Darwin Initiative project 14-019

Youth Participation in Protected Area Management in Rodna

Mountains, Romania

2005 - 2008

Final Report



Table of contents

D۵	rwin project information	1
1	Project Background	1
2	Project support to the Convention on Biological Diversity (CBD)	2
3	Project Partnerships	3
4	Project Achievements	4
	4.1 Impact: achievement of positive impact on biodiversity, sustainable use or equitable sharing of biodiversity	,
	benefits	4
	4.2 Outcomes: achievement of the project purpose and outcomes	6
	4.3 Outputs (and activities).	7
	4.4 Project standard measures and publications	9
	4.5 Technical and Scientific achievements and co-operation	9
	4.6 Capacity building	13
	4.6.1 Training	13
	Training in participatory biodiversity assessment and monitoring	13
	Training in adaptive management	14
	Training in tourist guiding	14
	Training in the use of GIS software and remotely sensed satellite data	15
	4.6.2 Institution building and fundraising support	15
	4.7 Sustainability and Legacy	15
5	Lessons learned, dissemination and communication	16
	5.1 Darwin identity	18
6	Monitoring and evaluation	18
	6.1 Actions taken in response to annual report reviews	19
7	Finance and administration	19
	7.1 Project expenditure	19
	7.2 Additional funds or in-kind contributions secured	19
	7.3 Value of DI funding	19
	Annex 1 Report of progress and achievements against final project logframe for the life of the project	20
	Annex 2 Project's final logframe, including criteria and indicators	24
	Annex 3 Project contribution to Articles under the CBD	27
	Annex 4 Standard Measures	29
	Annex 5 Publications	33
	Annex 6 Darwin Contacts	35
	Annex 7 Participatory biodiversity inventories and monitoring undertaken by the Darwin Clubs	36
	Annex 8 Public presentations made to disseminate project results 2005 – 2008	48
	Annex 9 Media coverage - a few scanned copies of articles published in local and regional newspapers	52
	Annex 10 Confirmation of special issue of the IJBSM	54

Darwin Initiative – Final Report

(To be completed with reference to the Reporting Guidance Notes for Project Leaders (<u>http://darwin.defra.gov.uk/resources/reporting/</u>) it is expected that this report will be a **maximum** of 20 pages in length, excluding annexes)

Darwin project information

Project Reference	14-019
Project Title	Youth participation in protected area management in Rodna Mountains, Romania
Host country(ies)	Romania
UK Contract Holder Institution	University of Oxford (Environmental Change Institute)
UK Partner Institution(s)	-
Host Country Partner Institution(s)	Rodna Mountains National Park Administration
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Project Leader Name	Anna Lawrence
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Report Author(s) and date	Alina Szabo, Anna Lawrence and Claudiu Iusan, 04/11/2008

1 Project Background

This project aimed to develop and implement a participatory youth-led management plan for the Rodna Mountains National Park (PNMR) in Romania (Fig. 1) that would work towards improving local livelihoods, and to promote this method as a model of regional relevance.

To achieve this purpose the project team has created eight Darwin Clubs of "Friends of PNMR" in local schools, developed the first management plan for this park, trained park staff and clubs in GIS for protected area management, participatory biodiversity monitoring and tourist guiding, and organised three national level seminars in Romania and one international symposium to disseminate results.

1



Fig.1 Project location

2 Project support to the Convention on Biological Diversity (CBD)

This project contributed to the implementation of the CBD through the elaboration of a management plan, producing a field guide and establishing permanent monitoring plots, supporting *in-situ* conservation, research undertaken by and training of local people, the use of participatory techniques and technical and scientific cooperation between UK and Romanian collaborators.

Moreover, the project addressed the following *thematic programmes*: forest biodiversity, mountain biodiversity, as well as the *cross-cutting themes*: biological diversity and tourism, protected areas, and public education and awareness.

The local partner, the Administration of Rodna Mountains National Park (APNMR) has developed the link with the CBD focal point; however, during the project implementation the person in charge of the focal point was replaced twice and APNMR has had to re-initiate and build contact with the newly appointed persons.

3 Project Partnerships

The local project partner in Romania was the Administration of Rodna Mountains National Park (APNMR). They were actively involved in coordinating project activities and initiating and maintaining collaboration with other institutions. Also, key partners in this project were the schools where Darwin Clubs were established, and later on the ECO RODNA association created by all those involved in participatory biodiversity monitoring to continue biodiversity conservation activities. The APNMR and the Darwin Clubs were involved in project implementation from the very beginning through regular meetings and workshops to plan and analyse results and to adapt methods.

Because the project proposal was written together by the project partners and with the consultation of the schools that were later on involved in its implementation, no major changes to the original plans have occurred. During the project's lifespan, the partnership was driven by local demand, in particular with respect to equipment and training needs; project planning and decisions were the result of close collaboration and consensus between the UK team staff, the APNMR staff and the Clubs.

Taking into account the complexity and innovatory approach of this project and the fact that in Romania, in line with other former communist countries there is no tradition in participation in its stronger forms, challenges inevitably surfaced during the project. They were addressed mainly by discussions and monthly meetings (the project manager spent a great amount of time at the project site) and through training. Transfer of knowledge from the UK to the Romanian partner was essential (especially because APNMR was created only in 2004, one year before starting this project) and covered various essential aspects of protected area management (management planning, biodiversity monitoring, using GIS, GPS, etc.) as well as project management, fundraising, organising seminars/international conferences and ecological camps, and designing information materials.

A key strength of the partnership was the enthusiasm of the local partner and school clubs (and their coordinators), which endured for the entire duration of the project and beyond. Also important was the fact that the project manager spent a large proportion of time at the project site to ensure that activities were carried out timely and effectively, and to provide constant support to local partners. In addition to this, the partnership was instrumental in building local institutional

3

frameworks through the creation of the ECO RODNA NGO, a significant additional achievement, not included in the original project plan but important for providing a framework for local people's participation and the future improvement of local livelihoods in ways that are sensitive to local nature.

Amongst other collaborating institutions were: the park's Scientific and Consultative Councils, the Bistrita County Forest Office, the Protected Areas Service of the RNP-Romsilva (the National Forest Administration), other protected area administrations, the Focal Centre for Biodiversity Management and Conservation (NGO), and the Emil Racovita Institute of Speleology.

No international partners were involved in designing and implementing this project. Local partnerships remain active, in particular the close collaboration between APNMR and ECO RODNA who are currently coordinating efforts to take further the model developed during this project.

4 **Project Achievements**

As mentioned in section 1 (Project background), the purpose of this project was to develop a participatory, youth-led management plan for the PNMR. In order to achieve that, the project had three main outputs (as documented in the project logical framework – see Annex 1): 1. Baseline and monitoring systems established; 2. Management plan developed and implemented; and 3. Experience evaluated, model developed and promoted.

4.1 Impact: achievement of positive impact on biodiversity, sustainable use or equitable sharing of biodiversity benefits

The ultimate goal of this project was to draw on UK expertise to work with Romanian partners to conserve biodiversity. Although by achieving the project purpose and outcomes as presented in the logical framework the immediate impact on biodiversity is not easily measurable, this project nevertheless has a long-term positive effect through improving local capacity for biodiversity conservation and by building social capital for biodiversity.

The evidence for achieving the project purpose rests mainly with the participatory management plan that was developed and approved by the Scientific Council of the park and by the Nature Monuments Committee of the Romanian Academy. As reported previously, the final approval by the Ministry of Environment and Sustainable Development (MESD) has not occurred during the implementation of the project for reasons outside the control of the partners (in particular several policy changes, especially new requirements introduced in 2007 following which all protected areas had to revise their plans to include the new legislation and re-submit them to the MESD for approval). The latest legislation requires that management plans are approved by the National Agency for Protected Areas (ANAP), an institution under the coordination of the MESD that has not yet been established. Contacts made by the project manager and APNMR indicate that there is political will for the creation of ANAP and the approval of management plans is expected to follow shortly. The management plan forms the basis on which all park activities will be undertaken in the five years following its approval.

This project helped Romania to meet its obligations under the Convention of Biological Diversity in several ways (see point 2 above and Annex 3); moreover it addressed priorities set out in the Romanian **National Biodiversity Strategy and Action Plan** and the **National Environmental Action Plan** through the development of the first management plan for the Rodna Mountains National Park, through producing a field guide to common species from the park, through working with experts and training park staff and local people in techniques for biodiversity conservation and by employing participatory biodiversity monitoring. The model developed in Rodna will be implemented in four other Romanian protected areas (the Bicaz Gorges – Hasmas Mountain National Park, the Calimani Mountains National Park, the Jiu Straits National Park and the Small Island of Braila Nature Park).

The collaboration between the UK and Romanian partner has been good throughout the project. This was due to continuous communication and extended visits to the project site made by the UK team, in particular the project manager. In addition to this, the partnership was instrumental in building local institutional frameworks through the creation of an NGO, ECO RODNA established by all those involved in participatory biodiversity monitoring in order to continue biodiversity conservation activities.

The greatest social impact of the project was on the Darwin Clubs and their coordinators. Through them, the impact reached the local communities and everybody knew about 'the Darwin project'. As a consequence, numerous schools and communities where no clubs were established have asked to join the club network and ECO RODNA (Doina Jauca, APNMR director - personal communication). The main indicators used to measure the impact on the Darwin Clubs were their perception of the protected area and its biodiversity and their expectations of the project and how it helped them. The indicators were assessed through questionnaire surveys as well as through various activities undertaken as part of the summer camps (group discussions on the role of the park and its administration; team work on various topics ranging from biodiversity monitoring to

Darwin Initiative project 14-019 Final report

5

tourism and public awareness; presentations made by the pupils).

