

Darwin Initiative Annual Report

Important note:

To be completed with reference to the Reporting Guidance Notes for Project Leaders – it is expected that this report will be about 10 pages in length – Submission deadline 30 April 2008

Darwin Project Information

Project Ref Number	15034
Project Title	Red List Plants of Cameroon
Country(ies)	Cameroon
UK Contract Holder Institution	Royal Botanic Gardens, Kew (Kew)
UK Partner Institution(s)	n/a
Host country Partner Institution(s)	IRAD-National Herbarium of Cameroon
Darwin Grant Value	£142,225
Start/End dates of Project	July 2006-June 2009
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	1 April 2007-31 March 2008, Annual Report Number 2
Project Leader Name	Martin Cheek
Project website	n/a
Author(s), date	Martin Cheek, 6 May 2008

1. Project Background

Cameroon is one of the most species-diverse areas in tropical Africa. Many of these species are endemics (c.500 strict endemics, c.800 near endemics) restricted to small areas of forest and so vulnerable to extinction. The main threat is forest clearance followed by agriculture. Cameroon lost 1.1 million Ha forest, 2000-2005. (<http://rainforests.mongabay.com/deforestation/2000/Cameroon.htm>, accessed May 2008)

The need for a Red Data book was identified by Dr Onana, the Head of Biodiversity programmes, Ministry of Research.

The draft Biodiversity Strategy for Cameroon (1999) states as an action with either very high or high priority for each of the six ecosystems covered: "Identify/survey components of forest diversity for conservation, in particular those that are at risk. Organise a centralised database including baseline data and trends in forest diversity". Our project will address these areas directly and in detail. It will provide a sound basis for the conservation of the threatened plants of Cameroon by assessing the conservation status of every species (c.10,000) and making the information available in a variety of formats for different user groups. The results will be disseminated as a national Red Data book, as three conservation checklists for different protected areas, and as teaching packs for schools, GIS-based maps, thus making this information available for national planning of sustainable development and for national education in secondary schools. The project will build an existing database and a longstanding partnership (with a track record of conservation outcomes at local level) and take them to a new level with greater national impact.

2. Project Partnerships

The partnership between RBG, Kew and the National Herbarium of Cameroon (HNC), dating back over 10 yrs, remains strong, due to co-operation on this project and also in several previous projects dating back to 1996. We worked together to host the triennial AETFAT congress, hosted by HNC with the support of Kew at Yaounde in Feb/March 2007. In the first year the project supported host country institutions to build their capacity to meet CBD commitments principally through hosting two workshops in Yaoundé to teach methods of assessing the Red data status of Cameroonian species and to give some basic taxonomic training. UK and regional partnerships: not applicable. Kew has strengthened its capacity in this project by developing stronger links with national government partners than in previous projects. In the second year the partnership was strengthened further by 7 study visits of Cameroonians to Kew and 3 joint expeditions to Cameroon each involving 1-3 Kew staff.

The project has repeatedly invited links with the developing BGCI-managed (formerly PlantLife) IUCN-GEF project that seeks to pursue Red Listing and IPAs in 6 diverse tropical countries, including Cameroon. It was also present at the first meeting of CARLA (Central African RedListing Authority) in March 2007 at Yaoundé.

The project has maintained a strong link with the CBD focal point, Mary Fosi, who introduced and attended both workshops, and sent her team to attend these workshops and who requested the taxonomic training component of the project. She also visited Kew for discussions in Nov. 2006.

3. Project progress.

3.1 Progress in carrying out project activities

1. Workshops: not applicable in this period.

2. Field Research and Conservation checklist production.

2A. Field Research. The second field visit, originally planned for Oct. 2007, was brought forward to May/June 2007 so as to keep the project ahead of the schedule. It took place in the Bakossi Mts (see expedition report in Annex).

