainers and trainees have been enrolled from these ministries. From the Ministry of Agriculture, Forestry

and Fisheries, the Phnom Thmao Wildlife Rescue Centre has provided an invaluable resource for students to learn about Cambodian wildlife, especially large mammals. Many of the students conducted short research topics at the Centre in Year 2. In addition, the Director of Forestry Administration granted permission to establish the herbarium and zoological reference collection, and the Forestry Administration provides supervision to ensure the collection meets national rules and requirements.

The Ministry of Environment's Deputy Director for Environmental Impact Assessments developed the EIA course of the Masters programme, while staff from the Department of Nature Conservation and Protection (DNCP) have had a major input into the design of the national herbarium and donation of botanical and zoological specimens. Note that the Director of DNCP, Mr Chay Samith, is also the Convention on Biological Diversity National Focal Point for Cambodia.

The involvement of both ministries in this project will increase as the second-year students begin to conduct field research for their theses in collaboration with various departments, and as the new Cambodian Journal of Natural History takes shape.

By strengthening the capacity of Cambodians at university level and among the national authorities who are responsible for natural resources management, this Darwin Project is supporting the Royal Government of Cambodia in implementing Articles 5, 6, 8, 10, 13 and especially 12 of the Convention of Biological Diversity. The Masters curriculum places particular emphasis on the CBD themes of Biodiversity and Tourism, Forest Biodiversity, Inland Waters Biodiversity, Protected Areas and Sustainable Use and Biodiversity themes.

FFI has been working in Cambodia since 1996, so many aspects of the development and delivery of this project were correctly anticipated and well within our capacity to manage. There have, not surprisingly, been a number of unexpected outputs and challenges during the course of this project (e.g., the university's request to upgrade the course from a diploma to a Masters), but our staff and partners are accustomed to an adaptive management approach and have coped well. The current size and complexity of this project has required an increase in the level of FFI staff time (notably, the project coordinator's role has grown from part time to full time), but we have successfully secured additional co-funding to allow this.

No official partner UK institutions were listed in the original FFI proposal to Darwin Initiative, but, as was hoped, the Darwin Project team have been able to enlist the active support of a number of British institutions, including The Harrison Institute, The Natural History Museum, Frontier, and Royal Botanic Gardens, Edinburgh on various aspects of teaching and on the development of the reference collection (see below). There are good prospects of even more UK organisations becoming involved during the third year.

Other Collaborations:

Approximately 30 British, Cambodian and other institutions become directly involved in this Darwin Project in Year 2. In addition to those mentioned above, the project facilitated research visits and capacity building in Cambodia by the following institutions and international specialists: **Harrison Institute**/ Dr Paul Bates (Supporting bat research in Thailand and Cambodia for students of our programme with support from Darwin Initiative (Darwin Project No. 14-011) and the British Ecological Society); **Murdoch University**/ Dr Brad Pettit (Integrated Natural Resource Management lecturer); **The Natural History Museum (London)**/ Dr Simon Loader (Curator trainer and advisor to the new museum facility); **Centre ValBio**/ Dr Frank Princee (Species Conservation lecturer); **Copenhagen University**/ Dr Knod Hellar (Data Recording and Applied Statistics lecturer); **Conservation International**/ David Emmett (mentoring the zoological museum curator and supply of specimens to the museum facility); **University of Queensland**/ Ms Carly Starr (Doctoral student studying the ecology of Slow Loris in Cambodia and mentor to the students of the programme); **Prince of Songkhla University**/ Dr Sara Bumrungsri (Leader of the Bat Study Group at Prince of Songkhla

University); **WWF Cambodia** (GIS training); **Royal Government of Cambodia Senate** (Environmental Law course); **Ministry of Education, Youth and Sports** (granted permission to establish Masters course and contribute regularly to monitor student performance); **Mlup Baitong** (field trip for students to study community-based ecotourism). The herbarium has also benefited from guidance from Cambodian staff at the **Museum of Natural History, Paris**, who intend to repatriate 2,000 mounted specimens. The UK-based **Frontier** hosted a bat study course for five of the Masters candidates. All the organisations and individuals who taught students in Years 1 and 2 have offered to return to undertake teaching in Year 3.

Discussions commenced with **Royal Botanic Gardens, Edinburgh**/ Dr Philip Thomas about a new Darwin Initiative proposal to build botanical capacity in Cambodia, including further stocking of the national herbarium created by the present project. (Although the Stage 2 application from RBGE was not approved, the proposal could be submitted to other sponsors).

The students enrolled on the course in Year 2 included recent graduates and young professionals from a number of Cambodian government and non-governmental institutions including: (Royal Government of Cambodia) **Department of Fisheries; Forestry Administration; Ministry of Environment; Department of Education; Royal University of Agriculture** (recent graduates); **Royal University of Phnom Penh** (current lecturers and recent graduates); (Non-Governmental Organisations) **Save Cambodia's Wildlife; Turtle Conservation Project; CEDAC; SBK Research and Development; GTZ Cambodia; CBNRM Learning Institute; World Wide Fund for Nature; Inland Fisheries Research and Development Institute** (See Annex 3). A number of the candidates are sponsored by their host organisations and many have been permitted to take time off work in order to come to classes - a measure of the widespread recognition of the value of this curriculum and the Masters qualification.

The second-year Masters candidates are currently undertaking thesis work with the collaboration of the following institutions and/or organisations: **Conservation International; Wildlife Conservation Society; Harrison Institute and Prince of Songkhla University**; and **World Wide Fund for Nature**, in collaboration with the **Ministry of Environment and Ministry of Agriculture, Forestry and Fisheries**.

3. Project progress

3.1 Progress in carrying out project activities

3.1.1 Output 1 - 60 students trained for 15 weeks on new module, of which 20 will be selected as junior research officers ('Darwin Scholars').

The change from a diploma to MSc programme was agreed with the Secretariat prior to project start up, and the number of training weeks per student has risen significantly to more than 70 (comprised of a 12-week Bridging Course, c. 30 weeks of taught course work in three semesters, and 30 weeks of supervised thesis research).

In Year 2, 40 students studied on the Bridging Course and 46 on the Masters curriculum in Biodiversity Conservation, and a total of 54 training weeks were provided by British, Cambodian and other experts. Every course on this curriculum is new, with supporting materials developed by the trainers. In some cases they are based on existing Masters courses that the trainers have delivered in the UK or elsewhere, but the materials have been tailored to suit contemporary needs in Cambodia, and draw upon local case studies where possible.

The taught components of the Bridging Course and Masters Curriculum proceeded as planned, as summarised below in chronological order. Note that in addition to our first cohort of students (enrolled in 2005/06), a second group enrolled during Year 2. By the start 2007, the project was running both the first and second year of the curriculum simultaneously.

- April '06: Dr Carl Traeholt (FFI) conducted the first-year course entitled *Data Presentation*.
- May '06: Dong Samkeat, Deputy Director of Department of Environmental Impact Assessment, Ministry of Environment, conducted the first-year course *Environmental Impact Assessment*.
- June '06: Examinations were conducted for the two major courses undertaken in the first semester: *Integrated Natural Resource Management* and *Research Analysis*.
- July '06: Re-sits were held for first-year students who failed examinations in June. Six students failed their re-sits and therefore could not participate in the second semester of the MSc programme. Four students withdrew from studies due to the clash of study and work commitments.

The Bridging Course was reviewed and redesigned by the FFI-RUPP Project Steering Committee to more effectively prepare new students for the Masters course. It will include a new course on Evolution, as we have found that few students have adequate knowledge of this fundamental subject.

- August '06: The Masters course was advertised in all the leading national newspapers and sent to all environmental NGOs and government agencies in Cambodia. 44 candidates applied from a wide range of backgrounds, even including tourism and management. Summer break for the Masters candidates.

- Sept. '06: The second semester of the Masters course began, with 16 students from the first intake continuing their study. Project Leader, Dr Jenny Daltry (FFI), delivered a first-year course on *Ecological Survey Techniques*, with input from British biologist David Emmett, and three Darwin Scholars (Khou Eang Hourt, Neang Thy, and Chav Thou).

The twelve-week Bridging Course for admission to the MSc programme began on the second intake of students. 44 viable applications were received, from which 40 students were selected using a standardised scoring system to undertake the Bridging Course (to prepare the students for an MSc-level course). 40% of the students were Cambodian government staff (including teachers and ministry staff), 40% were recent graduates while the remainder were from NGOs and the private sector. The subjects were *English for Academic Purposes*; *Computer Application*; *Statistics for Biologists* and *Ecology and Evolution*.

- Oct. '06: Dr Carl Traeholt (FFI) delivered the course entitled *Behavioural Ecology*. This first year course is a core module, with 60 hours of lectures and project work. A smaller course was undertaken at the completion of the lecture component entitled *Data Recording and Applied Statistics*. This was delivered by Dr Knod Hellar, and involved students conducting a variety of behaviour experiments and learning the skills to record and analyse their data.

- Nov. '06: The final course of the first year, *Species Conservation*, another core module, was delivered by Dr Frank Princee, Head of Biodiversity Management from the Centre ValBio, Madagascar. Dr Princee is a widely experienced conservationist, with a long association with DICE (University of Kent).

Dr Jenny Daltry (FFI) delivered the practical component of the *Ecological Survey Techniques* course. 14 students (two were unable to attend) travelled to Phnom Samkos Wildlife Sanctuary for a four-day skills-training exercise in bird surveys, mammal track identification, and making forest quadrats. Dr Frank Princee and two Ministry of Environment staff/ Darwin Scholars (Neang Thy and Chav Thou) were assistant teachers on this trip.

- Dec. '06: Students completed their studies in the bridging course and undertook examinations. Of the 40 students who had begun the course, 20 students sat the final exams. Exam results were very positive and the FFI-RUPP Project Steering Committee accepted all of the students for the full MSc course.
- Jan. '07: Final examinations were conducted for the two major courses undertaken in the second semester: *Species Conservation* and *Behavioural Ecology*. Formal classes began for the second intake of students on *Research Analysis: A Process of Inquiry*, led by our chief academic advisor Dr Carl Traeholt (FFI).
- Feb. '07: Re-sits were held for students who failed the key examinations in June. Two students failed their re-sits in critical courses of the second semester and therefore will not continue to the final year of study.

The first semester subject *Scientific Report Writing and Data Presentation* was conducted for the second batch of MSc students by Dr Carl Traeholt (FFI). The third semester (second year) subject *Project Cycle Management* was also conducted by Dr Carl Traeholt.

