Darwin Initiative

Annual Report

1. Darwin Project Information

Project Ref. Number	*13-017 (former 268)*
Project Title	*The Atelopus Initiative: conserving endangered Tropical Andean amphibians.*
Country(ies)	*Venezuela, Colombia, Ecuador, Peru and Bolivia*
UK Contractor	*Conservation International-UK*
Partner Organisation(s)	THE ATELOPUS INITIATIVE is a multi-national partnership of herpetologists from the following institutions: Conservation International, The Natural History Museum, IUCN, NatureServe, and many US, European and Andean institutions.
Darwin Grant Value	*£ 186,695*
Start/End dates	*April 1, 2004 – March 31, 2007*
Reporting period (1 Apr 200x to 31 Mar 200y) and annual report number (1,2,3..)	*April 1, 2005 – March 31, 2006* *Report #4, the second annual report (#3 was the semi-annual)*
Project website	www.andescbc.org/atelopus
Author(s), date	*Ariadne Angulo, José Vicente Rodríguez, Patricio Jarrin, Robert Bensted-Smith*

2. Project Background

The Atelopus Initiative addresses the problems highlighted by the recent Global Amphibian Assessment (GAA). It is a regional project encompassing the tropical Andean nations of Bolivia, Colombia, Ecuador, Peru and Venezuela. Operating from Conservation International's Bogotá office, the project tackles the issue of amphibian population declines and the amphibian extinction crisis in the highly diverse tropical Andes hotspot by encouraging research and conservation actions across the region.

3. Project Purpose and Outputs

The purpose of the Atelopus Initiative is to address the amphibian extinction crisis through capacity building and training towards gathering information and enacting conservation actions in the tropical Andes. The Project's main objectives are:

a. To develop a Regional Amphibian Research and Conservation Strategy, in order to prioritise activities, and formulate effective and cost-efficient research and conservation action.

b. To increase institutional capacity, including training individuals and providing the taxonomic tools necessary to collect scientific data on the status of amphibians across the tropical Andes.
c. To forge an alliance of national and regional research and conservation institutions within the tropical Andes, in order to combat the precipitous decline of amphibians and avoid imminent extinctions.

As stated in the project´s logical framework, the project outputs are:

1) To strengthen institutional and individual capacity to coordinate and implement the Atelopus Initiative.
2) Regional training programme and field tools to assist monitoring.
3) Improve knowledge through targeted fieldwork.
4) Species and site conservation Action Plans produced.
5) Formulate 10-year research and conservation programme for amphibians in the region.
6) Increased public awareness of the amphibian crisis and the need to intensify conservation efforts.

Following from the changes described in last year's report under this section, the potsponed second Atelopus Initiative training course was re-scheduled for June-July 2005. The course was effectively held from 25 June to 2 July 2005 at the Estación Biológica de Rancho Grande, Henri Pittier National Park, in Venezuela.

Publication of the Atelopus mini field guide was completed in December 2005 rather than August 2005, given addition of undescribed species and new funding partners. Publication of the field manual was further delayed (see section 4 for details), but is close to completion.

The main new modifications for this year is in output 3 (Improve knowledge through targeted field work). As we have previously pointed out that the volume of fieldwork needed to investigate the status of amphibians in the region is much greater than we had planned for. To help get over this problem, and also for the efficiency advantages of using an existing mechanism for financing multiple low-cost research activities throughout the region, the Project is cooperating with CI's "Threatened Species Initiative" (see Section 4h below). This well proven mechanism involves Conservation International collaborating in each country with a partner institution, which contributes matching funds and administers the research funding. The research is focusing initially on threatened species. We are planning how to complement this with research on data deficient species, inventories and presence/absence of emergent diseases specific to amphibians.

With regard to Output 4 (Species and site conservation action plans) Conservation International is discussing with the partner institutions and scientists participating in the project the relative merits of single species action plans and group-specific action plans. This technical discussion of which approach will provide the most cost-effective impact on amphibian conservation is necessary but has caused some delay. We expect to reach a conclusion very soon and, as soon as we have done so, we will discuss it with the Darwin Initiative.

4. Progress

Pre-project activities and progress to the beginning of April 2005 were covered in more detail in the project's first year report. The concept for the Atelopus Initiative came about during the Global Amphibian Assessment workshop on Andes amphibians conducted in 2003. Since its initiation in July 2004, the Atelopus Initiative has become established as a well-known project in the region emphasizing ample participation (e.g. first workshop, August 2004; an electronic network of over 130

colleagues); boosting research and conservation of tropical Andean amphibians through capacity building (3 training courses on amphibian survey and monitoring techniques in field localities in Peru and Venezuela (2005), and Bolivia (2006)); taxonomic tools (*Atelopus* miniguide, December 2005) and research grants.

