

COVER SHEET FOR DARWIN INITIATIVE ANNUAL REPORT ON PROJECT 162/08/038

1. Darwin Project Information.....	2
2. Project Background.....	2
3. Project Objectives.....	2
4. Progress.....	2
5. Partnerships.....	7
6. Impact & Sustainability.....	8
7. Outputs, Outcomes & Dissemination.....	9
8. Project Expenditure.....	15
9. Monitoring, Evaluation & Lessons.....	15

Enclosures:

1. Project Implementation timetable ex Schedule.
2. Reprints of thirteen papers and two articles published in 02/03
3. Expedition report '02
4. Plant conservation articles from Cameroonian newspaper
5. One of the press releases issued in Cameroon
6. Information sheet used at end-of-project workshop in Yaounde.

Darwin Initiative for the Survival of Species

Annual Report

1. Darwin Project Information

<i>Project title</i>	<i>Conservation of Plant Diversity of western Cameroon</i>
<i>Country(ies)</i>	<i>Cameroon</i>
<i>Contractor</i>	<i>Royal Botanic Gardens, Kew</i>
<i>Project Reference No.</i>	<i>162/08/038</i>
<i>Grant Value</i>	<i>£121, 947.00</i>
<i>Start/Finishing dates</i>	<i>1st November 1999-31st December 2003</i>
<i>Reporting period</i>	<i>1 April 2002 to 31 March 2003</i>

2. Project Background

The project covers South West and North West Provinces of Cameroon (i.e. western Cameroon). This area has been shown to have the highest concentration of plant species per degree square in Tropical Africa. Many of these plant species are restricted to small parts of the area and so are vulnerable to extinction. The main threat is thought to be felling of forest followed by establishment of agriculture. The project is addressing the problem of the threat of extinction to the plant species of this area.

3. Project Objectives

To develop further the National Herbarium of Cameroon at Yaounde (hereafter HNC) as the national centre for plant diversity assessment by full involvement with the “WCam” (abbreviated version of our project’s title) project and to foster communication with the three protected area conservation projects; to compile a taxonomically up-to-date checklist of species in W. Cameroon; to generate 3 individual “protected area” checklists; to use information from the checklists to enhance conservation by identifying, locating and mapping conservation priority species, advising conservation bodies on management of priority species, proposing key areas for conservation and producing conservation posters.

No “logical framework” was requested, as such. The project implementation timetable from the schedule is included as an appendix since this is what we are reporting against.

There have been no modifications to the objectives over the last year nor any suggestions that any be made.

4. Progress

The history of the project to the beginning of this reporting period is as follows. The project began in November 1999 with the first joint RBG, Kew-National Herbarium of Cameroon botanical inventory expedition of the project to western Cameroon. Two project Darwin staff were recruited in February 2000: Suzanne White, whose task was databasing historic specimens at RBG, Kew, and Ben Pollard who began by producing conservation posters. During the first reporting year (ending April 2000) four papers describing new species from western Cameroon, including conservation assessments, were submitted for publication. Baseline maps of vegetation, climate and elevation were produced by Justin Moat (GIS officer, RBG, Kew).

The period **April 2000-March 2001** was the first full reporting year of the project. During this year Ben Pollard made a poster presentation featuring the “WCam” project at the public Earthwatch Millennium Conference at Oxford in April (additional output).

In April the decision was taken to concentrate efforts on naming specimens and describing species from the Mt Oku area, so as to be able to produce one of the key outputs (a protected area “conservation checklist”) ahead of schedule. This decision was prompted by:

1. an expression of keen interest from BirdLife International, who manage the protected area project responsible for the Mt Oku area (i.e. the Kilum-Ijim Forest Project).
2. our estimate that 96% of the natural vegetation of the Bamenda Highlands (in which Mt Oku falls) has been destroyed.
3. our GIS studies that show that surviving natural vegetation in the area is still being lost at a high rate.
4. BirdLife offering to make a contribution to the publishing costs of the book.

Accordingly “The Plants of Mount Oku and the Ijim Ridge, a Conservation Checklist” was published in August 2000 after four months of extremely concentrated effort at RBG, Kew. Data gathered in the first Darwin expedition to Cameroon in November 1999 forms an important part of the book. This book enumerates the nearly one thousand species of the area including c. 20 new to science (some published as separate papers by us). It also includes 52 detailed Red Data taxa assessments, mostly for endemic species never previously assessed, using the latest IUCN criteria. IUCN have already adopted these Red Data assessments for these taxa (see www.redlists.org). Our project is now the most active source of Plant Red Data assessments in West and Central Africa.