March '07: Mr Jorg Menzel coordinated and instructed the first year course titled *Environmental Law*.

While all of the 46 students who were taught on the Masters modules Year 2 may be called "Darwin Scholars", there are currently 10 designated scholars (Hourt, Thy, Thou, Sethik, Keavuth, Samkeat, Saveng, Saravuth, Kaevuth and Norong). These are exceptional young Cambodians with at least a Bachelors degree in an environmental subject (several have Masters from overseas) and a demonstrated interest in ecology, conservation and education. In Year 3, additional Darwin Scholars will be selected from among the first cohort of Masters students.

The Darwin Scholars took part in teaching the Masters students in Year 2, and have been conducting various lines of research. In Year 2, for example, Neang Thy conducted a pilot study for establishing a community-based project to conserve Eld's deer in southern Cambodia, while Khou Eang Hourt is specialising on rattan taxonomy and has been developing a joint project with the Royal Botanic Gardens, Edinburgh.

3.1.2 Output 2 - The Royal Universities obtain essential field equipment, research facilities and hardware to conduct conservation research projects.

Field equipment was purchased for use by the students and Darwin Scholars, including a variety of navigation and survey equipment (GPS units, dissecting kits, compasses, thermohygrometers, binoculars, diameter tapes, etc) and camping equipment (hammocks, backpacks, tarpaulins, etc). The Project Leader and assistant teachers taught the students how to use these tools as part of the new *Ecological Survey Techniques* module. Importantly, the project continues to provide the students and scholars with access to computers and the internet through the project offices, and has enabled them to access a large number of online journals.

More progress was also made on furnishing and equipping the new herbarium and zoological reference collection and library at the university, as detailed under Objective 4 below.

3.1.3 Output 3 - The development of new inter-institutional partnerships to implement conservation-oriented research and education projects in Cambodia.

Having started from a position of almost zero interaction between the universities, NGOs and ministries in Cambodia, there has been striking progress in this output during the course of this

Darwin Project. The long list of collaborating institutions in section 2 above include almost all of the most prominent groups involved in environmental education and management in Cambodia, as well as representing a growing network of British and other international supporting organisations. This very rapid development of joint activities and new partnerships is very encouraging because it is fundamental for better sharing of information and support, and thus more effective conservation work on the ground.

With regards to the Masters candidates, the students have conducted a number of small research studies as part of their coursework, and have recently embarked on the following major research topics for their Masters theses (in alphabetical order by family name):

Student	Collaborating Organisation	Topic
Channa Phan	Fauna & Flora International/ Conservation International/ Forestry Administration	<i>Gibbons Activity Patterns in Veun Sai, Ratanakiri Province.</i>
Chinda Heng	World Wide Fund for Nature and ?	(Community conservation – still defining topic).
Horn Leang	Wildlife Conservation Society/ Forestry Administration	<i>Ecotourism Development and Changes in Community Perceptions of Conservation in Preh Vihear.</i>
Ith Saveng	Individual, with logistical support from WCS	<i>Species Richness of Bat Populations in Mondulkiri.</i>
Kannitha Lim	Fauna & Flora International and Conservation International	<i>Differences in Gibbon Calling Between Different Populations of the Yellow-Cheeked Gibbon.</i>
Koulang Chey	Conservation International/ Forestry Administration	<i>Distribution and Abundance of the Impressed Tortoise In Cambodia.</i>
Narin Srei	Conservation International/ Forestry Administration	<i>The Presence of the Parasitic Chytrid Fungus in Frog Species in Cambodia.</i>
Navy Nop	Conservation International/ Forestry Administration	<i>The Effect of Otters on Local People in Tonle Sap Area - Boeung Chhmar.</i>
Sony Oum	Fauna & Flora International/ Ministry of Environment	<i>The Effectiveness of Incentive Programmes on Community Conservation Efforts in the Cardamom Mountains.</i>
Sophak Pheng	Fauna & Flora International/ Forestry Administration	<i>Seasonal Flooding and the Effects on the Nest Sites of the Siamese Crocodile in the Cardamom Mountains.</i>
Vichheka Vorn	Harrison Institute and WCS	<i>Ecological Importance of Water Bodies for Bats in Urban Areas.</i>
Vuthy Va	Harrison Institute and WCS	<i>Bat Species Diversity and Habitat Preference in Keo Seima, Mondulkiri Province.</i>

Note that every study is being conducted in collaboration with a well-established organisation in Cambodia. The research topics have been developed through a process of consultation between the students and the host organisations, facilitated by the Darwin Project team. The collaborating organisations not only provide additional training, mentoring and logistical

support, but also help to ensure that the students' findings will be directly integrated into conservation planning in these areas.

The Masters students furthermore took part in two conferences in Thailand in Year 2, which has been a useful educational experience as well as introducing them to more members of the conservation community in Southeast Asia:

1. The Greater Mekong Sub-region Academic and Research Network conference at the Asian Institute of Technology was entitled "*Sustainable Development: Issues and Prospects for the Greater Mekong Subregion*".
2. The conference *Primate Ecology and Conservation* was hosted at Phu Khieo Wildlife Sanctuary in Thailand, and covered field techniques in relation to the study of primates, especially in Southeast Asia.

At the first of these, student Ms Vichheka Vorn prepared and delivered a paper for the first time, and this will be published in the GMSARN Journal shortly.

The Darwin Project also hosted a visit by the Prince of Songkhla University Bat Study Group, who provided five of the Masters students with a 4-day field trip to Botum-Sakor National Park to learn field techniques for bat research. This trip was co-facilitated by the British organisation Frontier, which has study sites in the park for British research volunteers. Three of the Masters students subsequently travelled to Prince of Songkhla University in Hat Yai, Thailand, to study more advanced techniques for bat research. The university houses one of the largest bat working groups in Southeast Asia, supported by the Darwin Initiative (Projects No. 14-011 and 14-036) and University of Aberdeen's Department of Zoology. The one-week workshop in Thailand involved extensive field experience in addition to aspects of catching, handling, identifying and the preservation of bat specimens.

The Darwin Project and Darwin Scholars have also facilitated research by visiting scientists, including a team of British and American herpetologists who visited the Cardamom Mountains with two Darwin Scholars in August 2005, and discovered several amphibians new to science (these are currently being described). A PhD candidate, Carly Starr, is mentoring the students and helping with the research activities of this programme, while conducting her doctoral research on the ecology of the slow loris.

3.1.4 Output 4 - Cambodia's first zoological reference collection and basic library facilities initiated

The Forestry Administration has given formal permission for the university to establish the reference collection, as required under the Forestry Law. The Herbarium, Animal Specimen and Quarantine rooms have now been constructed in a converted student laboratory. The rooms are fitted with air conditioners and cabinets, and have been sealed from the elements to ensure proper storage of wet and dry specimens.

Shelving, jars, and other hardware have been purchased for these reference collection rooms, with guidance from Dr Simon Loader from The Natural History Museum in London. Darwin Scholar Ith Saveng has been appointed as the head curator for the museum. Dr Loader led the curator training programme for the new staff, and established clear protocols for quarantining, cataloguing and storing incoming specimens. A database has been established, under Saveng's charge.

Currently, the collection has over 100 animal specimens and several hundred plant specimens, principally donated by Fauna & Flora International/ Ministry of Environment and Conservation International/ Forestry Administration. Now that the basic capacity is in place, the number of specimens is expected to increase significantly in Year 3.

Discussions commenced with Dr Yok Lin, the Head of Botany at RUPP, and Dr Eric Chenin, Sud Expert Plantes, about a spin-off initiative to further build botanical capacity in Cambodia,

including additional stocking of the new national herbarium with assistance from Cambodian staff at the National Museum of Natural History in Paris.

A reference library has been established at RUPP on the themes of biodiversity conservation, biological research and sustainable development. More than 200 titles were purchased during Year 2, and a library database established and populated by Carly Starr and Darwin Scholar Rath Sethik. Several important course books were donated by the UK's Natural History Book Service. The FFI Coordinator furthermore arranged free access for the students to online journals and archives.

3.1.5 *Output 5 - The first issue of the Cambodian Journal of Natural History published and distributed (final year of project)*

This output is not due to be delivered until Year 3, but project staff have already begun making enquiries to potential Editorial Board members and are testing the open source software "Open Journal Systems" for the management of the Cambodian Journal of Natural History. It is hoped that this web-based software will enable the many specialists from all over the world to contribute as editors, sub-editors or peer-reviewers, all of which can be managed locally.

3.2 Progress towards Project Outputs

This Darwin Project has been very productive during the year April 2006 to March 2007. The project is meeting its intended outcomes, and there has been negligible deviation from the original schedule or any real need to revise the assumptions outlined in the Darwin Initiative proposal.

The target outputs are listed below. Based on current progress against the project's logical framework (see Annex 1), the planned outputs should be met, if not exceeded, by the end of the project.

- 1) 60 students trained for 15 weeks on new module, of which 20 will be selected as junior research officers ('Darwin Scholars').

Since 2005, a total of 84 students have conducted the Bridging Course, 46 have conducted the first semester of the Masters course, 16 the second semester and 12 have embarked on the third semester. (In Year 1, the students received training for 10-19 weeks, and in Year 2, the students in two classes received training for 12-34 weeks).

Also since the start of the project, 10 Darwin Scholars have been designated, with a further 10 to be designated in Year 3.

- 2) The Royal Universities obtain essential field equipment, research facilities and hardware to conduct conservation research projects.

Significant resources have been established at the Royal University of Phnom Penh, including: (Year 1) Programme office constructed and furnished; Computers and printer purchased; Internet installed; (Year 2) Field research equipment procured (e.g., GPS, hammocks, cooking materials, backpacks, dissection kits, compasses, relief maps, first aid kits, binoculars); Herbarium and zoological reference museum constructed; specimen storage materials purchased; and Reference library established.

Note that there is overlap between this output and Output 4, both of which comprise significant research assets for the university.

- 3) The development of new inter-institutional partnerships to implement conservation-oriented research and education projects in Cambodia.

This output has made strong progress, especially during Year 2. To date, this project has involved at least 10 Cambodian governmental units (departments or ministries), 9 Cambodian

non-governmental organisations, and 15 international organisations (including groups involved in guest lecturing, study tours, reference collection development and student research placements). The Masters students and Darwin Scholars have embarked on more than a dozen collaborative research projects that involve multiple organisations.

