



Submit by 13 January 2006

DARWIN INITIATIVE APPLICATION FOR GRANT ROUND 14 COMPETITION: STAGE 2

Please read the Guidance Notes before completing this form. Applications will be considered on the basis of information submitted on this form and you should give a full answer to each question. Please do not cross-refer to information in separate documents except where invited on this form. The space provided indicates the level of detail required. Please do not reduce the font size below 11pt or alter the paragraph spacing. Keep within word limits.

1. Name and address of organisation

Name: Global Canopy	Address:
Programme	John Krebs Field Station, Wytham, Oxford OX2 8QJ

2. Project title (not exceeding 10 words)

Bornean Wild Cat and Clouded Leopard Project

3. Project dates, duration and total Darwin Initiative Grant requested

Proposed start date: June 2006		Duration of project: 3 years		End date: June 2009	
Darwin funding		2006/07 c 78 574	2007/08	2008/09	2009/2010
requested	£ 229,744	£ 78,571	£ 65,923	£ 64,771	£ 20,479

4. Define the purpose of the project in line with the logical framework

This project aims to protect Borneo's endangered and little known wild cats, including the clouded leopard, through the creation of a multi-disciplinary project, merging environmental education, training and pioneering research. The project will increase awareness of clouded leopards and other wild cats in Sabah, Malaysia, build human capacity for mammal field research in Malaysia, and gather novel data that will enable effective conservation measures to be taken to protect these species. Specific aims will be to (1) Study the behaviour and ecology of the five species of Bornean wild cat, with a focus on the clouded leopard, (2) Investigate the effects of habitat alteration on Bornean wild cats, (3) Train host country scientists/students in a range of ecological/behavioural field techniques, (4) Increase awareness of the Bornean wild cats and their conservation needs, using the clouded leopard as a flagship species, and (5) Investigate threats to the Bornean wild cats from hunting and trade in Sabah.

5. Principals in project. Please provide a one page CV for each of these named individuals

Details	Project Leader	Other UK personnel (working more than 50% of their time on project)		
Surname	Secoy	Hearn; Ross	Mohamed; Bernard	
Forename (s)	Katherine	Andrew; Joanna	Maryati; Henry	
Post held	Research & Conservation Programme Manager	Research Associates	Professor; Director of ITBC Deputy Director, ITBC	
Institution	Global Canopy Programme	Global Canopy Programme	Universiti Malaysia Sabah	
Department	N/A	N/A	Institute of Tropical Biology and Conservation (ITBC)	

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

We received Pre-project funding for the current project in August 2005 (Ref: EIDPR45). In 2004 we received Darwin Initiative funding for a canopy training course in Sabah (Ref: 13-023).

7. IF YOU ANSWERED NO TO QUESTION 6 describe briefly the aims, activities and achievements of your organisation. (Large institutions please note that this should describe your unit or department) Aims (50 words)

Activities (50 words)

Achievements (50 words)

8. Please list the UK (where there are partners in addition to the applicant organisation) and host country partners that will be involved in their project and explain their roles and responsibilities in the project. Describe the extent of their involvement at all stages, including project development. What steps have been taken to ensure the benefits of the project will continue despite any staff changes in these organisations? Please provide written evidence of partnerships.

Throughout the duration of the project the principal investigators will be members of the UK Royal Society South east Asian Rainforest Research Project (SEARRP). SEARRP will provide logistical support and advice, and will act on behalf of the principal investigators during official application procedures. Discussions with SEARRP regarding project value and logistics occurred early on in the development of this project and have continued to date. The Institute of Tropical Biology and Conservation (ITBC), University of Malaysia Sabah (UMS) will act as the host country collaborator and local project co-ordinator. ITBC will identify individuals for participation in our training courses and for employment as research assistants. The ITBC has been fully involved with all aspects of project planning and development. Yayasan Sabah (YS) will provide in country support, arrange accommodation and logistics at Danum Valley and will host our training and educational activities at their education centre within the Danum Valley Field Centre (DVFC). YS facilitated our preproject visit to the Danum Valley Field Centre, provided technical information regarding Danum Valley Conservation Area (DVCA), identified a suitable member of DVCA staff to collaborate with on the education programme and offered its excellent field research facilities at the DVFC. Professor David Macdonald, Director of the Wildlife Conservation Research Unit at the University of Oxford, UK will provide scientific guidance. ITBC and SEARRP have a commitment to furthering mammal studies in Sabah. During the development of this project we have ensured that the aims fall in-line with the remit of our partner organisations, rather than with the personal interests of individual staff members, thus ensuring that the collaborations are not affected should any staff changes occur.

