



EIDPO036

Submit by Monday 1 December 2008



DARWIN200

## DARWIN INITIATIVE: APPLICATION FOR GRANT FOR ROUND 16: POST PROJECT

Please read the Guidance Notes for both Main Round and Post Project applications before completing this form. Where no word limits are given, the size of the box is a guide to the amount of information required. Information to be extracted to the database is highlighted blue.

### 1. Name and address of organisation (NB: Notification of results will be by post)

<b>Name:</b> Institute of Zoology, Zoological Society of London	<b>Address:</b> Regent's Park, London, NW1 4RY, UK.
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### 2. Post-Project details

<b>Project Title (max 10 words):</b> Monitoring biodiversity indicators through volunteer networks across Eurasia				
<b>Proposed start and end dates:</b>		<b>Duration of project:</b>		
<b>Darwin funding requested</b>	<b>2009/10</b> £106,770	<b>2010/11</b> £90,269	<b>2011/12</b> £	<b>Total</b> £197,039

### 3. Original Project Title and Defra reference number (eg 162/-/--- or 10-065)

15/033 Monitoring bat biodiversity: indicators of sustainable development in Eastern Europe
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### 4. Principals in project. Please provide a one page CV for each of these named individuals. Letters of support must also be provided from the host country partner(s) endorsing the partnership and value of the Post Project funding. You may copy and paste this table if you need to provide more than one overseas project partner.

Details	Project Leader	Other UK personnel (working more than 50% of their time on project)	Main project partner and co-ordinator in host country/ies
<b>Surname</b>	Jones		1. Szodoray-Paradi 2. Tilova
<b>Forename (s)</b>	Kate E.		1. Abigel 2. Elena
<b>Post held</b>	Senior Research Fellow		1. Project Co-ordinator 2. Officer
<b>Institution (if different to above)</b>			1. Romanian Bat Protection Association 2. The Green Balkans
<b>Department</b>	Institute of Zoology		
<b>Telephone</b>			
<b>Email</b>			

**5. Define the purpose of the Post Project (extracted from logframe) and explain how it is linked to the objectives of the original Darwin project? (Max 200 words) [187]**

The original project's objective was to generate population data on biodiversity indicators by developing bat biodiversity monitoring programmes for two countries in Eastern Europe (Romania and Bulgaria). The project was a unique partnership of Romanian and Bulgarian conservation groups, the volunteer development and biodiversity monitoring strengths of The Bat Conservation Trust and the scientific expertise of the Institute of Zoology. Together we developed a volunteer biodiversity monitoring network across this region providing extremely valuable data for conservation planning and assessment of the impact of future global change. With the post-project funding, we would like to build on this initial success. It is a critical time for the project as it requires further support to maintain the project's momentum. It is therefore vital that we secure further funding at this stage. The success of this project has prompted many other countries to actively request that the programme should be extended to include them. Using the expertise gained, Romania and Bulgaria would like to build a centre of regional excellence and train participants in other countries to extend the project further across Eurasia (particularly Hungary, Ukraine and Western Russia).

**6. What have been the main outcomes (achievements) of the original project to date? (max 300 words) [293]**

The project has established an annual biodiversity monitoring programme across this region, using a network of 146 volunteers using innovative acoustic techniques to monitor bats across 9822 km. The project has developed the capacity of volunteers in two national conservation groups (The Romanian Bat Protection Association and The Green Balkans, Bulgaria). 8 training in-country workshops or meetings were held over the course of the project, directly training 36 participants in survey techniques and acoustic analysis. These participants then went on to train the rest of the volunteer network which is crucial for project sustainability. 14 sets of acoustic monitoring equipment were donated to Romania and Bulgaria providing much needed capital investment in equipment. From the data analysed so far, the project has generated 7388 geo-referenced calls from 16 different species or species groups across the region with an encounter rate of 1.78 bats per km. The original targets of 20 volunteers and 200 km of transects were far exceeded and the project has been enormously successful. We also piloted this project in Eastern Hungary generating data for 410 km. We have also developed a cutting edge data management system for this project which allows these data to be stored, managed and analysed through a web interface. We have also launched a global bat monitoring programme (iBats) from this project's original idea gaining over £55,000 of additional funding. This allowed the program to be extended to Thailand, Mongolia, New York, Mexico, Madagascar, UK and Madagascar. The results of this project have been presented at international conferences across the world and were highlighted in the Pre-COP 9 scientific meeting in Bonn in May 2008. The innovative project data management system has been adopted by EUROBATs as part of its Pan European bat underground site monitoring programme.

**7. What steps have been taken to ensure that project purpose and outputs of the original project will be achieved within the original project term? (max 200 words) [107]**

The aims of the original project proposal have been met and will be completed within the original project term. However, the project has far exceeded expectations with many additional transects completed by the volunteers. To meet the need for additional analysis, the project has trained additional participants to analyze the extra sonograms. The sonogram analysis stage is a real bottleneck to this type of monitoring programme and to ensure long term sustainability, we are exploring ways of automatically processing the sound files and identifying species. We have gained additional funding to develop this capacity and this will be developed as part of the post project funding proposal.