4.2 Outcomes: achievement of the project purpose and outcomes

This project has achieved its purpose and more. At the project onset APNMR was a new institution with insufficient capacity to carry out its role. Between 2005 and 2008 the park administration developed knowledge and experience (see also point 4.6 below) to enable them to access additional funds together with ECO RODNA in order to carry out biodiversity conservation activities. In addition, the equipment purchased has had a significant contribution to facilitating a modern approach to biodiversity conservation in this park; as far as we are aware the Rodna Mountains National Park is the only park in Romania where each ranger is equipped with a GPS unit. Also, extremely important is the network of institutions and individuals with whom APNMR has collaborated over the duration of this project and which includes local and national actors on whom the administration will be able to rely in the future.

Moreover, the park administration and ECO RODNA have access to a pool of more than 100 volunteers who are keen to contribute time and effort for nature conservation. Two pupils' opinions presented below and the photographs included with point 4.3 speak for the impact that this project has had on those involved.

"The initiative undertaken by APNMR – Darwin has led to the forming on new feelings amongst young people with respect to the conservation of biodiversity. I, at least, have learned to respect nature, to keep it clean and to encourage others to protect it too. Now I know endemic plant species, and threatened animals and plants, and I learned how to monitor several species of beetles and amphibians. In conclusion, the Darwin project brought me only benefits, it contributed to my education and prepared me for life." TARCOMAN-OCHEA ALINA, 11th grade

"I learned very many beautiful things and, in turn, I can teach others who are interested in protecting nature. Monitoring various species of animals and plants was an opportunity to perfect team work. The fact that we have such beautiful mountains should make us all interested in everything they have to offer and in learning more about them. I will give to the mountains everything that they offer us: protection and respect."

BALOTA DAN, 12th grade

4.3 Outputs (and activities)

Overall, this project has been successful in achieving the proposed outputs as detailed in the logical framework, which formed the basis for evaluation and monitoring of progress (see point 6). The photos presented here emphasise various aspects of the work carried out. More photos are included in Annex 7.



Stakeholder meetings and workshops

Presentations made by the project team

Darwin Clubs learning various biodiversity research and monitoring techniques:



Using a GPS



Using live traps for small mammal studies



Identifying plant species



Dormouse houses used for monitoring populations



Measuring tree DBH

Using quadrates for plant surveys

Darwin Club members participating in field trips and ecological camps:



Drawings made for the field guide by the Corneliu Baba Arts High School Darwin Club:



Launching the ECO RODNA NGO

NGO logo

Darwin Clubs logo







Darwin Initiative project 14-019 Final report

However, some drawbacks were encountered. When the project started the APNMR team was very small, without experience in project management and biodiversity inventory and monitoring, and with insufficient equipment to carry out their duties. Later on, more staff were hired making a substantial contribution to project implementation. The capacity of the APNMR team to fulfil their duties was also increased through the equipment purchased and the training offered as part of this project.

An important, yet unexpected, problem that affected the database and GIS component of the project was the fact that the APNMR's IT officer went on maternity leave six months into the project implementation and no suitable replacement was found until the third year (the park administration headquarters are located in a rural area and it was difficult to hire someone qualified and willing to live there, especially taking into account the fact that salaries of park staff are small). The duties were partially supplemented by the project manager and the park Biologist in collaboration with the UK GIS consultant, and partially through outsourcing some of the tasks – for example the Focal Centre for Biodiversity Monitoring and Conservation was contracted to create a digital elevation model (DEM) for the park.

One of the important assumptions mentioned in the logical framework was that no "major changes in the legal requirements with respect to protected areas" would occur during project implementation. Unfortunately this was not the case. Several policy changes and new legislation passed during the project lifespan have impacted activities planned, in particular the approval and implementation of the management plan (the implementation started in practice without the plan being officially approved). This, as explained before, was due to circumstances outside the control of the project team.

4.4 Project standard measures and publications

The lists of standard measures and publications that resulted from this project are presented in Annexes 4 and 5. It is worth noting that overall the proposed measures were achieved. Where there are differences, these are highlighted. This project has also succeeded in achieving additional outputs among which the creation of an NGO stands out.

4.5 Technical and Scientific achievements and co-operation

Research within this project has been undertaken on several levels:

9

Questionnaire surveys conducted at the beginning and at the end of the project in local communities to collect information on stakeholders' perception of the protected area and the role of its administration. This research was undertaken in collaboration with students from Lucian Blaga University Sibiu, Faculty of Science – Department of Sociology and Ethnology. The questionnaires were developed by the two project partners with input from the students and the results of the first set of questionnaires helped inform the way in which the park administration communicates with local communities.

In brief, the results of the first questionnaire survey which was applied between autumn 2005 and spring 2006 to 504 people from local communities showed that in general they were aware of the aims of the national park, 60% of them stating that this was the protection of plants and animals. However, when it came to the sources of information on park issues, the respondents named local sources (32%, e.g. mayor, other people from the community, etc.), mass-media (15.1%) and the local forest office and/or park administration (13.9%). About two thirds (61%) of respondents declared that they have been inside the park and named the most popular areas as their destination. However, surprisingly, more than half of the respondents (54.2%) thought their village was inside the park borders, while in reality only a few houses from one small village are included; this demonstrated the need for the park staff to increase awareness of the park limits. Respondents also proved to lack information about the park's biodiversity, almost half of them (48%) stating that they did not know what was special about the park and only 1.4% of them could name the endemic plant species ('opaitul Muntilor Rodnei' – the Romanian common name for *Silene nivalis*) that is the emblem of these mountains and is also found in the park logo. When asked about what role they would like to have in park management almost half of them (47.8%) said that they did not want any role, while 18.3 stated they would do anything, and 17.1% declared that they would like to be volunteers (others declared that they would like to work as rangers: 8.6%; as leaders: 6.4%; or as tourist guides: 1.8%). This underlined the need for awareness campaigns on the role of public participation in the management of protected areas and the opportunities that this could bring for local communities, which were carried out through public presentations and the seminars organised in November 2006 and January 2008.

The second round of questionnaires are currently being analysed and together with the first set will form the basis for developing a communication strategy and an environmental education programme for the park. Other questionnaire surveys were conducted by the Darwin Clubs to collect information on traditional use of natural resources in the park area and on tourism; the results of these surveys were used in the management plan. Moreover, the information collected on the traditional use of resources will be included in a future monograph of the park which is being prepared by the administration (and was included as an activity in the management plan).

- 2. Biodiversity inventories undertaken by scientists collaborating with the project on several taxonomic groups: Lepidoptera , which led to the discovery of a new species for Romania *Apotomis infida*, Coleoptera, Colembola, Aranea, Orthoptera and small mammals. As part of the process of developing the first management plan for this park, priority habitats and species both for monitoring and for research were identified. For groups where information was not available or was minimal (Coleoptera, Colembola, Aranea and Microlepidoptera) collaboration with specialists was necessary. This project (by providing equipment and funding) facilitated such partnerships between APNMR and various Romanian experts from the Focal Centre for Biodiversity Management and Conservation, and the Emil Racovita Institute of Speleology. The work led to the doubling of the list of species known from this park and the results were included in three papers published in Romanian journals (see Annex 5 for details).
- **3. Participatory biodiversity inventories and monitoring** undertaken by the Darwin Clubs. This work, which is detailed in Annex 7, was based on standard protocols and data collection sheets that were developed through a 'learning by doing' process with an emphasis on scientific methods and principles. The protocols and the data collected are centralised by the park administration and verified by scientists collaborating with the park biologist.

This aspect represented a major part of the project and although it seemed straightforward in theory, in practice it turned out to be very challenging. This was due to the fact that with the exception of the park biologist the other members of the APNMR team and the Darwin Clubs had little if any knowledge of biodiversity research techniques. Consequently, training needed to be provided in biodiversity inventory and monitoring methods, in how participation can contribute to biodiversity data collection, and in data management (see also point 4.6 Capacity building).

Careful consideration was given to designing a monitoring programme based on priorities identified through the management plan but also on the interests of the Darwin Clubs and 18 monitoring plots were established. Monitoring protocols and sheets were developed for

each of the species/habitats studied (examples are provided in Annex 7). The protocols were tested and refined during the 2006 and 2007 field seasons in order to correspond to the ability of those involved – they needed to be simple enough for school children to be able to follow and to collect the data needed, but at the same time rigorous enough to maintain adequate scientific standards.

Probably the most challenging aspect of this work relates to data management. As explained in previous reports and in section 4.3 above, a suitable IT officer was not available for the greater part of the project. As a result, data that were collected during the first two years were poorly handled and some of them were lost despite efforts made by the project manager and the park biologist. This represented a firm (albeit unnecessary) learning experience for the park administration who improved their data storage and manipulation standards.

The experience accumulated from this project component formed the core of the participatory protected area management model that was at the centre of the final symposium organised in March 2008. The lessons learned were written up and submitted for inclusion in a special issue of the International Journal of Biodiversity Science and Management which is dedicated to the symposium and includes four other cases from Central and Eastern Europe.

4. Collection of spatial data – technical work in GIS. This work undertaken as part of the GIS component of the project included collection of <u>the first geo-referenced data</u> for this park in the following ways:

• Digitizing existing hard copy maps (in particular the map of forest sub-parcels - the basic forest management units – a very effort intensive undertaking but absolutely necessary taking into account the fact that 60% of the park area is covered by forests)

• Subcontracting the Focal Centre for Biodiversity Management and Conservation to produce the digital elevation map for the park (based on hard copy maps of 40m contours)

- Acquiring digital datasets and imagery from other institutes, projects and individuals
- GPS data collected by schoolchildren through the Darwin Clubs
- GPS data collected by rangers

• Invitation of specialists to visit the Clubs and undertake studies, surveys and inventories in the park

This work has contributed to the GIS database of the park and added valuable information needed for park management. The focus in this project component was on transfer of knowledge from the UK partner to the APNMR (with the limitations imposed by the absence of the IT officer as mentioned above). No papers resulted from this work.

5. Social research on a meta-analysis scale, to understand the way in which new governance modes fit the needs of post-socialist countries. This is being summarised in the editorial article for the special issue of International Journal of Biodiversity Science and Management.