The book was promoted at the triennial AETFAT (Association for the Study of Tropical African Plant Taxonomy) congress in Brussels in August 2000 and is already being used as a model to acquire and present data for protected area inventory work in Southern Africa (Chris Willis pers. comm.). A checklist for an area in Venezuela, published in USA in 2001 (Dorr et al., Census Catalogue of Guaramacal, Smithsonian Institution), is clearly influenced in structure by the Mt Oku book. Advance copies of the Mt Oku book were sent to the libraries of the national herbaria of ten African countries via delegates at the AETFAT congress. The book received a lengthy and favourable review in *Taxon* (the international journal of plant taxonomists) in February 2000 and is selling steadily. It was launched formally at R.B.G., Kew in September 2000 in the presence of a representative from the Cameroonian High Commission. 50 copies were taken out to Cameroon for presentation to libraries, local community, government forestry and media representatives in the Mt Oku area and to national representatives in the capital. A stock is held for sale by the Bamenda Highlands Forest Project for purchase in Cameroon at 10,000 fcfa per copy.

We learnt in June 2000 that the data we had provided to BirdLife International on threatened species of Mt Oku (see annual project report to Darwin Initiative 99/01) had helped to obtain a 1 million dollar grant from UNDP-GEF which will secure the future of the Kilum-Ijim Project, and so the natural vegetation of the Mt Oku area, for the next four years (additional output).

In July 2000 two Nuffield (A-level) students were assigned to the “WCam” project for a month. One student designed a third conservation poster for use in Cameroon following the pattern used for the posters we produced in 99/01 which were found to be extremely effective by the Kilum-Ijim Forest project (John DeMarco, pers. comm.). The other student produced as her project a guide to the identification of the upper montane tree species of the Bamenda Highlands for use by conservation technicians in Cameroon. Both products were delivered in November 2000 to the Bamenda Highlands Forest Project and were well received.

In August 2000, two presentations (one poster, one lecture) arising from the “WCam” project were delivered at the AETFAT congress in Brussel. This proved a useful opportunity to publicize the Darwin Initiative Project. One paper was submitted for publication in the proceedings. At the congress copies of the newly signed MOU between RBG, Kew and the mother organization (IRAD) of Herbarium National Camerounais were exchanged with Dr Achoundong, head of HNC, culminating 12 months of negotiation. In the period September-March 2000, five papers (four were scheduled) describing a total of eight new taxa (including one new genus) and giving conservation assessments where appropriate, were submitted for publication.

In October, Darwin Officer Ben Pollard departed for Cameroon to prepare the way for the second Darwin botanical inventory expedition to western Cameroon to be held in November-December (see expedition report). These expeditions are carried out jointly by HNC and R.B.G., Kew. Two new areas, each administered by conservation projects (The Bamenda Highlands Forest Project and the Banyang Mbo Wildlife Sanctuary project) with whom links had been newly established in the last year, were inventoried.

Teaching of trainees in botanical inventory for conservation management continued. The expedition featured the highest representation of Kew staff in Cameroon ever known (6 staff) including Prof. Simon Owens, Keeper of the Herbarium, who is monitoring the project. Prof. Owens started his visit by an inspection of the National Herbarium in Yaoundé and meetings with IRAD, the British High Commission and with CBD personnel. He also gave a lecture to students at the Ecole Normale. Barbara Mackinder (Legume specialist) and Sally Hinchcliffe (Computing specialist) also gave presentations, at the Univ. Yaoundé I Botany Dept.

1252 specimens were collected. The top set went to HNC in December. Subsets of duplicates were given to the two projects whose forests were being inventoried.

In January 2002 we learnt from WWF Cameroon that the 12 page report that we had provided them on the conservation importance of the Mt Kupe-Bakossi area (see annual report 99/00) had led to the gazetting by the Ministry of the Environment and Forests (MINEF) of two areas previously lacking formal conservation designation (additional output).

In February 2001 the Minister of the Environment and Forests, with a delegation from MINEF visited RBG, Kew for a presentation of our work in Cameroon followed by a meeting of the UK Tropical Forest Forum. This topic was the subject of our press release for the year.

Progress over the last year (April 2002-March 2003):

The ongoing success of the Wcam project contributed directly to the setting up of a new core-funded regional team, as part of the structuring of science departments at RBG, Kew (01/02). The team is currently focussed on Cameroon, but has a remit for the Wet Tropics of Africa (WTA). As part of this restructuring, two extra staff were scheduled to join the permanent team, and as part of their remit to assist in the Wcam project. These staff are:

1. Yvette Harvey, Higher Scientific Officer with considerable experience of African Tropical Plant taxonomy who began with WTA in April '02.
2. Iain Darbyshire, Assistant Scientific Officer, newly recruited to RBG, Kew, who joined WTA after completion of basic training in Jan. '03.