**8. Please list the UK/collaborative (where there are partners in addition to the applicant organisation) and host country partners that will be involved in the Post Project, and explain their roles and responsibilities in the project and in the original project (if applicable). Describe the extent of their involvement at all stages, including Post Project development. This section should illustrate the capacity of host country partners to be involved in the project. Please provide written evidence of partnerships. Please copy/delete boxes for more or fewer partnerships.**

<b>Partner Name:</b> <b>The Bat Conservation Trust (BCT)</b>	<b>Details</b> (including roles and responsibilities and capacity to engage with the project): BCT advised and assisted the original project on effective training and monitoring protocols drawing on their experience running the UK National Bat Monitoring Program in which they are widely recognised as world leaders (see letter of support). Dr. Colin Catto and Dr. Jon Russ have been specifically involved in the original project and they will continue to assist in volunteer training in monitoring and sonogram analysis in this post-project proposal. BCT has developed very strong links with all our partner organisations which are now of very long standing. BCT in its active role within EUROBATS and the newly established international NGO 'BatLife' will also ensure that the project results will be used to inform European and global policies.
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<b>Partner Name:</b> <b>The Romanian Bat Protection Association (RBPA)</b>	<b>Details</b> (including roles and responsibilities and capacity to engage with the project): The RBPA has been extremely successful in the original project in (1) designing their own statistically defensible plan for a long-term national bat monitoring programme, (2) recruiting and training sufficient personnel to collect data to implement the programme and creating a long-term network of trained monitoring volunteers, (3) collecting and uploading their data to the project's central web-based database and analysing their data. In the extension to the project they will continue the annual monitoring and seek further funding to continue this project. Together with The Green Balkans they will also be responsible for developing a regional centre of excellence in volunteer management, biodiversity monitoring, bat monitoring and acoustic analysis and extending the project to Hungary, Ukraine and Russia. RBPA has long standing links with the contacts in Hungary and Ukraine.
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<b>Partner Name:</b> <b>The Green Balkans</b>	<b>Details</b> (including roles and responsibilities and capacity to engage with the project): The Green Balkans in the same way as RBPA has also been extremely successful in carrying out the original project (see points above). Extraordinarily so, given the organisation did not have any bat monitoring expertise at the start of the project. The Green Balkans will continue their monitoring project over the next two years. With RBPA they will be jointly responsible for developing a regional centre of excellence for monitoring.
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**9a. Have you consulted stakeholders not already mentioned above?**  **Yes**  **No**

**If yes, please give details:**

**Dr. Zoltán Bihari**, Head of Nature Foundation, Debrecen, Hungary (see letter of support). Dr. Bihari will act as project leader in extending the monitoring program from Eastern Hungary across the country.

**Dr. Andriy-Taras Bashta**, Chairman of Animals Research and Protection Association, Lviv, Ukraine (see letter of support). Dr. Bashta will act as the Ukrainian project leader to establish the first acoustic monitoring programme in this region.

**Dr. Igor Prokofyev**, Executive Director of Viola, Bryansk, Russia (see letter of support). Dr. Prokofyev will act as the Russian project leader to establish the first acoustic monitoring programme in this region.

**9b. Do you intend to consult other stakeholders?**

Yes  No

If yes, please give details:

There are no precise plans for this at present, but we would like to involve as many stakeholders in the different countries as possible and this will evolve as the project develops.

**9c. Have you had any (other) contact with the government not already stated?**

Yes  No

If yes, please give details:

**9d. Is liaison proposed with the CBD/CMS/CITES focal point in the host country?**

Yes  No

If yes, please give details:

Contact has already been made with the focal points in Romania and Bulgaria as part of the original proposal and we will develop these links in the other countries we are planning to extent to.

## POST PROJECT DETAILS

**10. Please provide a Concept Note (max 1,000 words). Describe the problem to be addressed, explain why it is a priority for the host country and how its resolution will improve host country ability to meet it's obligations under CBD/CMS/CITES. The proposed strategy and its intended outcomes should be described adequately, including justification for and brief details of the contribution of each UK and host country partner. [811]**

**BACKGROUND:** In order to implement CBD resolutions, there is a pressing need for countries to generate long-term time series data on species distributions and abundances in order to evaluate the effect of global change on biodiversity and ecosystem function. However, for many countries the lack of suitably trained personnel and equipment is a clear barrier to wide scale biodiversity surveys and long term monitoring. The UK has been extremely successful in developing and implementing national biodiversity monitoring schemes and these have the capacity to act as models for other countries. In particular, the National Bat Monitoring Programme (NBMP) run by The Bat Conservation Trust with funding from JNCC (programme initially funded by DEFRA) has gathered national data on bat distributions and abundances for over 10 years by training and developing a national network of over 1900 volunteers throughout the U.K. Bats are excellent indicators of biodiversity change as they utilize many different habitats in the landscape, forage on a wide variety of insect prey (themselves indicators of habitat quality), are easy to monitor using echolocation calls and form a substantial part of mammalian biodiversity (a fifth of all mammalian species). Using the NBMP as a model, the original project has generated bat abundance data and spatial distributions collected by a volunteer network over the past three years across Romania and Bulgaria.