9. What other consultation or co-operation will take place or has taken place already with other stakeholders such as local communities? Please include details of any contact with the government not already provided.

During the DI funded pre-project visit to Sabah, Sabah Wildlife Department (SWD) provided technical information regarding protected areas in Sabah and facilitated our visit to Tabin Wildlife Reserve (TWR). During the implementation of the project SWD will provide cartographic information and data pertaining to wildlife hunting in Sabah, provide accommodation for project staff at TWR and will identify suitable field assistants for employment at TWR. The Sabah Wildlife Department will be the key recipient of our hunting survey report and our recommendation report for a wild cat Action Plan for Sabah. Two major tourist facilities in the region, the Borneo Rainforest Lodge and the Tabin Wildlife Resort, have agreed to display our wild cat specific environmental education materials, aimed at Malaysian and overseas tourists, and host our environmental education activities. We have agreed to collaborate with a Malaysian ecologist, Wong Siew Te, on the mammal field research training course (see Q18) and on the hunting questionnaire surveys throughout the communities surrounding the Tabin Wildlife Reserve. During these surveys we will endeavour to employ local people to act as guides. During the final month of the project all relevant stakeholders, including WWF Malaysia, SWD, Malaysian Nature Society, and the project partners will be invited to attend a project dissemination workshop in Kota Kinabalu. Andrew Mitchell, Director of the Global Canopy Programme, discussed our proposed project activities with representatives of the British High Commission in Malaysia during a visit in December 2005.

PROJECT DETAILS

10. Is this a new initiative or a development of existing work (funded through any source)? Are you aware of any other individuals/organisations carrying out similar work, or of any completed or existing Darwin Initiative projects relevant to your work? If so, please give details explaining similarities and differences and showing how results of your work will be additional to any similar work and what attempts have/will be made to co-operate with and learn lessons from such work for mutual benefits.

This project is a new initiative. However, it will complement and build on an existing GCP, Darwin Initiative funded, project at Danum Valley, which is training ASEAN region scientists in canopy research. Trainees will have an opportunity to utilise their newly acquired skills by assisting with our canopy research activities, including a pilot study of the use of the forest canopy by these cats. They will be offered the opportunity to train on our mammal field course (see Q18). The conservation biology of any of the four threatened felids on Borneo remains unstudied. A Malaysian PhD candidate, Wong Siew Te, is using similar research techniques to those that will be used during our project to study the bearded pig and sun bear at Danum. We have agreed to pool resources when appropriate, thereby increasing fieldwork efficacy. Mammal sightings/photographs obtained during the project will be of interest to many IUCN/SSC specialist groups and interested parties, to whom they will be made available; in particular, any elephant sightings/photos will be made available to the recently DI funded Sabah Elephant project (Ref: 14-014).

11. How will the project assist the host country in its implementation of the Convention on Biological Diversity? Please make reference to the relevant article(s) of the CBD thematic programmes and/or cross-cutting themes (see Annex C for list and worked example) and rank the relevance of the project to these by indicating percentages. Is any liaison proposed with the CBD national focal point in the host country? Further information about the CBD can be found on the Darwin website or CBD website.

By increasing the knowledge available on Bornean wild cats, increasing the capacity of Malaysian researchers and educating the Malaysian public the project shall support the Government's implementation of CBD Articles 7 (10%), 8(20%), 12 (10%), 13 (10%), 14 (10%), 17 (5%) and 18 (5%), with particular emphasis on forest biodiversity (15%) and Public education and Awareness (15%) themes. Specifically, this project meets the following recommendations within the CBD's 2002 expanded programme of work on forest biological diversity: • To understand critical thresholds of forest biodiversity loss and change, paying particular attention to endemic and threatened species... (Prog. Element 4, Goal 3, Obj. 1b). • Determine status and conservation needs of endemic or threatened species and the impact of current forest management practises on these species (Prog. Element 1, Goal 3, Obj. 2a). • Develop and implement conservation strategies for endemic and threatened species for global or regional application, and practical systems of adaptive management at national level (Prog. Element 1, Goal 3, Obj. 2b). Through a UNEP funded project, we have already built a good working relationship with the Malaysian CBD focal point and our partners in Malaysia are actively involved in national CBD processes and have regular contact with the CBD focal point.