- 4) Cambodia's first zoological reference collection and basic library facilities initiated, with 3 curators and librarians trained for 12 weeks, database system and field guides developed.

The only notable change to this output (as mentioned in the last annual report) is that this project does not need to recruit or train librarians because the university now has trained librarians in place.

The zoological reference collection has been established, as has a herbarium. The reference library has also been established, with more than 200 titles. These collections should continue to grow during the rest of this project. Databases for the specimen collections and library were established in Year 2. Curator training began in Year 2, provided by Dr Simon Loader (The Natural History Museum) with additional mentoring from Callum McCulloch (who has a background in museum curation) and botanist Khou Eang Hourt.

One guide book has been completed and 1,000 copies disseminated in collaboration with the Cardamom Mountains Wildlife Sanctuaries Project. Entitled "*Green Development: Guidelines for Sustainable Development in Protected Areas*", this book has been jointly published by FFI and the Ministry of Environment in Khmer language. It covers many of the sustainable development themes in the Masters curriculum.

- 5) The first issue of the Cambodian Journal of Natural History published and distributed (final year of project).

The project team are preparing to launch the new journal in Year 3.

3.3 Standard Output Measures

Project Standard Output Measures

Code No.	Description	Year 1 Total	Year 2 Total	TOTAL
4C (4D)	Postgraduate students conduct bridging course prior to the MSc course.	44 (10)	40 (12)	84 (10-12)
4C (4D)	Postgraduate students commencing the first semester of the MSc course	26 (9)	20 (8)	46 (8-9)
4C (4D)	Postgraduate students successfully completing the first semester of the MSc course.	n/a	16 (11)	16 (11)
4C (4D)	Postgraduate students successfully undertaking the second semester of the MSc course.	n/a	12 (20)	12 (20)
4C (4D)	Postgraduate students commencing the third semester of the MSc course.	n/a	12 (3)	12 (3)
6B	Training of curation staff		4	4
7	New training courses (modules) developed and delivered, all with supporting materials (<i>English for Scientists, Introductory Ecology, Statistics, Computers, Integrated NRM, Environmental Law,</i>	10	7	17

Code No.	Description	Year 1 Total	Year 2 Total	TOTAL
	<i>Environmental Impact Assessments, GIS, Research Analysis, English for Academic Purposes, Evolution and Ecology, Species Conservation, Ecological Field Techniques, Behavioural Ecology, Data Presentation and Scientific Report Writing, and Research Methods & Applied Statistics).</i>			
8	FFI staff and other British experts working directly on the project, notably: Callum McCulloch, Dr Jenny Daltry, Zoe Dind, Dr Carl Traeholt, Dr Simon Loader, and David Emmett.	40	80	120
10	Manual: Daltry <i>et al.</i> (2006) <i>Green Development: Guidelines for Sustainable Development in Protected Areas</i> . FFI and MoE, Phnom Penh (in Khmer).		1 (1,000 copies)	1 (1,000 copies)
12A	Library database and reference collection database established at RUPP.		2	2
13A	Animal reference collection established at RUPP (section 3.1.4).		1	1
14B	Attendance by Masters students at two conferences in Thailand (section 3.1.3.).		2	2
15A	Three national newspapers announcing Masters course (adverts posted on three days each).	3 (x3)	3 (x3)	6 (x 6)
16A (16B)	Quarterly newsletter, <i>The Missing Link</i> .		1 (100)	1 (100)
17A	Steering Committee established to oversee the Masters course, with representatives from FFI, RUPP and the Ministry of Education, Youth and Sports.	1		1
20	Assets include computers, books, field equipment, renovated offices and lecture room, conversion of a spare laboratory for taxonomic research.	£6,000	£40,000	£46,000
21	The Centre for Biodiversity Conservation established at RUPP.		1	1
22	15 forest plots established in Pursat Province for long term study (collaboration with Royal University of Agriculture).	15		15
23	Additional funds raised from Association for Cultural Exchange, USFWS, ADM Capital Foundation and DANIDA, plus support in kind from RUPP, FFI, and others.	£50,000	£200,000	£250,000

Table 1 Publications

Type	Detail	Publishers	Available from	Cost £
Newsletter (Output 16A)	The Missing Link (2007)	Centre for Biodiversity	Callum McCulloch (biodiversity.conserv)	n/a (pdf)

		Conservation, Phnom Penh	ation@gmail.com)	
Manual (* to be sent to Darwin Initiative by mail) (Output 10)	Daltry, J.C., Fox, M., & Appleton, M.R. (2006) <i>Green Development: Guidelines for Sustainable Development in Protected Areas.</i>	FFI and the Ministry of Environment, Phnom Penh	Jenny Daltry (jenny.daltry@fauna-flora.org)	£10 (free to Cambodians)

3.4 Progress towards the project purpose and outcomes

The purpose of this Darwin Project is to build capacity in conservation and applied research at Cambodia's premier universities, chiefly by establishing new teaching modules and diploma in conservation biology, supported with practical field experience.

The intended diploma has already been raised to a Masters degree curriculum; Cambodia's first Masters degree course in Biodiversity Conservation (and indeed any field of science). The development of the new Masters curriculum and the associated Bridging Course (to help Bachelor-level students embark on a Masters-level course) has already entailed the development and delivery of 17 original modules. Practical field experience has been incorporated at many stages of the course, including field trips to the Kirirom Ecotourism Centre, Phnom Samkos Wildlife Sanctuary, Botum-Sakor National Park, and the Phnom Thmao Wildlife Rescue Centre.

Since enrolling on the course, all of the Masters candidates have exhibited striking improvements in their understanding, capacity and enthusiasm for conservation, as demonstrated in part by rising quality of their written work, examination grades, and voluntary organisation of additional field trips. The group now in the final stages of the Masters programme have successfully learned to conduct critical analyses, challenge dogma, and read around their subjects, which marks a tremendous step forward for the advancement of conservation science in Cambodia. (Cambodia's education system traditionally centres on rote-learning, limited reading or practical exercises, and unquestioning acceptance of facts given by the teachers).

It is worth reiterating that almost all of the Masters candidates already hold posts in environmental fields (either with the government or NGOs in Cambodia), and are therefore well placed to make immediate use of their training to improve the policies and impact of their institutions (see Annex 3). The project office has already received enquiries from employers interested in taking on the students who are due to graduate next year. There is therefore expected to be minimal "loss" of project trainees to careers outside of applied biodiversity conservation, biological research or education.

The Royal University of Phnom Penh is evidently interested in continuing this prestigious and popular Masters programme, and is considering establishing a new conservation department to take the work of this project even further. The university now has many useful tools in place, including a new conservation library, museum and field equipment, to enable Cambodian students and visitors to further their knowledge and conduct original research.

The purpose assumptions still hold true, but it is worth emphasising that more Cambodian trainers are needed to provide a more affordable, longer-term capacity to deliver the Masters course in the future. With this need in mind, our project has therefore already begun to involve second-year students and Darwin Scholars as assistant teachers in classes for the first-years, with a view to recruiting some of them as permanent teaching staff at RUPP.

National capacity has also been improved through networking and enlisting the involvement of more Cambodian and international institutions in this project. Many of the students undertaking independent research for their thesis have now begun meeting and working with other people involved in conservation within Cambodia and regionally, and their increased confidence and new contacts should stand them in good stead in their careers. The exchange of information and dissemination of findings will be advanced even further in Year 3.

3.5 Progress towards impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

The educational nature of this project means that it is not possible to point to immediate, direct impacts on biodiversity. The capacity of a significant number of Cambodian men and women from a wide range of institutions has been increased very substantially, however, and they can now begin to apply their new skills, knowledge and enthusiasm to achieving positive impacts on the ground (see above).

4. Monitoring, evaluation and lessons

Methods of monitoring and evaluation in operation include:

- Monthly FFI meetings – project progress discussed and peer-reviewed by other FFI staff in Cambodia.
- Monthly RUPP Steering Committee meetings – involving selected panel of senior university staff and FFI project leaders.
- Quarterly reports to the Ministry of Foreign Affairs.
- Student graded assignments and examinations (all courses)
- Student feedback questionnaires
- Debriefings by lecturers on their perception of progress made, and lessons learned.
- Establishment of databases to record specimens in the new reference collection and book titles in the conservation library.

FFI Project Coordinator, Callum McCulloch, is responsible for overseeing the databases and compiling and analysing statistics on the students and the course. These data can be provided on request, but with names removed where necessary to protect student confidentiality.

Measurable indicators of this project include.

- Grades achieved by students in examinations and on assignments.
- Number of specimens held in the national reference collection (as recorded on specimen database).
- Number and diversity of research projects conducted by Darwin Scholars and postgraduates, and outputs (theses, papers, reports, etc).
- Number of collaborative activities with other organisations and projects.

An important lesson in this project has been the need to maintain high academic standards and take a firm stance against nepotism and corruption. Students who enrol on most high school or university courses in Cambodia can commonly expect to pass even if they skip classes or fail their examinations repeatedly (reports of schoolchildren and students bribing examiners are

very common). This Masters programme is very different in the students know that they must work hard to pass every course, else they will be dropped. Of the students who began the second semester this year, for example, only half remain because they were able to reach and maintain the high standard of work that we have required of them. RUPP has accepted the precautionary measures introduced by FFI, despite their obvious reluctance to see any student fail.

The weaker students are given one chance to re-take examinations, and those who fail a semester can re-apply next year. In most cases, failure to pass has been due to the student not putting enough time into his or her studies. This can be a problem for students who have demanding jobs.

This strictly merit-based approach has helped to push the students into becoming genuinely capable scholars, who can take pride in the knowledge that their results have been earned. Furthermore, the fact that course has a reputation for being “difficult”, has given credibility to the Masters in Biodiversity Conservation qualification, and our programme has already been approached by prospective employers, even though the first students will not graduate until next year! If all of the graduates quickly find good jobs, this can only help to re-enforce the interest of the university to provide this and other courses to a respectable standard.

Other lessons, and solutions, are:-

Issue	Solution
Increasingly heavy work load on project staff, especially the project coordinator.	Mr Callum McCulloch became full-time from June 2006 to handle the increasing work load. This has increased the project staff costs, but additional funds were secured from USFWS and ADM Capital Foundation.
Growing pressure on the project office for space to accommodate project staff, visiting scientists, books and equipment.	A second room has been provided by RUPP, which adjoins the first project office. This now holds project equipment as well as desks and computers for students.
Limited outlets for disseminating information among students and among the wider conservation community.	In addition to the planned journal (Output 5), the project coordinators have launched a quarterly newsletter (The Missing Link). A public-access website is currently under development, to be launched in May 2007, which will provide and solicit information about the course and conservation news and events in Cambodia.