4.6 Capacity building

The local capacity for biodiversity work has been strengthened by various training courses offered during the project, by institution building and by assistance and advice given by the UK partner on project proposal writing and fundraising.

4.6.1 Training was given in:

- participatory biodiversity assessment and monitoring
- adaptive management
- tourist guiding
- GIS and remote sensing for protected area management

Training in participatory biodiversity assessment and monitoring

The Rodna Mountains NP, in common with other protected areas from Romania and Central and Eastern Europe, has insufficient resources - manpower, finance, infrastructure, equipment – for effective biodiversity conservation. Hence, there was much scope for involving volunteers to assist with data collection; at the same time, this approach was new for Rodna and the whole of Romania. In addition, the park staff, with the exception of the biologist, did not have any knowledge or previous training in biodiversity research methods. Therefore, training was necessary in order to ensure that the work conducted by the Darwin Clubs would be valuable to the clubs as well as the park management.

The training was carried out in October 2005 (1 week), July and August 2006 (2 weeks) and July 2007 (1 week) and focused on:

- presentations to park staff and Darwin Clubs coordinators on the role of volunteers in biodiversity research; and the importance of data flow systems and database structures that facilitate multi-user input and quality control;
- tutorials for park staff (in particular the biologist and rangers) on how to plan a biodiversity inventory and monitoring programme, and biodiversity research methods;
- hands-on, field training for park staff and Darwin Clubs in species identification and biodiversity research methods.

Training in adaptive management

This was offered through seminars at project start up, May 2005, to provide context in changing conservation ideas; and through the practical experience of preparing the management plan, which included inbuilt adaptive components. Throughout, participatory biodiversity monitoring was presented as a tool to facilitate adaptive management.

Training in tourist guiding

This training was deemed necessary in order to give local people an opportunity to see that having a protected area nearby is not just limiting their access to resources but could improve their livelihoods as well. The questionnaire surveys undertaken in local communities showed that mainly young people were keen on learning this kind of skill. Because of this and also because contracting a certified organisation to run a training programme was beyond the financial means of this project we decided to employ the knowledge of two certified members of the park staff and to focus on pupils form the Darwin Clubs. Training was conducted in July and August 2006 as part of student camps organised by APNMR. We also collaborated with the Life Nature project LIFE05NAT/RO/000176 in hoping to provide certified training for other members of local communities; however, this training will only take place in September 2008.

Training provided during student camps included:

- presentations on the role of the tourist guide and the knowledge base needed;
- institutions offering certified courses;
- first aid and orienteering skills;
- practical application of knowledge in the field;
- presentations made by students based on the theoretical and practical knowledge accumulated.

In addition, a leaflet with information on tourist guiding skills and how to access certified courses was designed and was widely distributed in local communities.

Training in the use of GIS software and remotely sensed satellite data

This training was carried out in May 2005 (1 week), October 2005 (1 week), and March 2007 (1 week, followed by extensive one-on-one training of the then hired GIS person in July-August 2007) and included:

- Hands-on software tutorials using conservation applications as case studies.
- A range of tutorial sessions and easily accessible presentations on:
 - GIS and remote sensing including case studies of how GIS and remote sensing have been used for conservation applications and management planning
 - Using Global Positioning Systems (GPS) for data-gathering and entry

• Participatory survey techniques, adaptive management and the use of indicators These were targeted as required to a range of audiences that included the IT manager, the Park Biologist, the rangers, the teachers leading the Darwin Clubs, the students and other lay-people.

- Identification of key data sets and how to acquire or create them
- Use and basic manipulation of satellite imagery for change detection and habitat mapping

4.6.2 Institution building and fundraising support

This project facilitated local institution building through the creation of a local NGO – ECO RODNA. Although not initially planned, this NGO represents an outstanding achievement of the project and provides the most suitable framework for the park staff and the Darwin Clubs to continue the work. UK staff, and in particular the project manager, supported fundraising initiatives and offered constructive suggestions on several funding proposals prepared by the park staff, a process that strengthened APNMR's capacity and fundraising skills. Since then, park members and ECO RODNA have been successful in securing funding from the Deutsche Bundesstiftung Umwelt & Alfred Toepfer Academy for Nature Conservation (Germany) and the Dutch Embassy in Romania (Matra KNIP project).

In addition, the equipment purchased as part of the project will continue to enable the park staff to carry out biodiversity work beyond the end of this project. Moreover, it can be used as an in-kind contribution for raising additional funds.

4.7 Sustainability and Legacy

The management plan will receive final approval (as indicated by discussions between APNMR

director and the Ministry of Environment and Sustainable Development); implementation of activities included in the plan has already started. Moreover, the participatory monitoring of biodiversity will continue through the strong collaboration forged between APNMR, local schools and ECO RODNA. Another important project output that will endure is the field guide to the common species from the park. Project partners will keep in touch especially through the project manager who took up a position with WWF in Romania, working amongst other tasks on the Life project "Priority forest, sub-alpine and alpine habitats in Romania" (LIFE05NAT/RO/000176) with one component focused on Rodna Mountains. The project manager will continue to be involved in the further application of the model in other protected areas.

The model developed as part of this project has been expanded to include other schools from the Rodna Mountains National Park area and will be implemented in other protected areas (the Bicaz Gorges – Hasmas Mountain National Park, the Calimani Mountains National Park, the Jiu Straits National Park and the Small Island of Braila Nature Park), an effort currently coordinated by APNMR and ECO RODNA. This will ensure further impact and legacy.

5 Lessons learned, dissemination and communication

Key lessons learned during this project that could be useful to anyone wishing to embark on such an undertaking can be summarised as follows:

- 1. It is very useful to conduct a questionnaire survey of local people's opinion of the park and its administration before embarking on a management planning exercise.
- 2. Involve local people from the very beginning, including 'non-traditional' stakeholders such as schools and local pupils and teachers.
- 3. Establish formal partnerships through agreements signed between stakeholders.
- 4. Incorporate institutional capacity building for participatory protected area management.
- 5. For participatory biodiversity monitoring select small, clear projects using simple methods tailored to the abilities of volunteers involved. Ensure that protocols are documented and a suitable database manager is hired. Put in place processes through which data collected are verified.
- 6. Establish a mechanism by which data are easily and quickly integrated into decision making.
- Ensure that access to necessary funds is easy. In the Rodna case the creation of an NGO opened up new funding opportunities.
- 8. Keep it simple and cost-effective.
- 9. Plan every stage carefully but, at the same time, be flexible and adaptive.

- 10. Do not underestimate the amount of time needed.
- 11. This project was based on an innovative approach and it would have benefited greatly from an additional year of funding. This would have allowed us to secure the approval of the management plan and to gather sufficient monitoring and distribution data to allow a statistical analysis and full distribution mapping.

The dissemination of project results has been achieved through:

- Websites http://www.eci.ox.ac.uk/research/humaneco/youthparticipation-romania.php and http://www.eci.ox.ac.uk/research/humaneco/romania-conference08.php
- Public presentations Annex 8 includes a list of all presentations held in local schools and communities.
- Newspapers a few scanned copies of articles are presented in Annex 9.
- Radio interviews and TV features details are included in Annex 4.
- National level seminars in Romania "Participatory Management of Protected Areas in Romania – Current status and Future Trends", 24 November, Singeorz-Bai; "European Funds for People and Nature", 31 March 2007, Borsa; "Model of Participation in Protected Area Management – A case study on the Rodna Mountains National Park", 11 January 2008, Blazna.
- Exchange visits with protected areas from Slovakia and Bulgaria March 2007, High Tatra National Park and Slovenski Raj National Park in Slovakia; May 2007, Central Balkan National Park and Roussenski Lom Nature Reserve in Bulgaria.
- An international symposium, an impressive achievement, the first of its kind in Romania and in the region – "Participating in Nature: Communities and Protected Areas in Central and Eastern Europe", 10-13 March 2008, Bistrita, Romania. The symposium was attended by 64 participants from 12 countries and selected papers form a special issue on the International Journal of Biodiversity Science and Management (see confirmation e-mail in Annex 10).
- Participation in other conferences: "The first European Congress in Conservation Biology: Diversity for Europe", 21-26 August 2006, Eger, Hungary.
- Several publications details are provided in Annex 5.

Target audiences ranged from local schools and communities to protected area managers and other institutions involved in conservation in Romania, to the wider public, as well as international conservation practitioners and academics.

5.1 Darwin identity

The Darwin Initiative was publicised throughout the project lifespan. Even from the very beginning the clubs established in local schools took on the name of Darwin Clubs. All documents produced during the project bear the Darwin Initiative logo. This was also included on the car purchased and on all banners used for national seminars and the international symposium organised as part of the project. The funding was acknowledged in all the media articles and interviews. Moreover, the Darwin Initiative logo was printed on vests that the Darwin Clubs used in their field activities and was the inspiration for the clubs logo that later became the logo of the ECO RODNA. Throughout, the project was known as 'the Darwin project'.

Because of this and other Darwin Initiative funded projects there is a good perception of the Darwin Initiative in Romania, especially amongst persons and institutions involved in biodiversity conservation. However as Romania is no longer eligible for Darwin funding it must be recognised that attention has shifted to EU funding sources.

This project was distinct and with a very clear identity demonstrated by its innovative approach to protected area management.

6 Monitoring and evaluation

This project followed the original logframe without any major changes. Project monitoring and evaluation were undertaken by both partners. Based on the project logical framework, activity calendars were drafted for each semester with carefully allocated tasks to members of the team. These calendars were posted in the main office of the APNMR and progress was assessed at least quarterly through meetings and workshops. APNMR had weekly meetings when they discussed tasks and progress.

Regular internal evaluations of the work undertaken were carried out throughout the project lifespan by reporting with detailed evidence against the logframe, and by the extended presence of the project manager. No formal external evaluation has been undertaken. However, the national seminars and the international symposium organised were a chance to share experience with others and receive their input.

