



APP2 253



## DARWIN INITIATIVE

### APPLICATION FOR GRANT FOR ROUND 12 COMPETITION: STAGE 2

Please read the Guidance Notes before completing this form. Give a full answer to each section; applications will be considered on the basis of information submitted on this form. Please do not cross-refer to information in separate documents except where invited on the form. The space provided indicates the level of detail required but you may provide additional information on a separate A4 sheet if necessary. Do not reduce the font size below 12pt or alter the paragraph spacing.

**Submit by 19 January 2004**

Ref (Defra only):

**1. Name and address of organisation**

School of Biological Sciences, Queen Mary, University of London (QMUL).

**2. Project title (not exceeding 10 words)**

**INVENTORY AND CONSERVATION OF THE BRYOFLOTA OF SOUTH-WESTERN PATAGONIA**

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

Details	Project leader	Other UK personnel (if working more than 50% of their time on project)	Main project partner or co-ordinator in host country (Chile)
Surname	Duckett	Russell	Massardo
Forename(s)	Prof Jeffrey	Dr Shaun	Dr Francisca
Post held	Dean of Science and Professor of Botany	Associate Lecturer	Associate Professor
Institution (if different to above)		University of Wales, Bangor (UWB)	Universidad de Magallanes (UMAG) and Omora Foundation (NGO)
Department	School of Biological Sciences	Centre for Arid Zone Studies	Departamento de Ciencias y Recursos Naturales, and Instituto de la Patagonica (IP)
Telephone			
Fax			
Email			

**4. Describe briefly the aims, activities and achievements of your organisation. (Large institutions please note that this should describe your unit or department)**

**Aims**

The School of Biological Sciences (SBS) at QMUL aims to provide the highest quality of training in biosciences, to advance scientific knowledge through excellent scholarly research, and to serve the community with technical and educational expertise locally, nationally and internationally.

**Activities**

SBS is a dynamic department with 140 staff and over 500 students. It is an internationally respected centre for teaching and research in the biological and biomedical sciences, from the

molecule to the ecosystem level. The department has established the 'Centre for Life Sciences' (Science Research Infrastructure Fund) equipped with 'state-of-the-art' analytical equipment.

#### **Achievements**

The School was rated "excellent" for teaching in the last Government inspection and has achieved an RAE grade 4 for research (nationally and internationally significant contributions).

#### **5. Has your organisation received funding under the Initiative before? If so, please give details.**

1997-2000 Egyptian Sea Turtle Conservation Project, Dr AC Campbell, £143,632.

#### **6. Please list the overseas partners that will be involved in the project and explain their role and responsibilities in the project. The extent of their involvement at all stages in the project should be detailed, including in project development. Please provide written evidence of this partnership.**

Dr. Francisca Massardo (Project Manager, Chile). Jointly responsible with UK staff for establishment of the ex situ cryptogamic conservation facilities at UMAG/IP in Punta Arenas, including the *in vitro* laboratory and "Centro Horticola" greenhouse facility.

Dr. Andrés Mansilla, Director of the Department of Science and Natural Resources, UMAG (Project Collaborator). Jointly responsible for establishment of the ex situ conservation facility.

Dr. Ricardo Rozzi, Associate Professor, UMAG, and Director, Omora Foundation (Project Collaborator). Jointly responsible with UK staff for the field exploration component, and the organisation and delivery of training courses (field base Puerto Williams, Beagle Channel).

Laboratory Technician/Assistant - Maintenance and operation of laboratory facilities and *in vitro* cultures of bryophytes.

Dr Mansilla is an internationally renowned expert on southern hemisphere algae. Drs Massardo and Rozzi are two of South America's most highly respected environmentalists, and are co-author's of Latin America's standard textbook on conservation biology\*. As protégés of the leading southern hemisphere biogeographer, the late "Don Edmundo" Pisano, these co-workers developed the rationale for this project and arranged pre-project visits to Chile for UK project staff.

The Chilean co-workers will provide substantial contributions throughout the course of the project and afterwards. Percentage time commitments are indicated in Section 29, Table A, and the Chilean collaborator's motivation is appended as a separate document.

\* Primack, R., R. Rozzi, P. Feinsinger, R. Dirzo, and F. Massardo. 2001. *Elementos de Conservación Biológica: Perspectivas Latin americanas*. Fondo de Cultura Económica, Mexico City. Pp. 797.