In April and May 02, the fourth expedition (additional output) with the National Herbarium of Cameroon to NW Province was executed successfully, led by Ben Pollard, Gaston Achoundong and Louis Zapfack, including conservation assessments for species shown by earlier fieldwork probably to be threatened, rediscovery of one species previously thought extinct, rapid habitat assessments of new areas and training of technicians in basic specimen preparation, databasing and identification (see below and expedition report attached).

The training element of the expedition was carried out in Cameroon following a system developed over several years on annual expeditions to Cameroon funded by the Earthwatch Institute. Three groups of people were trained;

- A. Junior National Herbarium staff (training in specimen databasing and basic plant family identification skills). These were selected by Dr Achoundong, Head of the National Herbarium.
- B. Local Cameroonian conservation project staff (training in botanical inventories for conservation management). These were selected by John DeMarco, co-manager of the Bamenda Highlands Forest Project (a local protected area project for which we are conducting botanical inventories).
- C. Ghanaian, Tanzanian, Malawian and Ugandan botanists sent to Cameroon for two weeks training with us by the Earthwatch Institute ("Earthwatch Fellows"). These were selected by a co-ordinator in each of these countries working with Robert Llewellyn-Smith, African Fellow Programme Manager at the Earthwatch Institute, Oxford.

A formal programme of lectures and practical demonstrations was given over a two week periods. For most topics, such as specimen databasing, a demonstration would be given, followed by a question session. Following this, trainees would have the opportunity for "hands-on" databasing, using real field-books to enter on our field lap-top computers under the supervision of our database people. This was followed by

short tests. The programme was maintained as an addition to the botanical inventory work which remained the main purpose of the expedition.

In April-June 02 an Expression of Interest (EOI) was developed for the European Commission under FP6 as part of the exit strategy for the Wcam project. In essence the objective is to extend the work of the Wcam project with other European Institutes to cover neighbouring areas in the Gulf of Guinea, Tropical Africa's most diverse area for Rainforest.

In July 02, the then only two research staff of HNC, our main partner, visited RBG, Kew for basic GIS training with Justin Moat, and returned to Yaounde with hardware and software to set up a basic GIS facility at their institute. They are now able to do e.g. dot map production at HNC. Follow up GIS training (additional output) in Cameroon was given in March-April 03 by Susana Baena of RBG, Kew.

In Aug. 02 Ben Pollard concluded his contract with the Wcam project. He successfully interviewed for a new conservation post at Kew at a higher grade.

In Sept. 02 Martin Etuge, chief field biologist and herbarium manager at CRES, Nyasoso, Mt Kupe, visited the Kew Herbarium for training in specimen identification and species description with Martin Cheek (additional output). This was his first departure from Africa. Three papers were drafted of which he is co-author.

In Late Sept. 02 Dr Achoundong of HNC initiated a joint Kew-Paris-ORSTOM meeting at Kew Herbarium to discuss collaboration possibilities and past, current and planned work in the Gulf of Guinea area, with emphasis on Cameroon.

In Oct. 02, seven staff from RBG, Kew arrived in Yaounde to prepare for teaching a two week course in Herbarium Techniques in Nov. (additional output). This initiative, largely funded by BAT international arose from the success of the current DI project and fits the wcam objective of developing the HNC. See details in table 1.

Jan.-March 2003 inclusive saw an extension of databasing, geocoding and bar-coding of historic specimens at Kew beyond the project target of 9,000 specimens (i.e. additional to plan). Julian Stratton was employed, with funds from RBG, Kew, for these three months to continue full-time the work of Suzanne White (see previous reports). Julian was able to database and geocode the remainder of the dicot. families and most of the remaining monocot. Families, amounting to an additional 2996 specimens. He also continued the procedure for photographing type specimens for repatriation. A further tranche (c. 80) photographs was repatriated to the head of the National Herbarium of Cameroon in a ceremony at the end-of-project workshop in Yaounde in March/April 2003.

The end-of-project workshop, held in March/April 03 (postponed from the previous August so as to be closer to the actual end of the project) hosted a larger number of participants for a smaller number of days than originally planned. The duration was reduced on advice from cameroonian partners, principally Dr Achoundong, but was adequate to meet the objectives of discussing the projects achievements and giving basic training in e.g. Red Data assessments. It was also very successful in obtaining media coverage (see table 2). One repeated suggestion made at the workshop for future work was to extend the Wcam project to cover eastern Cameroon as part of a future project.

Nine papers were submitted, in which 11 new species (one a new genus) during the reporting year, exceeding the target of four papers (see project schedule attached). These are listed later in this report. Fourteen papers, including 17 new species (another a new genus and tribe) were published, also exceeding the target of four. The project is ahead of its paper-publishing target by eleven papers. Most of these papers include conservation assessments of the species they describe following IUCN 2001 criteria.