6.1 Actions taken in response to annual report reviews

All issues raised in the reviews were discussed and addressed together by the project partners. As a result of the reviews we have increased the appeal of the project newsletter, have updated the project website and have provided additional documents as requested by the evaluators.

7 Finance and administration

7.1 Project expenditure

	Year 1	Year 2	Year 3	Year 4	Totals
Staff Cost		1	•	•	
Rent, Rates etc					
T&S					
Collaborator	Ī				-
Conference	Ī				
GIS	Ī				
Consultant					
Others					
	_				

7.2 Additional funds or in-kind contributions secured

The park biologist, Claudiu Iusan, secured additional funding totalling €10,000 from the Deutsche Bundesstiftung Umwelt & Alfred Toepfer Academy for Nature Conservation (Germany) to take further the work started by this project within a project titled: "Interactive network between schools, museums, NGOs and the Administration of Rodna Mountains National Park."

7.3 Value of DI funding

This project facilitated a series of achievements that otherwise would not have occurred in Romania:

- A management plan with emphasis on strong participation that would not have been possible in the absence of this project;
- The first model of participatory biodiversity monitoring in Romania;
- Three national level, extremely successful, seminars in Romania on the topic of participation in protected areas;
- An international symposium the only one on the theme of participation in protected areas in the region of Central and Eastern Europe.

Annex 1 Report of progress and achievements against final project logframe for the life of the project

Project summary	Measurable Indicators	Progress and Achievements May 2005 - May 2008	Actions required/planned for next period
 Goal: To draw on expertise relevant Kingdom to work with local partners is constrained in resources to achieve The conservation of biologica The sustainable use of its cor The fair and equitable sharing utilisation of genetic resource 	to biodiversity from within the United n countries rich in biodiversity but I diversity, nponents, and g of the benefits arising out of the s	(report on any contribution towards positive impact on biodiversity or positive changes in the conditions of human communities associated with biodiversity eg steps towards sustainable use or equitable sharing of costs or benefits)	(do not fill not applicable)
utilisation of genetic resourcesPurpose To develop and implement in collaboration with park authority and local and national stakeholders a participatory youth-led management plan for the PNMR that will work towards improving local livelihoods and to promote this method as a model of regional relevance.1. Baseline and monitoring systems established (end y1);2. Management plan developed and approved (end y2) and implementation commenced (end y2 and y3);3. Experience evaluated, model developed and promoted (end y3).		(report on progress towards achieving the project purpose, ie the sum of the outputs and assumptions) The project purpose was achieved overall. The baseline was established and participatory biodiversity monitoring activities were carried out according to an action plan. The management plan was finalised and submitted for approval – unfortunately this process has been delayed as explained elsewhere in this report. The model was documented and successfully promoted in Romania and in the region.	(Highlight key actions planned for next period)
Output 1 . Baseline and monitoring systems established (end y1)	Workshops and training for 35 participants; 1 database created; 2 lists of species and habitats prioritised for management; 1 list and 1 map of monitoring sites; development of an attractive and	(report general progress and appropriate Most activities under this output were implementation. In the second and this inventory and monitoring activities we placed on employing scientific metho- and using GIS. Also additional training	iateness of indicator) e carried out in the first year of project ird year, further biodiversity rere undertaken and emphasis was ods and collecting geo-referenced data ng was provided in years 2 and 3. A

	popular field guide to the wildlife of PNMR.	field guide to common species from the park was developed in year three. The indicators used to measure progress in achieving this output were appropriate, facilitating evaluation and quantification of results.
Activity 1.1 Planning workshop (Ma as well	by (05) – this is relevant for activity 2.1	Completed
Activity 1.2 Collect information biodiversity (May-Jul 05)	and studies on Rodna Mountains	Completed
Activity 1.3 Collect information on (May-Jul 05)	traditional use of natural resources	Completed
Activity 1.4 Collect information of protected area and the role of its a 07)	on stakeholders' perception of the dministration (Jul-Aug 05 and Jun-Jul	Completed
Activity 1.5 Purchasing of equipmen 05)	nt needed for field surveys (May-Jul	Completed
Activity 1.6 Training workshop on p monitoring (Jul 05 and 06)	participatory biodiversity surveys and	Completed
Activity 1.7 Training in the use of management (May and Oct 05, Oc	f GIS techniques for protected area t 06, Oct 07)	Completed
Activity 1.8 Systematic participatory Apr 08)	v inventories and monitoring (Jul 05-	Completed
Activity 1.9 Field guide compiled (Sep 07)		Completed; the published guide is expected to be available at the end of 2008.
Output 2. Management plan	Workshops; training; management	(report general progress and appropriateness of indicator)
developed and implemented.	plan approved; annual work plan developed; 6 student clubs 'Darwin volunteers for PNMR'.	A participatory management plan was developed by May 2006; it has received the approval of the park's Scientific Council and of the Nature Monuments Committee of the Romanian Academy. The approval of the Ministry of Environment and Sustainable Development is still pending as explained. Eight Darwin Clubs were established in local communities. The indicators used to measure this output were straightforward and appropriate.
Activity 2.2 Memorandum of Understanding signed (Apr 05)		Completed

Activity 2.3 Identification of priority (May 05)	areas and formation of work teams	Completed
Activity 2.4 Workshops (3) to analys Sep 05 and Feb 06)	se and synthesise findings (May &	Completed
Activity 2.5 Establishment of 'Darwi clubs (May 05)	in volunteers for PNMR' student	Completed
Activity 2.6 Training in adaptive mat 05)	nagement techniques (May and Oct	Completed
Activity 2.7 Training in tourist guidi	ng skills (June 06)	Completed
Activity 2.8 Management plan drafted 06)	d and distributed for comments (Mar	Completed
Activity 2.9 Management plan finalis	ed (May 06)	Completed
Activity 2.10 Annual work plans de (06-08)	eveloped (July 06) and implemented	Implementation of the management plan started although the plan has not yet received final approval
(06-08)Output 3. Experience evaluated, model developed and promoted.Newsletter; at least 2 academic papers written; 1 model for participatory protected area management developed; 1 conference to present findings; annual presentations of results to local communities and schools; website development.		Project results were analysed on several occasions during project workshops with the participation of both partners. Moreover, findings were disseminated locally and internationally through public presentations, conference attendance, seminars and an international conference organised for this purpose, as well as posters, brochures, and leaflets. The model proposed by this project for participatory protected area management was finalised; it was well received in Romania and in the region. Papers presented at the final conference, two of which were written by project partners, were collected in a special issue of the International Journal of Biodiversity Science and Management. Several other papers resulted from this project (see Annex 5). Indicators for this output were easily measurable and appropriate in assessing progress on this output.
Activity 3.1 Design of Newsletter (Aug 05 – issued twice per year Aug & Feb)		Completed
Activity 3.2 Project web page creation (May 05 – updated continuously)		Completed
Activity 3.3 Presentations in local co 07)	ommunities and schools (Sep 05, 06,	Completed

Activity 3.4 Workshops (3) to analyse results and develop model (Aug 06 & Mar and Sep 07)	Completed
Activity 3.5 Conference to disseminate results (Nov 07)	Completed
Activity 3.6 Conference proceedings, final report written, academic papers submitted (Mar 08)	Completed

Annex 2 Project's final logframe, including criteria and indicators

Project summary	Measurable Indicators	Means of verification	Important Assumptions	
Goal: To draw on expertise relevant to biod	liversity from within the United Kingdom to wor	k with local partners in countr	ries rich in biodiversity but poor in	
 the conservation of biological diversity, 				
 the sustainable use of its comp the fair and equitable sharing 	onents, and of benefits arising out of the utilisation of genetic	e resources		
Purpose To develop and implement in collaboration with park authority and local and national stakeholders a participatory youth-led management plan for the PNMR that will work towards improving local livelihoods and to promote this method as a model of regional relevance.	 Baseline and monitoring systems established (end y1); Management plan developed and approved (end y2) and implementation commenced (end y2 and y3); Experience evaluated, model developed and promoted (end y3). 	 Reports; Datasets and maps; Management plan; Publications; 	Stakeholder commitment to active participation in the programme.	

Outputs				
1. Baseline and monitoring systems established.	Workshops and training for 35 participants; 1 database created; 2 lists of species and habitats prioritised for management; 1 list and 1 map of monitoring sites; development of an attractive and popular field guide to the wildlife of PNMR.	List of participants; training materials; field reports; datasets – maps and inventory results; field guide compiled.	 Sustained interest and participation of the stakeholders; Commitment of partner institution to fulfilling the programme and continuity of its staff; 	
2. Management plan developed and implemented.	Workshops; training; management plan approved; annual work plan developed; 6 student clubs 'Darwin volunteers for PNMR'.	List of participants; workshop documents; draft and final version of management plan; comments from interested parties; letters of approval from the competent institutions; work plan for the first implementation year; statute and plan of activities for student clubs.	 No major changes in the legal requirements with respect to protected areas; Funding available for the whole duration of the project. 	
3. Experience evaluated, model developed and promoted.	Newsletter; at least 2 academic papers written; 1 model for participatory protected area management developed; 1 conference to present findings; annual presentations of results to local communities and schools; website development.	Issues of the newsletter; acknowledgement of submission of papers; document detailing methodology used; list of participants and conference proceedings; project web page.		