#### **7. What steps have been taken to (a) engage at all appropriate levels within the host country partner organisations to ensure full support for the project and its outcomes; and (b) ensure the benefits of the project continue despite staff changes in these organisations?**

The collaborating institutions developed this project during a one-month visit by UK staff to southern Chile in 2003 (funded by the British Ambassador and British Airways Assisting Conservation). Substantive discussions were held between collaborators and senior staff (to Dean of Faculty and Director level within UMAG, IP and the Omora Foundation). The Chilean institutions have committed to provide staff time and facilities, and to continue the work beyond Darwin funding. External specialists (USA and Poland) have offered their assistance with identification and taxonomic work. The project training component will gain continuity through its incorporation into modules of a recently established natural resources postgraduate programme at UMAG. Significant resources are promised from joint-funding contributors to ensure project sustainability (see Section 31).

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

During the exploratory visit of project staff to SW Patagonia in 2003, discussions were held with a full range of stake-holders, including native American communities, local government officials, military and police personnel, agriculture, forestry and environment officials, tourism principals, and NGO representatives working with commercial forestry and peat-digging interests.

The Project's NGO partner (Omora Foundation) works in partnership with UMAG, and has been visited by and received an endorsement from the President of Chile for its conservation and biocultural work in southern Chile. The President's representative in the region – Mr Eduardo Barros (Governor of the Chilean Antarctic Province) is particularly supportive of this initiative.

## PROJECT DETAILS

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

To assist a poorly-resourced academic institution and NGO in southern Chile to improve knowledge of and contribute to the protection of the inadequately-known but extremely rich bryoflora of the Magellanic Province. Through training and awareness-raising, to ameliorate the habitat impacts of commercial moss-collecting and peat digging in the south western region of Chile. To establish *in vitro* cryptogamic conservation laboratory facilities in southern Chile, maintained by trained staff. To provide biological support for regional development planning and Chile's National Biodiversity Strategy (including the World Heritage Site candidacy of Charles Darwin's landing site at Wulaia Bay, adjacent to the Beagle Channel).

10. Is this a new initiative or a development of existing work (funded through any source)?

This is a new initiative based on previous ad hoc and small-scale bryological collecting in the region, and a pre-project visit by UK staff in 2003 funded by the British Embassy in Santiago.

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

This project directly addresses Chile's commitment to the CBD, through improving knowledge and protection of its bryophyte-rich southern lands, and enhancing indigenous bryological capacity and conservation awareness. The project relates to many of the CBD Articles, but will mainly support the Chilean Government's implementation of Articles 7 (30%), 9 (20%), 10 (10%), 12 (20%) and 16 (20%), with particular emphasis on Forest Biodiversity (30%), Mountain Biodiversity (40%), Protected Areas (15%) and Sustainable Use themes (15%).

The project will also show Chile's commitment to the CBD's principal of global co-operation on biodiversity issues, through its new capacity to process and exchange cryo-preserved material for study by the worldwide network of taxonomic specialists and biotechnologists. It will be complementary to the RBG Kew Millennium Seedbank initiative. The location of the *in vitro* laboratory in Punta Arenas, at the junction of the bryophyte-rich high-rainfall areas of Fuegia and the arid Patagonian steppe where rare ephemeral bryophytes are little-studied, further enhances the contribution to global ecological and biodiversity studies that the facility will make.

The project's NGO partner, the Omora Foundation, maintains close links with Chile's CBD focal point – the National Commission for the Environment (CONAMA). Staff of this agency will be engaged in the Darwin project through consultation and participation in the training courses.

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

Bryophytes far outnumber vascular plants in the Magellanic Province of southern Chile. 450 mosses are already recorded for the Magellanian region, but many more species remain to be discovered, especially among the hepatics. The region is a "hotspot" for cryptogamic diversity in South America\*, but there is a dearth of local bryological expertise, scant protection for indigenous flora and severe threats to native vegetation. The region's national parks (Cape Horn and Alberto d'Agostini) have no permanent staff, and there is increasing habitat-loss through farming and forestry, including moss-collecting and peat-digging. Withdrawal of military control in the Fuegian Channel zone is leading to rapidly increasing exploitation of natural resources, and adverse impacts on local habitats and remnant native American populations (Alacaluf and Yaghan) who hold endangered ethno-botanical knowledge. This project will address all of these issues to a greater or lesser degree, and results will feed into regional development planning for Chile's southernmost province and to the national biodiversity action planning process.