Batches of the species-specific conservation posters compiled and designed by Ben Pollard during this project were sent to local projects for use (e.g. Kilum-Ijim Forest Project).

As in the previous reporting year, much of the year was spent in identifying specimens and writing species accounts and Red Data assessments for the next projected “Conservation Checklist” (one of the main project outputs), namely that for Mt Kupe and the Bakossi Mts. Again, in the course of this work higher than expected numbers of new species were discovered, resulting in the larger than anticipated number of papers submitted describing new species. Preparation of these papers again slowed down the rate of identifications but nonetheless the project is on schedule due to an increase in staff resources from RBG, Kew. Identifications and species accounts are being entered into a database from which a draft checklist account has already been produced.

This is primarily a research project. The technical work completed is detailed above. The results, in terms of papers submitted for publication, are referred to above and identified in detail in table 1. The methodology and techniques followed are those elaborated in Cheek & Cable, 1998, of which an excerpt was appended to last year’s report.

Significant difficulties encountered during the year were as follows:

1. The Wcam database manager, George Gosline, was absent from Kew Jan-May 03 due to the death of his wife. This made it difficult to extract checklist accounts from the db and was compounded by the absence of his part-time assistant in this role, Ben Pollard (sick-leave March-May 03). George is returning to Kew for June 03 to solve this problem.
2. Delays in accessing specimens at Kew collected in Cameroon on recent expeditions, thus delaying identification and checking. These are due to :a) delays of several months obtaining permits at MINEF in Yaounde, despite the best efforts of Dr Achoundong. To rectify this Dr Achoundong invited the permit officials concerned to explain procedures at the end-of-project workshop in March/April 03, at which they announced a new streamlined procedure for obtaining export permits for herbarium specimens. While specimens have been stored in Yaounde, awaiting permits, they have been treated with Napthalene, standard procedure to reduce destruction by pests. Unfortunately changes in UK Health and Safety regulations forbid use of this product, and specimens arriving from Cameroon so treated are delayed by further months at Kew until they are “decontaminated”.
3. The sheer number of new species discovered has caused delays to identifications, since formal description is a lengthy procedure and has diverted resources. However, naming new species is needed to e.g. enable IUCN ratification of our Red data assessments. Our high number of project output scientific publications reflect this difficulty.

There has been no change to the design of the project other than to seek and obtain more resources so as to increase capacity building for National Herbarium staff and staff of partner local conservation projects in Cameroon (see above). The original design of the project is considered to be sound.

Timetable for the reporting period April 2003-March 2004

<i>Quarter</i>	<i>Activity (initials of responsible team member: see schedule for list)</i>
<i>April-June 2003</i>	Conclusion in Yaounde of end-of-project workshop (MC, DZ, ID, SB) and final field monitoring visit (DZ). Write Annual Report (MC) Improve macros to extract checklist accounts from database (GG) Write and edit introductory chapters for Kupe-Bakossi checklist (MC) Complete last identification checks and descriptions for Kupe-Bakossi plant families (YH, ID, MC, GG) Submission of papers describing new species from western Cameroon (MC et al.)

<p><i>July-Sept. 2003</i></p>	<p>Extract from db checklist of Kupe-Bakossi Plants for editing in Word. Submit final ms for publication of “The Plants of Mt Kupe & the Bakossi Mts, a conservation checklist” (MC et al.) Present paper on the wcam project at the triennial AETFAT Congress in Addis Abeba (MC).</p> <p>Complete identification of specimens and descriptions of species, from the Bali-Ngamba Forest Reserve; enter these into db (ID, YH, MC, GG et al.) Write introductory chapters, including a Red Data chapter for the Bali-Ngamba checklist (MC, BP, GG et al.)</p>
<p><i>Oct.-Dec. 2003</i></p>	<p>Submit final ms for publication of “The Plants of the Bali-Ngamba Forest Reserve, Cameroon, a conservation checklist” (MC et al.). Production of a basic checklist of plant species for western Cameroon (SWP and NWP) (GG, MC, ID, YH)</p> <p>Write final Darwin Initiative project report (MC)</p>

5. Partnerships

Collaboration between UK and our main host country partner, the National Herbarium of Cameroon at Yaoundé, was excellent. Two National Herbarium (HNC) senior staff visited Kew to learn basic GIS techniques in August and to develop links further. Dr Achoundong visited Kew again in September, funded by ORSTOM, to chair a collaborative meeting between RBG, Kew and two counterpart French institute’s to discuss possibilities for collaboration. Preparation of an EC EOI under FP6 for Gulf of Guinea countries strengthened relationships with RBG, Kew’s counterparts in Wageningen, Paris, Madrid and Lisbon.