Activities	Activity Milestones (Summary of Project Implementation Timetable)			
1. Baseline and monitoring systems	1.1 Planning workshop (May 05)			
established.	1.2 Collect information and studies on Rodna Mountains biodiversity (May-Jul 05)			
	1.3 Collect information on traditional use of natural resources (May-Jul 05)			
	1.4 Collect information on stakeholders' perception of the protected area and the role of its administration (Jul-Aug 05 and Jun-Jul 07)			
	1.5 Purchasing of equipment needed for field surveys (May-Jul 05)			
	1.6 Training workshop on participatory biodiversity surveys and monitoring (Jul 05 and 06)			
	1.7 Training in the use of GIS techniques for protected area management (May and Oct 05, Oct 06, Oct 07)			
	1.8 Systematic participatory inventories and monitoring (Jul 05-Apr 08)			
	1.9 Field guide compiled (Sep 07)			
2. Management plan developed and	2.1 Planning workshop (May 05)			
implemented.	2.2 Memorandum of Understanding signed (Apr 05)			
	2.3 Identification of priority areas and formation of work teams (May 05)			
	2.4 Workshops (3) to analyse and synthesise findings (May & Sep 05 and Feb 06)			
	2.5 Establishment of 'Darwin volunteers for PNMR' student clubs (May 05)			
	2.6 Training in adaptive management techniques (May and Oct 05)			
	2.7 Training in tourist guiding skills (June 06)			
	2.8 Management plan drafted and distributed for comments (Mar 06)			
	2.9 Management plan finalised (May 06)			
	2.10Annual work plans developed (July 06) and implemented (06-08)			
3. Experience evaluated, model	3.1 Design of Newsletter (Aug 05 – issued twice per year Aug & Feb)			
developed and promoted.	3.2 Project web page creation (May 05 – updated continuously)			
	3.3 Presentations in local communities and schools (Sep 05, 06, 07)			
	3.4 Workshops (3) to analyse results and develop model (Aug 06 & Mar and Sep 07)			
	3.5 Conference to disseminate results (Nov 07)			
	3.6 Conference proceedings, final report written, academic papers submitted (Mar 08)			

Annex 3 Project contribution to Articles under the CBD

Project Contribution to Articles under the Convention on Biological Diversity

Article No./Title	Project %	Article Description
6. General Measures for Conservation & Sustainable Use	10	Develop national strategies that integrate conservation and sustainable use.
7. Identification and Monitoring	20	Identify and monitor components of biological diversity, particularly those requiring urgent conservation; identify processes and activities that have adverse effects; maintain and organise relevant data.
8. In-situ Conservation	20	Establish systems of protected areas with guidelines for selection and management; regulate biological resources, promote protection of habitats; manage areas adjacent to protected areas; restore degraded ecosystems and recovery of threatened species; control risks associated with organisms modified by biotechnology; control spread of alien species; ensure compatibility between sustainable use of resources and their conservation; protect traditional lifestyles and knowledge on biological resources.
9. Ex-situ Conservation		Adopt ex-situ measures to conserve and research components of biological diversity, preferably in country of origin; facilitate recovery of threatened species; regulate and manage collection of biological resources.
10. Sustainable Use of Components of Biological Diversity	10	Integrate conservation and sustainable use in national decisions; protect sustainable customary uses; support local populations to implement remedial actions; encourage co-operation between governments and the private sector.
11. Incentive Measures		Establish economically and socially sound incentives to conserve and promote sustainable use of biological diversity.
12. Research and Training	20	Establish programmes for scientific and technical education in identification, conservation and sustainable use of biodiversity components; promote research contributing to the conservation and sustainable use of biological diversity, particularly in developing countries (in accordance with SBSTTA recommendations).
13. Public Education and Awareness	20	Promote understanding of the importance of measures to conserve biological diversity and propagate these measures through the media; cooperate with other states and organisations in developing awareness programmes.
14. Impact Assessment and Minimizing Adverse Impacts		Introduce EIAs of appropriate projects and allow public participation; take into account environmental consequences of policies; exchange information on impacts beyond State boundaries and work to reduce hazards; promote emergency responses to hazards; examine mechanisms for re-dress of international damage.
15. Access to Genetic Resources		Whilst governments control access to their genetic resources they should also facilitate access of environmentally sound uses on mutually agreed terms; scientific research based on a country's genetic resources should ensure sharing in a fair and equitable way of results and benefits.

Article No./Title	Project %	Article Description
16. Access to and Transfer of Technology		Countries shall ensure access to technologies relevant to conservation and sustainable use of biodiversity under fair and most favourable terms to the source countries (subject to patents and intellectual property rights) and ensure the private sector facilitates such assess and joint development of technologies.
17. Exchange of Information		Countries shall facilitate information exchange and repatriation including technical scientific and socio-economic research, information on training and surveying programmes and local knowledge
19. Bio-safety Protocol		Countries shall take legislative, administrative or policy measures to provide for the effective participation in biotechnological research activities and to ensure all practicable measures to promote and advance priority access on a fair and equitable basis, especially where they provide the genetic resources for such research.
Other Contribution		Smaller contributions (eg of 5%) or less should be summed and included here.
Total %	100%	Check % = total 100

Annex 4 Standard Measures

Standard measures proposed by this project are presented in blue. **What the project succeeded in achieving** is presented in black. **Additional achievements** which were not planned are written in red.

Code	Description	Totals (plus additional detail as required)
Training	g Measures	
1a	Number of people to submit PhD thesis	n/a
1b	Number of PhD qualifications obtained	n/a
2	Number of Masters qualifications obtained	n/a
3	Number of other qualifications obtained	n/a
4a	Number of undergraduate students receiving training	Training of 30 local students in research & monitoring: more than 100 local school pupils were trained
		Training of 30 local students in tourist guiding: 40 local pupils received training
4b	Number of training weeks provided to undergraduate students	Participatory research and monitoring – 4 weeks: achieved
		Tourist guiding - 1 week: achieved
4c	Number of postgraduate students receiving training (not 1-3 above)	n/a
4d	Number of training weeks for postgraduate students	n/a
5	Number of people receiving other forms of long- term (>1yr) training not leading to formal qualification(ie not categories 1-4 above)	n/a
6a	Number of people receiving other forms of short- term education/training (ie not categories 1-5	Training 5 APNMR staff in adaptive management: achieved
	above)	Training 3 APNMR staff in GIS: achieved (with the modifications presented in report)
		Training of 5 APNMR staff in tourist guiding: as mentioned in the 2 nd half-year report we liaised with project LIFE05NAT/RO/000176 to train 5 staff in 2007; however, due to the very high costs and extensive time commitment required, this activity was not possible to be carried out before end of project. The training will be provided in September 2008.

Code	Description	Totals (plus additional detail as required)
6b	Number of training weeks not leading to formal qualification	Adaptive management - 2 weeks: achieved
		GIS - 3 weeks: achieved
		Tourist guiding - 1 week: see point 6a
7	Number of types of training materials produced for use by host country(s)	1 training material in adaptive management techniques: a poster was designed and distributed (800 copies)
		1 training material in GIS: as part of the GIS training a leaflet on using GPS units was produced in Romanian
		1 leaflet regarding tourist guiding was produced and distributed in local communities (500 copies in Romanian)
Researc	h Measures	
8	Number of weeks spent by UK project staff on project work in host country(s)	at least 40 weeks spent by UK staff in host country: UK staff spent 80 weeks in host country
9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (s)	1 species and habitat management plan: a management plan for the Rodna Mountain National Park was produced
10	Number of formal documents produced to assist work related to species identification, classification and recording.	1 field guide: a field guide to common species from the park was produced
11a	Number of papers published or accepted for publication in peer reviewed journals	1 academic paper published: two academic papers were published
11b	Number of papers to be submitted to peer reviewed journals	2 academic papers submitted: 2 papers were submitted as part of a special issue of the IJBSM (see Annex 5)
12a	Number of computer-based databases established (containing species/generic information) and handed over to host country	1 database created: partners decided to enhance the existing species and habitats database; a new GIS database was created
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country	1 database (see point 12a)
13a	Number of species reference collections established and handed over to host country(s)	n/a

Code	Description	Totals (plus additional detail as required)
13b	Number of species reference collections enhanced and handed over to host country(s)	n/a
Dissem	nation Measures	
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work	3 workshops and 1 conference organised to disseminate findings: 3 national level seminars and one international symposium were organised
14b	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	1 conference attended to present project findings: The First European Congress of Conservation Biology, 2006 - Eger, Hungary
15a	Number of national press releases or publicity articles in host country(s)	 3 national press releases in Romania: APNMR annual reports (3) and 2 press conferences (April 2007 and March 2008)
15b	Number of local press releases or publicity articles in host country(s)	12 local press releases in Romania (quarterly): 32 local and regional articles
15c	Number of national press releases or publicity articles in UK	3 national press releases in the UK (ECI's Annual Report): achieved
15d	Number of local press releases or publicity articles in UK	1 local press release in the UK
16a	Number of issues of newsletters produced in the host country(s)	1 newsletter (twice/year): all 6 issues were produced and distributed
16b	Estimated circulation of each newsletter in the host country(s)	estimated circulation in host country – 1000: 4800 newsletters were distributed in Romania
16c	Estimated circulation of each newsletter in the UK	estimated circulation in the UK – 30: on website
17a	Number of dissemination networks established	n/a
17b	Number of dissemination networks enhanced or extended	n/a
18a	Number of national TV programmes/features in host country(s)	1 TV programme in Romania: 1 feature on TVR1 (Romanian national network) in 2007
18b	Number of national TV programme/features in the UK	n/a
18c	Number of local TV programme/features in host country	3 local TV programmes
18d	Number of local TV programme features in the	n/a

Code	Description	Totals (plus additional detail as required)		
	UK			
19a	Number of national radio interviews/features in host country(s)	n/a		
19b	Number of national radio interviews/features in the UK	n/a		
19c	Number of local radio interviews/features in host country (s)	6 local radio interviews/features in host country: 10 radio interviews on Radio Cluj (regional station)		
19d	Number of local radio interviews/features in the UK	n/a		
Physica	al Measures			
20	Estimated value (£s) of physical assets handed over to host country(s)	£3,400 estimated value of assets transferred to APNMR: £9,602.92 were transferred (after approval of a car purchase)		
21	Number of permanent educational/training/research facilities or organisation established	1 NGO – ECO RODNA - established to continue project work		
22	Number of permanent field plots established	18 permanent field plots to be established: all 18 permanent monitoring plots were established		
23	Value of additional resources raised for project	GBP 77,166: £76,366 was contributed by the Romanian partner and it consisted in APNMR staff salaries and in-kind contributions – contributed on a <i>pro-rata</i> basis)		
Other Measures used by the project and not currently included in DI standard measures				
24a	Number of public presentations made in local schools and communities	80+		
24b	Number of persons in the public	5,834		
25	Other materials (leaflets and maps of the park) all bearing the Darwin Initiative logo	3,800		