**PURPOSE:** An extension to this project would allow the monitoring programme to continue in this region which is crucial in order to be able to detect statistically robust population trends and to maintain the project's momentum. A bottleneck to these types of surveys is the time taken and the subjectivity of the analysis and the extension to the project would develop automatic analysis and identification techniques and develop better monitoring equipment. Using the expertise gained, Romania and Bulgaria will build a centre of regional excellence and train participants in other countries to extend the project further across Eurasia (particularly Hungary, Ukraine and Western Russia).

**OUTPUTS:** (1) Maintenance of a network of national personnel trained to monitor wildlife, store, analyse and interpret the resulting monitoring data to communicate with policy makers in Romania and Bulgaria. (2) Development of automatic acoustic analysis and species identification techniques and equipment to enable monitoring to be cheaper and more sustainable. (3) Development of a regional centre of excellence in bat biodiversity monitoring in Romania and Bulgaria. (4) Development of an acoustic bat biodiversity monitoring network across Hungary, Ukraine and Western Russia. (5) Data on bat distributions and abundances using acoustic techniques for bats across this region.

**NEEDS:** Recent political, economic and ecological changes across Romania and Bulgaria mean that there is a critical need to monitor the impacts of such changes on biodiversity effectively. Maintaining and improving the current biodiversity monitoring network is critical to the project's long term success. Also the project would offer much needed expertise and equipment to countries which have no current capacity to develop monitoring systems.

**CBD/CMS OBLIGATIONS:** By generating long-term data on wildlife biodiversity the proposed project will address Article 6 (General measures for conservation and sustainable use) and Article 7 (Identification and monitoring). Training in equipment and monitoring protocols will implement Article 12 (Research and training) and Article 16 (Access to and transfer of technology). Identifying impacts of future development and global change implements Article 14 (Impact assessment and minimising adverse impacts), Article 8 (In-situ conservation) and Article 13 (Public education and awareness). Bats are migratory and establishing a monitoring programme for these species meets critical obligations under the CMS.

**ROLE OF UK INDIVIDUALS AND COLLABORATING PARTNERS:** Dr. Jones will administer the grant from the Institute of Zoology, U.K. and work in collaboration with The Bat Conservation Trust (Dr. Colin Catto) to provide ongoing support for the Romanian and Bulgarian monitoring programmes. They will also offer help to the Romanian and Bulgarian project leaders in training key participants in the countries we plan to extend to and also provide knowledge on fundraising techniques that will enable the monitoring to carry on after the grant term is ended. For the new countries, the necessary equipment will be identified, procured and transferred to each host country. Automatic acoustic detection and species identification techniques will be developed by Dr Kate Jones in collaboration with Prof. Stuart Parsons. Development of the web database portal will also continue to increase functionality and ease of use. New acoustic monitoring equipment will be developed to increase the functionality of the current equipment. Training will be given in habitat and environmental statistical modelling of the distribution and abundance data will be given to the host countries. The role of the host countries will be to work with the UK personnel to 1) Maintain or design a statistically-defensible plan for a long-term national bat monitoring programme; 2) Maintain or recruit and train sufficient personnel to collect data to implement the programme; 3) Upload the project's data to the central web-based database; 4) Analyse their national data and bring the results of the project to the attention of policy makers.

**11. Are you aware of any other individuals/organisations/Darwin Initiative projects carrying out similar work?**  Yes  No

**If yes, please give details explaining similarities and differences, and explaining how your work will be additional to this work and what attempts have/will be made to co-operate with and learn lessons from such work for mutual benefits:**

**12. Please indicate which of the following biodiversity conventions your project will contribute to:**

At least one must be selected.

- Only indicate the conventions that your project is directly contributing to.

- No additional significance will be ascribed for projects that report contributions to more than one convention

Convention on Biological Diversity (CBD)  Yes  No

CITES  Yes  No

Convention on Migratory Species (CMS)  Yes  No

**What problem is this project addressing and how was it identified? (150 words) [147]**

The monitoring programme in Romania and Bulgaria is at a critical stage and in order to maintain momentum, provide robust results and to secure further long-term funding, we need further support for the project. Additionally the sonogram analysis is a bottleneck to further progress and project expansion and with the project's extension, we can develop new algorithms to automatically detect and identify species from the data generated on the surveys. Also we need simpler more integrated equipment and the extension will enable a bespoke detector to be developed. Our project has been highly successful and many countries have approached us to develop similar national projects. Our contacts in Hungary, Ukraine and Western Russia are especially keen and given the importance of biodiversity and lack of resources in these regions, we are very keen to expand into these areas, building a centre of regional expertise in Eastern Europe.

