



Darwin Initiative for the Survival of Species

Annual Report

1. Darwin Project Information

Project title	Conservation of the endangered Jerdon's courser in India
Country(ies)	India
Contractor	University of Reading
Project Reference No.	162/9/018
Grant Value	£70,261
Start/Finishing dates	August 2000 for 3 years
Reporting period	1 st August 2000 to 31 st March 2001

2. Project Background

Jerdon's courser is one of the 13 most endangered of India's 170 globally threatened or near-threatened bird species. As a result, it is of global conservation importance. This importance is reflected in the fact that this species is listed under Schedule 1 of the Indian Wildlife Protection Act, and is, therefore, given high conservation priority by the Indian Central and State Governments. This is reflected in the establishment of protected areas (2 designated and 1 planned) in areas where the birds have been or were formerly recorded. Furthermore, recent development proposals have been revised in the light of the bird's rediscovery.

Jerdon's courser (*Rhinoptilus bitorquatus*) is a nocturnal bird known from a handful of records prior to 1900. However, it was considered extinct as no sightings were documented between 1900 and 1986, when it was rediscovered in the Pennar valley (Eastern Ghats) in Andhra Pradesh, east-central India by the Bombay Natural History Society (BNHS). As a consequence, the area in which the birds were rediscovered was designated as the Sri Lankamalleswara Wildlife Sanctuary. An ornithological survey in the southern region of the Eastern Ghats, including this area, in 1994/95 sighted 5 individuals in the sanctuary. Subsequently birds have been observed regularly (c. monthly) at a few sites within the sanctuary.

Jerdon's courser is listed by IUCN as endangered. However, there are no data on current population size or geographical distribution, which would allow a more quantitative assessment of the species' current endangerment. Furthermore, very little information is available on the habitats required by these birds, which, combined with a lack of population and range data, makes it very difficult to assess current threats to the population. Birds are captured by local trappers and the region they occupy is under development pressure (e.g. irrigation schemes), so basic ecological data are essential to determine whether development proposals are sustainable in terms of bird conservation objectives.

3. Project Objectives

The Darwin project is designed to assist with India's obligations under the Biodiversity Convention by (1) research and monitoring to determine the current status and distribution of the population, and assess threats to its persistence (Article 7); (2) use the results of the research work to produce a management plan for this species (Article 6); (3) provide training to key staff in India concerning the collection, storage and analysis of important ecological data (e.g. bird census data) (Article 12); and (4) use the management plan as a framework to institute in-situ conservation action in India (Article 8), and raise the profile of Jerdon's courser, and other important species within the area, at various levels (e.g. local, governmental) using public education and awareness campaigns (Article 13).

The project has four specific objectives:

(1) Undertake research and monitoring work

The overall objective of this aspect of the project is to undertake ecological research on Jerdon's courser to determine current population size and distribution, and identify current threats to the populations' persistence. This involves 2 specific objectives: (i) to estimate current population size and geographical range, and (ii) to examine habitat use to determine habitat requirements.

(2) Develop management plan

The management plan will be based on the research and monitoring work, and will include details of required conservation action, and a long-term monitoring programme.

(3) Training

Training will be given to BNHS and Forestry Department staff in the collection, storage and analysis of key ecological information with respect to conserving Jerdon's courser. This is designed to ensure the transfer of important skills necessary for long-term monitoring following on from the proposed project.

(4) Public awareness

This is a crucial objective, both at local and governmental levels, to raise the profile of conservation efforts for Jerdon's courser. It will include a range of measures targeted at specific groups.

The project's objectives remain the same as those detailed in the original application.

4. Progress

The project started within the current reporting period, so has no previous history.

An initial fieldwork plan was put together in India in September 2000, during a visit by the project co-ordinator (Dr Ken Norris) and other UK collaborators from the Royal Society for the Protection of Birds (RSPB). This involved planning meetings about the management of the project, and a field visit to start developing fieldwork protocols and a timetable for data collection. Prior to this BNHS had appointed a Research Fellow who would be responsible for the day-to-day running of the project in the field.

Following the visit to India the UK collaborators met to discuss a basic plan for data collection in the field. The technical difficulty to overcome was how to census a bird that is nocturnal and so extremely hard to locate. During November 2000 plans were made for developing a remote censusing tool – tracking strips together with an infra-red camera system. This protocol would, in principle enable us to track birds from their footprints, a protocol that could be used extensively throughout potentially suitable habitat to determine the species' geographical range. Having put together a basic protocol, UK collaborators from the RSPB went to India in January 2001 to begin field trials of the protocol with BNHS staff. Field trials were used to refine the protocol, and BNHS staff then implemented a data collection programme over the next 3 months using this modified protocol. While this was going on, work was conducted on museum specimens in the UK to enable footprints to be identified. These methods were then compared with data collected in the field, and verified using the camera systems. We now have a practical census tool for these birds that can easily be deployed in the field elsewhere, and a paper is currently being prepared on the methods.

In early 2001 we also started to use satellite image data to identify potentially suitable areas of habitat for these birds that could then be censused using the tracking strip protocol. To do this, we acquired a Landsat 7 image of the area surrounding our study site in the field, and are currently constructing a map using this image that can be used to find suitable habitat in the field.