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

6. Other comments on progress not covered elsewhere

In furtherance of the project’s exit strategy to hand over the training course and research facilities to Royal University of Phnom Penh, the project offices in the Department of Biology have become formally named the “Centre for Biodiversity Conservation”. A proposal has come

from RUPP staff to upgrade this unit to a Department for Biodiversity Conservation, which demonstrates their interest in maintaining this programme.

In addition, many of the processes and procedures that FFI introduced to maintain fairness and transparency in enrolling students and grading examinations have been adopted by some members of faculty and other departments within the university at large. The newly created postgraduate office are now using our rules and regulations as a basis for other postgraduate degrees at RUPP and other Master level degrees are looking at our model for their departments to follow. This has been a very positive outcome of which we did not envisage when commencing this project.

During year 2, some costs were higher than predicted (e.g., completion of reference collection facilities), although the strong British pound has gone a long way to compensate for this. FFI has also successfully secured a further \$50,000 co-funding from USFWS (2006-2007) and \$100,000 from the ADM Capital Foundation (2007-2009), chiefly for equipment and trainer costs.

A present dilemma is whether or not to accept a third group of students into the programme in Year 3 (i.e., October 2007). The training programme takes 2.5 years, but the current Darwin funding ends in September 2008. This decision must rest upon whether additional funds can be secured (e.g., a Darwin Initiative follow up grant) or whether the university staff can deliver the programme within the fees provided by the students (i.e., without the relatively expensive input of foreign trainers).

No notable risks threaten this project at present.

7. Sustainability

See under dissemination below. The advertisements, consultations, and the fact that the students come from a wide range of parent institutions, has meant that the course is now widely known among the conservation/ environment community in Cambodia. Students enrolled on the MSc course are finding the work challenging, but feedback on the courses to date indicate a high level of satisfaction with the subjects and standard of teaching (feedback from the students is published in the project's quarterly newsletter).

The intention of FFI and our project partners is for the Masters course to continue for long after the current project has ended. The Masters course is currently delivered through the Centre for Biodiversity Conservation, which is embedded in the Biology Department, but RUPP is already considering upgrading the Centre to a new Conservation Department in its own right (see above), which will doubly ensure that this unit can make its own decisions and will have paid staff to manage and deliver the course. As reported in the Year 1 report, the university introduced student fees of \$200 per student per semester in order to help sustain the course in the future. Though not high enough to sustain foreign teachers, this fee is of the right order of magnitude to cover Cambodian staff.

To ensure the sustainability of the Masters course, a number of university biology lecturers have been enrolled on the course (none had an MSc previously) who are being groomed to eventually take over the delivery of some courses in the future. During Year 2, we have engaged some of these and other second-year students, as well as the Darwin Scholars, to assist in teaching the first-years, and thereby build their experience in delivering this curriculum. By the end of the current Darwin grant period, we anticipate that some of the courses can be delivered by Cambodians without foreign trainers, using the course materials that have already been developed. Even the management role of the project coordinator could be handed over to Khmer staff in 2008. A few more years may be needed before *all* of the international trainers can be withdrawn, however, and we therefore intend to seek additional funding to bridge that gap, potentially including a Darwin Initiative follow-up grant.

Importantly, Cambodia now has a permanent reference library and a herbarium and zoological reference collection, which will be important and lasting assets for university students and other Cambodians interested in biodiversity.

Ultimately, the real measure of impact is not merely in the capacity of the university to teach and support biodiversity research and conservation, but in how the graduates and other beneficiaries apply their new skills and enthusiasm. As long as most of the graduates remain in their chosen fields of education, research and environmental management, we can be optimistic that the impacts of this project will continue throughout their working lives, with consequences that cannot be predicted at this stage.

8. Dissemination

To date, dissemination has largely been achieved through group meetings and consultations. In addition to monthly meetings with the Steering Committee, the Darwin Project staff have met with many groups and projects, both formally and informally, to promote the Darwin Project and enlist support and collaboration.

In January 2007, for example, we invited all of the prominent environmental management organisations in Cambodia to the university to introduce the students and invite the organisations to accept them into their projects and programmes to conduct research for their theses. (The organisations that subsequently accepted the students are listed under section 3.1.3).

The Darwin Project has also established a visiting lecture series. These open forum lectures are presented by researchers and project personnel from the field of conservation in Cambodia, and advertised to the whole university and anyone else interested in coming along. Forthcoming presentations at the Centre for Biodiversity Conservation will be:

4 May - Dr Ulrike Streicher (Wildlife Alliance) *The Conservation Status of Lorises in Cambodia.*

18 May - Mr Boyd Simpson (FFI) *Ecology and Conservation of Siamese Crocodile in Cambodia.*

1 June - Mr Tom Gray (WCS) *People, Grasslands and Conservation: Conserving the Bengal Florican in the Tonle Sap Flood Plain.*

15 June - Mr Phay Somany (WWF/Fisheries Department) *Irrawaddy Dolphin Conservation in Cambodia.*

15 June - Mr Eang Hourt (Darwin Scholar, WWF/ Department of Nature Conservation and Protection) *Rattan Taxonomy in Cambodia.*

29 June Mr Julian Colmer (Wildlife Alliance) *The Educational Benefits of the "Kouprey Express" Programme.*

13 July - Mr Neang Thy (Darwin Scholar, Department of Nature Conservation and Protection) *The Biodiversity and Importance of the Cardamom Mountains of SW Cambodia.*

These and other approaches have helped to bring Cambodia's conservation community together and has introduced many people to the work of the Darwin Project. Many of our visitors have told us that they have been impressed by the knowledge and interest of the students, especially those who are now in their second year of the programme.

The students themselves are also helping to disseminate this project and what they have learned through their existing jobs with various organisations (see Annex 3) and through their practical projects.

10. 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 most significant achievement of this Darwin Project has been to establish an international-standard Masters course in Cambodia where none existed before. This marks a very major step forward in rebuilding Cambodia's own technical capacity, almost thirty years after the Pol Pot Regime exterminated most of the country's scientists, educators and intellectuals. The feedback from students and trainers has been excellent, and there has already been considerable interest in the final-year students from prospective employers in the environmental sector. Staff, equipment and other resources are being put in place at the Royal University of Phnom Penh to ensure that the Masters in Biodiversity Conservation programme can be sustained for years to come.

The Darwin Project has also made good progress in bringing different groups together to promote and support conservation and sustainable development in Cambodia. Well over 30 organisations have become involved in this programme, including 10 Cambodian governmental departments, 9 Cambodian non-governmental organisations, and 15 international organisations. These include groups involved in guest lecturing, study tours, reference collection development and student research placements. Making use of this new informal network, the Masters students and ten Darwin Scholars have embarked on more than a dozen collaborative research projects with multiple organisations.

The establishment of the National Reference Collection at the Royal University is also tremendously significant, as this is the first in Cambodia. In the past, almost all botanical and zoological specimens were sent to collections overseas, depriving Cambodian scholars and conservationists of the opportunity to learn about their biodiversity. The new collection facilities (herbarium, zoological museum and quarantine room) mean that plant and animal specimens can now be properly stored and catalogued in Phnom Penh. The facilities have been well received by visiting scientists, most of whom have promised to add specimens to the small but rapidly growing collection.

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2006/07

Project summary	Measurable Indicators	Progress and Achievements April 2006 - March 2007	Actions required/planned for next period
<p><i>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</i></p> <p><i>The conservation of biological diversity,</i></p> <p><i>The sustainable use of its components, and</i></p> <p><i>The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</i></p>		<p>Not directly applicable, but Cambodia's capacity to conserve and sustainably use biodiversity has been greatly enhanced from training and new tools provided by the Darwin Project. This can be expected to translate into better biodiversity management in the near future.</p>	
<p>Purpose: To build capacity in conservation and applied research at Cambodia's premier universities, chiefly by establishing new teaching modules and diploma in conservation biology, supported with practical field experience</p>	<p>Number of active research projects and conservation biology courses at the Royal Universities, number of new students</p>	<p>Students enrolled on the Masters course completed the first semester in Year 2 Q2. Of the 25 students, 16 passed the first semester exams to enter the second semester. 13 passed the second semester and have begun the third semester and thesis component.</p> <p>Bridging Course was re-designed and delivered to 40 Cambodian postgraduate students in Q3. 20 individuals successfully completed the course and were accepted into first semester, in Year 2 Q4.</p>	<p>Publish first issue of Cambodian Journal of Natural History.</p> <p>Enlist 10 more Darwin Scholars and support them to conduct original research (to be disseminated in conferences, journal and website).</p> <p>The first cohort of students will undertake the third and fourth semesters (with examinations), and complete their research theses. Student graduation.</p> <p>The second cohort of students will continue to undertake the first and second semesters of the MSc programme (with examinations).</p>
<p>Output 1: 60 students trained for 15 weeks on new module, of which 20</p>	<p>Courses and exams conducted every second semester, the number</p>	<p>17 courses and examinations were conducted (every semester) for first-year and second-year students.</p>	

<p>will be selected as junior research officers ('Darwin Scholars'). [Original]</p>	<p>of active junior research officers increased at the Royal Universities. [Original]</p>	<p>40 new students enrolled on this programme and were trained on the Bridging Course. These first-year students received up to 20 weeks of training (i.e., Bridging Course and the beginning of the first semester of the Masters course). In addition, the 26 second-year students received up to 34 weeks of training on the Masters semesters 1-3. This project is thus well on target to train significantly more than 60 students for more than 15 weeks (but note that not all students will complete the entire 2-year Masters programme and graduate).</p> <p>In addition to the students, 10 young conservationists have been selected as Darwin Scholars and have assisted with teaching, with a further 10 to be designated in Year 3.</p>
<p>Activity 1.1: Develop certificate level module curriculum and exams, and conduct lectures in applied research, conservation biology and natural research management [Original]</p>		<p>A Masters programme in Conservation Biology has not only been developed at the Royal University of Phnom Penh, but entered its second year of delivery in Year 2.</p> <p>17 new courses have been developed and delivered including four Bridging Course modules and 13 accredited Masters modules. These are <i>English for Scientists, Introductory Ecology, Statistics, Computers, Integrated Natural Resource Management, Environmental Law, Environmental Impact Assessments, GIS, Research Analysis, English for Academic Purposes, Evolution and Ecology, Species Conservation, Ecological Field Techniques, Behavioural Ecology, Data Presentation and Scientific Report Writing, and Research Methods & Applied Statistics</i>. (To complete the course, two more new courses will be delivered in Year 3: <i>Project Cycle Management, Introduction to Protected Areas Management</i>). The courses are now running in their second year, which has allowed for the materials to be further refined, based on experience.</p>
<p>Output 2: The Royal Universities obtain essential field equipment, research facilities and hardware to conduct conservation research projects [Original]</p>	<p>Conservation research projects at the Royal Universities have adequate equipment and other resources [Original]</p>	<p>This Output now overlaps with Output 5 to a large degree, because the specimen and library reference collections has been established at the Royal University of Phnom Penh.</p> <p>In addition to these research facilities, the Royal University of Phnom Penh now has a reservoir of essential field equipment for use by students and Darwin Scholars, including a variety of navigation and survey aids</p>