\*C. Matteri (2000). In Hallingback & Hodgetts, World Conservation Action Plan for Bryophytes. IUCN Cambridge

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

The DI project will provide training in ecological impact assessment and sustainable resource-use to agriculture, forestry and environment officials, and to representatives of commercial forestry, moss-collecting and peat-digging enterprises. The project will directly (and indirectly through training of trainers) capacitate members of disadvantaged indigenous communities (e.g. Yaghan and Mapuche people) to act as ecotourism guides.

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

Impacts: 1) improved knowledge of the Magellanian "bryo-diversity hotspot" through field work, inventory and research papers on the taxonomy, biogeography and ecology of the SW Patagonian bryoflora; 2) enhanced local capacity through 2 week's training of 12 biologists in techniques for bryophyte survey, research and conservation; 3) increased awareness among resource-users of threatened bryophyte-rich habitat, through 2 week's training of 24 Chilean environment and forestry agency staff and practitioners in the commercial moss-collecting, peat digging and tourism sectors; 4) establishment of institutional capacity for *in vitro* cultivation of rare and endangered lower plant species, through the setting-up of dedicated laboratory facilities with trained staff at UMAG/IP; 5) enhanced "statutory" protection for Fuegian vegetation through recommendations for the Magellanian Regional Development Plan, Chilean National Biodiversity Strategy and candidacy of the Charles Darwin-related "Wulaia" World Heritage Site.

Project outputs will be disseminated as: a) scientific journal papers and reports; b) hard-copy and electronic training and outreach materials; c) media briefings and press releases; d) project website information; e) consultation and guideline documents for regional development planning and the national biodiversity strategy processes.

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

The taxonomic and ecological work will form a foundation for future detailed studies by indigenous specialists within the region. The *in vitro* facility will provide a new resource for Chilean conservation biologists which will influence future priorities and training. The project will provide a base-line species inventory for an almost pristine area in advance of major development impacts. Awareness-raising among key stakeholders and contributions to environmental planning processes will promote wise future use of natural resources in the region. Support from joint-funding partners is pipelined and the strategic importance of the zone for global security and economic development will also promote support for Darwin legacy environmental work in the region.

**16. What steps have been taken to identify and address potential problems in achieving impact or legacy?**

Project collaborators have primed potential joint funding partners for if the DI project goes ahead. The Chilean government has endorsed the broader initiative at the highest (Presidential) level, and at Provincial Governor level (in talks with the British Ambassador). The Chilean collaborators are highly committed and internationally respected conservationists. UK staff includes personnel with successful experience of ensuring Darwin legacy since Round One of the scheme.

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

The Darwin name and logo will be used on all research and training materials, and at all training events associated with the project. It will be emphasised in all published outputs (journal papers, reports, guideline documents and popular articles) and in all oral exposition of the project work (conferences, seminars and media briefings). The *in vitro* conservation facility at UMAG will be named after the Darwin Initiative. The report contributing to the World Heritage Site planning process for the Yaghan cultural area and Charles Darwin's landing point at Wulaia Bay, will also emphasise the Darwin Initiative contribution.

**18. Are you aware of any other individuals/organisations carrying out similar work? Are there completed or existing Darwin Initiative projects which are relevant to your work? Please give details, explaining the similarities and differences and how your work will be distinctive and innovative. Show how the outputs and outcomes of this work will be additional to any similar work, and what attempts have been/will be made to co-operate with such work for mutual benefits.**

There have been small, ad hoc expeditions into the Antarctic Beech forests and Magellanic moorland of south-western Patagonia (lower plants rarely collected). However, there has been no coordinated and sustained modern scientific initiative such as the proposed DI project. Similarly, there have been no environmental training initiatives in the region, as it has been off-limits to outsiders for many years due to military control. The proposed UK project manager (Dr Shaun Russell) ran a heavily over-subscribed, small-scale pilot training course in cryptogamic biology at Puerto Williams in 2003, in collaboration with a colleague from the New York Botanical Garden. Communication has been established with contributors to previous DI projects in Chile, to share biological information of possible common interest (e.g. Raleigh International's work at San Rafael National Park and Fundacion Senda Darwin's work further north on the Darwin Fox).