Training has so far concentrated on developing the required skills in BNHS staff to undertake the fieldwork component of the project. BNHS's Research Fellow has been an integral part of the development of the censusing protocol, and has been carefully supervised during visits to India by UK collaborators to develop his ability in census design and execution, plus the storage, processing and analysis of subsequent data. This is an ongoing process, and we are all very satisfied with the way existing collaborations in this regard are developing. Local Forestry Department staff have been invited to visit the field site and several occasions to be shown what we are doing and why.

The only difficulty with respect to the project so far has been initial problems with BNHS's relations with the Andhra Pradesh Forestry Department (FD). This has now been resolved. The UK collaborators have all worked hard to help BNHS and FD officials to work more closely, by providing a simple newsletter detailing what the Darwin project is doing, and inviting them to see the field project. Initially the FD refused BNHS access to our proposed study site, but this problem was resolved earlier this year. The main issue seems to be that BNHS were dismissive of earlier work on Jerdon's Courser undertaken by a university in Chennai (Madras) in collaboration with the FD. We (UK collaborators) have since made contact with the researchers involved, and are waiting to see a report on their work, although we feel the work undertaken to date is likely to be very limited in scope and scientific rigour. The Darwin project workers are currently employing a policy of positive involvement concerning FD officials in the hope that this will, over time, build a good working relationship.

Other than the technical developments described above, the project is at a rather early stage to have developed substantially from our initial plans.

Our timetable for the implementation of our project for the coming year remains unchanged with respect to the key milestones agreed at the start of the project.

5. Partnerships

The collaboration between the UK and host country partner (BNHS) since the start of the project has been very good. We formalised our relationship using a memorandum of understanding, and this has worked very well. Funds have been transferred to India, and used appropriately. In terms of technical objectives - these have been led by UK collaborators with extensive input from BNHS staff. There is an excellent working relationship between BNHS staff in the field and UK collaborators. This is a technically demanding project that has progressed remarkably well due to the strength of this relationship. The BNHS Research Fellow is a very capable young scientist, who is clearly benefiting from the technical supervision and experience.

The project is enabling a better working relationship to develop between BNHS and FD staff. This is important because BNHS have an important role in long-term conservation work in India, and the FD is the government body (locally and nationally) that controls designated wildlife reserves. We are also hopeful that links with researchers in Chennai University will develop in future.

6. Impact and Sustainability

The profile of the project has been promoted in a number of ways. Nationally this has been achieved by publicising the project through existing BNHS publications that are circulated the Governmental Agencies, NGOs and interested individuals, and by a press release in the UK that was featured in Asian newspapers. Locally the project has been directly promoted to the FD by periodic meetings, field visits and a newsletter.

It is still too early to assess the contribution the project is making to conservation efforts. It is undoubtedly true that local Government takes the project very seriously because of the involvement of UK scientists. Support from the Darwin Initiative is important in this respect too because conservation agencies in India know about the scheme and regard it as prestigious, making the Jerdon's courser project rather well respected. The project is clearly beginning to build technical capacity in BNHS, and the information gained from the project must be valuable in the long-term simply because so little is known at present. Our exit strategy remains the same as stated in our original application for funding.

7. Outputs, Outcomes and Dissemination

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

Code No.	Quantity	Description
8	3 people	A total of 7 person weeks have been spent by UK staff in India over the reporting period.
6A/B	2	Staff time spent in India has been used to great effect in the development of field protocols and training to BNHS staff in their implementation (see above).
15A	1	BNHS has used their existing publicity material to publicize the project.
15C	1	There was a press release in the UK at the start of the project that was covered by the Asian press.
11B	1	A paper is currently being prepared on the censusing protocol we developed over the last few months.

We have not widely circulated a newsletter about the project (16A/B), other than the promotion material included in BNHS's existing publications. This is because the relationship with the FD remains sensitive, so at this stage we feel that it is sensible to wait until we have something significant to report (e.g. birds being found in places they haven't been to date) before working closely with them to publicize such information. If we work independently this will only cause friction. The number of press releases has also been kept to a minimum for the same reasons. Finally, we have developed a novel censusing protocol for these birds that will result in a publication.

We have no publications to date, other than the draft paper.

Table 2: Publications

Type * (e.g. journals, manual, CDs)	Detail (title, author, year)	Publishers (name, city)	Available from (e.g. contact address, website)	Cost £
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Most dissemination activities have been outlined above. The project is still at an early stage, so making detailed plans to include in our exit strategy is somewhat premature.

8. Project Expenditure

Table 3: Project expenditure during the reporting period

Item	Budget	Expenditure
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9. Monitoring, Evaluation and Lessons

Monitoring and evaluation methods are as described in our original application. There have been two supervisory visits to India to provide project development and training input. There are also regular email links between the UK team and BNHS staff in the field, allowing specific issues to be addressed as they arise.

It is very early in the project to quantify exactly what contribution it is making. However, since our primary technical aim is to describe the range of this species, and the habitats in which it lives, we have made considerable progress in developing a viable censusing protocol for this very difficult species. To date, we have measured

our progress against technical objectives, and we feel that, considering the information base on which we started fieldwork, have progressed a considerable distance. In future, as the technical information rolls in, we will focus more on the practical conservation objectives of the project.

During this year we have learned that India is politically a difficult place to work. Agencies, particular Governmental ones, are extremely hierarchical and egotistical. This will make realising the practical benefits of the knowledge gained during this project difficult. However, the UK partners in this project are well placed to help deal with these sensitivities, and the project team as a whole is now trying to institute a policy of participation and consultation that will (hopefully) build good working relations in time.

10. Author(s) / Date

Dr Ken Norris

2nd May 2001.