12. How does this project meet a clearly identifiable biodiversity need or priority defined by the host country? Please indicate how this work will fit in with National Biodiversity Strategies or Environmental Action Plans, if applicable.

The Institute of Tropical Biology and Conservation (ITBC) regard the lack of information pertaining to the Bornean wild cats as an impediment to designing effective conservation programmes for these species; the project will address this need by providing new data regarding Bornean wild cat ecology. The project will also contribute to Malaysia's 'National Policy on Biological Diversity', specifically it will *'Improve the scientific knowledge base'* (Strategy I, page 27) and *'Enhance sustainable utilisation of the components of biological diversity'* (Strategy II, page 28). ITBC also state that there is a lack of training in the techniques required for mammal field research in Sabah and that there is a low awareness of the biodiversity issues concerning the Bornean wild cats. These needs will be met by providing training in mammal field research techniques and by conducting a wild cat specific environmental education programme, and will thus *'Enhance skills, capabilities and competence'* (Strategy VII, page 32) and *'Enhance institutional and public awareness'* (Strategy XII, page 36) respectively.

13. If relevant, please explain how the work will contribute to sustainable livelihoods in the host country.

Ecotourism can make a significant contribution to sustainable livelihoods. At a local level, the project will enhance capacity to provide interpretive information for rainforest based ecotourism in Sabah, a rapidly growing industry that can generate direct revenue for local communities. At a National level, timber extraction is one of Malaysia's most important revenue sources. An understanding of the affects that this resource use has on the native biodiversity is needed for this practice to be sustainable. A significant component of the project will be to investigate the effects of this harvesting on the felid fauna, and to recommend actions to help reduce any potential deleterious effects on these important carnivores.

14. What will be the impact of the work, and how will this be achieved? Please include details of how the results of the project will be disseminated and put into effect to achieve this impact.

The Bornean wild cats are some of the world's least known carnivores; the bay cat and flat-headed cat have never been studied in the wild. Conservation of these little known felids will greatly benefit from an improved understanding of their ecology. Disseminated through a recommendation report and a stakeholder workshop, novel data regarding the ecological requirements, responses to habitat alteration and the extent of hunting and trade of these species in Sabah will enable informed conservation and management decisions to be made. The training courses will increase human capacity for mammal field research in Malaysia, resulting in new knowledge regarding these little known species. A training manual will be produced in English and Malaysian for use on future courses. Through the environmental education programme any negative opinion towards the Bornean wild cats will be addressed and awareness of these felids among local people, schools, university students and tourists will be significantly increased.

15. How will the work leave a lasting legacy in the host country or region?

Conservation in Malaysia suffers from an image problem; often the most promising students leave the field in search of greater financial incentives. The training courses will encourage future conservation biologists into this neglected field, and, by training trainers, will increase the long-term human capacity for mammal field research in Malaysia. ITBC have expressed an interest in permanently adopting this course onto their MSc syllabus, and we will actively promote this. A mechanism for the long term monitoring of cats and other mammals in Sabah will be established, and upon project completion, a 4WD vehicle, live traps, camera traps and radio-tracking equipment will be donated to the DVFC/ITBC to facilitate the continuation of this research. Long term contact between the GCP and ITBC will be maintained through Prof. Maryati Mohamed and her Deputy, Dr. Henry Bernard, a mammal specialist, who are committed to advancing mammal studies in Sabah. The project will guide future changes to forest management practices in Sabah, and these changes will continue to benefit Borneo's felids. The environmental education materials will continue to be used by our host country partners and will thus continue to raise awareness of biodiversity issues in Sabah.

16. Please give details of a clear exit strategy and state what steps have been taken to identify and address potential problems in achieving impact and legacy.

Upon project completion responsibility for on-going work will be handed over to the ITBC. One ITBC counterpart will have worked alongside the principal researchers for three years and benefited from a WildCRU scholarship (see Q18), and will thus have the capacity to lead future work in this area. If acceptable to the host country partners, and subject to funding, the principal investigators will remain in Sabah to work alongside local partners to ensure legacy is achieved. In May 2009 relevant stakeholders will be invited to attend a project dissemination workshop during which the project's recommendations for the conservation of Borneo's felids will be discussed.