The availability of funds from R.B.G., Kew co-supported (with CRES) the month-long visit in September of a technician from the conservation project based at Mt Kupe (Martin Etuge of CRES) to learn the process of herbarium identification and species description at the Kew Herbarium.

The two teaching sessions at Yaounde (Nov. 02 and March/April 03) were extremely helpful in developing the partnerships with our partner projects in Cameroon.

There are no similar projects to the “WCam” project that we know of in Cameroon. We have strengthened and extended links with the network of local protected area projects that we are in contact with in Cameroon and also links with the IUCN office responsible for Red Data species. We have also established a new link, with Living Earth, based in Yaoundé. This NGO disseminates environmental teaching materials to schools and we are exploring options of distributing our data by this route to improve national perception of the importance for conservation. Following on from the Darwin Initiative requested MOU developed with our main partner, HNC, at the outset of the project, we are developing further written agreements with other partners, namely the Univ. Yaounde I, The BirdLife protected area projects in NW Province and the Limbe Botanic Garden in SW Province.

6. Impact and Sustainability

This has been the third and final full year of the project and we are now in the final stages of analysing data and preparing for publication and promotion of the final outputs.

There has been extensive media cover of our project at the Cameroon National level before, during and after the end-of-project workshop in Yaounde at the British Council in March and April `03. Firstly National Radio covered the event every day for four days at this time, secondly two press releases for newspapers were issued (we now await press cuttings) and finally Cameroon National Television covered the closing ceremony of the event. There was also press coverage at the National level of the project following the Herbarium Techniques course in November 02; finally in North West Province, several articles appeared in one local paper promoting and publicising our projects work in discovering and protecting threatened plant species.

We have heard in the last year from NGO project managers that our involvement of local government officials and NGO project workers on our expeditions really is helping to change attitudes and perceptions regarding conservation in western Cameroon.

Our data is feeding into the decision-making machinery on priorities of areas for conservation in Cameroon. On the basis of our data, during 02/03 cases have been made and are being considered for ratification of several protected areas by MINEF namely....

Lake Oku has been proposed as a Plantlife Sanctuary
Ecological Reserve status for Mt Kupe
National Park status for the Bakossi Mts.

Two other protected area projects, Korup National Park and Bangyang Mbo Wildlife Sanctuary, have requested data from us on their plant species to support the cases that they are making for continued financial support for their survival.

The WCam project continues to have a high profile at the Ministerial level. In Nov. `02 Simon Owens, Keeper of the Kew Herbarium, visited the highest officials in the government ministries of MINEF and MINREST in the company of either Dr Achoundong (head HNC) or Dr Ndam (head Limbe Botanic Garden) to promote plant biodiversity work in Cameroon. For similar reasons he also met with the British High Commissioner and the head of the local EU office.

A presentation on the Wcam project was made with Martin Etuge to Margaret Beckett, Secretary of State at DEFRA, during her visit to the Kew Herbarium in September 02.

There is a satisfactory exit strategy in place.

7. Outputs, Outcomes and Dissemination

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

<i>Code No.</i>	<i>Quantity</i>	<i>Description</i>
6A		<i>Four training sessions:</i>
	20	1. <i>April/May 02. 10 local Cameroonian project staff (from three projects); 5 national herbarium staff; 5 botanists/technicians from Ghana, Uganda, Malawi & Tanzania sponsored by Earthwatch Europe as Earthwatch Fellows. Details in 6B.</i>
	20	2. <i>Herbarium Techniques Training Course. Nov. 02, Yaounde</i>