**What will change as a result of this project? (150 words) [105]**

The proposed project in Romania and Bulgaria will build momentum and proof of concept and make the monitoring programme more attractive to long term funders. We will develop the first automatic analysis techniques for acoustic bat calls and a bespoke detector which will help make this type of monitoring more sustainable and cheaper. We will provide support for a centre of excellence in Romania and Bulgaria for monitoring biodiversity that can then subsequently spread regionally. We will generate the first ever acoustic data for bat populations across Hungary, Ukraine and Western Russia. This will help towards establishing the first bat biodiversity monitoring network in the Ukraine and Western Russia.

**Why is the project important for the conservation of biodiversity? (150 words) [104]**

In order to implement CBD resolutions, there is a pressing need for countries to generate long-term time series data on species distributions and abundances in order to evaluate the effect of global change on biodiversity and ecosystem function. However, for many countries the lack of suitably trained personnel and equipment is a clear barrier to wide scale biodiversity surveys and long term monitoring. This project will (1) maintain current biodiversity monitoring networks which are generating data; (2) develop analytical techniques and equipment to make acoustic monitoring easier and more sustainable; (3) extend and establish biodiversity networks to generate bat data across three more countries.

**How does this relate to one or more of the biodiversity conventions? (150 words) [137]**

By generating long-term data on biodiversity indicators, the project will support the host countries to implement the CBD's Article 6 (*General measures for conservation and sustainable use, 20%*) and Article 7 (*Identification and monitoring, 20%*). Training in equipment and monitoring protocols using the expertise of The Bat Conservation Trust and Institute of Zoology will help to implement Article 12 (*Research and training, 15%*) and Article 16 (*Access to and transfer of technology, 15%*). Identifying best designs for maximizing road-side bat biodiversity and impacts of future development and global change implements Article 14 (*Impact assessment and minimizing adverse impacts, 10%*), Article 8 (*In-situ conservation, 10%*) and Article 13 (*Public education and awareness, 10%*). The CBD themes that are relevant to this project are *Indicators, Sustainable Use and Biodiversity, Climate Change and Biodiversity and Impact Assessment, Liability and Redress*. As bats are classified as migratory species they are also relevant to the CMS.

**13. Explain how gains from the Post-project work will be distinct and additional to those of the existing project. Show where possible how these gains require limited resources and could not be achieved without the funding. (max 200 words) [79]**

The gains from the proposed post-project work are distinct and additional to those of the existing project. In particular: (1) the maintenance of the existing biodiversity monitoring network in order to generate statistically robust monitoring data and further funding; (2) the development of acoustic identification and equipment to make monitoring easier, cheaper and more sustainable; (3) the development of a centre of excellence in Eastern Europe; (4) the establishment of a biodiversity monitoring network for bats across three more regions.

**14. What will be the long term benefits of the project in the host country or region and how will these help to strengthen the impact and legacy of your original Darwin project? Have you identified any potential problems to achieving these benefits? (max 250 words) [92]**

The project will leave a legacy of formal networks of bat biodiversity monitoring specialists and the necessary equipment. By developing algorithms to automatically detect and analyse sonograms and better equipment, bat monitoring will be easier, cheaper and more sustainable within each country. The usability and functionality of the online database will be improved. These data collected by the project will importantly act as indicator measures of the impact of development and global change. Our work will also leave a lasting impact in the host countries by minimising the impact of new roads on biodiversity and informing sustainable development.

**15. State whether or not the project will reach a stable and sustainable end point. If the project is not discrete, but is part of a progressive approach, give details of the exit strategy and show how relevant activities will be continued to secure the benefits from the project. Where individuals receive advanced training, for example, what will happen should that individual leave? (Max 200 words) [190]**

We need to maintain the momentum of the current project to establish the value of the data collected to policy makers making the programme an invaluable component of each country's obligations to the CBD and CMS. Romania and Bulgaria are both Parties to the EUROBATs Agreement and have a fundamental obligation to protect bat biodiversity in their countries. Through provision of information on the location of bats that will be supplied by our project, their governments are obliged to take action that will not be detrimental to identified populations. They are also bound by the Habitats directive and have a legal requirement to ensure that the Favourable Conservation Status of Appendix I & II species (includes all bats) is maintained. This legislation provides a legal obligation on each country to continue our proposed work. The project will also develop automated analysis systems making the monitoring programme less dependent on particular trained individuals. Also increasing the usability, functionality of the web database and the acoustic detection equipment decreases the reliance on particular individuals so that the project is less susceptible to personnel changes and is more sustainable in the long term.