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

Year 1 (February 2005) - Bryological Training Course (2 weeks) for 12 South American conservation biologists (mainly from Chile and Argentina). Candidates will be solicited through UMAG and Omora Foundation contacts, "Bryonet", and alumni of the pilot course in 2003. Selection will be based on academic and job qualifications, and capacity for post-course biodiversity conservation impact through applied project work and re-echoing of training.

Year 2 (February 2006) – Conservation Training Courses (2x 1 week courses) for 24 (2x12) Chilean environment and forestry agency staff and practitioners in the agricultural, moss-collecting, peat-digging and tourism sectors. Candidates will be solicited through UMAG and the Omora Foundation's network of contacts in government agencies and NGOs, and links into the local resource-user community (commercial and subsistence sectors).

Training impact assessment will be carried out using the latest participatory evaluation techniques (the UK Project Manager is a British Council Training Adviser and is well-versed in this discipline). Trainees (and line managers) will be contacted for feedback on return to their jobs, and will form part of an alumnus network kept in touch by project e-mail bulletins.

**20. How are the benefits and/or work of the project expected to continue after the end of grant period?  
Please provide a clear exit strategy.**

As the first such facility in South America, the cryptogamic *in vitro* conservation laboratory will continue to function and grow beyond the currency of Darwin funding through UMAG-pledged commitments and expanding regional usage. The training materials will be updated and re-used in the Omora Foundation's outreach work, and will be incorporated into the new postgraduate natural resources programme at UMAG. The multiplier effect of training government, commercial sector and NGO personnel will promote partnership projects for integrated conservation and development in SW Patagonia. Skills-transfer to native American groups will assist in sustaining livelihoods following withdrawal of the local military employment base (see appended Chilean motivation).

Prospects for financial resourcing of post-project activity are excellent. Seed-corn funding has already been received from the British Embassy in Chile and British Airways Assisting Conservation. Future joint-funding support from COMAPA S.A., EUROCHILE and other interests in Chile is promised if the proposed DI project goes ahead. International tourism companies are targeting the region for development, and looking for small-scale local environmental initiatives to support. The strategic importance of the zone for global security and economic development (overlapping territorial claims, mining, forestry and fisheries interests, tourism development etc) will also promote support for ongoing environmental work in the region. The support from the President of Chile and the Provincial Governor for environmental work in the Antarctic Province is also a positive indicator for effective post-Darwin project legacy in south-western Chile.

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

Project implementation timetable		
Date	Financial year:	Key milestones
	Apr-Mar 2004/5	
	Apr-Mar 2005/6	
	Apr-Mar 2006/7	
Jan 2005	Apr-Mar 2004/5	Complete first bryological field expedition, to southern Fuegia
Feb 2005	Apr-Mar 2004/5	Complete Bryological Training Course
Feb 2005	Apr-Mar 2004/5	Complete set-up of cryptogamic <i>in vitro</i> culture facilities at UMAG
Mar 2005	Apr-Mar 2004/5	Year 1 monitor, evaluate and report
Apr 2005	Apr-Mar 2005/6	Issue biological report on Wulaia prospective World Heritage Site
Aug 2005	Apr-Mar 2005/6	Begin regular exchange of cryo-preserved southern South American specimens with global network of cryptogam specialists
Jan 2006	Apr-Mar 2005/6	Complete second bryological field expedition, to western Fuegia
Feb 2006	Apr-Mar 2005/6	Complete Conservation Training Courses
Mar 2006	Apr-Mar 2005/6	Year 2 monitor, evaluate and report
April 2006	Apr-Mar 2006/7	Issue bryophyte/habitat conservation guidelines for regional development plan and national biodiversity strategy
Mar 2007	Apr-Mar 2006/7	Formal scientific publications appearing
Mar 2007	Apr-Mar 2006/7	Year 3 monitor, evaluate and final report

**22. How will the most significant outputs contribute towards achieving the purpose of the project? (This should be summarised in the Log Frame as Indicators at Purpose level)**

The purpose of the project, i.e: "To better understand and conserve the threatened Magellanian "bryo-diversity hotspot" in southern Chile", will result directly from synergy of the project outputs:  
 1) significantly improved knowledge of Fuegian bryophyte diversity; 2) enhanced understanding of the relationships and functioning of Fuegian bryophyte vegetation; 3) local scientists trained in bryological survey, research and conservation techniques; 4) Chilean conservation agencies and natural resource users influenced to protect bryophyte-rich habitat ; 5) local capacity for *in vitro* culture of endangered cryptogam species established; 6) enhanced conservation of Fuegian vegetation/habitats through inputs to regional development and national biodiversity plans.