		5 technicians from west and central Africa (Senegal, Ivory Coast, Rio Muni, Benin, Congo-Brazzaville) and 15 from Cameroon, both National Herbarium, Univ. Yaounde I and local conservation projects with herbaria.
	19	3. End-of-project workshop. March/April 03. Yaounde. Univ. Yaounde (6 lecturers), National Herbarium (8 staff), Local Conservation Projects and MINEF offices (5 staff)
	2	4. Basic GIS training at RBG, Kew(July 02) for two senior national herbarium staff: Dr Achoundong and Jean-Michel Onana
	1	5. Training in plant specimen identification and describing new species to science. Arranged at Kew for Martin Etuge, Biologist at CRES conservation project, Mt Kupe
6B	4 weeks	1. Two fortnight-long training sessions were provided for those in 1. above in "botanical inventory for conservation management". Details of lectures etc are included in the expedition report.
	2 weeks	2. A formal two week course with a diploma presented at the end. RBG, Kew has taught such courses at Kew and around the world for c. 10 years. This was the first in Tropical Africa.
	2 days	3. The end-of-project workshop covered two days, treating progress and results of the wcam project, GIS techniques and W-C Africa's first Red Data assessment workshop.
	10 days	4. Training given by Justin Moat, Kew GIS specialist leader.
	1 month	5. Training given by Martin Cheek, wcam project manager
7	1	Information leaflets for end-of project workshop.
	2	Conservation posters on threatened plant species: <i>Korupodendron songweanum</i> (Vochysiaceae) <i>Cola suboppositifolia</i> (Sterculiaceae) Designed, produced and sent out to Cameroon in 02-03 by Darwin Officer Ben Pollard.
8	34 weeks	A total of 34 weeks were spent in Cameroon by Kew staff: Cheek (5 weeks), Lucas (3 weeks), Stannard (2 weeks), Harvey (2 weeks), Zappi (4 weeks), Owens (1 week), Baena (3 weeks), Darbyshire (4 weeks); Gosline (2 weeks) & Pollard (8 weeks) in three periods: April/May 02 (Pollard), March/April 03 (Zappi, Cheek, Darbyshire, Baena) and Nov. 02 (Zappi, Cheek, Gosline, Stannard, Lucas & Harvey).
9	12 species plans	Individual IUCN species treatments, including details on habitat threats were given for most of the taxa described in the papers submitted for publication listed below.
11A	13 papers were published	For details see table 2
11B	9 papers	9 papers were submitted for publication between April and March, (see table 2 below), as follows: Pollard, B. J., Cheek, M. & Bygrave, P. New <i>Dorstenia</i> (<i>Moraceae</i>) discoveries in western Cameroon. Kew Bull. Subm. 19 May 02. Mackinder, B. & Cheek, M. A new species of

Newtonia (*Leguminosae-Mimosoideae*) from Cameroon. Subm. 11 July. 02

Onana, J. M. & Cheek. A new species of *Dacryodes* (*Burseraceae*) from Zambia. Kew Bull. Resubm. 15 July 02

Hoffmann, P. & Cheek, M. Two new species of *Phyllanthus* (*Euphorbiaceae*) from southwest Cameroon. Kew Bull. Subm. w/e 19 July 02

Cheek, M. A new species of *Keetia* (*Rubiacea Vanguerieae*) from western Cameroon. Kew Bull. Subm. 4 Oct 02.

Achoundong, G. & Cheek, M. Two new species of *Rinorea* (*Violaceae*) from western Cameroon. Kew Bull. Subm. 3x02

Cheek, M., Sue Williams and Martin Etuge (2003) *Kupea martinetugei*, a new genus and species of *Triuridaceae* from western Cameroon. Kew Bull. Subm.25xi02

Cheek, M. Kupeaeae, a new tribe of *Triuridaceae* from Africa. Kew Bull. subm. 26ii03

Cheek, M. A new species of *Ledermanniella* (*Podostemaceae*) from western Cameroon. Kew Bull. Subm. 6 March03

2 articles

Two articles in non-peer-reviewed journal.

Pollard, B.J. (2002). Rediscovery. Kew Scientist 22: 4

Cheek, M. (2002). Cameroon's First Ecological Reserve. Kew Scientist 22: 4.

12A 1 Copy of the 50,000 georeferenced specimen database for western Cameroon compiled at RBG, Kew handed over to National Herbarium of Cameroon, Yaounde in Nov. 2003 by Gosline.

13A 800 A subset of duplicates, with labels, were handed over in May 02 to a local conservation project interested in building up reference

13B	800	<i>herbarium: The Bamenda Highlands Forest Project. The National Herbarium was enhanced by handing over, in Nov. 2001, the top set of c. 800 herbarium specimens gathered on the April-May 2002 expedition. Cibachromes (full size colour photographic prints) of c. 90 historic type specimens housed at Kew were delivered to the National Herbarium in March 2003.</i>
15A	Three	<i>1 in Nov. 02, two in March 03.</i>
15B	Two	<i>Two articles appeared based on our work in NWP newspaper.</i>
15C	Two	<i>Two articles in Kew Scientist (wide, internat. Sci/cons.readership)</i>
18A	One	<i>March/April 03 in Yaounde. Cam TV</i>
19A	One	<i>Piece broadcast each day for four days on National Cam Radio</i>
23	£4,016	<i>A. Field Grant to Cheek from Earthwatch for expedition (2 teams in NWP, April-May 02).</i>
	£ 900	<i>B. Grant from Dicots I (RBG, Kew) towards support for Ben Pollard on 02 expedition.</i>
	£4,728	<i>C. Contract cost to RBG, Kew, ft appt. 3 mths Julian Stratton (ASO) in db historic spms.</i>
	£1,000	<i>D. Cost to RBG, Kew of food & accom. grant at Kew for 1 month to Martin Etuge</i>
	£21,348	<i>E. value of Earthwatch labour calculated as “contribution in kind”</i>
	£31,512	<i>F. Contribution in kind: 70% of salary cost for Martin Cheek (SSO).</i>
	£3,626	<i>G. Ibid. 10% salary cost Yvette Harvey (HSO)</i>
	£3,130	<i>H. Ibid. 10% of salary cost of Justin Moat (HSO)</i>
	£12,000	<i>I. Grant from BAT to RBG, Kew to run two week Herbarium Techniques course in Yaounde, Nov. 02.</i>
	£4,000	<i>J. Grant from RBG, Kew’s HTC fund for travel expenses of Kew staff on the Herb. Tech. Course.</i>
	£86,260	<i>Total.</i>