Six hours after arriving in Cameroon to begin the second survey with the National Herbarium of Cameroon in late May 07, the project leader was shot through the knee in the course of being robbed of the survey funds, hospitalised and was after a few days repatriated to the UK. This delayed and reduced the time available for the survey, which was then led by George Gosline and Jean Michel Onana supported by Laura Pearce. Convalescence took four months, also reducing project progress.

The survey was accompanied, and partly supported (costs of hiring motorised balloon for canopy collecting, hire of extra vehicle, contribution to counterpart per diem costs), by a film crew from French Connexions Ltd, aiming to produce a documentary promoting the importance for conservation of the Bakossi Mts of Cameroon. However, supporting the filming needs of this crew reduced survey outputs further still in terms of area covered and specimens produced. The film was released on DVD in Dec. 2007 as the "Mists of Mwanenguba" and has already proved useful promoting conservation. It has been screened on the French channels, RFO & TV5, although it has not been generally shown throughout Europe yet. A positive impact has resulted. It was reported by the Paramount Chief shortly after the film was jointly viewed by the Minister of Forests and the Paramount Chief of Bakossi in Jan. 08 that the Decree creating the Bakossi National Park had been signed by the Prime Minister and Minister. This is favourable news for the prospects for improving the protection of what is Tropical Africa's top documented centre for plant diversity, which has been under threat from logging followed by slash agriculture. In Feb. 08 RECODEV our Bakossi partner NGO, discovered that a new logging company was set to begin extraction within Bakossi forest and began screening the film to local communities as an educative counter-measure.

The film was screened for the public at RBG Kew (see press article in Annex) and three more times, for scientists.

It is expected that the documentary will educate both Cameroonians and Europeans on the importance of conservation in Tropical Africa once it is acquired by TV channels and more widely screened.

Two further field visits supporting the aims of the project were executed, in May 07 and Jan/Feb. 08. These were not in the original project plan. They took advantage of additional funding available from other sources, mainly within Kew. Led by Xander van der Burgt, at the Korup N. P. and/or adjoining area, the aim of this work was to obtain additional material and data to delimit several potentially new species that had been identified through previous work by XVDB, and to assess their conservation status. They also enabled the first field training of two new National herbarium staff (see expedition reports in Annex).

2B Conservation checklist production.

Dr Barthelemy Tchiengue, researcher of the National Herbarium of Cameroon was funded by Kew (Bentham-Moxon grant) to spend 1-26 July 07 at the Herbarium, RBG, Kew, organising and identifying specimens from the Fosimondi-Bechati area towards producing one of the three planned conservation checklists, and working on papers describing new and threatened species discovered in the course of our survey work.

Dr Jean Michel Onana brought to Kew all the outstanding specimens from surveys which were needed for the planned conservation checklists in Sept. 07. There had been delays of more than 12 months in some cases, securing the export permits.

Dr Onana also identified further specimens for the conservation checklists while at Kew in Sept.-Oct. and again in March. Training in identification using conservation checklist specimens was given at Kew to the Cameroonian interns in March 2008 (see activity 5 below).

In Oct. 08 all specimens for the Fosimondi-Bechati, Dom and Mefou checklist areas were finally arranged in family bundles so that naming could be completed.

In Dec 07/Jan. 08 the RBG Kew books publishing dept. accepted to publish three new conservation checklists (Mefou, Dom, Fosimondi-Bechati) .

3 Candidate Red List Production. Not applicable. This was completed in Year 1.

4 Map development.

George Gosline developed an automated method using Diva software for outputting species distributions direct from our species/specimen database as dot maps which can be used in our Red data book for the species accounts. Bate Oben and Emma Fenton began outputting maps of rare species to accompany the papers describing and assessing the conservation status of new and poorly known species.