Annex 5 Publications

Type *	Detail	Publishers	Available from	
(eg journals, manual, CDs)	(title, author, year)	(name, city)	(eg contact address, website)	£
Management Plan	APNMR (2006) Planul de management al Parcului National Muntii Rodnei	APNMR, Rodna, Romania	http://www.parcrodna.ro/Media/PlanManagementPNMRmartie2008. pdf	Free
Policy brief	Anon (2006) Citizen science and community participation in protected area management: a new approach for European transition countries	Environmental Change Institute, Oxford, UK	http://www.eci.ox.ac.uk/research/humaneco/downloads/romania- policybrief.pdf	Free
Editorial, special issue of journal	Lawrence A. (2008) Participatory conservation in the post-socialist context	The International Journal of Biodiversity Science and Management; Sapiens Publishing, Kirkmahoe UK	http://www.ingentaconnect.com/content/sapi/ijbsm	\$30 plus tax
Peer reviewed article	Szabo AE, Lawrence A, Iusan C and Canney S. (2008) Participatory protected area management – A case study from Rodna Mountains National Park, Romania	The International Journal of Biodiversity Science and Management; Sapiens Publishing, Kirkmahoe UK	http://www.ingentaconnect.com/content/sapi/ijbsm	\$30 plus tax
Symposium proceedings	(2008) Proceedings of the International Symposium "Participating in Nature:	Environmental Change	http://www.eci.ox.ac.uk/research/humaneco/romania- conference08.php	Free

	Communities and Protected Areas in Central and Eastern Europe"	Institute, Oxford, UK		
Field guide	Iusan C and Szabo AE. (2008) Ghidul speciilor commune din Parcul National Muntii Rodnei – Field guide to common species from Rodna Mountains National Park		Expected to be available from APNMR in December 2008.	
Peer reviewed article	Dincă V. and Goia M. (2005) Contributii la cunoasterea faunei lepidopterologice a Muntilor Rodnei [Contributions to knowledge on Lepidoptera from Rodna Mountains]	Bul. Inf. Societ. Lepidopt. Rom., pg.125- 164	From the journal or the authors; more information can be obtained from the park biologist: iusan2000@yahoo.com	
Peer reviewed article	Iusan C. (2006) Management participativ - metoda de conservare a biodiversitatii Parcului national Muntii Rodnei (Rezervatie a Biosferei) [Participatory management – a method for conserving biodiversity in Rodna Mountains National Park and Biosphere Reserve]	Acta Musei Maramorosiens is IV, pag. 155 – 161, Muzeul Sighetul Marmaţiei	From the journal or the author: iusan2000@yahoo.com	
Peer reviewed article	Nitzu, E., Popa, I., Nae, A. and Iusan, C. (2008) The soil and subterranean invertebrate fauna from the Rodnei Mountains Biosphere Reserve (Coleoptera, Collembola, Araneae, Orthoptera)	Trav. Inst. Speol. E Racovitza, Ed. Acad. Rom	From the journal or the authors; more information can be obtained from the park biologist: iusan2000@yahoo.com	
Project newsletter (6)			http://www.eci.ox.ac.uk/research/humaneco/youthparticipation- romania.php	Free

Ref No	14-019		
Project Title	Youth participation in protected area management in Rodna Mountains, Romania		
UK Leader Details	·		
Name	Anna Lawrence		
Role within Darwin Project	Leader / adviser on project management, participatory biodiversity M&E		
Address	Forest Research, Alice Holt Lodge, Farnham, Surrey, GU10 4LH		
Phone			
Fax			
Email			
Other UK Contact (if relevant)			
Name	Alina Szabo		
Role within Darwin Project	Project manager; training in biodiversity monitoring techniques		
Address	Str. 1 Decembrie 21 Bl. 11, Ap. 49, Medias, Romania		
Phone			
Fax			
Email			
Partner 1	·		
Name	Claudiu lusan		
Organisation	The Administration of Rodna Mountains National Park		
Role within Darwin Project	Coordinator		
Address	Str. Principala 1445, Rodna, Jud. Bistrita-Nasaud, Romania		
Fax			
Email			
Partner 2 (if relevant)	±		
Name			
Organisation			
Role within Darwin Project			
Address			
Fax			
Email			

Annex 6 Darwin Contacts

Annex 7 Participatory biodiversity inventories and monitoring undertaken by the Darwin Clubs

Olivita	Title of project	\mathbf{O} uestion(s) the club is investigating		Data being collected	
Club	The of project	Question(s) the club is investigating	What is being measured?	How?	Sampling strategy?
Clubul Copiilor si Scoala Generala Nasaud	Monitoring environmental parameters in Taul Muced (bog lake) area	How do environmental parameters vary with seasons; how is the bog changing with time	Lake area, bog area, depth, pH, temperature (water and environment), soil nitrate content, snow and ice layer thickness	GPS, digital pH-metre, chemical analysis kit, digital photo camera	1-2 times /season; direct measurements and lab analyses
	Monitoring biodiversity parameters in Taul Muced (bog lake) area	What plant species are found in the bog area; bog successions; impact of natural factors (wind, snow) on tree health and anthropic impact from wood extraction. Attempting to find a carnivorous plant species (Drosera sp.) which was quoted in literature	Number of plant species, trees DBH and number; each tree was identified and assigned a number	GPS, field guides, plant collection and preservation, callipers	all trees have been counted and measured; plants counted in 1x1m quadrats
	<i>Arnica montana,</i> species distribution and monitoring of o populations from the park and one found outside park	Species distribution and abundance; comparison between the area inside park with no major anthropic influence and the area located outside park where it is mown.	Species distribution inside park and one area outside park; abundance and size of individual plants, associated plant species, soil nitrate.	GPS, measuring tape, ruler, callipers, quadrats, digital photo camera	inventory: species are mapped with the help of GPS; 1x1m quadrats for monitoring
	Inventory of Gentians in the park area and monitoring of a <i>Gentiana</i> <i>punctata</i> population	Where are gentians distributed in the park; <i>Gentiana punctata</i> distribution and abundance; anthropic impact on the species	Species distribution in the park, abundance of individual plants and their size, soil nitrates.	GPS, measuring tape, ruler, callipers, quadrats, digital photo camera, field guides	inventory: species are mapped with the help of GPS; 1x1m quadrats for monitoring

A. Habitats and species monitored by the student clubs

Oluk	Title of project	Question(s) the club is investigating	Data being collected		
Club	The of project	Question(s) the club is investigating	What is being measured?	How?	Sampling strategy?
	Orchids distribution in the park	Where are various species of orchids found in the park	Several species have been identified in the field, in the Cormaia, Rebra and Anies Valleys, and Romuli area, unfortunately without GPS	Field guides and digital photo camera	
Grup Scolar Silvic Nasaud	Forest plant diversity in the Gusetu Valley.	Forest health; forest plant diversity and anthropic impact	Forest composition; presence of bark beetle infestation	GPS, field guides, plant collection	monitoring plot -2 ha- marked in the field; representative for a natural mixed forest; plant species identified along 15 lines inside the plot
Rodna	Monitoring the Wild Daffodil Meadow on the Saca Peak	Is the meadow expanding or contracting	Area of the meadow, Daffodil abundance, soil nitrates, other plant species associated, phenology - time of flowering	GPS, quadrats, soil samples	contour of the meadow with the GPS; 1x1m quadrats for abundance
	Monitoring the impact of grazing on the Saca Peak	How does flora differ with various grazing regimes	Number of plant species, abundance of individuals from each species	GPS, quadrats, field guides, plant collection and preservation	2 plots marked in the field, 10x10m each; plants identified and individuals counted in 3 quadrats of 1x1m selected randomly inside each plot

Oluk	Title of project	Question(s) the club is investigating	Data being collected		
Club		Question(s) the club is investigating	What is being measured?	How?	Sampling strategy?
Singeorz Bai	Distribution of mineral water springs in the southern part of the park	Where are mineral water springs located and what are their curative properties	Number of springs, chemical composition and curative properties	Literature reviews and water samples collected ; sent to Cluj Napoca for analysis	
	Ichtiofauna of Cormaia River	What species of fish are found in the Cormaia River	Number of species	Fishing rod	
	Monitoring beetle species in the Cormaia Valley ecotone	What species of beetles are found in the forest/grassland and grassland/river ecotones	Number of species and individuals of each species	GPS, Barber traps	two 100m long transects, 10 traps on each spaced at 10m intervals; traps are left in the field for 5 nights and then contents collected and labelled
Borsa , Scoala Generala Nr.	Monitoring the Iezer glacial lake	How does the water level fluctuate; what species of plant are found in the lake area	Lake area; water level in the lake; number of plant species	GPS; marked pole left permanently in the lake; quadrats	for plants: 2, 10x10m plots
2 Garlea	Monitoring the Taul Stiol bog	Is the bog expanding or contracting	Area of the bog and number of plant species present	GPS, wood stakes marking permanently the plots, measuring tape	1 plot 10x10m
Anies	Bird diversity in the park area	Which species of birds are found in the park , where and when	Bird species presence/ absence; monitoring anthropic impact - noise and dust from the marble processing station on the Anies Valley	Literature reviews, bird watching: binoculars, field guides	species lists