The above table does not include the salary costs of the numerous scientists at RBG, Kew and elsewhere who have assisted in the identification of specimens and preparation of checklist descriptions and of descriptions of new species to science. Nor does it include the salary costs of Iain Darbyshire, Susana Baena, Brian Stannard, Eve Lucas, Simon Owens, Daniela Zappi who taught courses, monitored the project or did fieldwork in Cameroon.

All outputs agreed in this period in the “Project Outputs” section of the Project Schedule were achieved in full. Several outputs scheduled for the last year e.g. numbers of paper submitted for publication, were achieved ahead of schedule. Several additional project outputs were also achieved (e.g. The Herbarium Techniques course), or agreed project outputs were increased significantly (6A,B,8,9,11A, 11B,). Outputs made that are not coded for under the standard Darwin output measure system are as follows:

- 1. Repatriation of c. 90 images of type specimens from RBG, Kew to the National Herbarium of Cameroon.*
- 2. Two rapid conservation habitat assessments of natural areas for local conservation organizations as part of our expedition report.*
- 3. Databasing and geocoding of 2996 historic specimens at Kew for repatriation to Cameroon.*

Table 2: Publications

Type *	Detail (title, author, year)	Publishers (name, city)	Available from (e.g. contact address, website)	Cost £
<i>Journal</i>	Pollard, B.J. (2002). Cameroon's Rainforest Checklists: Books for Kings, data repatriation of a different kind. Earthwatch African Newsletter No 6 p1.	<i>Earthwatch Institute,</i> <i>Oxford, OX1 3RA</i>	<i>Earthwatch.org.uk</i>	Free
	Pollard, B.J. (2002). Rediscovery. <i>Kew Scientist</i> 22: 4	<i>R.B.G., Kew, TW9</i> <i>3AE</i>	g.kite@rbgkew.org.uk	Free
	Cheek, M. (2002). Cameroon's First Ecological Reserve. <i>Kew Scientist</i> 22: 4.			
<i>Journal</i>	<i>Published: 14 papers, 17</i> <i>species inc. 1 new genus; two</i> <i>articles.</i> 1. Litt, A. & Cheek, M. (2002). <i>Korupodendron</i> <i>songweanum</i> , a new genus of <i>Vochysiaceae</i> from West-central Africa. <i>Brittonia</i> 54(1): 13-17. 2. Cheek, M. & Csiba, L. (2002) A revision of the <i>Psychotria chalconeura</i> complex (<i>Rubiaceae</i>) in Guineo-Congolian Africa. <i>Kew Bull.</i> 57: 375-387. Subm. 26 Feb. 01. 3. Cheek, M. & Bridson, D. (2002) Two new species of <i>Psychotria</i> (<i>Rubiaceae</i>) from western Cameroon. <i>Kew Bull.</i> 57: 389-395. Subm. 23 Feb. 2000. 4. Dawson, S.E. (2002). A new species of <i>Stelechantha</i> Bremek.	<i>The Stationery Office</i> <i>and Royal Botanic</i> <i>Gardens, Kew,</i> <i>London. Papers in</i> <i>Kew Bull.</i>	<i>keWSCbooks@rbgkew.or</i> <i>g.uk</i>	45 (for each part in which these papers , and numer ous others, appear)

-
- (*Rubiaceae*, *Urophyllaeae*)
from Cameroon. Kew
Bull. 57: 397-402.
5. Cheek, M. (2002)
Three new species of
Cola (*Sterculiaceae*)
from Mt Cameroon,
Cameroon. Kew Bull. 57:
402-415. Subm. 3 Oct.
2000.
6. Cribb, P. & Pollard,
B.P. (2002). New orchid
discoveries in western
Cameroon. Kew Bull. 57:
653-659.
7. Cheek, M. , Gosline,
G. & Csiba, L. (2002) A
new species of
Rhaptopetalum
(*Scytopetalaceae*) from
western Cameroon. Kew
Bull. 57(3): 661-667.
Subm. 4 June 01; publ.
26 Sept. 02.
8. Cheek, M., L. Csiba &
D. Bridson (2002). A
new species of *Coffea*
(*Rubiaceae*) from
western Cameroon. Kew
Bull. 57(3): 675-680.
Subm. 19 Sept. 01
9. Sonké, B., Cheek, M.,
Nambou, M. D. &
Robbrecht, E. (2002) A
new species of *Tricalysia*
A Rich. ex DC.
(*Rubiaceae*) from
western Cameroon. Kew
Bull. 57(3): 681-686.
Subm. 16 July 01.
10. Læssøe, T. & Cheek,
M. (2002) A new species
of *Xylaria* (*Xylariaceae*,
Ascomycota) from
Cameroon. Kew Bull.
57(3): 687-691. Subm. 4
-