5 Red data book production.

Bate Oben, Darwin project intern, in addition to his training, continued databasing and georeferencing specimens of taxa identified through the Onana ms, at times supported by help from summer Nuffield students Heather Dixon and Jasmine Hayes and volunteer Harry De Voil (map outputting). He is making steady progress with this aspect of the project which feeds directly into production of the red data book. Aline Horwath, employed on a part-time basis on this aspect, terminated her contract in August to take up a PhD grant at the University of Cambridge. After a reviewing of project finances, we replaced her in Feb. 07 with Emma Fenton, supplemented for 1-2 months in Feb and March 08 with Sue Williams, and on a study visit for our partner institutes in Cameroon: Elias Litonge (Limbe Botanic Garden) and Olivier Sene, Blanche Nke and Jean Michel Onana (Nat. Herb. Cameroon). During March 2008 sample treatments, with maps, for the red data book (e.g. *Antidesma pachybotryum* Pax & Hoffm.) were reviewed by the meeting of partners at Kew.

Dr Onana also brought with him electronic records of the specimens databased and georeferenced at HNC as part of this project, so that they could be checked and merged with the data at Kew. On the whole, as expected, comparatively few reliably identified specimen records are available from HNC that are already not at K. Much of the work of Olivier Sene, the technician funded at HNC is concerned with improving the curation of the specimens, such as organising, mounting and incorporating specimens.

6. Teaching pack production. Not applicable until 2009/10

General activities.

During his visit, in addition to the work above, Dr Onana revised his papers on the taxonomy and conservation of African, particularly Cameroonian species, of *Dacryodes* and *Cuviera*. He also updated his work on the endemic and threatened species of Cameroon using data gathered by the Darwin project at Kew (Bate Oben), and using new publications not available in Cameroon. During his visit both the MOU between HNC and Kew and the financial arrangements for the project were reviewed with the project leader.

The Financial Agreement between Kew and IRAD-HNC was signed in Oct. at Kew and copies returned to Cameroon in Jan. 2008.

Dr Onana and the project leader visited Sara Oldridge and Douglas Gibbs at BGCI in September in order to discuss the way forward with the IUCN proposed, BGCI co-ordinated 6-country red listing and Important plant areas project (this is referred to in the original Darwin project proposal). Dr Tchouto had been tasked by IUCN Cameroon co-ordinator Dr Bihini for this project and had been provided with data by Dr Onana, enabling him to produce a model report, according to Douglas Gibbs. Sadly GEF are no longer to fund this project, but Jane Smart of IUCN, the originator, has decided to lead fund raising instead. The project leader emphasised that, should funds be raised, a portion be made available to HNC, since it is already providing most of the data for the Cameroon part of the project.

Five papers on threatened and/or new species from Cameroon completed as part of the project were submitted for publication in Kew Bulletin during the period:

1. Submontane species of *Psychotria* with bacterial nodules (4 taxa)
2. *Leptonychia* (3 taxa)
3. *Vepris* (1 taxon)
4. *Deinbollia* (1 taxon)
5. *Allophylus* (2 taxa)

Two peer reviewed papers were published:

1. A new species of *Dracaena* (Draceanaceae-Ruscaceae) from Mt Kupe and the Bakossi mts, Cameroon (Mwachala, Cheek, Fischer, Muasya in Kew Bull. 62: 613-616 (2007).
2. *Englerodendron korupense* (Fabaceae-Caesalpinoideae), a new tree species from Korup National park, Cameroon. (van der Burgt, Nyakwe, Newbery in Adansonia ser. 3, 29: 59-65 (2007).

On 23 June 2007, a symposium on the Cross-Sanaga Interval (SE Nigeria and western Cameroon) was promoted by members of the project and hosted at RBG, Kew under the aegis of the Nigerian Field Society. Four papers relating to aspects of the projects work in Cameroon were presented by Kew staff (Harvey, van der Burgt, Gosline and Cheek). Three of these papers were published in the proceedings in the Nigerian Field vol. 72 in Jan. 2008.

1. The Importance of the Cross-Sanaga River Interval for Plants, pp. 93-100 (Cheek)
2. The Threatened Forest Remnants of Dom, Bamenda Highlands, Cameroon pp. 101-107 (Harvey)
3. A Decade of Plant Collecting with Earthwatch in Cameroon. Pp. 139-144 (Gosline).

3.2 Progress towards Project Outputs

Output 1: candidate list.....