		(GPS units, dissecting kits, compasses, thermohygrometers, binoculars, diameter tapes, etc) and camping equipment (hammocks, backpacks, tarpaulins, etc). The Project Leader and assistant teachers have provided lessons in the proper use and maintenance of this equipment. Computers and internet facilities have also been installed in the new Centre for Biodiversity Conservation at RUPP, thereby enabling them to access a large number of online journals and other online resources. Some additional equipment may be purchased in Year, as needs arise.
Activity: See 4.1 and 4.2 below.		
Output 3: The development of new inter-institutional partnerships to implement conservation-oriented research and education projects in Cambodia. [Revised following Reviewers comment no. 6]	University staff and students work alongside staff from local NGOs and government agencies in at least 20 conservation-oriented research and education projects, including 3-5 joint workshops. [. [Revised following Reviewers comment no. 6]]	New collaborations have been created and existing collaborations strengthened as more than 30 organisations have become involved in the development of the Masters course and the reference collection facilities (see section 2 for names). Additionally, students from the programme attended 2 regional conferences and additional training workshops which have exposed them to the wider regional community of scientists and practitioners. In Year 2, the second-year students embarked on 12 collaborative research projects as part of their final year theses, the results of which will be published in Year 3.
Activity 3.1: Develop applied research projects that are integrated with existing FFI and government conservation projects, other international NGOs, and international development projects (thereby sharing costs and expertise). [Original]		12 of the second-year Masters students have begun research projects as part of their thesis, all of which focus on contemporary conservation issues and are hosted by a number of national and international organisations and projects (section 3.1.3). In addition, the 10 designated Darwin Scholars are also undertaking various projects on environmental topics. The results of these studies will be disseminated in Year 3, in student theses, conferences, and in the forthcoming journal. It is hoped that these collaborations will continue and expand for the next batch of students and Darwin Scholars, facilitated by the growing alumni.
Activity 3.2: Promote Cambodia and the Royal Universities for national researchers and students, and encourage other British institutions to develop student exchange programme.		In addition to advertising the Masters programme, the Darwin Project has organised many meetings to elicit to involvement of other national, regional and international organisations. This programme is now widely known in Cambodia, and more than 30 organisations were involved in

		<p>Year 2.</p> <p>By raising and maintaining high standards, the Masters course has gained genuine credibility, and many organisations have offered placements to the students. Four other British organisations have been involved, including the Harrison Institute which involved five of the Masters students in a student exchange and training programme as part of Darwin Project No. 14-011.</p>
<p>Output 4: Cambodia's first zoological reference collection and basic library facilities initiated, with 3 curators and 3 librarians trained for 12 weeks, database system & field guides developed.. [Original]</p>	<p>Active collection and library set up, field guides published in Khmer language, specimens remain in Cambodia for general use. [Original]</p>	<p>The national zoological reference collection now has been well established at the Royal University of Phnom Penh and procedures have been put in place to process incoming specimens. A herbarium room and quarantine facility has also been built next door, and houses several hundred specimens. A library with more than 200 titles has also been established at the university.</p> <p>One manual has been completed and published, while the first guide to amphibians is underway (under preparation by Darwin Scholar Neang Thy).</p>
<p>Activity 4.1: Prepare reference collection facilities, including designing and initiating a database system, procure necessary storage and preservation equipment and materials, train curators and collect and identify specimens collected during fieldwork by the students and Darwin Scholars. [Original]</p>		<p>A Herbarium, Animal Specimen and Quarantine rooms have been constructed at the Royal University of Phnom Penh. The rooms are fitted with air conditioners and cabinets, and have been sealed from the elements to ensure proper storage of wet and dry specimens.</p> <p>Shelving, jars, and other hardware have been purchased for these reference collection rooms, with guidance from Dr Simon Loader from The Natural History Museum in London. Darwin Scholar Ith Saveng has been appointed as the head curator for the museum. Dr Loader led the curator training programme for the new staff, and established clear protocols for quarantining, cataloguing and storing incoming specimens. A database has been established, under Saveng's charge. Mr Saveng will attend a bat workshop at Prince of Songkhla University in April to learn preservation and mounting techniques for bats.</p> <p>The collections currently have over 100 animal specimens and several hundred plant specimens. The number of specimens is expected to rise significantly in Year 3.</p>

<p>Activity 4.2: Initiate a small library of books, papers and reports relevant to the study and conservation of Cambodian biodiversity (linked to the database system) and train librarians [Original]</p>	<p>A reference library has been established at RUPP on the themes of biodiversity conservation, biological research and sustainable development. More than 200 titles were purchased during Year 2, and a library database established and populated. Internet and computer facilities are now available for the students to access journal databases.</p> <p>As noted in the previous report, it has not been necessary to train librarians because the Royal University of Phnom Penh now has trained librarians.</p>	
<p>Output 5: The first issue of the Cambodian Journal of Natural History published and distributed (final year of project) [Original]</p>	<p>Editors and review panel established, journal available to NGO, GO and academic institutions. [Original]</p>	<p>The editorial board will be finalised and the Cambodian Journal of Natural History published in Year 3.</p>

Annex 2 Project's full current logframe

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p>Goal:</p> <p>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</p> <ul style="list-style-type: none"> • the conservation of biological diversity, • the sustainable use of its components, and • the fair and equitable sharing of benefits arising out of the utilisation of genetic resources 			
<p>Purposes</p> <p>To build capacity in conservation and applied research at Cambodia's premier universities, chiefly by establishing new teaching modules and diploma in conservation biology, supported with practical field experience</p>	<p>Number of active research projects and conservation biology courses at the Royal Universities, number of new students</p>	<p>Research publications, course modules, Diploma in Conservation</p>	<p>Facilities, trainers and students available</p>
<p>Outputs</p> <p>1) 60 students trained for 15 weeks on new module, of which 20 will be selected as junior research officers ('Darwin Scholars').</p> <p>2) The Royal Universities obtain essential field equipment, research facilities and hardware to conduct conservation</p>	<p>Courses and exams conducted every second semester, the number of active junior research officers increased at the Royal Universities.</p> <p>Conservation research projects at the Royal Universities have adequate equipment and other resources</p>	<p>Course modules available, Darwin Scholars in place and active, researchers working on conservation projects.</p> <p>Equipment purchased and in use, facilities available</p>	<p>Trainers available, sufficient number of students qualifying to become Darwin Scholars</p> <p>Sufficient funding</p>

<p>research projects.</p> <p>3) The development of new inter-institutional partnerships to implement conservation-oriented research and education projects in Cambodia.</p> <p>4) Cambodia's first zoological reference collection and basic library facilities initiated, with 3 curators and 3 librarians trained for 12 weeks, database system & field guides developed.</p> <p>5) The first issue of the Cambodian Journal of Natural History published and distributed (final year of project)</p>	<p>University staff and students work alongside staff from local NGOs and government agencies in at least 20 conservation-oriented research and education projects, including 3-5 joint workshops.</p> <p>Active collection and library set up, field guides for herps and small mammals published in Khmer language, specimens remain in Cambodia for general use.</p> <p>Editors and review panel established, journal available to NGO, GO and academic institutions.</p>	<p>FFI staff as supervisors, research officers attached to MAFF/MOE/NGO research and conservation projects, abstracts, proceedings and reports printed</p> <p>Reference collection and library setup up and used by students and researchers, specimens are identified in country not sent overseas</p> <p>Printed copies of Cambodian Journal of Natural History available</p>	<p>Cooperation from NGOs and ministries</p> <p>Available staff for training, appropriate facilities available</p> <p>Sufficient contribution of papers, review panel members active</p>
<p>Activities</p> <p>1) Develop certificate level module curriculum and exams, and conduct lectures in applied research, conservation biology and natural research management</p> <p>2) Develop applied research projects that are integrated with existing FFI and government conservation projects, other international NGOs, and international development projects (thereby sharing costs and expertise).</p> <p>3) Prepare reference collection facilities, including designing and initiating a database system, procure necessary storage and preservation equipment and materials, train curators and collect and identify specimens collected during fieldwork by the students</p>	<p>Activity Milestones</p> <p><u>Year 1</u></p> <p>Q1&2: Develop teaching module; Conduct lectures (largely led by British trainers); Initiate specimen collection and library facilities; Train curators and librarians</p> <p>Q3&4: Exams. and identification of junior research officers ('Darwin Scholars'); Develop research programme with GO and Intl. NGOs; Begin research projects and specimen collection</p> <p><u>Year 2</u></p> <p>Q1&2: Conduct 2nd round of lectures (input from Darwin Scholars); Continue research projects and supervision of research officers</p> <p>Q3&4: Exams; Continue research projects; Facilitate</p>		

and Darwin Scholars.

4) Initiate a small library of books, papers and reports relevant to the study and conservation of Cambodian biodiversity (linked to the database system) and train librarians

5) Found the Cambodian Journal of Natural History including creating an editorial committee, design lay-out and volume format, set up reviewer network and publish first round of papers

6) Promote Cambodia and the Royal Universities for national researchers and students, and encourage other British institutions to develop student exchange programme.

international university collaboration; Initiate Cambodian Journal of Natural History (CJNH)

Year 3

Q1&2: Conduct 3rd round of lectures (chiefly by Darwin Scholars); Continue research projects; Promote student exchange programmes; Publish 1st issue of CJNH

Q3&4: Exams; Continue research activities; (Initiate development of a new Masters curriculum for students trained in previous years).