**16. How will the results of the project be disseminated; how will the project be advertised as a Darwin project and in what ways will the Darwin name and logo be used? (max 200 words) [79]**

The Darwin project will be advertised the iBats web site maintained by the Institute of Zoology which hosts the online bat biodiversity monitoring database. The Darwin logo will also appear on all best practice guidelines, reports, presentations and project equipment. Darwin will also be acknowledged in the resulting scientific papers.

**17. If your project includes training and development, please indicate how you will assess the training needs in relation to the overall purpose of the project. Who are the target groups? How will the training be delivered? What skills and knowledge do you expect the beneficiaries to obtain. How will you measure training effectiveness. (max 300 words)**

You should address each of these points.

The success of this proposed project critically hinges on training and development. Volunteers have been recruited from RBPA and The Green Balkans and these networks need to be maintained by further training, feedback and support. Using their experiences, RBPA and The Green Balkans will provide training on successfully recruiting and maintaining volunteers and volunteer networks in the other countries we wish to expand the project into. Training will be provided through an international workshop at the start of the project and then a series of workshops held in each country in the subsequent year. The level of training will be sufficient for volunteers to implement the bat biodiversity survey protocol and a minimum of 10 volunteers are proposed to be trained from each additional country. The effectiveness of the training will be measured by comparing the actual output to that in our proposal. Also as the first survey year in each additional country is a pilot, there will be time to adjust training if deemed necessary. Key personnel (full time conservation staff in the additional host countries) will be provided with intensive training so they can cascade their skills and knowledge to new volunteers. Also they will be provided with volunteer management techniques to monitor trainees after the proposed project is complete. Lengths and dates of training courses are in the Logical Framework.

## LOGICAL FRAMEWORK

18. Please enter the details of your project onto the matrix using the note at Annex 3 of the Guidance Note for Main applications.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
<p><b>Goal:</b> Effective contribution in support of the implementation of the objectives of the Convention on Biological Diversity (CBD), the Convention on Trade in Endangered Species (CITES), and the Convention on the Conservation of Migratory Species (CMS), as well as related targets set by countries rich in biodiversity but constrained in resources.</p>			
<p><b>Sub-Goal:</b> Biodiversity across five countries in Eurasia is monitored sustainably and effectively, providing information on how to minimise the impacts of global change on ecosystems and ecosystem services.</p>	<p>Biodiversity population data collected yearly by a national network to provide statistically robust population trends over time and beyond the lifetime of the project.</p>	<p>Analysis of data collected by the project.</p>	
<p><b>Purpose</b> To generate long-term population data on biodiversity indicators to assess the impact of global change by maintaining and enhancing bat biodiversity programmes in two Eastern European countries and extending the programme to three other countries</p>	<p>Continued online database of abundances and distribution of bats in Romania and Bulgaria and new data for bats in Hungary, Ukraine and Western Russia.</p> <p>Maintenance or establishment of monitoring personnel in each country</p> <p>Development of new techniques in analysis of acoustic data, improvements to the web data portal and the production of new detector equipment</p> <p>Production of papers on bat distribution and habitat use to determine effect of future global change on bat populations</p>	<p>Data available from the data portal and continuing annual entry from host countries</p> <p>New techniques incorporated into the analysis, production of a new detector and web site functionality improved</p> <p>Results of the analyses published in peer reviewed journals</p>	<p>Host countries can recruit and maintain a sufficient volunteer network</p> <p>New techniques and equipment are successfully developed.</p> <p>Host countries willing to share data</p>

<p><b>Outputs</b> (add or delete rows as necessary)</p> <p>1. Ongoing statistically defensible monitoring programme for Romania and Bulgaria</p>	<p>Maintenance of the volunteer network and 60 transects completed per year per country</p>	<p>Data available from the data portal and continuing annual entry from host countries</p>	<p>Romania and Bulgaria can recruit and maintain a sufficient volunteer network</p>
<p>2. Development of statistically defensible monitoring programme for Hungary, Ukraine and Russia</p>	<p>Key personnel and 10 volunteers trained in survey methods per country</p> <p>Further workshops run by host countries</p> <p>Training material produced</p>	<p>Contact details of volunteers and workshops recorded</p> <p>Training material available for download from the website</p>	<p>Ability of host countries to recruit volunteers (risk reduced as Hungary has already recruited some volunteers)</p>
<p>3. Ongoing improved online international spatial and temporal database on bat species abundances and distributions</p>	<p>Survey data collected from 60 transects from Romania and Bulgaria and 20 transects collected from each additional country in Yr1 and 30 in Yr 2</p> <p>Functionality and appearance of the online database improved</p>	<p>Verification of the quality and quantity of survey data. GPS log can be used to verify position of the recordings.</p>	<p>Survey data is collected correctly</p> <p>Website can be accessed by host countries</p>
<p>4. Improved analysis techniques to automatically detect and identify bat calls from transect data and improved equipment</p>	<p>Analysis of sonograms no longer a bottleneck to the analysis.</p> <p>Production of a new bespoke detector</p>	<p>Algorithms incorporated into analysis</p> <p>Designs for new detector produced and new detectors made and incorporated into the monitoring programme</p>	<p>Algorithms do not work.</p> <p>Detector is not produced.</p>
<p>5. Knowledge of how change in human development and climate impacts bat biodiversity</p>	<p>Statistical analysis of spatial distributions and abundances with habitat and environmental conditions</p> <p>Analysis of predicted impacts on bat populations with change in human impacts and climate</p>	<p>Production of peer-reviewed papers</p>	<p>Sufficient data is collected for analysis</p>