Completed in Yr 1.

Output 2: conservation checklists.....

Overall progress has been according to plan and the project is on course to achieve this output. Identifications are about 80% complete for all three checklists. Output indicators occur at end yr 3. Assumptions hold true.

Output 3: distribution maps.....

Overall progress has been behind plan, mainly due to the delay in putting in place the intern at Kew. Further delays were caused by incapacitation of the project leader this year. All Dicot families have had all their specimens databased and georeferenced for map outputting and work is advanced on the Monocots. Emma Fenton and Bate Oben are working full time on this task and we project completion of the monocots by the end of July 2008. This being so, the project will be on course to achieve this output by the end of yr 3. Output indicators occur at end yr 3. Assumptions hold true.

Output 4: Red data book

Overall progress has been according to plan except regarding output 3 q.v. Note that outputs 1-3 will feed into this output in year 3. The project is on course to achieve this output, but a lot of hard work writing text will be needed. Output indicators occur at end yr 3. Assumptions hold true.

Output 5: teaching packs...

Since this will be elaborated from output 4 in yr 3, as with output 4, and with the same caveat, the project is on course to achieve this output. Output indicators occur at end yr 3. Assumptions hold true.

Output 6: 10 trained staff in taxon conservation assessment techniques.

Completed in Yr 1.

3.3 Standard Output Measures

Table 1 Project Standard Output Measures

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	TOTAL
Established codes 6A	Number of people to receive training at workshops	40	n/a			
6B	Number of workshop training weeks (4 days)	1	n/a			
8	UK project staff on project work in Cameroon, No. weeks. 58/7 days	8 weeks	16 weeks			
11B	No. papers submitted to peer reviewed journals	4	4			
13A	Species reference collection handed over (collection of duplicates from each survey)	1	3			
14A	Workshops organised to present project matters	2	n/a			
14B	Congress attended, disseminating project findings	1	0			
15B	Local press release.	1	1			
15C	National press release	1	0			
19C	Local radio broadcast	1	0			
23	Resources from other sources (non Darwin) for project work.	£2475	About £17,000			
New Project specific measures						

Table 2 Publications: 6

Type *	Detail	Publishers	Available from	Cost £
(eg journals, manual, CDs)	(title, author, year)	(name, city)	(eg contact address, website)	(if applicable)
Film DVD	Mists of Mwanenguba, a film by Guillaume de Ginstel, 2007	French Connexions Films, Paris	http://www.frenchcx.com/fr_films/brumes-fr.html	19euros
Journal: Kew Bulletin	A new species of Dracaena (Draceanaceae-Ruscaceae) from Mt Kupe and the Bakossi mts, Cameroon (Mwachala, Cheek, Fischer, Muasya Kew Bull. 62: 613-616 (2007).	RBG, Kew/Springer	www.kewbooks.org	Free on web
Journal: Adansonia	Van der Burgt, Eyakwe, Newbery, Englerodendron korupense (Fabaceae-Caesalpinoideae), a new tree species from Korup National park, Cameroon. Adansonia ser. 3, 29: 59-65 (2007).	Publications scientifique du Museum national d'Histoire Naturelle, Paris.	www.adansonia.com	Free on web
Journal: The Nigerian Field vol. 72(2).	The Importance of the Cross-Sanaga River Interval for Plants, pp. 93-100 (Cheek) The Threatened Forest Remnants of Dom, Bamenda Highlands, Cameroon pp. 101-107 (Harvey) A Decade of Plant Collecting with Earthwatch in Cameroon. Pp. 139-144 (Gosline).	The Nigerian Field Society, Ibadan	Dr Forson, 3 Jarvis Drive, Eckington, Pershore, Worcs. WR10 3PE, UK (for back numbers in UK)	£10 (ordinary member annual subs, overseas members)

3.4 Progress towards the project purpose and outcomes

Progress towards project purpose is going according to plan, although in one area, databasing and georef work, we will need to catch up in yr 3 as explained in 3.2 re output 3 & 4 (above). Assumptions and indicators hold true.