17. How will the project be advertised as a Darwin project and in what ways will the Darwin name and logo be used?

The project will be featured and advertised as a Darwin project on the partners' (GCP, WildCRU, ITBC, SEARRP and Yayasan Sabah) and co-funder's (Wild About Cats) websites. In addition the project will have its own web site on which the Darwin name and logo will be advertised. National and local press coverage of the project's activities, both within Malaysia and the UK will be sought, and all funding sources will be clearly acknowledged. The Darwin name and logo will feature on all relevant GCP reports, training materials and environmental education materials.

18. Will the project include training and development? Please indicate who the trainees will be and criteria for selection and that the level and content of training will be. How many will be involved, and from which countries? How will you measure the effectiveness of the training and will those trained then be able to train others? Where appropriate give the length and dates (if known) of any training course. How will trainee outcomes be monitored after the end of the training?

During November of 2006/07/08 we will host a mammal field research training course for ASEAN region scientists at DVFC. Each year, twenty students/scientists will be trained during two 5 day field courses, covering a range of skills, including mammal live-trapping/handling, radio-tracking, camera-trapping, field sign identification and use of computer software. Through the previously DI funded canopy training course the GCP has established strong links with ASEAN region scientists, through whom positions on the mammal course will be offered, although priority will be given to Malaysian under/postgraduate students from the ITBC. Participants will be selected on the basis of research interests. In addition, two exceptional ITBC post graduates will be selected in year 1 to be trained as trainers for future mammal field research courses. One of these will go on to train as a project counterpart, will be employed as a field assistant for the duration of the project and will be offered a two month training scholarship in Oxford with WildCRU in year 3. Feedback from partner institutions will be used to gauge the effectiveness of the training.

LOGICAL FRAMEWORK

19. Please enter the details of your project onto the matrix using the note at Annex B of the Guidance Note. This should not have substantially changed from the Logical Framework submitted with your Stage 1 application. Please highlight any changes.

Stage 1 application. Plea Project summary	Measurable Indicators	Means of verification	Important Assumptions
Goal:			
	elevant to biodiversity fro		gdom to work with local
	n in biodiversity but poor ir	resources to achieve	
	of biological diversity,		
	se of its components, and		
	able sharing of benefits ari	sing out of the utilisation of	of genetic resources
Purpose	I		1
Threatened Bornean wild cat	New, constructive data	Partner institution reports.	Sufficient numbers of wild
species better protected	regarding Bornean wild cat	Final & annual project reports	cats can be filmed/
through an increased	ecology, response to habitat alteration, & threats from	and <u>feedback from</u> dissemination workshop.	photographed, trapped,
knowledge base, greater awareness, & through	hunting in Sabah.	dissemination workshop.	collared & successfully tracked
enhanced capacity for field	Students trained in mammal		 Recommendations read by
research in Sabah.	field techniques		relevant stakeholders &
	Bornean wild cat education		changes implemented where
	materials produced & utilised in		necessary.
	environmental education		,
	programmes.		
Outputs			
A report providing	 Report peer reviewed & 	Reviews & feedback on	Research project is
recommendations for a	publication date established.	recommendation report from	completed and data analysed.
Bornean Wild Cat Action Plan	Report distributed to target institutions/bodies within 6	peers and from workshop	<u>Stakeholders attend project</u>
for Sabah and a <u>project</u> dissemination workshop	months of project completion.	attendees. Min. 2 peer reviewed papers published in	dissemination workshop.
		scientific journals within 1 year	
		of project end.	
Training in mammal field	Minimum of 60 Malaysian	• Field course manual,	Sufficient numbers of
research techniques, resulting	students & scientists, including	participants attendance	students show an interest in
in increased human capacity in	2 trainers, successfully trained	records & feedback	attending the course, &
Malaysia for mammal field	during field course. 1 individual	assessment	continue in the field of ecology
studies.	to receive 3 years on the job		
	training and 2 month WildCRU		
	 scholarship. Bornean wild cat education 	- Dectore handoute quidee 0	- Cabaal groups continue to
• Wild cat specific education programme, aimed at schools,	materials produced using	• Posters, handouts, guides, & new wild cat photos & video.	 School groups continue to visit DVFC & utilise the
communities & tourists, for use	clouded leopard as a flagship	Partner institution reports.	educational materials. Tourists
in DVFC environmental	species & displayed at target	r artifer institution reports.	continue to visit Borneo
education centre, & 2 major	institutions, & utilised in		Rainforest Lodge & Tabin
tourist facilities in the region:	environmental education		Wildlife Resort.
Borneo Rainforest Lodge &	programmes.		
Tabin Wildlife Resort.	-		
Report on the threats from	 Number of participants in 	 Hunting reports produced at 	Communities co-operate with
hunting & trade on wild cat	communities surrounding	end of year 1 & 2.	us & our local collaborators
populations in & surrounding	Tabin Wildlife Reserve		during the questionnaire
Tabin Wildlife Reserve	successfully interviewed.		survey
Activities	Activity milestones (sum	mary of project	Assumptions
	implementation timetable		
Field research Programme	 Yr 1: camera survey of DV & T 	WR, phase 1 of live-trapping	Sufficient numbers of wild
	programme at DV, first cats colla		cats can be filmed/
	camera survey and trapping & tra		photographed, trapped,
	Continuation of camera survey &		collared & successfully
• Wild Cat Action Dian	Long-term mammal monitoring p		tracked.
Wild Cat Action Plan	Collation of information from field programme; report produced N/A		
ecommendation report and presented at workshop in May 2009, final amended report produced by June '09; submission of >2 papers to peer reviewed			
journals by Mar '10.			