Progress against timetable

a) Website development for the Atelopus Initiative. Completed and reported in the First Annual Report.

b) Tropical Andes Amphibian Network. In progress. The project's electronic network (red_atelopus@yahoogroups.com), established in September 2004, has over 130 members from all over the region and beyond. The network is active, with frequent postings, requests for information and collaboration and dissemination of publications.

c) Publish Global Amphibian Assessment (GAA) results and regional strategy for amphibian research and conservation. As reported in our first annual report, the publication of a regional version of the GAA had been postponed. This is also largely due to the fact that the GAA had been recently conducted, and it was unlikely that there would have been enough time to observe any major differences. We envision addressing a revision of IUCN status for tropical Andean species at a country level in each of the tropical Andean nations in 2007. The regional strategy for amphibian research and conservation will be part of the regional field manual on amphibian survey and monitoring techniques, which is close to completion.

d) Produce a regional survey and monitoring protocol booklet. In progress. There have been further delays on this activity, due to (1) lack of expert consensus on some monitoring techniques, (2) ill-health of one senior author and tardiness of others. Nevertheless, all but two chapters have been submitted and are in the process of being formatted for publication. Once in print, the manual will be made available to interested parties across the region free of cost. The cost of printing the manual is covered by the Darwin Initiative with additional investments from other partners in the region.

e) Bi-annual newsletter. In progress. The Atelopus Initiative's newsletters for 2005 were published in July and December and our first regional report occurred in December 2004. Thus, these publications are being producd at regular intervals, as intended (slightly behind the project schedule, because of the 3-month delay in starting the project). The newsletters are available for download from the Atelopus Initiative's already established website (www.andescbc.org/atelopus); and contain information on the project's developments, events, activities, and other activities relevant to amphibian research and conservation (both newsletters are enclosed with this report).

f) Training 90 herpetology students in survey and monitoring techniques. In progress. After being postponed due to civil unrest in the location originally proposed, the second Atelopus Initiative training course on amphibian survey and monitoring techniques was re-scheduled to take place from 25 June to 2 July 2005 at the Estación Biológica de Rancho Grande, Henri Pittier National Park, in Venezuela. This course was attended by 35 students and 11 instructors from five different countries (Colombia, Ecuador, Peru, Spain and Venezuela). The third Atelopus Initiative training course took place between 8 and 15 April 2006 in the locality of San Miguel del Bala, Bolivia. This course was attended by 31 participants and eight instructors. Among the participants, we had national park guard employees and local guides from the community of San Miguel. Contrary to the previous courses, which were regional in nature, courses scheduled for 2006 are national in scope. This is more cost-effective and allows more local participation. The next field course is scheduled for November 2006, in Colombia.

g) Identification tools and guides prepared for key groups of amphibians. Completed (*Atelopus* miniguide) and in progress (Dendrobatid field guide, guide to the amphibians of San Miguel del Bala). The multi-authored mini field guide on the highly endangered genus *Atelopus* was completed and officially launched December 13, 2005, together with four similar miniguides for other taxa. All of these miniguides are part of a larger regional scheme called Arca de Noé (Noah's Ark), where 12 institutions have jointly collaborated towards the mass publication of each miniguide (80,000 copies of each number). Publication of the miniguide was slighly delayed (December 2005 instead of June 2005 as stated in last year's annual report), given that we wanted to include species that were still in the process of being identified (because of this, the *Atelopus* miniguide is the best field guide available for this group, as it covers all those *Atelopus* species that had been identified until December 2005). The extra time also allowed us to bring in more funding partners and hence increase the number of copies. We are currently working on our next tropical Andes field guide, which will concentrate on tropical Andean poison arrow frogs. This work is part of a field guide series which is larger in format and content than the pocketbook mini guides, and has been developing as contributions have been submitted. We are currently awaiting the publication of a new paper revising the taxonomy of poison arrow frogs, so that the guide can be published incorporating the latest development in poison arrow frog systematics. As in the case of the *Atelopus* mini guide, this is intended to be a multi-authored publication with wide regional participation.

h) Fieldwork. In progress. The Atelopus Initiative gives small seed research grants to undergraduate and graduate students that are undertaking fieldwork for their dissertations and also to established researchers in the region with the purpose of boosting both amphibian research and conservation. In 2005 it was decided that these grants would be administered under the Threatened Species Initiative (IEA), thereby securing additional matching funds and achieving administrative efficiencies. Calls for these grants are issued twice a year. An evaluation panel for each country was established, where at least three specialists would partake in the proposal selection process. We can provide upon request an Excel table of all the tropical Andean amphibian species being funded under the IEA.