**Activities** (details in workplan)

- 1.1 International monitoring workshop hosted by Romanian and Bulgaria (assisted by UK partners) inviting key participants from Hungary, Ukraine and Western Russia to introduce the project and train key personnel.
- 1.2 Equipment bought and transferred for Hungary, Ukraine and Western Russia and replacement equipment purchased for Romania and Bulgaria
- 1.3 Ongoing monitoring data collected by network of volunteer personnel in Romania and Bulgaria. Pilot data collected by Hungary, Ukraine and Western Russia. 60 transects for Romania and Bulgaria and 20 transects for additional countries
- 1.4 All data uploaded to the online web database and analysed
- 2.1 Development of new analytical techniques to automatically analyse and identify acoustic data
- 2.2 Development of new detector
- 2.3 Improvements to the online data portal
- 3.1 Analysis of the Yr 1 data from all countries
- 3.2 National monitoring workshops hosted by each country (assisted by UK partners) reporting on annual progress and recruiting or maintaining volunteer network (10 volunteers for each additional country)
- 3.3 Transfer of any replacement monitoring kit to countries
- 3.4 Ongoing monitoring data collected by network of volunteer personnel in Romania and Bulgaria. Pilot data collected by Hungary, Ukraine and Western Russia. 60 transects for Romania and Bulgaria and 30 transects for additional countries
- 4.1 All data uploaded to the online web database and analysed
- 4.2 Production of new bat detector and purchase and distribution to volunteer network
- 4.3 Production of papers on impact of future global change on bat biodiversity in the region

**Monitoring activities:**

Data checked and verified from the online database.

**19. Provide a project implementation timetable that shows the key milestones in project activities. Complete the following table as appropriate to describe the intended workplan for your Post Project.**

Activity	Months	Year 1				Year 2				Year 3			
		1	2	3	4	1	2	3	4	1	2	3	4
1.1 International monitoring workshop hosted by Romanian and Bulgaria (assisted by UK partners) inviting key participants from Hungary, Ukraine and Western Russia to introduce the project and train key personnel.	1 week	X											
1.2 Equipment bought and transferred for Hungary, Ukraine and Western Russia and replacement equipment purchased for Romania and Bulgaria	1 week	X											
1.3 Ongoing monitoring data collected by network of volunteer personnel in Romania and Bulgaria. Pilot data collected by Hungary, Ukraine and Western Russia. 60 transects for Romania and Bulgaria and 20 transects for additional countries	6 months	X	X										
1.4 All data uploaded to the online web database and analysed	3-6 months			X	X								
2.1 Development of new analytical techniques to automatically analyse and identify acoustic data	24 months	X	X	X	X	X	X	X	X				
2.2 Development of new detector	24 months	X	X	X	X	X	X	X	X				
2.3 Improvements to the online data portal	24 months	X	X	X	X	X	X	X	X				
3.1 Analysis of the Yr 1 data from all countries	4 months				X								
3.2 National monitoring workshops hosted by each country (assisted by UK partners) reporting on annual progress and recruiting or maintaining volunteer network (10 volunteers for each additional country)	1 week					X							
3.3 Transfer of any replacement monitoring kit to countries	1 week					X							
3.4 Ongoing monitoring data collected by network of volunteer personnel in Romania and Bulgaria. Pilot data collected by Hungary, Ukraine and Western Russia. 60 transects for Romania and Bulgaria and 30 transects for additional countries	6 months					X	X						
4.1 All data uploaded to the online web database and analysed	3-6 months							X	X				
4.2 Production of new bat detector and purchase and distribution to volunteer network	1-4 months								X				
4.3 Production of papers on impact of future global change on bat biodiversity in the region	3-6 months							X	X				

**20. Please indicate which of the following Standard Measures you are likely to report against. You will not necessarily plan to cover all these Standard Measures in your project.**