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

The film "Mists of Mwanenguba" (see 3.1 above) was released on DVD in Dec. 2007 as and has already proved useful promoting conservation although it has not been generally screened yet. A positive impact has resulted. It was reported by the Paramount Chief shortly after the film was jointly viewed by the Minister of Forests and the Paramount Chief of Bakossi in Jan. 08 that the Decree creating the Bakossi National Park had been signed by the Prime Minister and Minister. This is favourable news for the prospects for improving the protection of what is Tropical Africa's top documented centre for plant diversity, which has been under threat from logging followed by slash agriculture

Apart from the above, the main positive impacts on biodiversity so far have been in terms of educating local NGOs and MINEP officials on the importance and vulnerability of Cameroonian plant diversity in the course of the two workshops held in Yaoundé in Yr 1. Examples were included of species believed to be extinct in Cameroon, which helped to get the message across. In Yr 2, equitable sharing of benefits with our Cameroonian colleagues was advanced by co-authorship of publications, funding of 7 study visits to Kew from Cameroon, funding of 9 botanist/technicians in the field (5HNC and 4Korup), financial, literature and equipment support to the National herbarium.

It is important to note that the main deliverables under this heading are the key major project outputs (conservation checklists, Red data book, teaching packs) which will all be published and disseminated at the end of the project.

4. Monitoring, evaluation and lessons

Progress on the project has been monitored at RBG, Kew by Rogier de Kok, Assistant Keeper of the Herbarium and line manager of the project leader who has been kept informed and observed day-to-day operations at Kew on the project.

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

Not applicable

6. Other comments on progress not covered elsewhere

Not applicable, all comments have been included elsewhere already.

7. Sustainability

The profile of the project within the biodiversity policy community (CBD focal point for Cameroon) and amongst botanists and participating NGOs is high, thanks to the two workshops executed during the first year in Yaoundé. Evidence for high interest was shown by the unexpectedly high attendance at these workshops by various NGOs and students who heard by word of mouth and attended without being invited or supported. Profile and interest is expected and planned to be high in the final year when the outputs are produced and delivered. There is a satisfactory exit strategy in place and outputs, outcomes and impacts are likely to be sustained as much as needed as a result.

8. Dissemination

Dissemination will occur in the last year, when the results have been produced. The relationship between the two main partners will continue after the project ends, and the work of the project can be updated as part of that relationship if required by the Cameroonian partner.

9. Project Expenditure

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

Item	Budget (please indicate which document you refer to if other than your project schedule)	Expenditure	Balance
Rent, rates, heating, overheads etc			
Office costs (eg postage, telephone, stationery)			
Travel and subsistence			
Printing			
Conferences, seminars, etc			
Capital items/equipment			
Others			
Salaries (specify)			
TOTAL			

10. OPTIONAL: Outstanding achievements of your project during the reporting period (300-400 words maximum). This section may be used for publicity purposes

[I agree for ECTF and the Darwin Secretariat to publish the content of this section](#)

The film "Mists of Mwanenguba" (see 3.1 and 3.5 above) was released on DVD in Dec. 2007 and has already proved useful promoting conservation although it has not been generally screened yet. A positive impact has resulted. It was reported by the Paramount Chief shortly after the film was jointly viewed by the Minister of Forests and the Paramount Chief of Bakossi in Jan. 08 that the Decree creating the Bakossi National Park had been signed by the Prime Minister and Minister. This is favourable news for the prospects for improving the protection of what is Tropical Africa's top documented centre for plant diversity, which has been under threat from logging followed by slash agriculture

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

NOT COMPLETED SINCE NOT MANDATORY.

Project summary	Measurable Indicators	Progress and Achievements April 2007 - March 2008	Actions required/planned for next period
<p>Goal: <i>To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained 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>			(do not fill not applicable)
Purpose			
Output 1.			
Activity 1.1			
Activity 1.2,			
Output 2.			
Activity 2.1.			