In last year's Annual Report Review, the reviewer was interested to know to what degree, within the context of high amphibian diversity areas, there had been discussion with avian research and conservation bodies and whether efficiencies and additional outputs were possible as a result of potential collaboration. In September 2005 during the Amphibian Conservation Summit (ACS) held in Washington, D.C., the Atelopus Initiative participated in the leadership of the Key Biodiversity Areas (KBAs) working group. The concept of KBAs had been already developed by avian-focused groups, and we have, as an amphibian-oriented group, adopted this concept and further added criteria and filters in the identification and prioritization of KBAs. A representative of the American Bird Conservancy participated in the ACS and was an active member of the KBA working group led by the Project's staff. Thus, the collaboration between avian and amphibian specialists groups has yielded significant benefitis in terms of identifiying key areas for conservation.

i) Additional activities undertaken by the Atelopus Initiative include:

- Participation in the Amphibian Conservation Summit held 17-19 September 2005 in Washington, D.C. which produced an initial design, implementation plan and budget for a global Amphibian Conservation Action Plan (ACAP). Attendance at this event was funded by CI and IUCN.
- Participation in the "Ex Situ Amphibian Conservation Planning Workshop" held from 11 to 15 February 2006 in Panama and sponsored and organised by the Conservation Breeding Specialist Group (CBSG) and the World Association of Zoos and Aquariums (WAZA). The purpose of this workshop was to "develop

an integrated conservation action plan and a set of guidelines on 'best practices' with respect to ex situ facilities, husbandry, population management, disease management and other aspects of implementation of assurance colonies for amphibians in zoos and aquariums". Attendance at this event was funded by CI and the Darwin Initiative project.

- Participation in the implementation of two ex-situ Amphibian Conservation Laboratories in Colombia and Venezuela. In Colombia, an agreement between the Fondo para la Acción Ambiental and Conservation International ensures the laboratory's implementation and operation over a period of two years (started August 2005). It is housed at the Pontificia Universidad Javeriana in Bogotá and is home to a captive colony of an endangered species of *Atelopus*. The Venezuelan laboratory is currently being implemented under the supervision of Venezuela's Ministry of the Environment and Natural Resources (MARN).
- Sponsorship and organization of two conferences on climate change, chytridiomycosis and amphibian declines, 21-22 March 2006, at the Instituto de Genética, Universidad Nacional de Colombia, Bogotá, and Cali Zoo, Colombia. Dr. Margarita Lampo from the Instituto Venezolano de Investigaciones Científicas (IVIC) travelled to Colombia to give this presentation both in Bogotá and Cali, the event was well attended in both cities (85 participants in Bogotá and 90 in Cali) and a video of her conference was filmed and edited so that it could be used in ensuing field courses. Organization of these events was funded through the Darwin Initiative.
- Although this work has been undertaken by one of our partners and members of our network (C.L. Barrio-Amorós, Fundación Andígena), it is a direct outcome from our second field course, held in Venezuela. Fundación Andígena has prepared a field guide to the amphibians and reptiles of the field station of Rancho Grande, where the course was held. This guide would not have been made possible without the opportunity brought about by the course.

Achievements

Some achievements to be highlighted from the work described above include:

a) The recent re-discovery of *Atelopus marinkellei* in the highlands of Colombia, a species presumed extinct until this finding. This re-discovery was possible thanks to the Project, given that funding for field work to Carlos Rocha, the Colombian biologist that found the population, came from Darwin Initiative funds channeled through the Threatened Species Initiative (IEA). In addition, Mr Rocha, of the Universidad Pedagógica y Tecnológica de Boyacá-UPTC, is one of over 100 participants trained in our amphibian survey and monitoring courses. The Project also figures prominently in follow-up activities on the re-discovered species, such as monitoring the population in situ, screening individuals for presence of the deadly fungus *Batrachochytrium dendrobatidis*, and in captive breeding conservation efforts of this species.

b) The conclusion and mass production (80,000 copies vs the projected 50,000 copies stated in our first year's report) of the *Atelopus* mini guide.