Annex 3 supplementary material

A) Student Information

With reference to the Reviewer's comment no. 2, the following tables show some of the biographical information of the first two intakes of students on the Bridging Course. Students marked with an asterisk (*) successfully qualified to enter the Masters in Biodiversity Conservation programme.

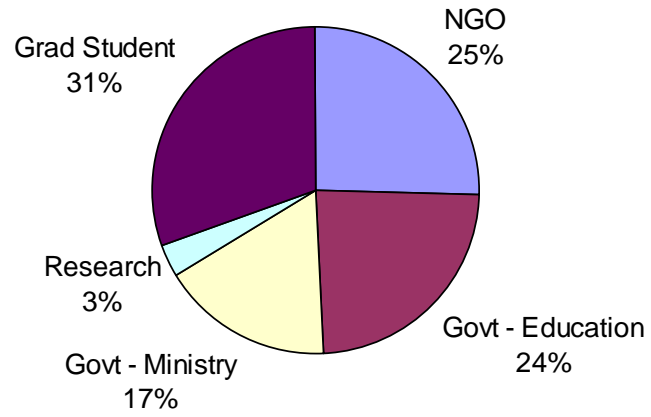
Class of 2006

	Surname	First Name	Age	Sex	Occupation	Employer	Category
1	Chan	Ratha	22	f	Grad Student	NA	NA
2	Chea	Raksmay	22	m	Grad Student	NA	NA
3	Chey	Koulang *	23	m	Research Technician	Self-employed	Research
4	Dav	Sokunthea *	22	f	Volunteer	Cambodia Development Resource Institute	NGO
5	Dek	Vimean Reaksmey	25	m	Community Facilitator	University Research Company	NGO
6	Em	Sauth	38	f	Head of Department of Biology	National Institute of Education	Govt - Education
7	Hem	Chanrithy	36	m	Dep. Director of Training Centre	Forestry Administration	Govt - Ministry
8	Heng	Chinda *	21	f	Research Assistant	JIVC – Cambodia	NGO
9	Heng	Sokrith *	25	m	Research Assistant	Conservation International – Cambodia	NGO
10	Heng	Namyi	25	m	Research Tech Assistant	Conservation International – Cambodia	NGO
11	Hong	Sokmean *	23	m	Grad Student	NA	NA
12	Huot	Kong Heang	34	m	Lecturer	Royal University of Agriculture	Govt - Education
13	Keat	Kunthea	26	m	Farmer Community Facilitator	CEDAC (Cambodian Centre for Study and Development in Agriculture)	NGO
14	Keo	Piseth *	22	m	Technical Officer/ Project Assistant	Ministry of Environment	Govt - Ministry
15	Khiev	Piseth *	28	m	Lecturer	Royal University of Phnom Penh	Govt - Education
16	Khiev	Dalin	20	f	Grad Student	NA	NA
17	Leang	Horn *	22	m	Assistant Dean	Royal University of Agriculture	Govt - Education
18	Leng	Chivin	32	m	Coordinator, Monitoring of Illegal Killing of Elephants (MIKE)	Forestry Administration	Govt - Ministry
19	Lim	Kannitha *	26	f	Lecturer	National Institute of Education	Govt - Education

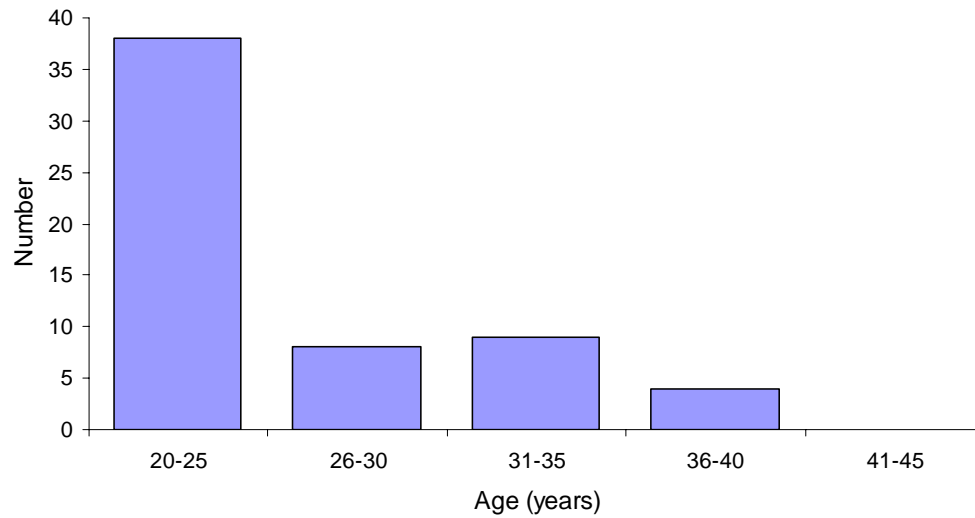
	Surname	First Name	Age	Sex	Occupation	Employer	Category
20	Neth	Baroda *	24	f	Lecturer	Royal University of Phnom Penh	Govt - Education
21	Nop	Navy *	25	f	Technical Officer	Ministry of Environment	Govt - Ministry
22	Oum	Sony *	25	m	Communities Project Manager	Fauna & Flora International – Cambodia	NGO
23	Ou	Ratanak	31	m	Trainer/ Research Coordinator	Ministry of Environment	Govt - Ministry
24	Ouk	Thira	23	m	Community Forestry Policy Officer	Concern Worldwide – Cambodia	NGO
25	Phan	Channa *	24	m	Student	NA	Grad Student
26	Pheng	Sophak *	23	m	Student	NA	Grad Student
27	Pich	Sereywath *	32	m	Project Coordinator	Department of Fisheries	Govt - Ministry
28	Prum	Sovanna	39	m	Deputy Head of Division	Forestry Administration	Govt - Ministry
29	Sar	Sophyra *	20	f	Student	NA	Grad Student
30	Sar	Sophyrak *	20	f	Student	NA	Grad Student
31	Saveng	Ith *	22	m	Student	NA	Grad Student
32	Sim	Puthea *	21	f	Student	NA	Grad Student
33	Soeu	Tevy	25	m	Project Officer	Save Cambodia's Wildlife	NGO
34	Soeung	Bunna *	23	m	High School Teacher	Ministry of Education, Youth and Sports	Govt - Education
35	Som	Visal	20	f	Student	NA	Grad Student
36	Soy	Sopheak	21	f	Student	NA	Grad Student
37	Srei	Narin *	27	f	Lecturer	Royal University of Phnom Penh	Govt - Education
38	Sun	Yoeung *	27	m	Research Technician	Self Funded	Research
39	Thao	Sokunthia	39	m	Lecturer	Royal University of Phnom Penh	Govt - Education
40	Thay	Ieng Ly *	34	m	Lecturer	Royal University of Phnom Penh	Govt - Education
41	Thou	Phorn	31	m	Lecturer	Royal University of Phnom Penh	Govt - Education
42	Va	Vuthy *	21	m	Student	NA	Grad Student
43	Vann	Sophy *	23	m	Student	NA	Grad Student
44	Vorn	Vichheka *	21	f	Team Leader Researcher	Centre for Khmer Studies	NGO