Standard Measure No	Description	Tick if Relevant
1A	Number of people to submit thesis for PhD qualification (in host country)	
1B	Number of people to attain PhD qualification (in host country)	
2	Number of people to attain Masters qualification (MSc, MPhil etc)	
3	Number of people to attain other qualifications (ie. Not outputs 1 or 2 above)	
4A	Number of undergraduate students to receive training	
4B	Number of training weeks to be provided	
4C	Number of postgraduate students to receive training	
4D	Number of training weeks to be provided	
5	Number of people to receive at least one year of training (which does not fall into categories 1-4 above)	
6A	Number of people to receive other forms of education/training (which does not fall into categories 1-5 above)	YES
6B	Number of training weeks to be provided	YES
7	Number of (ie different types - not volume - of material produced) training materials to be produced for use by host country	YES
8	Number of weeks to be spent by UK project staff on project work in the host country	YES
9	Number of species/habitat management plans (or action plans) to be produced for Governments, public authorities, or other implementing agencies in the host country	YES
10	Number of individual field guides/manuals to be produced to assist work related to species identification, classification and recording	YES
11A	Number of papers to be published in peer reviewed journals	YES
11B	Number of papers to be submitted to peer reviewed journals	YES
12A	Number of computer based databases to be <b>established</b> and handed over to host country	YES
12B	Number of computer based databases to be <b>enhanced</b> and handed over to host country	YES
13A	Number of species reference collections to be <b>established</b> and handed over to host country(ies)	
13B	Number of species reference collections to be <b>enhanced</b> and handed over to host country(ies)	
14A	Number of conferences/seminars/ workshops to be <b>organised</b> to present/disseminate findings	YES
14B	Number of conferences/seminars/ workshops <b>attended</b> at which findings from Darwin project work will be presented/ disseminated.	YES
15A	Number of national press releases in host country(ies)	YES
15B	Number of local press releases in host country(ies)	YES
15C	Number of national press releases in UK	YES
15D	Number of local press releases in UK	YES
16A	Number of newsletters to be produced	
16B	Estimated circulation of each newsletter in the host country(ies)	
16C	Estimated circulation of each newsletter in the UK	
17A	Number of dissemination networks to be <b>established</b>	
17B	Number of dissemination networks to be <b>enhanced/ extended</b>	
18A	Number of national TV programmes/features in host country(ies)	
18B	Number of national TV programmes/features in UK	
18C	Number of local TV programmes/features in host country(ies)	
18D	Number of local TV programmes/features in UK	
19A	Number of national radio interviews/features in host county(ies)	
19B	Number of national radio interviews/features in UK	
19C	Number of local radio interviews/features in host country(ies)	
19D	Number of local radio interviews/features in UK	
20	Estimated value (£'s) of physical assets to be handed over to host country(ies)	YES
21	Number of permanent educational/training/research facilities or organisations to be established and then continued after Darwin funding has ceased	
22	Number of permanent field plots to be established during the project and continued after Darwin funding has ceased	
23	Value of resources raised from other sources (ie in addition to Darwin funding) for project work	YES

## PROJECT BASED MONITORING AND EVALUATION

**21. Describe, referring to the Indicators in the Logical Framework, how the progress of the project will be monitored and evaluated, including towards delivery of its outputs and in terms of achieving its overall purpose. This should be during the lifetime of the project and at its conclusion. Please include information on how host country partners will be included in the monitoring and evaluation.**

Maintenance of the monitoring network in Romania and Bulgaria will be verified by the continuation of the data collected and uploaded to the database. Monitoring of the progress of the survey methods training and volunteer recruitment to the additional countries will be through recording the volunteer contact details and tracking the workshops held and the progress of the development of the training material. The progress and the quality of the data collected by these countries and uploaded to the online database will be monitored against that expected and the GPS log can be used to verify the position of the recordings. Development of the new analytical techniques and detection equipment can be verified through the data analysis. Analysis and reporting of the data will be verified by the production of peer-reviewed papers and reports to policy makers.

## FUNDING AND BUDGET

**Please complete the separate Excel spreadsheet which will provide the Budget information for this application. Some of the questions below refer to the information in this spreadsheet.**

**NB: Please state all costs by financial year (April to March). Use current prices – and include anticipated inflation, as appropriate up to 3% per annum. The Darwin Initiative will not be able to agree increases in grants to cover inflation on UK costs once grants are awarded.**

**22. How is your organisation currently funded? (max 100 words) [53]**

The Institute of Zoology receives a core grant of approximately £2 million per year from the Higher Education Funding Council for England, representing about 50% of its total income. The remainder comes from Research Council (NERC, BBSRC, ESRC) grants and contracts from government (DEFRA, Natural England) and non-governmental bodies (World Wildlife Fund, IUCN).

**23. Provide details of all confirmed funding sources identified in the Budget that will be put towards the costs of the project, including any income from other public bodies, private sponsorship, donations, trusts, fees or trading activity. Please include any additional unconfirmed funding the project will attract to carry out addition work during or beyond the project lifetime. Indicate those funding sources which are confirmed.**

### **Confirmed:**

Philip Leverhulme Prize for Outstanding Achievement in Zoology to Dr. Kate Jones: Award £70,000. Centre for Ecology and Evolution (University College London): Award £2500. Zoological Society of London: Matched salary costs £18,089.