c) The leadership of the Key Biodiversity Areas (KBAs) working group in the Amphibian Conservation Summit. This work will result in a section covering the subject of KBAs in the final Amphibian Conservation Action Plan (ACAP).

d) The establishment of a regular program in capacity building in amphibian research and conservation in the region through the Atelopus Initiative's training courses in amphibian survey and monitoring techniques. So far we have trained 103 course participants across the region, in doing so providing young researchers not only with relevant information and tools, but also with the opportunity to network, to scout potential collaborations, and to find a supportive group of peers and colleagues who can help in a diversity of ways. The courses

have also increased general interest on amphibians, as a number of non-amphibian specialists have also applied to partake in these courses, including biologists with interests in other taxonomic groups, national park guards and local guides. All courses have core subject matters that include a background and current knowledge of amphibian decline research, biosafety protocols, inventory and monitoring techniques, experimental design and statistics, preservation of scientific material, bioacoustic and field recording techniques, and ex situ conservation practices. Course instructors are respected and renowned scientists from the across the region (for a list of past course instructors, please see http://www.andescbc.org/atelopus/index_files/Page1006.htm). Courses are both theoretical and practical in nature, where presentations are given by instructors, after which participants are assigned to working groups and requested to develop a project which they will conduct, compiling and analyzing data, and presenting their results to their peers. Instructors are available throughout the course for group consultations.

e) The establishment of a research grant system with a focus on conservation of endangered amphibians. Although these are small seed grants (up to USD$ 2500), they do provide young biologists who are finishing their degrees and preparing for their thesis-related fieldwork with a resource which was not present before, especially in the region. Thus, we should see an increase in the number of amphibian studies conducted in the region under this scheme.

Difficulties

The Project's difficulties over the past year have been as follows:

a) Establishing programs for research grants. These programs were initially proposed and developed last year. The decision to collaborate with the Threatened Species Initiative, though well justified for the reasons given above, has implied a delay, whilst the details of the collaboration and scope of the research were worked out.

b) Deriving a consensus on species action plans. The original project proposal stated that one of the Project's targets would be the elaboration of species and site conservation and management action plans "(10 species per country/per annum)". There haven't been, however, enough quality project proposals submitted per country to reach the target, and Project members (scientists and conservationists) are currently discussing the form that action plans should take. Specifically, the issue is whether to develop single species action plans or whether to develop larger scale action plans, e.g. at a national level. We envision that this will be resolved in the near future. In the case of Venezuela, the country is developing a national strategy for amphibian research and conservation by public consensus, and is contemplating a national action plan for the entire country and for all amphibian species. The Atelopus Initiative is keeping in close touch with Venezuelan colleagues that are spearheading this effort and is being kept abreast of, as well as providing input to, this strategy.

c) Finishing the field manual. As mentioned above, it has not always been possible to get the contributions originally offered by collaborating scientists. In some cases, project staff have had to fill in the gaps.

d) In general, project staff have been stretched by the amount of time dedicated to finding further funds to continue the Andes amphibian research and conservation program after the Darwin Initiative project. This includes work on a large, regional proposal for the World Bank/GEF.

e) Participation in the Atelopus Initiative's third training course in Bolivia. In January 2006 a call was issued for applications for this course, scheduled for 8-15 April 2006. Nearly two months later, and a week prior to the closing date, only one

application (from a non-Bolivian) had been received; upon closing the call, only 20 applications had been received. Discouraged by such results, we extended the deadline by an additional week. Project members also explored the possibility of having park guards and local guides participate in the training course, which did in fact occur. Part of the reason for this apparent lack of quorum seems to stem from Bolivia having a significantly smaller herpetological community than the other countries in the region, which would also explain the huge information gap with regards to Bolivia's amphibian diversity, and apparently not having very many job prospects in the field. These difficulties, however, did not undermine our determination to hold the course in Bolivia, as we recognize that this country, probably more than any other country in the region, needs capacity building the most. Based on feedback from the evaluation forms handed out at the end of the course, it would appear that the event was well received (overall, 46% of participants felt that the course was excellent or very good and 50% felt that it was good). In addition, soon after the course concluded, our national coordinator for Bolivia initiated a national electronic forum seeking to integrate all Bolivian herpetologists, which is currently in the process of building membership.

Adjustments to project design

The Project's core design remains the same. The technical adjustment of the new programs proposed in last year's report was not implemented (see point a), under *Difficulties*).

- Timetable (workplan) for the next reporting period.