-
- Dec. 01.
11. Cheek, M., Mackinder, B., Gosline, G. Onana, J-M. & Achoundong, G. (2001). The Phytogeography and flora of western Cameroon. Proceedings of the AETFAT Congress. Subm. 20 Oct. 2000.
12. Salazar, G. A., T. Franke, L. Zapfack, and L. Beenken. (2002). A new species of *Manniella* (*Orchidaceae*, *Cranichideae*) from western tropical Africa, with notes on protandry in the genus. *Lindleyana* 17(4): 239-246..
13. Cheek, M. & I. Csiba (2002). A new species of *Impatiens* (*Balsaminaceae*) from western Cameroon. *Kew Bull.* 57: 669-674.
-

Copies of the publications cited above are included with this report.

The subject of dissemination is largely covered under item 6 above (impact & sustainability). At this stage of the project we are mainly gathering and analysing data. Dissemination will increase in the last stage of the project when the checklists are published.

8. Project Expenditure

Table 3: Project expenditure during the reporting period

The figures in the budget column are taken from the project schedule.

9. Monitoring, Evaluation and Lessons

The Keeper of the Herbarium, R.B.G., Kew is responsible for monitoring the project at this institute. He receives copies of e.g. expedition reports and the annual project reports and has attended internal presentations on the Cameroon project at R.B.G., Kew. In this year (02/03), he inspected the project in Nov. 02 visiting partner projects, the national herbarium and meeting with ministry officials and NGOs, as well as giving public presentations. A further monitoring visit, focussed on the end of project workshop in Yaounde, was made by Assistant Keeper Dr Zappi in March/April 03.

The project has already made two major achievements that ensure concrete conservation action in western Cameroon, as documented in the 00/01 report. It was not envisaged that this would happen so early in the project. The achievements are:

1. Government gazettment of two new protected areas on the basis of a 12 page report that we provided to WWF Cameroon.
2. A grant of \$1 million dollars to the project that supports the local communities protecting the Kilum-Ijim (Mt Oku and the Ijim Ridge) area from UNDP-GEF on the basis of the data we supplied on the threatened and endemic plant species of the area.

Further to these, during 02/03 the two areas in 1. Above have been proposed, supported by our data, for much higher levels of protection, and part of the area in 2. Above, previously without official government protection, for "Plant Sanctuary" status.

Other achievements that meet the project objectives have been detailed under 4. (Progress).

With reference to this paragraph (taken from the schedule):

Developing the National Herbarium as a national centre for plant diversity has been achieved in part through:

- a) receipt by HNC of the top set of herbarium specimens from the expeditions.
- b) experience and training of HNC staff achieved on these expeditions and on their training visits to Kew.
- c) our involvement with local conservation projects has already enhanced communication between them and HNC.

Further, it has been enhanced in 02/03 by a large increase in resources from the Cameroon Government. Due to HNCs activity with this Darwin Project, and with a more recently initiated French regional databasing project, the Govt. of Cameroon has increased resources to the national herbarium by as much as four fold, by increasing the number of researchers from one to four in 2002. Funding to IRAD institutes is calculated by numbers of researchers employed.

A taxonomically up-to-date checklist of species in western Cameroon: this will only be achieved at the end of the project, but the publications of new taxa and the book, "The Plants of Mount Oku....." are measurable steps towards this goal. Moreover, they are peer-reviewed: an indication of quality.

Three individual “protected area” checklists. One of the three has been completed and published, significantly ahead of schedule.

Using information from the checklists to enhance conservation by identifying, locating and mapping conservation priority species, proposing key areas for conservation and producing conservation posters. In the Mount Oku checklist, 52 Red Data species were identified and their locations given. Three of these species have been mapped. 14 conservation posters have been produced. Advice has been given, through the Red Data chapter in the book, to the Kilum-Ijim Forest Project, which manages the area, and to forestry governmental officials in the area, and to the Minister of the Environment.

In conclusion, the fact that our work and data are taken seriously, and acted upon, is evident from the fact that Cameroonian government support for our main partner, the National herbarium, has increased hugely in 02/03 (see above). In addition three forest areas, thanks to our data have been proposed in 02/03 for higher levels of official government protection than before.

10. Author(s) / Date

Martin Cheek 23th May '03