### **Unconfirmed:**

The Leverhulme Visiting Professorship Fund: Travel and accommodation costs for Prof. Stuart Parsons (University of Auckland, New Zealand) whilst on sabbatical at Zoological Society of London developing automatic acoustic analysis and identification techniques: Award £17,000

24. Please give details of any further funding resources (confirmed or unconfirmed) sought from the host country partner (s) or others for this project that are not already detailed in the Budget or Question 22. This will include donations in kind or un-costed support eg accommodation. (max 50 words per box)

<b>Financial resources:</b> None
<b>Funding in kind:</b> Sabbatical leave from University of Auckland for Prof. Stuart Parsons while at The Zoological Society of London developing automatic acoustic analysis and identification techniques.

25. What was the amount of funding for the original Darwin Project?

	<b>Total Project Costs £</b>
<b>Amount of original Darwin Initiative project funding</b>	179,029
<b>+ Funding/Income from other sources</b>	169,439
<b>= Total original project cost</b>	348,468

#### FCO NOTIFICATION

Please check the box if you think that there are sensitivities that the Foreign and Commonwealth Office will need to be aware of should they want to publicise details of the Darwin Post-project and the resultant work in the UK or in the host country.

#### CERTIFICATION 2009/10

On behalf of the trustees/company\* of Institute of Zoology, Zoological Society of London  
 (\*delete as appropriate)

I apply for a grant of £197,039 in respect of expenditure to be incurred in the financial year ending 31 March 2010 on the activities specified in the above application.

I certify that, to the best of our knowledge and belief, the statements made by us in this application are true and the information provided is correct. I am aware that this application form will form the basis of the project schedule should this application be successful. (This form should be signed by an individual authorised by the lead UK institution to submit applications and sign contracts on their behalf.)

I enclose a copy of the organisation's most recent audited accounts and annual report, CVs for project principals and letters of support.

<b>Name (block capitals)</b>	KATE E. JONES		
<b>Position in the organisation</b>	SENIOR RESEARCH FELLOW		
<b>Signed</b>		<b>Date:</b>	01/12/2008

## Post Project Application - Checklist for submission

	Check
Have you provided actual start and end dates for your project?	YES
Have you provided your budget based on UK government financial years ie 1 April – 31 March?	YES
Have you checked that your budget is complete, correctly adds up and that you have included the correct final total on the top page of the application?	YES
Is the concept note within 1,000 words?	YES
Is the logframe no longer than 2 pages?	YES
Has your application been signed by a suitably authorised individual? (clear electronic or scanned signatures are acceptable)	YES
Have you included a 1 page CV for the Project Leader, any other UK staff working >50% on this project, and for a main individual in each overseas partner organisation?	YES
Have you included a letter of support from the main overseas partner organisations?	YES
Have you checked with the FCO in the project country/ies and have you included any evidence of this?	YES
Have you included a copy of your most recent annual report and accounts? An electronic link to a website is acceptable.	YES
Have you read the Guidance Notes for both Main projects and Post Projects ?	YES

Once you have answered Yes to the questions above, please submit the application, not later than midnight GMT on **Monday 1 December 2008** to [Darwin-Applications@ltsi.co.uk](mailto:Darwin-Applications@ltsi.co.uk) using the first few words of the project title as the subject of your email. However, if you are e-mailing supporting documentation separately **please include in the subject line** an indication of the number of e-mails you are sending (eg whether the e-mail is 1 of 2, 2 of 3 etc). In addition, a hard copy of the application and any supporting documents not available electronically should be submitted to the Darwin Applications Management Unit, c/o ECTF, Pentlands Science Park, Bush Loan, Penicuik EH26 0PL postmarked **not later than Tuesday 2 December 2008**.

**DATA PROTECTION ACT 1998:** Applicants for grant funding must agree to any disclosure or exchange of information supplied on the application form (including the content of a declaration or undertaking) which the Department considers necessary for the administration, evaluation, monitoring and publicising of the Darwin Initiative. Application form data will also be held by contractors dealing with Darwin Initiative monitoring and evaluation. It is the responsibility of applicants to ensure that personal data can be supplied to the Department for the uses described in this paragraph. A completed application form will be taken as an agreement by the applicant and the grant/award recipient also to the following:- putting certain details (ie name, contact details and location of project work) on the Darwin Initiative and Defra websites(details relating to financial awards will not be put on the websites if requested in writing by the grant/award recipient); using personal data for the Darwin Initiative postal circulation list; and sending data to Foreign and Commonwealth Office posts outside the United Kingdom, including posts outside the European Economic Area. Confidential information relating to the project or its results and any personal data may be released on request, including under the Environmental Information Regulations, the code of Practice on Access to Government Information and the Freedom of Information Act 2000.