Timetable for the next reporting period, 2006-2007	
Date	**Activities**
April 06-March 07	*Additional fundraising ventures including a large GEF project proposal addressing the issue of amphibian declines and climate change in the tropical Andes*
April 06-March 07	*Identification tools and guides prepared for key groups of amphibians: selection and work on certain Centrolenidae; Dendrobatidae; Hylidae; Leptodactylidae and Caeciliidae*
April 06-March 07	*Call for project proposals for AI-funded research mini-grants and ensuing evaluation and selection processes across the region*
July 06	*Invited speakers in the symposium "Patterns and Causes of Amphibian Populations Declines in Latin America: Results from the RANA network", Joint Meeting of Icthyologists & Herpetologists, 12-17 July 2006, New Orleans*
Aug 06	*Publication of a regional survey and monitoring protocol booklet (website, printout)*
Nov 06	*Training of ca 35-40 herpetology students in survey and monitoring techniques over one field course*
April 06-Mar 07	*Field work on endangered and data deficient species*
April 06-Mar 07	*Data collation for tropical Andean Amphibian database development (museum collections and/or primary literature)*
July 06 /December 06	*Biannual e-newsletter*
Sept 06/April 07	*Darwin term (September 06) and final annual (April 07) reports*
Feb 07	*Country-level re-assessment of amphibian species of the tropical Andes. International press release. Development of peer-reviewed journal articles and non-scientific publications.*
Mar 07	*End of Project review with partners and national coordinators*
April 07	*Formal project closing (technical and financial)*
Jun 07	*Country national strategies for amphibian conservation and national assessment (CD/website)*

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

We have attempted to clarify those points that have been raised in the review of last year's annual report in the elaboration of this report. We have discussed key aspects of the review with Project staff, and have tried to improve on some issues, namely: 1) target efforts towards increased fundraising ventures to ensure the adoption of the 10-year conservation and research strategy by project partners (i.e. through the preparation of a large-scale project proposal for the World Bank), 2) we are currently working on improving our quantification of Project monitoring and evaluation.

We take this opportunity to address one specific issue raised by the reviewer, which is the regional awareness campaign. The reviewer points out the following:"It is stated that the regional awareness campaign has been re-scheduled for 2005/6 and yet the £1500 expenditure has still occurred". The £1500 expenditure has only occurred this year, as can be observed from Table 3. Unfortunately, in not detailing those items listed under "Others", we missed listing the regional awareness campaign as an expenditure that had not yet been incurred. We have corrected for this in the current report by detailing those expenses previously listed under "Others".

In addition, we would like to point out that the Project's core committee is comprised of three members (J.V. Rueda, J. V. Rodríguez and A. Angulo), who discuss Project development on a regular basis. The Directive Committee referred to in Stage II of the original application has changed from its original composition; Dr. Simon Stuart and national coordinators for each country are still a part of this committee and are consulted on Project matters as well as being kept abreast of Project developments.

6. Partnerships

The field implementation of the project has been led by CI-UK's in-country partner in Colombia, CI-Colombia, which has in turn collaborated with numerous partners within the Andean region. The participation of the Natural History Museum (Dr. Mark Wilkinson) in the training courses has not been possible due to scheduling conflicts and health problems.

In addition to working with various research and conservation institutions on field activities, the Project has collaborated actively with amphibian ex-situ conservation initiatives in Colombia and Venezuela, and with global initiatives that seek to directly address amphibian population declines and amphibian conservation (see under section 4 i). We have also established new links with community-based and eco-tourism oriented partners, as is the case of the community of San Miguel del Bala in Bolivia, where the third training course on amphibian inventory and monitoring techniques was held, and with their collaborating partner, Madidi.com. In holding our course at the community of San Miguel, which boasts the privilege of being located very close to two highly diverse natural protected areas of Bolivia, we attempted to integrate biodiversity conservation with eco-tourism and sustainable development. Students not only get exposed to the technical aspects relating to amphibian surveys and amphibian declines, they also get exposed to the realities of a native community trying to make a living in harmony with their environment, while the community gets exposed to the plight of amphibians, biodiversity loss, how this loss can ultimately affect whole environments and humans, and are informed about the ways in which people can help. We believe that this is the kind of cross-pollination that can change attitudes, which is the first step towards changes in decision-making and policy. Another novel partnership is with the postal service in Colombia (see below).