Class of 2006 – Summary Statistics

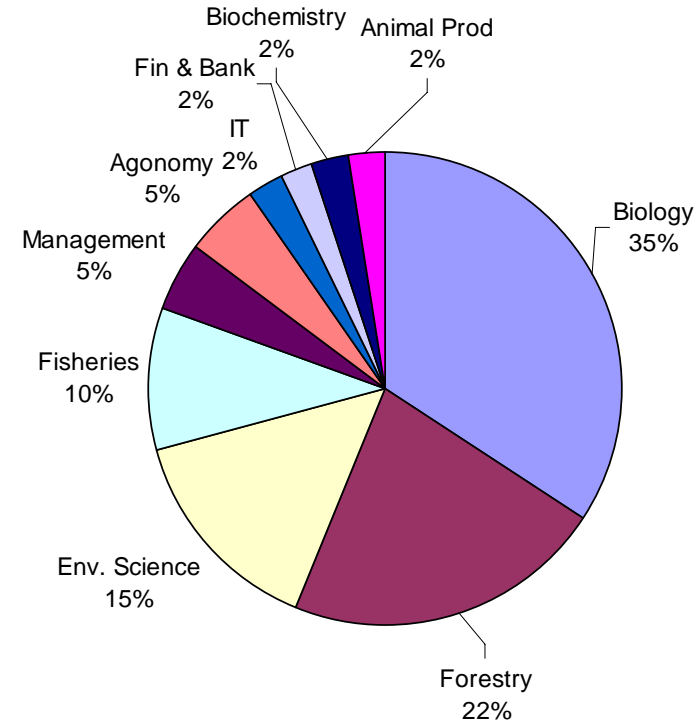
Student origins



Student ages



Majors



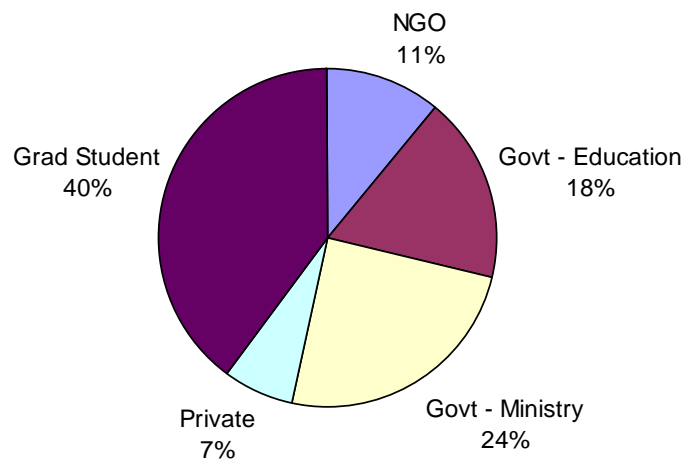
Class of 2007

	Surname	First Name	Age	Sex	Occupation	Employer	Category
1	Bin	Sopheakda *	23	m	Student	NA	Grad Student
2	Chav	Thou	32	m	Species, Habitats and Ecosystems officer	Department of Environment, Pursat	NGO
3	Chhan	Kaknika *	21	m	Student	NA	Grad Student
4	Eang	Vibol	22	m	Student	NA	Grad Student
5	Hem	Chanrithy *	38	m	Deputy Chief	Forestry Administration	Govt - Ed
6	Hout	Naborey *	21	f	Student	NA	Grad Student
7	In	Saran	24	m	Student	NA	Grad Student
8	Kea	Ratha *	26	f	Teacher and Officer of Education	Kampong Cham National School of Agriculture	Govt - Ed
9	Keo	Bunly	23	m	Student	NA	Grad Student
10	Khom	Sokkhea *	27	f	High School Teacher	Tonle Bati High School	Govt - Ministry
11	Kim	Chamnan	23	m	Turtle Educator	Conservation International – Cambodia	NGO
12	Kong	Pheakdey *	25	m	Teacher- Biology and earth Sc	Peam Reang High School	Govt - Ed
13	Kry	Kirirath	41	m	Office Supervisor	Ministry of Environment	Govt - Ministry
14	Leng	Monipha	23	f	Project Assistant	Ministry of Environment	Govt - Ministry
15	Lim	Sotheary *	23	f	High School Teacher	Prek Anchanh	Govt - Ed
16	Mao	Hat *	30	m	GIS Expert & Trainer	Ministry of Rural Development	Govt - Ministry
17	My	Savuth	23	m	Student	NA	Grad Student
18	Nop	Sokhai	26	m	Research and Training Assistant	Community-Based Natural Resource Management Learning Institute	NGO
19	Ny	Soputhy *	26	m	Lecturer- Earth Science and Environmental Science	National Institute of Education	Govt - Ed
20	Orn	Porsoeun *	27	m	Environmental Educator	Virachey National Park (Ministry of Environment)	Govt - Ministry
21	Pen	Ratana	23	m	Research assistant	Community-Based Natural Resource Management Learning Institute	NGO
22	Peou	You Leang *	32	f	Lecturer	Royal University of Phnom Penh	Govt - Ed
23	Phat	Khemara	24	m	Park Director Assistant	Virachey National Park (Ministry of Environment)	Govt - Ministry
24	Phorn	Phira	23	m	Student	NA	Grad Student
25	Pong	Lim San *	25	f	Office Supervisor	Agrifood Consulting International	Private
26	Sea	Chanvibol	26	m	National Assistant to Warden -	Virachey National Park (Ministry of	Govt - Ministry

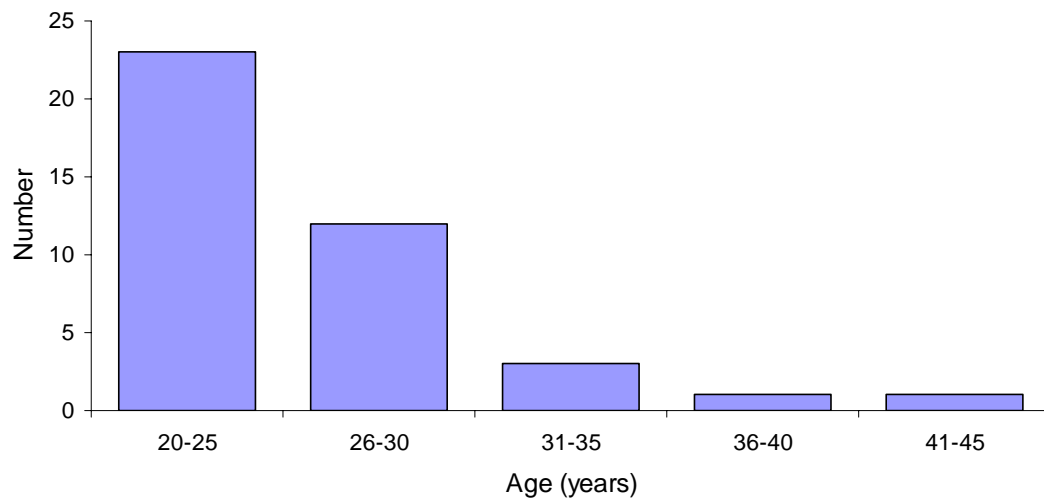
	Surname	First Name	Age	Sex	Occupation	Employer	Category
27	Sean	Poly	28	m	Community Development Leaf Extension and Research Manager	Environment) British American Tobacco – Cambodia	Private
28	Sem	Sopheak	23	m	Director of Environmental Data Collection Office	Ministry of Environment	Govt - Ministry
29	Ses	Vannara *	23	m	Student	NA	Grad Student
30	Soeng	Kunthea	25	f	Student	NA	Grad Student
31	Sour	Chheang You *	26	m	Student	NA	Grad Student
32	Srean	Soknouern	27	m	Teacher	Dy Pok High School	Govt - Ed
33	Srey	Socheat *	23	m	Intern	Community Forestry Institute and WWF- Cambodia	NGO
34	Srey	Chansorphea *	22	f	Student	NA	Grad Student
35	Sriv	Kimsreng	26	m	Teacher, Earth Science	Hun Sen Skun High School	Govt - Ed
36	Tep	Sovann	24	m	Student	NA	Grad Student
37	Tim	Sokhoeurn	23	m	Community Development Facilitator	Virachey National Park (Ministry of Environment)	Govt - Ministry
38	Tob	Chann Aun *	23	m	Volunteer - Research Assistant	Inland Fisheries Research and Development Institute	Govt - Ministry
39	Ung	Sokhakun *	24	m	Database Manager	Ministry of Environment	Govt - Ministry
40	Vorn	Leakhena	24	f	Project Administrator	Ministry of Environment	Govt - Ministry

Class of 2007 – Summary Statistics

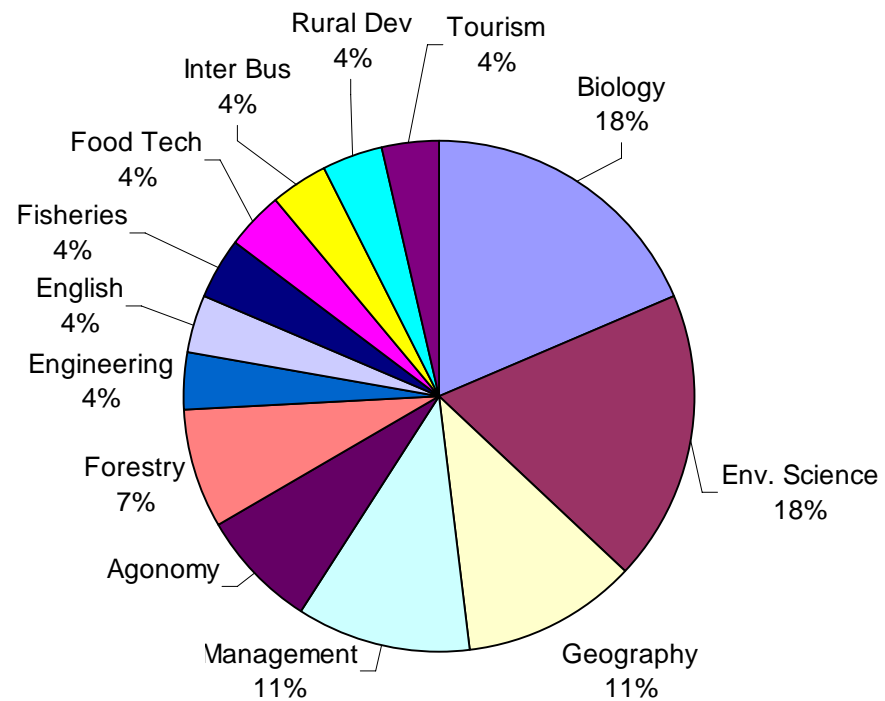
Student origins



Student ages



Majors



Grades for Masters in Biodiversity Conservation (Semester 1 and Semester 2)

Class of 2006: Semester 1:

Student Number	Research Analysis										Overall	
	Oral Exam (20%)		Assignment 1 (40%)		Assignment 2 (40%)		Written Exam 1 (40%)		Written Exam 2			
	Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade
2006001	55.10	C	33.20	F	40.71	F	22.0	F	48	F	43.50	F
2006002	66.50	C+	26.24	F	50.21	C	38.0	F	69	C+	60.98	C
2006003	53.20	C	57.90	C			29.5	F	70	B	61.80	C
2006004	74.10	B	51.57	C			44.0	F	75	B	65.45	C+
2006005	60.80	C	50.89	C			52.5	C			53.52	C
2006007	51.30	C	19.00	F	50	C	27.0	F	58	C	53.46	C
2006008	70.30	B	66.05	C+			35.5	F	86	A	74.88	B
2006009	28.50	F	13.57	F	59.71	C	46.0	F	84	B+	63.18	C
2006010	74.10	B	66.95	C+			55.0	C			63.60	C
2006011	72.20	B	0.00	F	50	C	72.0	B			63.24	C
2006012	51.30	C	40.26	F	41.39	F	52.0	C			47.62	F
2006013	74.10	B	50.67	C			70.0	B			63.09	C
2006014	51.30	C	47.50	F	36.64	F	36.0	F	41	F	41.32	F
2006015	32.30	F	20.81	F	50	C	16.0	F	82	B+	59.26	C
2006016	34.20	F	52.93	C			28.0	F	58	C	51.21	C
2006017	51.30	C	44.79	F	0	F	35.5	F	41	F	44.58	F
2006018	51.30	C	53.83	C			36.0	F	80	B+	63.79	C
2006019	51.30	C	28.95	F	59.04	C	35.0	F	72	B	62.68	C
2006020	38.00	F	31.21	F	50.21	C	35.5	F	53	C	48.88	F
2006021	70.30	B	59.26	C			51.5	C			58.36	C
2006022	51.30	C	36.64	F	61.75	C	72.5	B			63.96	C
2006023	41.80	F	27.14	F	46.14	F	14.5	F	47	F	45.62	F

Student Number	Integrated Natural Resource Management										Overall	
	Class Work (10%)	Oral (10%)	Assignment 1 (40%)		Assignment 2 (40%)		Written Exam (40%)		Written Exam 2 (40%)			
			Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade

2006001	7.0	7.0	45	F	53	C	66.0	C+			61.60	C
2006002	8.0	8.0	50	C			67.5	C+			63.00	C
2006003	7.0	7.0	40	F	58	C	65.5	C+			63.40	C
2006004	7.0	6.5	45	F	52	C	65.0	C+			60.30	C
2006005	7.5	7.5	50	C			70.5	B			63.20	C
2006007	7.0	7.0	50	C			64.0	C			59.60	C
2006008	8.0	7.5	45	F	53	C	63.5	C			62.10	C
2006009	7.0	7.0	40	F	57	C	61.0	C			61.20	C
2006010	7.0	7.5	55	C			65.0	C+			62.50	C
2006011	7.0	7.5	12	F	50	C	69.0	C+			62.10	C
2006012	7.0	7.5	40	F	56	C	60.5	C			61.10	C
2006013	7.0	7.0	45	F	58	C	62.5	C			62.20	C
2006014	8.0	8.0	52	C			66.0	C+			63.20	C
2006015	7.0	8.0	40	F	50	C	62.5	C			60.00	C
2006016	7.0	7.0	45	F	50	C	44.0	F	61	C	58.40	C
2006017	7.0	7.0	45	F	0	F	63.0	C			39.20	F
2006018	8.0	8.5	60	C			70.5	B			68.70	C+
2006019	7.0	6.0	45	F	50	C	55.0	C			55.00	C
2006020	7.0	7.0	45	F	60	C	61.0	C			62.40	C
2006021	7.5	8.0	55	C			69.0	C+			65.10	C+
2006022	7.0	6.5	55	C			65.5	C+			61.70	C
2006023	7.0	7.0	40	F	52	C	56.5	C			57.40	C

Student Number	Environmental Impact Assessment & Environmental Law												
	Environmental Impact Assessment (50%)						Environmental Law (50%)						
	Assignment (50%)		Written Exam (50%)		Overall		Assignment (70%)		Written Exam (30%)		Overall		
Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade
2006001	70.0	B	67	C+	68.5	C+	86	A	55.0	C	76.5	B	72.50
2006002	83.0	B+	69	C+	76.0	B	86	A	70.0	B	81.0	B+	78.50
2006003	83.0	B+	65	C+	74.0	B	93	A	83.3	B+	90.0	A	82.00
2006004	70.0	B	76	B	73.0	B	86	A	78.3	B	83.5	B+	78.25
2006005	84.0	B+	70	B	77.0	B	86	A	80.0	B+	84.0	B+	80.50
2006007	56.0	C	64	C	60.0	C	71	B	73.3	B	72.0	B	66.00
2006008	56.0	C	60	C	58.0	C	93	A	68.3	C+	85.5	A	71.75

2006009	62.0	C	57	C	59.5	C	79	B	55.0	C	71.5	B	65.50
2006010	90.0	A	67	C+	78.5	B	79	B	61.7	C	73.5	B	76.00
2006011	84.0	B+	74	B	79.0	B	86	A	70.0	B	81.0	B+	80.00
2006012	56.0	C	47	F	51.5	C	86	A	80.0	B+	84.0	B+	67.75
2006013	70.0	B	82	B+	76.0	B	93	A	80.0	B+	89.0	A	82.50
2006014	84.0	B+	71	B	77.5	B	93	A	70.0	B	86.0	A	81.75
2006015	90.0	A	57	C	73.5	B	86	A	90.0	A	87.0	A	80.25
2006016	90.0	A	63	C	76.5	B	64	C	56.7	C	62.0	C	69.25
2006017	84.0	B+	64	C	74.0	B	71	B	38.3	F	61.5	C	67.75
2006018	83.0	B+	58	C	70.5	B	93	A	83.3	B+	90.0	A	80.25
2006019	83.0	B+	55	C	69.0	C+	50	C	51.7	C	50.5	C	59.75
2006020	56.0	C	86	A	71.0	B	79	B	55.0	C	71.5	B	71.25
2006021	62.0	C	79	B	70.5	B	93	A	88.3	A	91.5	A	81.00
2006022	70.0	B	80	B+	75.0	B	86	A	86.7	A	86.0	A	80.50
2006023	62.0	C	42	F	52.0	C	64	C	30.0	F	54.0	C	53.00

Student Number	GIS & Data Presentation		
2006001	S	2006013	S
2006002	S	2006014	S
2006003	S	2006015	S
2006004	S	2006016	S
2006005	S	2006017	S
2006007	S	2006018	S
2006008	S	2006019	S
2006009	S	2006020	S
2006010	S	2006021	S
2006011	S	2006022	S
2006012	S	2006023	S

S = satisfactory (pass); NS = not satisfactory (fail)

Class of 2006: Semester 2:

Student Number	Behavioural Ecology										Overall	
	Oral Exam (20%)		Assignment 1 (40%)		Assignment 2 (40%)		Written Exam 1 (40%)		Written Exam 2			
	Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade	Score	Grade
062-M11-0005	57.00	C	52.93	C			77.0	B			63.37	C
062-M11-0012	70.30	B	0	F	39.95	F	50.0	C			50.04	C
062-M11-0006	66.50	C+	0	F	50.21	C	84.0	B+			66.98	C+
062-M11-0016	34.20	F	0	F	69	C+	57.0	C			57.24	C
062-M11-0007	70.40	B	0	F	50	C	62.0	C			58.88	C
062-M11-0002	41.80	F	50.21	C			71.0	B			56.84	C
062-M11-0011	70.90	B	67.40	C+			78.0	B			72.34	B
062-M11-0003	55.10	C	0	F	65.11	C+	67.0	C+			63.86	C
062-M11-0015	70.30	B	70.21	B			63.0	C			67.34	C+
062-M11-0014	41.80	F	44.79	F	0	F	62.0	C			33.16	F
062-M11-0013	51.30	C	0	F	46.6	F	17.0	F	50	C	48.90	F
062-M11-0015	64.60	C	50.21	C			68.0	C+			60.20	C
062-M11-0004	36.10	F	0	F	40.71	F	28.0	F	75	B	53.50	C
062-M11-0009	62.70	C	55.64	C			81.0	B+			67.20	C+
062-M11-0008	51.30	C	35.29	F	79	B	74.0	B			71.46	B

Student Number	Species Conservation							
	Assignment 1 (50%)		Assignment 2		Written Exam (50%)		Overall	
	Score	Grade	Score	Grade	Score	Grade	Score	Grade
062-M11-0005	66	C+			67.0	C+	66.50	C+
062-M11-0012	66	C+			55.0	C	60.50	C
062-M11-0006	67	C+			71.0	B	69.00	C+
062-M11-0016	63	C			76.0	B	69.50	C+
062-M11-0007	63	C			64.0	C	63.50	C
062-M11-0002	68	C+			71.0	B	69.50	C+
062-M11-0011	66	C+			62.0	C	64.00	C

062-M11-0003	67	C+			59.0	C	63.00	C
062-M11-0015	67	C+			56.0	C	61.50	C
062-M11-0014	0	F	63	C	61.0	C	62.00	C
062-M11-0013	63	C			59.0	C	61.00	C
062-M11-0015	70	B			76.0	B	73.00	B
062-M11-0004	0	F	72	B	50.0	C	61.00	C
062-M11-0009	63	C			73.0	B	68.00	C+
062-M11-0008	70	B			81.0	B+	75.50	B

Student Number	Ecological Survey Techniques					
	Field Work (50%)		Written Exam (50%)		Overall	
	Score	Grade	Score	Grade	Score	Grade
062-M11-0005	73	B	91.67	A	82.34	B+
062-M11-0012	80	B+	20.83	F	50.42	C
062-M11-0006	74	B	75.00	B	74.50	B
062-M11-0016	76	B	66.67	C+	71.34	B
062-M11-0007	81	B+	83.33	B+	82.17	B+
062-M11-0002	77	B	70.83	B	73.92	B
062-M11-0011	76	B	70.83	B	73.42	B
062-M11-0003	79	B	62.50	C	70.75	B
062-M11-0015	76	B	50.00	C	63.00	C
062-M11-0014	63	C	45.83	F	54.42	C
062-M11-0013	0	RW	41.67	F	20.84	RW
062-M11-0015	75	B	75.00	B	75.00	B
062-M11-0004	71	B	79.17	B	75.09	B
062-M11-0009	80	B+	62.50	C	71.25	B
062-M11-0008	78	B	87.50	A	82.75	B+

Student Number	Research Methods and Applied Statistics
062-M11-0005	S
062-M11-0012	S
062-M11-0006	S
062-M11-0016	S
062-M11-0007	S
062-M11-0002	S
062-M11-0011	S
062-M11-0003	S
062-M11-0015	S
062-M11-0014	S
062-M11-0013	S
062-M11-0015	S
062-M11-0004	S
062-M11-0009	S
062-M11-0008	S

Note: RW = Result Withheld due to incomplete field assessment components

S = satisfactory (pass); NS = not satisfactory (fail)

B) Images from the Project

Project Main Office at RUPP
(Callum McCulloch and Rath Sethik)



Student field trip to Phnom Samkos Wildlife Sanctuary
(Dr Jenny Daltry, Ecological Survey Techniques)



Steering Committee Meeting
(RUPP and FFI staff)



First Year Class
(Dr Brad Pettit, Natural Resource Management)



Logo for the “Centre for Biodiversity Conservation”

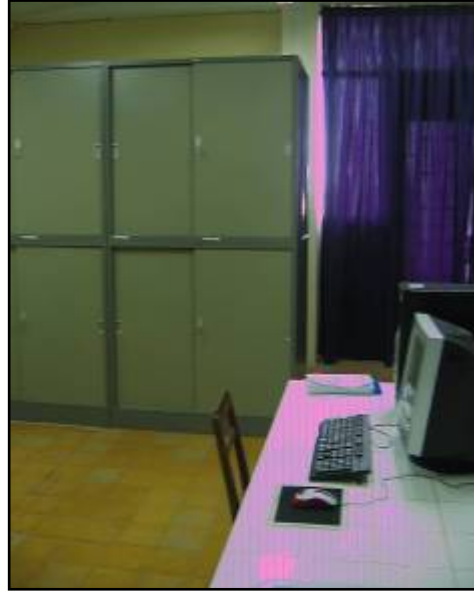


Reference collection facilities:

Room prior to conversion



Zoological Room



Temporary storage



Catalogued wet specimens



Herbarium boxes containing dry plant specimens



"Fixing" specimens in the field



Checklist for submission

	Check
Is the report less than 5MB? If so, please email to Darwin-Projects@ectf-ed.org.uk putting the project number in the Subject line.	X
Is your report more than 5MB? If so, please advise Darwin-Projects@ectf-ed.org.uk that the report will be send by post on CD, putting the project number in the Subject line.	-
Do you have hard copies of material you want to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	X
Have you completed the Project Expenditure table?	X
Do not include claim forms or communications for Defra with this report.	-