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

PROJECT OUTPUTS		
Year/Month (starting April)	Standard Output Number (see standard output list)	Description (include numbers of people involved, publications produced, days/weeks etc)
2005/1	8	Year 1 field expedition to southern Fuegia (3 UK staff for 2 weeks).
2005/2	15A	1 national press release in host country
2005/3	15C	1 national press release in UK
2005/2	6A	Year 1 training course -12 South American biologists trained in cryptogamic biology and conservation methods (including <i>in vitro</i> techniques) for 2 weeks
	6B	
	8	
2005/2	21	Ex situ cryptogamic conservation facility established at UMAG ( <i>in vitro</i> laboratory & propagation greenhouse)
	20	£29,000 <i>in vitro</i> lab equipment installed
	8	2 UK staff for 6 weeks.
2005/5	9	Biological report - Wulaia prospective World Heritage Site
2006/1	8	Year 2 field expedition to western Fuegia (3 UK staff for 2 weeks)
2006/2	6A	Year 2 training courses - 24 (2x12) Chilean environment agency staff and natural resource-users trained in bryophyte/habitat conservation for 2 weeks (2x1-week)
	6B	
	8	
2006/2	8	<i>In vitro</i> laboratory joint studies and monitoring visit – 2 UK staff for 4 weeks.
2006/5	9	Recommendations submitted for regional development plan and national biodiversity strategy
		1 national press release in host country
2007/2	15A	3 research papers (inventory, taxonomy, ecology) submitted to (or appearing in) peer-reviewed journals
2007/3	11B	
2007/3	10	1 Bryophyte identification manual/photo-guide supplied to UMAG/Omora Foundation and conservation agency staff

## MONITORING AND EVALUATION

24. Describe how the progress of the project, including towards delivery of outputs, will be monitored and evaluated in terms of achieving its overall purpose. This should be both during the lifetime of the project and at its conclusion. Please make reference to the indicators described in the Logical Framework.

6-monthly, annual and final monitoring, evaluation and reporting will be carried out by project staff, against listed outputs/indicators, viz: completed survey and inventory; numbers of research publications; numbers of trained specialists and resource-users; laboratory facility established and functioning; numbers of contributions to conservation plans/initiatives (see Section 23 & logframe). Monitoring will keep the project on schedule and within budget, while evaluation will assess the project's impact. Evaluation will be carried out by senior project personnel experienced in the use of NERC and UK aid programme techniques, and will be adapted to the DI reporting format. Evaluation will include the use of formalised, before-and-after feedback from research collaborators, trainees and end-users of dissemination products. It will employ "triangulation" input from external assessors and line managers and will also include value for money analysis through comparison with other Darwin Initiative projects (personnel include a training assessment specialist and staff with continuous DI monitoring experience since Round One of the scheme).

25. How will host country partners be involved in monitoring and evaluation of the project?

Host country partners will be fully involved in monitoring and evaluating the project through internal reporting (self-assessment) and by soliciting feedback from the project target audiences (short-course trainees and end-users of project dissemination outputs).

26. How will you ensure that the project achieves value for money?

Professional accounting and auditing will be entrained for this project, and budgeting will be at "economy" level with staff accepting minimum subvention for travel and subsistence. Due to the scientifically stimulating nature of the work proposed, in a remote and little-studied bryological "hot-spot" region with good potential for future funding, project staff have pledged substantial time-commitments without remuneration. *Only 1.7 salaries would need to be funded by DI, for a core-team of nine UK and Chilean scientists.* The Project Leader (on sabbatical) and his assistant will work free-of-charge to DI, and institutional overheads for all project staff have been waived. Considerable joint-funding is pipe-lined if the DI project goes ahead, and the multiplier effect of the "training-of-trainers" component will also contribute to exceptional value-for-money for the project.

27. Reporting Requirements. All projects must submit six monthly reports (by 31 October each year) and annual reports (by 30 April each year). Please check the box for all reports that you will be submitting, dependent on the term of your project. You must ensure that you cover the full term of your project.