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 <u>Project dissemination</u>	 <u>Relevant stakeholders and project partners invited to attend</u>	 Key stakeholders attend
<u>workshop</u> Field courses in mammal	workshop in Kota Kinabalu, Sabah during May 2009 Two 5 day field courses to be held each year during	workshop. Sufficient numbers of
field research techniques. Development / production of	2006/07/08, each involving a minimum of 10 Malaysian students	students/scientists attend the
wild cat education materials &	per year, 1 Malaysian ecologist & 2 UK ecologists. Initial ID/information posters, handouts & guides produced &	course. Sufficient data & wild cat
implementation of	displayed/presented by Yr 1. Additional environmental education	photos are obtained for
environmental education	materials produced in Yrs 2 & 3 as further wild cat data & photos	incorporation in environmental
programme.	are obtained.	education materials
Hunting survey in communities surrounding the TWR.	• Yr 1: 4 week survey completed, & data analysed. Yr 2: Follow- up survey completed, data analysed & final report produced and distributed.	Communities co-operate with us & our local collaborators.

20. Provide a project implementation timetable that shows the key milestones in project activities.

Project implementation timetable			
Date	Financial year	Key milestones	
	Apr-Mar 2006/7 Apr-Mar 2007/8 Apr-Mar 2008/9 Apr-Mar 2009/2010		
June 2006	2006/7	-Project initiated	
July 2006	2006/7	-Camera trapping programme initiated at both DV and Tabin Wildlife Reserve (TWR)	
August/September 2006	2006/7	-Scientific oversight visit (Dr. D. Macdonald) and Specialist oversight visit (Dr. J. Sanderson)	
October 2006	2006/7	-Live trapping and radio-tracking programmes started	
November 2006	2006/7	-Management (K. Secoy) and local collaborator visit (Dr. H. Bernard). -Mammal research field courses held at DV.	
January 2007	2006/7	-First hunting survey at TWR	
March 2007	2006/7	-Development and production of educational materials initiated	
August/September 2007	2007/8	-Management (K. Secoy) and Specialist oversight (Dr. J. Sanderson) visits	
September 2007	2007/8	-Present findings at WildCRU Wild Cat Conservation conference	
November 2007	2007/8	-Mammal research field courses held at DV -Local collaborator visit (Dr. H. Bernard)	
January 2008	2007/8	-Second hunting survey at TWR	
March 2008	2007/8	-Final report on hunting surveys produced	
April 2008	2007/8	-Additional educational materials produced	
August/September 2008	2008/9	-Specialist oversight (Dr. J. Sanderson) and local collaborator visits (Dr. H. Bernard).	
November 2008	2008/9	-Mammal research field courses held at DV	
January 2009	2008/9	-Live-trapping programme terminated.	
February 2009	2008/9	-WildCRU training scholarship for ITBC counterpart.	
May 2009	2009/10	 -Management (Katherine Secoy), local collaborator (Dr. H. Bernard) and Scientific Oversight, (David Macdonald) visits. -Wild Cat Action Plan report produced. -Project dissemination workshop in Kota Kinabalu. -Project end. 	
June 2009	2009/10	-Final amended Wild Cat Action Plan, including proposed implementation plan, produced and distributed	