7. Impact and Sustainability

The Atelopus Initiative is by now a well known project among young amphibian biologists, colleagues and specialists across the tropical Andean region. Important and unprecedented efforts to promote the work include the mass distribution of the freely available Atelopus miniguide on a regional scale, as well as making it available as a pdf for web download (http://www.arcadenoeandes.org/miniguias/atelopus.pdf); the partnership with postal offices across the region to enable people to send in information regarding endangered species free of cost to the sender; the promotion and support of the implementation of two ex-situ conservation laboratories for endangered amphibians in the region; the widespread dissemination of capacity building courses; participation in international workshops and meetings, and holding two conferences on the phenomenon of amphibian declines and associated causal factors. Evidence for increasing interest and capacity can be appreciated by the willingness to co-finance the amphibian field research and publications, increase in the number of members in our electronic network, requests to join the network,

requests by protected area staff and others to participate in the events organized by the Project (e.g. training courses), participation in our conferences, the participation of ex-course attendees in scientific meetings and publications.

The exit strategy stated in the original application involves the development of vitally needed field tools, increased knowledge, enhanced capacity within the region, and the design of a 10-year Regional Amphibian Research and Conservation Strategy. Last year's Annual Report Reviewer, however, identified this not as an exit strategy, but rather, a description of the expected legacy of the Project. Further, the Reviewer expressed concern over how the adoption of the 10-year conservation and research strategy will be ensured by the project partners. To address this critical issue, CI is (a) building broad national/regional ownership of the Initiative, (b) committing to continue promoting and investing in the regional strategy beyond the end of this project, and (c) seeking larger-scale funding from GEF and the World Bank to expand the program.

Outputs, Outcomes and Dissemination

Some differences in Project Implementation Timetable and Outputs are explained in detail in section 4 (Progress) above. Complementary information is provided below:

Annual number of students trained is ca 70 rather than 90 for logistical and budgetary reasons.

Field guides are much higher quality and mass produced (80,000 copies), compared to the original expectation of simpler guides and fewer copies. There are less field guides produced than originally projected because the compiling and editing of these multi-authored publications has proved very time-consuming.

# of person-weeks of field research is not expected to reach the targets by Project end, mainly because costs were under-estimated.

The original Project proposal states that in December 05 the Darwin Tropical Andes Amphibian Database (on-line – www.andesbiodiversity.org/atelopus) would be established with 150,000 specimens. We are currently digitizing information from several sources (55,000 specimens from Colombia's ICN, 5,000 specimens from the Museo de La Salle in Bogotá, 10,000 from the Humboldt Institute, in addition to the digitization of those specimens that have been published in the five countries with the revision of some 6,000 documents), and plan to make these data available through the World Wide Web. There are two issues with the number (150,000 specimens) originally proposed: 1) this number may be close to the the region's entire holdings across the different institutions, and we have found that not all institutions have the same kind of open response to making their collection holdings public, and 2) in several cases there is a lack of curatorial stewardship of the collections. We are continuing our endeavour to convince institutions to share their information. One way to overcome the difficulty of access to museum specimens is to use locality information published in the primary literature. To that effect, we have been developing a database for the amphibians of the tropical Andes that uses both museum specimens, where possible, and published literature. This is a product which is currently in progress.

In the original Project proposal it was stated that 12 conferences would be attended to disseminate project results. Rather than attend scientific meetings specifically for this purpose, the Atelopus Initiative has disseminated its activities every time it has had a chance in other international meetings, such as the Amphibian Conservation Summit held in Washington, DC, in September 2005, and the Ex Situ conservation workshop held in Panama in February 2006.

The number of copies of the biannual newsletter is less than stated in the Project proposal (host country 3000; UK 300), because the herpetological community in the tropical Andes is smaller than that and because the newsletter is disseminated through the Project's website and electronic network rather than in print.

Dissemination of the Project's activities has been achieved through the Atelopus Initiative's webpage (www.andescbc.org/atelopus/); its electronic listserve and network (red_atelopus@yahoogroups.com); Conservation International's regional network; a regional (REDESMA, Bolivia) electronic bulletin; postings of printouts of specific events in universities and other academic environments; region-wide mass distribution of the Atelopus miniguide, as well as making it available as a pdf for web download (http://www.arcadenoeandes.org/miniguias/atelopus.pdf); and the partnership with main postal offices from each country to enable people to send in information regarding endangered species free of cost to the sender (CI's Noah's Ark program).