Report type	Period covered	Due date	REQUIRED?
Six month report	1 April 2004 – 30 September 2004	31 October 2004	Yes
Annual report	1 April 2004 – 31 March 2005	30 April 2005	Yes
Six month report	1 April 2005 – 30 September 2005	31 October 2005	Yes
Annual report	1 April 2005 – 31 March 2006	30 April 2006	Yes
Six month report	1 April 2006 – 30 September 2006	31 October 2006	Yes
Annual report	1 April 2006– 31 March 2007	30 April 2007	Yes
Six month report	1 April 2007 – 30 September 2007	31 October 2007	No
<b>Final report</b>	1 April 2004 – 31 March 2007	3 months after project completion	Yes

## 28. LOGICAL FRAMEWORK

<b>Project summary</b>	<b>Measurable indicators</b>	<b>Means of verification</b>	<b>Important assumptions</b>
<p><b>Goal:</b></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"> <li>• the conservation of biological diversity,</li> <li>• the sustainable use of its components, and</li> <li>• the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources</li> </ul>			
<p><b>Purpose</b></p> <p>To better understand and conserve the threatened Magellanian “bryo-diversity hotspot” in southern Chile</p>	<p>Completed survey and inventory; nos. of research publications; nos. of trained specialists; lab facility established; nos. of contributions to conservation plans and initiatives</p>	<p>UK and Chilean project reports; international article citations; training reports/feedback; conservation agency reports</p>	<p>Availability of personnel over three years; timeous publication of results; ongoing government and institutional support in Chile</p>
<p><b>Outputs</b></p>			
<p>Knowledge of Fuegian bryophyte diversity significantly improved</p>	<p>Comprehensive inventory of Fuegian bryophyte species published</p>	<p>Appearance of new Fuegian bryophyte list in international journal</p>	<p>Commitment of project partners to outputs on schedule</p>
<p>Enhanced understanding of relationships and functioning of Fuegian bryophyte vegetation</p>	<p>Research papers on taxonomy, biogeography and ecology of Fuegian bryophytes produced</p>	<p>Appearance of publication series in bryological and/or conservation journals</p>	<p>Judicious selection of print media for early and wide publication of results</p>
<p>Capacitation of local biologists for bryological survey, research and conservation.</p>	<p>Completion of 2-week course in bryophyte culture and conservation for 12 Chilean &amp; Argentinean biologists.</p>	<p>Course report and feedback forms, plus BBS bulletins</p>	<p>Sufficient engagement of local biologists with training initiative</p>
<p>Chilean conservation agencies and natural resource users influenced to protect bryophyte-rich habitat</p>	<p>Completion of 2x1-week courses for 24 Chilean conservation and forestry staff, and representatives of farming and tourism sectors</p>	<p>Course report and feedback forms, BBS bulletins and conservation agency field reports</p>	<p>Interest of trainees from conservation/forestry agencies, and the farming and tourism sectors sustained</p>
<p>Local capacity for <i>in vitro</i> culture of endangered cryptogam species established</p>	<p><i>In vitro</i> facilities established and functioning, and staff trained at UMAG/IP</p>	<p>UMAG research reports, BBS bulletins and Darwin reporting</p>	<p>Ongoing UMAG commitment to project, and staff availability</p>
<p>Conservation of Fuegian vegetation and habitats enhanced</p>	<p>Project inputs to Biodiversity Action Plan and regional development plan secured</p>	<p>CONAMA reports on BAP progress, Magellanian Region Development Plan process documents</p>	<p>Continued support for Fuegian bryo-diversity initiative from regional and local interests</p>
<p><b>Activities</b></p>		<p><b>Activity Milestones (Summary of Project Implementation Timetable)</b></p>	
<p>Year 1 Field Survey</p> <p>Bryology training course</p> <p><i>In vitro</i> lab established</p>	<p>Year 1 expedition and survey completed 1/2005</p> <p>Chilean bryological and <i>in vitro</i> culture training course completed 2/2005</p> <p><i>In vitro</i> laboratory staff and facilities functioning at Instituto de la Patagonica 2/2005</p>		
<p>Preliminary results</p> <p>Year 2 Field Survey</p> <p>Conservation courses</p>	<p>Early scientific outcomes appearing in reports and bulletins 5/2005</p> <p>Year 2 expedition and survey completed 2/2006</p> <p>Conservators and resource-users courses completed 2/2006</p>		
<p>Conservation impact</p> <p>Year 3 Results</p> <p>Reporting</p>	<p>Recommendations presented - biodiversity action and regional development plans 5/2006</p> <p>Full inventory and first formal international research publications appearing 3/2007</p> <p>Darwin final report 3/2007</p>		