PROJECT OUTPUTS			
Year/Month	Standard output number (see standard output list)	Description (include numbers of people involved, publications produced, days/weeks etc.)	
Nov 2006/2007/2008	4A/4C	A minimum of 60 students trained.	
Nov 2006/2007/2008	4B/4D	2 five day long field courses per year aimed at both undergraduate and postgraduate students	
June 2006-May 2009	5	1 UMS/ITBC graduate/postgraduate will be selected as our project counterpart, employed as a field assistant for the duration of the project and will receive extensive training in mammal field research techniques.	
Feb-Mar 2009	6A	WildCRU, University of Oxford, training scholarship for one ITBC graduate /postgraduate counterpart. Scholar will be provided with an intellectual framework and professional training to advance their research career.	
Feb-Mar 2009	6B	8 training weeks.	
Nov 2008	7	Field course manual produced in English and Malaysian. Educational leaflets and posters, describing Bornean wild cats, and presented in education programme.	
June 2006-May 2009	8	2 principal researchers: 39, 48, 48, and 8 weeks during financial years 06/07, 07/08, 08/09, and 09/10 respectively. Project manager: 1 week 06/07 and 09/10. Scientific advisor: 1 week in 06/07, 07/08 and 08/09.	
June 2009	9	Final amended report providing recommendations for a wild cat action plan.	
Nov 2008	10	Basic laminated field guide to the Bornean wild cats and other Bornean carnivores and their field signs.	
Mar 2010	11B	Minimum of 2 papers will be submitted to peer reviewed journals.	
Various 2006/07/08/09	14A	Minimum of three seminars at Danum presenting project findings. 1 Final dissemination workshop in Kota Kinabalu.	
Sep 2007 and various 07/08/09.	14B	Presenting findings at Cat Conference, hosted by WildCRU, and minimum of 2 presentations at relevant conferences.	
Various 06/07/08/09	15A	2 National press releases in Malaysia.	
Various 06/07/08/09	15B	6 publicity articles in University and Sabah institution magazines	
Various 06/07/08/09	15C	1 general GCP press release each year.	
Nov 06/07/08	15D	Minimum of 4 local press releases.	
Various 06/07/08/09	16A	Annual "Canopy Fellows Newsletter" and bulletins on GCP website.	
May 2009	20	Value of all equipment left in Malaysia (£29,328.50)	
May 2009	23	£ 4,421.03 from other sources and £ 35,019.39 in-kind contributions	

21. Set out the project's measurable outputs using the separate list of output measures.

PROJECT BASED MONITORING AND EVALUATION

22. Describe, referring to the Indicators in the Logical Framework, how the progress of the project will be monitored and evaluated, including towards delivery of its outputs and in terms of achieving its overall purpose. This should be during the lifetime of the project and at its conclusion. Please include information on how host country partners will be included in the monitoring and evaluation.

Progress towards activity milestones will be continuously monitored through formal and informal feedback from UK and host country partners throughout the duration of the project. Scientific advisor, Prof. David Macdonald (WildCRU), Specialist advisor, Dr. Jim Sanderson (Conservation International and core member of the IUCN Cat Specialist Group), host country collaborator, Dr. Henry Bernard (ITBC) and the project leader will all visit the field site each year to monitor progress and to ensure that output targets are met. Stakeholders invited to the 2009 project dissemination workshop will evaluate the effectiveness of the project outputs at improving the conservation outlook for the Bornean wild cats. Feedback from the ITBC will be used alongside short questionnaires presented to participants after each training session to gauge course impact, value and effectiveness. The effectiveness of the education programme will be measured by the quality of education materials produced and from feedback from the education officer at Danum Valley and the managers of the Borneo Rainforest Lodge and the Tabin Wildlife Resort.