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

Code No.	Description	Year 1 Total	Year 2 Total	Year 3 Total	Year 4 Total	TOTAL
4A	Field courses on standard amphibian survey and monitoring techniques	26	16+9			51
4B		1	2			2
4C		11	19+22			52
4D		1	2			2
7	CD with video of talk on climate change, disease and amphibian declines		1			1
10	*Atelopus* mini guide		1			1
11A	Papers published in peer reviewed journals		1			1
11B	Papers submitted to peer reviewed journals		2			2
14A	Workshops/conferences organized	2				2
14B	Workshops attended		2			2
16A	Newsletters	1	2			3
16B	Web-based circulation					
16C	Web-based circulation					
17A	Dissemination networks established	1	1			2
17B	Dissemination networks enhanced		1			1

Table 2: Publications

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (e.g. contact address, website)	Cost £
Mini field guide	*Ranas Arlequines; Rueda Almonacid, J.V., J.V. Rodríguez Mahecha, E. La Marca, S. Lötters, T. Kahn and A. Angulo (eds.), 2005.	Conservation International	http://www.arcadenoeandes.org/miniguias/atelopus.pdf	Free of cost
CD	La declinación de los anfibios, el cambio climático y la quitridiomicosis cutánea: Mito o Realidad	Conservation International Andes CBC		Free of cost

8. Project Expenditure

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

Item	Budget 2005/ 2006 (please indicate which document you refer to if other than your project schedule)*	Expenditure	Balance

In reference to the comments in the Annual Review Report related to project expenditure, we confirm that the under-spend was largely due to the non-incurrence of expenditure for the *Global Amphibian Specialist Group and the regional awareness campaign.* Paul Salaman was replaced on the project by a more senior CI scientist, Jose Vicente Rodriguez.

* This budget refers to the revised budget submitted to DI on June 17, 2005 and approved on June 20, 2005. We can provide this information upon request.

9. Monitoring, Evaluation and Lessons

Training courses are still being monitored through student evaluations at the end of each course. These evaluations give us an indication of our effectiveness in delivering information as well as where improvements have to be made. Also, increasing membership in the Atelopus Initiative's electronic network can provide us with an indicator of the Project's impact. Some indirect measures include the response of applicants towards the IEA seed grants, the participation of interested parties in our training courses, the number of universities seeking to develop their own amphibian training courses, and the number of countries in the region establishing, or planning to establish, ex situ conservation facilities.

This year has brought about valuable lessons which can be incorporated into future plans, among the most important:

- That decisions regarding changes in projected outputs or mechanisms be discussed and agreed upon by all relevant parties, and any discrepancies be followed up as part of an integrated working team. This is not easy in a multi-country project like this
- Learning how to handle Project matters in a diplomatically neutral stance in cases where colleagues that collaborate with the Project have professional or personal issues with other collaborating colleagues
- Maintaining open lines of communication to avoid communication breakdowns within the organization
- Learning how to identify those colleagues that are willing to contribute to the Project in a professional and timely fashion and requesting their leadership in key working documents
- Learn how to identify means to quantifiably monitor development and outputs
- The continued need to have back-up plans in the event of last minute changes due to unstable social or environmental conditions

10. Outstanding achievements

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

Thanks to the Darwin Initiative, a species of the highly endangered genus *Atelopus* which was thought to be extinct has been recently rediscovered in the highlands of Colombia. The Atelopus Initiative and its in-country partners are now concentrating on rescuing this newly found population of *Atelopus marinkellei* via ex situ conservation (some individuals are transferred to captive breeding facilities in Bogotá), screening individuals for the deadly chytrid fungus *Batrachochytrium dendrobatidis*, and implementing population monitoring. All of these activities are either organized or co-funded via the Atelopus Initiative, as 1) the Project has also participated actively in the creation of two ex situ conservation laboratories in Colombia and Venezuela, and these rescue facilities provide an appropiate environment to manage these endangered, re-discovered species; and 2) the Project provides small research grants targeting field work on endangered and little-known species. Further, the mass-produced (ca 80,000 copies) and freely distributed Atelopus mini-guide (an identification tool to all the known described and undescribed species of the genus *Atelopus*) has been instrumental to aid field identification and as an outreach tool; it is part of a mechanism called Noah's Ark which allows anybody within the tropical Andes to send in information on endangered species free of cost to the sender. The important rediscovery was made by Colombian biologist Carlos Rocha of the Universidad Pedagógica y Tecnológica de Boyacá-UPTC with the

auspices of the Fondo para la Acción Ambiental y la Niñez, Conservation International and the Darwin Initiative. In addition, Mr. Rocha is one of over 100 participants trained by this Project in amphibian survey and monitoring techniques. The Atelopus Initiative puts a strong emphasis on building capacity through both training and networking, and given its highly participative nature, it has managed to integrate and consolidate collaborations across the region, operating and maintaing a network of over 130 amphibian specialists, building strategic alliances between regional and local partners, producing working documents and identification tools with a high level of regional participation, and encouraging and facilitating much-needed research for amphibian conservation. The Project's scope and integrated activities provide a unique contribution which will leave a strong imprint and lasting legacy in the years to come.