B. Samples of monitoring sheets used by the Darwin Clubs

Monitoring beetles	Monitoring plot			, Date		
	Monitori	ng sheet for	· beetles			
The Administration of	Rodna Mountains N	National Pa	rk			
Darwin Club:						
Date:/	_/					
Name of the observer /	team leader:					
Contract data lla (adda						
Contact details (addres	ss, phone, e-mail):					
				u ni zana shanak watan nfa ni zana shanak wa		
Environmental conditi	ons:					
Waathan (plaasa sirala a	accordingly)		alaudu			
weather (please circle a	ccordingry):	other (specif	cioudy fv)	sunny		
	,	other (speen	<u>y</u>			
Cloud cover (estimate %	ó):					
Estimated temperature:	cold (<5	5 °C), cool (5-10 °C), fair (1	0-15 °C),		
(circle accordingly)	warm (1	15-20 °C), h	ot (>20 °C)			
Wind (please note the c	ode estimated using t	he attached	Regutort scale)	-		
wind (preuse nore the co	sue estimateu using ir	ie unucneu	beaujon scale)	•		
Location:						
Monitoring plot name/co	ode:		2124 - 1427 - 1428 - 1429 - 1429	ar and an an ar ar an ar		
Altitude – min.:			Aspect:	아이지는 것은 아이지는 것은 아이지 않는 것은 아이지.		
Altitude - max:						
Transact 1 GPS coordin	atec					
Starting point:	ates.					
Final point:						
Transect 2 GPS coordin	ates:					
Starting point:	Starting point:					
Final point:						

Monitoring beetles	Monitoring plot		, Date
Transect 3 GPS coord	inates:		
Starting point:	indes.		
Final point:			
Timu point			
Habitats	Vegetation (estimate %))	Litter (%)
1.			
2.			
3.			
Photograph of the pl	ot from a standard location:	yes	no
GPS coordinat	es of the photograph point:		
N 1 / 1			
(unique for each moni	toring plot and trap - please refer	to the monitorin	g protocol)
Pauhan tuang aciliants	d on (plaase insent date).		
(the traps will be taken	n to APNMR headquarters for pre	paration and ider	ntification of specimens)
Equipment used:			
Observations (e.g. hu	ıman impact, etc.):		

Monitoring beetles	Monitoring plot	, Date
--------------------	-----------------	--------

Other animal species incidentally	No. of individuals observed	Observation type (individual
observed		animals, tracks, etc.)

Monitoring Gentiana punctata	Monitoring plot	, Date
Monit	oring sheet for Gentiana punctata	
The Administration of Rodna Mo	untains National Park	
Darwin Club:		
Date://		
Name of the observer / team leade	r:	
Contact details (address, phone, e	-mail):	·
F		
Environmental conditions:		
Weather (please circle accordingly):	rainy cloudy sunny	
	other (specify)	
Cloud cover (estimate %):		
Estimated temperature:	cold (<5 °C), cool (5-10 °C), fair (10-15 °C)	
(circle accordingly)	warm (15-20 °C), hot (>20 °C)	
Wind (please note the code estimate	d using the attached Beaufort scale):	
Location:		
Monitoring plot name/code:		
Altitude – min.:	Aspect:	
Altitude - max:	·	
Transect 1 GPS coordinates:		
Starting point:		
Final point:		
Transact 2 GPS coordinates		
Starting point:		
Final point:		
F		

Monitoring Gentiana punctata	Monitoring plot		, Date
Photograph of the plot from a sta GPS coordinates of the pho	andard location:ye tograph point:	s	no no
Contour of monitoring plot with	the GPS:	🗌 yes	no
Additional points marked with th	ne GPS >12m from contour:	yes	🗌 no
Soil sample collected:		yes	no

Equipment used:

Observations (e.g. human impact, etc.):

Monitoring Gentiana punctata	Monitoring plot	, Date
------------------------------	-----------------	--------

Transect no. _____Quadrate 1

Time:

Environmental conditions (if changed from above):

Species (please not "unknown species	Number of	Observations:
no" for those species that could not be	individuals counted	For the Gentians note the length of the
identified in the field, and collect one	(or % cover -	plant and phenological stage
specimen)	specify)	
•	•	'

On each of the two transects 5 monitoring quadrates have been established. This sheet includes therefore tables for all combinations of transect and quadrates. However, for simplicity we have not translated all tables here and only provided one example. In addition to the plant monitoring, the students are required to note any animal species encountered.

Other animal species incidentally	No. of individuals observed	Observation type (individual
observed		animals, tracks, etc.)

C. Darwin Clubs at work, monitoring biodiversity



Delimiting monitoring plots in the field



Monitoring Gentiana lutea

Monitoring the wild Daffodil meadow





Forest monitoring activities – trees diameter at breast height (DBH), herbaceous layer and bark beetle infestation and bark beetle traps











Using Barber traps to monitor ground beetles



Bird watching

Collecting mineral water samples





Measuring water pH





Measuring the snow and ice layer depth

Measuring water temperature





Annex 8 Public presentations made to disseminate project results 2005 – 2008

Presentations made in 2005:

No.	Date	Location / who attended	Number of participants
1	May	Rodna	26
2	July	Park headquarters – Asociatia romano-franceza PROSOMES	24
3	September	Schools where Darwin Clubs were established	1300
4	December	Park headquartes – Scientific Council, Consultative Council, foresters, tourism agencies	235
	<u> </u>	TOTAL	1585

Presentations made in 2006:

No.	Date	Location / who attended	Number of participants
1	28.02.2006	Asociatia "PROSOMES"	20
2	02.03.2006	Caminul Borsa - prescolari	26
3	17.03.2006	Scoala Generala nr. 5 Borsa	35
4	18.03.2006	Scoala Generala nr. 8 Borsa	79
5	22.03.2006	Asociatia Composesorala Borsa	52
6	24.03.2006	Primaria Comunei Moisei	25
7	27.03.2006	Scoala Generala din localitatea Sant	92
8	28.03.2006	Liceul Solomon Halita - Sangeorz Bai	40
9	05.04.2006	Clubul Elevilor Nasaud	32
10	05.04.2006	Liceul Silvic Nasaud	28
11	05.04.2006	Liceul George Cosbuc Nasaud	16
12	27.04.2006	Scoala Generala nr. 8 din Borsa	22
13	19.05.2006	Valea Blaznei / grup de elevi si profesori din cadrul Liceului "Andrei Muresianu" Bistrita	20
14	26.05.2006	Bistrita / Forumul German	5
15	10.07.2006	Sediul APNMR / grup de studenti si profesori din cadrul Universitatii Babes Bolyai Cluj – Facultatea de Geografia Turismului	25
16	01.09.2006	Cabana Fiad / Colegiul Prefectural	40

No.	Date	Location / who attended	Number of participants
		Bistrita-Nasaud	
17	26.09.2006	Sediul APNMR / grup turisti	15
18	16.10.2006	Consiliul Local Sant	14
19	16.10.2006	Scoala Generala Sant	367
20	16.10.2006	Scoala Generala Valea Mare	43
21	17.10.2006	Scoala Generala Anies	20
22	18.10.2006	Primaria Nasaud	83
23	18.10.2006	Consiliul Local Salva	12
24	20.10.2006	Scoala Generala Rebrisoara	205
25	21.10.2006	Participantii la Tabara ecologica "Ovidiu Bojor", Sangeorz-Bai	104
26	23.10.2006	Casa de Cultura Sangeorz Bai	106
27	24.10.2006	Caminul Cultural Ilva Mica	85
28	14.11.2006	Scoala Generala Izvorul Negru	34
29	15.11.2006	Scoala Generala Nr. 2 Borsa	67
30	16.11.2006	Grup Scolar Borsa	67
31	23.11.2006	Scoala Generala nr. 9 Borsa	76
32	28.11.2006	Scoala Generala nr. 7 Borsa	30
33	08.12.2006	Sediu APNMR/grup turisti Apuseni	6
34	11.12.2006	Primaria comunei Rodna	19
35	15.12.2006	Casa de Cultura Borsa	46
		TOTAL	1956

Presentations made in 2007:

No.	Date	Location / who attended	Number of participants
1	22.01.2007	Scoala Generala Izv Negru - Moisei	46
2	25.01.2007	Liceul Borsa/elevi si cadre didactice	67
3	15.02.2007	Scoala Generala Nr 4 Borsa/elevi si cadre didactice	41
4	19.02.2007	Scoala Generala Nr 9 Borsa/ elevi si cadre didactice	74
5	21.02.2007	Cabana "Poiana Zanelor" / grup Serviciul Salvamont Rodna	8
6	24.02.2007	Cabana Valea Secii / grup USAMV Cluj	12
7	26.02.2007	OS Alpina Borsa	21
8	29.03.2007	Grup Scolar Liviu Rebreanu Maieru	20

No.	Date	Location / who attended	Number of participants
9	13.04.2007	Punct Lucru Borsa/ proprietari ff, administratori ff,composesori, PJM Borsa, Filiala de vanatoare Borsa	22
10	20.04.2007	Primaria Borsa/reprezentanti din cadrul Organizatiei Mondiale de Turism si ANT Bucuresti	14
11	21.04.2007	APNMR Rodna/elevi Liceul Andrei Muresianu-Bistrita	17
12	10.04.2007	Sediul APNMR Rodna/ reprezentanti din Serbia	4
13	26.06.2007	Sediul APNMR Rodna/grup turisti Tulcea si BN	15
14	17.07.2007	Sediul APNMR-Rodna /turisti Germania	15
15	08.08.2007	Sediul APNMR- Rodna / studenti UBB Cluj	8
16	10.08.2007	Sediul APNMR-Rodna / turisti Serbia si Timisoara	10
17	11.08.2007	Sediul APNMR-Rodna / turisti Calarasi	8
18	16.08.2007	Sediul APNMR-Rodna /turisti Franta	3
19	23.08.2007	Sangeorz Bai / Tabara Nationala de chimie	50
20	10.09.2007	Complex turistic Poiana Zanelor / Tabara Nationala de ecologie "Ovidiu Bojor" editia a VI-a	80
21	20.09.2007	Cabana VIO-Blazna/ reprezentanti ARPM Cluj, APM: BN, MM,SJ,SM,BH,CJ	16
22	16&17.07.2007	Punct Lucru Borsa/ un numar de 55 studenti si 5 profesori de la Fac. De Silvicultura Suceava si DS Baia Mare	60
23	25.08.2007	Pensiunea Ursu punct Lucru Borsa/ Grup de 45 vizitatori din Ungaria - Solgotarian	45
24	10.08.2007	Pensiunea Ursu/ grup organizat de elevi romani din diaspora	125
25	21.09.2007	Primaria Borsa/Grup scolar Borsa, cu ocazia demararii proiectului ECO BORSA	104
26	6.11.2007	Punct Lucru Borsa/Grup elevi si profesori din Baia Mare	30
27	11.11.2007	Pensiunea Ursu/ Angajati din cadrul Parcului National Regeszeti Park- Ungaria	10
		TOTAL	925