Activity 2.2.	
Output 3.	

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>Purpose</p> <p>To provide a sound basis for the conservation of the threatened plants of Cameroon, making this information available for national planning of sustainable development and for national education in secondary schools.</p>	<p>Poorly known areas surveyed by mid yr 2.</p> <p>Threatened species of Cameroon doc'ted by end yr 3</p> <p>GIS generated distribution maps of threatened species available by end yr 3.</p> <p>Teaching packs for teachers assembled by end yr. 3</p>	<p>Survey reports available, copies to D.I.</p> <p>Red data book published, copies with Darwin Initiative.</p> <p>Maps with MINEF and available for final workshop. Copies to D.I.</p> <p>Living Earth have packs for distribution to schools, Copies to D.I.</p>	<p>Government policies remain supportive of conservation at HNC. NGOs remain viable and committed.</p>
<p>Outputs</p>			

<p>Candidate list of threatened plant taxa distributed.</p> <p>Conservation checklists of three or more poorly known but probably conservation-important areas.</p> <p>Distribution maps of Red List species.</p> <p>Red data book of the threatened plant species of Cameroon.</p> <p>Teaching packs on threatened plants of Cameroon.</p> <p>10 trained staff in taxon conserve. assessment techniques.</p>	<p>List available by end July 06.</p> <p>Copies peer-reviewed, 300+ copies printed by end yr 3.</p> <p>Maps completed by end yr 3.</p> <p>Copies peer-reviewed, 500+ copies printed by end yr 3.</p> <p>Ms and materials reviewed by Living Earth. Publisher and printer agreed, 2,000 copies by end yr 3.</p> <p>10 staff able to assess taxon conserv. status independently.</p>	<p>Available for 1st workshop; two copies to D.I.</p> <p>Reviews published; feedback received; featured in Kew book catalogue. 2 copies to D.I.</p> <p>MINEF staff in receipt of maps. Published on web.</p> <p>Reviews published; feedback received; featured in Kew book catalogue. 2 copies to D.I.</p> <p>Feedback received;. 2 copies to D.I.</p> <p>Staff credited as assessors in Red Data book. Test results. Certificates issued at end of course, copies to D.I.</p>
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Activities	Activity milestones (summary of project implementation timetable)	Assumptions
Workshops	Yr 1: project launch workshop with NGO, HNC and MINEF staff to establish objectives and methodologies incl.Red List training. July 2006; Yr 1: Basic plant identification and GIS workshops, March 07 to coincide with AETFAT Congress at Yaounde; Yr 3: closing workshop, presenting results to NGO, MINEF, HNC and teacher trainers, June 09.	
Field Research & Conservation checklist production	Yr 1: first survey to poorly known areas, late June 06; Yr 2: second survey to poorly known areas Oct. 07. Specimens identified and dbase for conservation checklist production ready Oct.. 08; intro chapters written by Feb. 09; reviewed by April 09, published May 09.	Permit process runs to normal timetable so specimens available for identification at Kew by Jan. 08.
Candidate Red List Production	Yr 1: Taxa on draft list screened using geography and frequency of collection for Red List candidates, May-July 06, reviewed at 1st workshop.	
Map development	Technicians in place at HNC and Kew, July 2006 , complete specimen databasing and georef. June 2008. Maps produced from database by end yr 3.	
Red Data book production	Onana's existing ms reviewed at K by end June 06. Ready for review, then publication, by April 09.	

Teaching pack production	Popular introduction to Red Data book assembled with species specific posters, relevant to particular areas, as advised by Living Earth, April & May 09, for printing in June 2009.	
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Annex 3 onwards – supplementary material (optional).

These extra annexes have been attached in the hard copy version:

Annex 3. Expedition report, Bakossi, May-June 2007.

Annex 4. Expedition report, Korup, May 2007.

Annex 5. Expedition report, Korup, Feb.-March 2008

Annex 6. “Join the Kew for African Film”. Copy of article from Richmond and Twickenham Times 25 Jan. 2008.