Annex 1 Report of progress and achievements against Logical Framework for Financial Year: 2005/2006

Project summary	Measurable Indicators	Progress and Achievements April 2005-Mar 2006	Actions required/planned for next period
Goal*:* To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but poor in resources to achieve • The conservation of biological diversity, • The sustainable use of its components, and • The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources			
Purpose *(insert original project purpose statement)* To increase capacity, cooperation and knowledge so as to provide the regional capacity necessary to manage current declines and avoid future amphibian extinctions.	*(insert original purpose level indicators)* 1) Increased capacity to implement regional strategy for monitoring and conserving amphibians 2) Regional committee and network established with increased collaboration and communication 3) Increased knowledge to reduce Data Deficient species by 80% and accurately re-evaluate all species	*(report impacts and achievements resulting from the project against purpose indicators – if any)* 1) Increased capacity through training (field courses), networking (electronic forum) and overall greater regional participation and joint ventures in institutional alliances 2) Enhancement of the Project's electronic network for amphibian specialists in the region 3) See under Project Purpose and Outputs.	*(report any lessons learned resulting from the project & highlight key actions planning for next period)* Lessons learned involve being realistic when matching expected outputs with available funding, have back-up plans in case of last minute changes Key actions for the next period involve a great amount of effort dedicated to international fundraising and lobbying for endangered amphibians in the region, and developing strategies and alliances with reliable partners
Outputs			

(insert original outputs – one per line)	*(insert original output level indicators)*	*(report completed activities and outcomes that contribute toward outputs and indicators)*	*(report any lessons learned resulting from the project & highlight key actions planning for next period)*
1) Strengthening institutional and individual capacity to coordinate and implement initiative.	Initiative website; publish Regional Amphibian Assessment results; collate database of specimens.	• Website developed and operational since 2004 • Global Amphibian Assesment results published in 2004 • Database collation in progress, see under Outputs, Outcomes and Dissemination	Lessons learned involve keeping fluent communications within the organization Key action for the next period: Website update; data collation and preparation of database for public access
2) Regional training programme & field tools to assist monitoring.	Protocol booklet; taxonomic guides; total 360 person weeks of training.	• Field protocol manual in process of development (editing stage) • Mini field guide for *Atelopus* species completed, guide for arrow poison frogs and frogs of San Miguel in progress • Two weeks of intensive training attended by 66 participants (3960 hours)	Lessons learned include assigning reliable colleagues leadership of working documents; rewarding collaborators either financially or in kind to increase the probabilities of obtaining high quality products in a timely fashion; standardizing level of instruction for all instructors participating in training courses Key actions for next period: Completion of field protocol manual and frog field guides and their ensuing publication, planning of upcoming training course in November 2006.
3) Improve knowledge through targeted fieldwork.	Reports on 800 person fieldwork weeks undertaking target surveys.	Table with details of amphibian projects funded through the IEA available upon request	Lessons learned involve being realistic when matching expected outputs with available funding and qualified human resources available

			to undertake field work, as well as allowing some leeway for variation in applications for field work funds Key action for the next period: Continue placement of research grants to drive field work; re-evaluation of outputs
4) Species and site conservation Action Plans produced.	100 spp. Action Plans; status re-evaluation; publish Darwin Report I.	See under Project Purpose and Outputs	Lessons learned involve being realistic when matching expected outputs with available funding and qualified human resources available to undertake field work; allowing for differences in scope in those applications submitted to undertake field work; seeking a consensus among Project members on certain strategies Key action for the next period: Define nature of and strategy for Action Plans
5) Formulate 10-year research and conservation programme for amphibians in the region.	Publish Darwin Report II: Amphibian Research & Conservation Strategy.	3-year research and conservation strategy developed in 2004; building block for country national strategies for amphibian conservation and national assessment	
6) Increased public awareness of the amphibian crisis and the need to intensify conservation efforts.	Publicity campaign, news release, website, biannual e-newsletter, and poster campaign	Publicity campaign on Noah's Ark Program released, increased membership in e-forum, e-	

		newsletters published July and December 2005	

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