Presentations made in 2008:

No.	Date	Location / who attended	Number of participants
1	11.01.2008	Valea Blaznei/Seminar national "Model de management participativ in arii protejate – studiu de caz Parcul National Muntii Rodnei"	65
2	21.03.2008	Directia Silvica Bistrita/Conferinta de presa	40
3	24.03.2008	Scoala Gen. Nr 4 Borsa – Repedea/Actiune dedicata Lunii Padurii	28
4	25.03.2008	Scoala Gen. Nr 7 – Borsa/ Actiune dedicata Lunii Padurii	33
5	26.03.2008	Scoala Gen. Nr 8 –Borsa/ Actiune dedicata Lunii Padurii	36
6	28.03.2008	Scoala Gen. Nr 9 –Borsa/ Actiune dedicata Lunii Padurii	26
7	04.04.2008	Scoala Generala Florian Porcius Rodna	320
8	03.04.2008	Scoala Generala Enea Grapini Sant	175
9	07.04.2008	Grup Scolar Silvic, Colegiul George Cosbuc, Clubul Elevilor, Scoala Mihai Eminescu Nasaud	67
10	10.04.2008	Liceul Solomon Halita Sangeorz Bai	45
11	14.04.2008	Grup Scolar Feldru	190
12	08.04.2008	Scoala Tiberiu Morariu Salva	60
13	11.04.2008	Liceul Agricol Beclean	42
14	03.04.2008	Scoala Iustin Iliesiu Anies	32
15	17.04.2008	Scoala Stefan cel Mare, Colegiul Corneliu Baba Bistrita	86
16	16.04.2008	Scoala Generala Ilva Mica	102
17	27.04.2008	Scoala Generala Maieru	21
		TOTAL	1368

Annex 9 Media coverage – a few scanned copies of articles published in local and regional newspapers



Protocol de înființare a Clubului "Darwin" și colaborare între administrația Parcului Național Munții Rodnei, Scoala "Florian Porcius" Rodna, Clubul Elevilor Rodna și Universitatea "Oxford" - Marea Britanie

Avand in vedere faptul că începând din luna mai Avind in vedere faptul Es incepand din luna mei 2005, pentru o periodà de 3 ani între Administrația Parcului Național Munții Rodnei și Environnement Change înstitute (ECI), Universitiste Ordinel – Marese Britarie șe va derula projentul întribuist "Participanea tinarilor în managementul Parcului Național Munții Rodnei – România", vă propriem înfrințarau nua Club Darwin – Prietanij Parcului Național Munții Rodnei în Social "Florian Porcius" Rodne și Clubul Ekvier Rodna. Social enstitul preșent este a dezivalia și

Scopi acestul proient est de a dezvolta synthetic implementa. In colaborare cu autoritates de management a Parcului National Munti Rodnei, experti locali, comunitari și elevi din zonă, un plan de management participativ al parcului (P.N.M.R.) și de a promove metadologia folosită ca un model de relevantă reglanată. În premieră pentru România, scest model ve împlica elevă de vâste cuprice între 10-18 eri, vitori factari de decizie locali și regionali, în toale

sri, vitori factori de dectzie locali şi regioneli, în tosla tiviășile de cercetare şi planificăre. Partenei externi, Universitatea Oxford – Maree Britanie, Lider de proiect, dr.Anna Lawrance, proiect manager drd, Alina Szaba, consilier GIS, dr.Susan Cannay, consilier educația ecologică, Paul Maintery, Parteneti locali, Sarviçul Aril Protejate, din cadrul Regiel Naţionale a Păduritor – ROMSUAVA, şei sarviclu îng Mircea Varghetel, Administrația Parcului Național Munți Rodral, sef parc îng Doha Jauca, întromatican, îng Alina Peles, biolog Claudu Iuşan, conștientizare publică, îng Augustin Hădărău, şef pază, îngloan Munteanu, agent taren, tehn.Ioan Minali, tehn.Grigore Timiş, tahm.Mircea Tomoloagă. Din partea Șcelii geverale "Florian Creoşteanu, iar din partea Cubutu Eevilor Radra, coordonator prof.Nestasia Pop, ală Flexilor Rodna, coordonator prof.Nastasia Pop, ald

directore find Aniporta Bindiu. Suffetu sossiul project sunt ing Doing Jauce și prof.Nestașie Pop. Organizarez educației ecologice cu elevii, prin

activități practice, atractive, motivate, în scopul formării vitorului adult cumpétes, bun gespedar al naturil, care să știe ce obligații are față de aceaste în scopul mențineni echibrului ecologic. Aceat modei reprazintă o noutale în planificarea

Access model reprezerado o noutra en polamicareo ej menagementul aritiro protojete din Roménia și din zonă, co urmare ve fi dezvoltat și promovat în jană și tratimitate. Diseminarea rezultatelor ve angaja masă-media și edischul A.P.N.M.R. și de asemenia rețiaaua de voluntari "DARWIN" – "Pridenii Percului Național Muntii Rodral" din cele sase scoli catricipente. Un factor împortant a constituie însuderea în buget a une conferințe cu participare regională care va coetritori seminificativ la împiementarea CBD în târile acestei zone. A.P.N.M.R. ve elabora planul de menagement și ve asigure aproberare și împlementarea sostila. În podet scop, sub îndrumarea partenerului U.K. administrață publicățili ve celabore cu experti locali. Conaliul Ștințific și Consultativ el P.N.M.R., membri comunităților tocale, elevi și ații facturi întereasă, Partanenul U.K. ve funcă înterea întereții întereasă remagement adaptiv, forbeires tehnică els perturu afle prolejate. si managementul ariilor protejate din România și din

protejate. Oaspeții englezi au vizitat Clubul Elevitor Rodna Daspeții englezi au vizitat Clubul Elevitor Rodna unde prof Nastasia Pop le-a urat bun venit și a tinut p unde protivasciala Pop leva una dun venti giu a priuto scurfă alecențiune în engreză. S-e prozentat un scurt program artistic, rectitinti-se poezi în limbo engleză. A urmat festivitarea de premiere a lucrănilor de pictură ale cogilier de la Cercui de pictură de la Clubui Elwifor. La programul artiste am remarcat rectitind poezi progri-sultarea Cence aleva U.G. Smortantă Stutia Pon-La programul artiste am temarcat rectind poezi propri per Blanca Cârdan, class a VI-a, Smaranda Sikia Pop, Lasa a V-a, Alexandra Domide, dass a VI-a, a cântat consacrata noastră interpretă de muzică folk, filoz Miler, class a VI-a, autoare a cinci CD-uri, Activităție Cubulu DAROWIN se vor desfăşura în strâneă colaborare cu Administrația Paroukul Național Munții Rodnei, Ban Popeacu

Dan Popeacu



în cadrul proiectului "Participarea tinerilor la managementul Parcului Național Munții Rodnei", elevii Clubului Darwin nr. 4 de la Grupul Scolar Silvic din Năsăud au efectuat, la sfârșitul săptămânii trecute, o leșire în teren în perimetrul montan al comunel Maieru, mai precis pe Valea Anieșului. Însoțiți și îndrumați de profesoara Romelia Cosma și rangerul Emil Bureacă, liceenii au străbătut două trasee, urmărind starea de sănătate a pădurii, efectele doborâturilor de vânt, situația atacurilor de Ipide în urma analizei capcanelor feromonale, precum și urmele de animale ce populează perimetrul PNMR, toate datele fiind centralizate în cadrul jurnalului proiectului.



E F

Radu SIRBU



Simpozion internațional despre ariile protejate

Gin and Gin an

Simpozionul Internațional "Participarea în natură -Comunități și Aril protejate în Europe Centrală și de Estiorganizat de Universitatea Oxford și Administrația Perculua Național Munții Rodnei, va seves loc la Bistrița în perioada 10-13 martie. Potrivit directorului APNMH, Doins Jauca, alimpozionul va prilegia prezentarea rezultatolor protectului "Participarea tinenior la managementul Parcului Național Munții Rodnei", denuist în intervalui. 2005-2008, finanțat de Darwin întestre din Marea Britanie și cofinanțat de Romaliva, prin Direcția Sivică Bistrița.

Până leri confirmaseră participarea reprezentanți din 12 târi și ai unor parcuri naționale și naturale din Romăria, Regia Națională a Pădurilor Romailva, Orracție Săvică Bistrița, Prafectura Bistrița-Năsăud, Asocieția Edo-Rodria, elevi și profesori din șcioli limitrofe PNMR, implicați direct în sclivitățile din profect.

Simpozionul, în care se va împărtăși din experiența acumulată în aplicarea managementului participativ în ariile protejate din centrul și estul Europei, se va încheia în dată de 13 martie cu o excursie în Parcul Național Munții Rodnei, a prostat directorul APNMR.

Sanda MUREŞAN

La Bistrita,

MESAGERUL 28.02.2008

Annex 10 E-mail correspondence confirming the inclusion of selected papers from the international conference in a special issue of the International Journal of Biodiversity Science and Management