

Conserving a flagship steppe species: the Critically Endangered Sociable Lapwing

Final Report of Darwin Project 15-032



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The Royal Society for the Protection of Birds

in partnership with



ENQUIRIES CONCERNING THIS REPORT

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Cover photograph: Sociable Lapwing in Kazakhstan (©Dr Paul Donald, RSPB)

Darwin Initiative – Final Report

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

Darwin project information

Project Reference	15-032
Project Title	Conserving a flagship steppe species: the Critically Endangered Sociable Lapwing
Host country(ies)	Kazakhstan, Russia, India & Turkey
UK Contract Holder Institution	The Royal Society for the Protection of Birds (RSPB)
UK Partner Institution(s)	Birdlife International
Host Country Partner Institution(s)	Association for Biodiversity Conservation in Kazakhstan (ACBK)
Darwin Grant Value	£185,863
Start/End dates of Project	April 2006 – March 2009
Project Leader Name	Dr RD Sheldon
Project Website	www.sociablelapwing.org
Report Author(s) and date	Maxim Koshkin, Rob Sheldon, Paul Donald & Johannes Kamp 4 th March 2010

1 Project Background

The Sociable Lapwing *Vanellus gregarius* population has fallen by as much as 90% during the past two decades and the population was thought to number fewer than 1000 pairs. The project initially concentrated on research and monitoring to understand the causes of the observed population decline.

The wintering range and migration routes are particularly poorly known and the project aims to work with range states to identify key sites and implement conservation measures as appropriate. By the end of the project the existing International Species Action Plan, implemented under the aegis of the Africa-Eurasian Waterbirds Agreement (AEWA) will be revised and the conservation status of the species clarified.

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

Kazakhstan ratified the CBD in 1994. This project has assisted Kazakhstan to implement the CBD through contributing towards the **thematic programme Agricultural Biodiversity**. There are four **programme** elements and this project has contributed to them all as follows:

- 1) We have made significant progress in identifying patterns of distribution of Sociable Lapwing, a critically endangered steppe species. Data gathered through the period of this project has established both the historic and current breeding range of the species. In addition we have a clearer understanding of migration routes and wintering grounds of the species, particularly of the western flyway population; much remains to be discovered about the eastern flyway population (this is one of the key elements of the Darwin Post Project which commenced in April 2009). **See Annex 7.**
- 2) At the outset of the project the key hypothesis was that breeding success was limited through trampling of nests by domestic livestock and predation. We have subsequently found that grazing management is unlikely to be the key driver of a decline that has seen the population crash by 95% in the last 20 years. It is possible that breeding populations can be seriously affected by trampling of livestock locally, but these do not appear to be operating at the population level. Indeed heavy grazing is now recognised as being essential to provide suitable nesting conditions for Sociable Lapwings. **See Annex 8.**
- 3) Capacity building of local conservationists has been at the heart of this project. Within Kazakhstan in particular, the capacity to undertake applied research and monitoring with a clear conservation output has been increased through the course of this project.

A large number of individuals have received formal training, and in a number of cases this has been reinforced by longer periods of experiential training in the field. **See Annex 9.**

- 4) One of the key guiding strategies for this project has been the AEWA International Species Action Plan published in 2004. We have implemented a number of the key activities, primarily related to research on the breeding grounds but also on migration routes and wintering areas. We now have a clearer understanding of the causes of the decline and the steps required to address these. This project has culminated in an International workshop hosted by ACBK in Kazakhstan from which an updated Sociable Lapwing International Species Action Plan is currently being drafted. Once completed National Action Plans will be written and implemented (partly through the Darwin Post Project). **See Annex 10 & 11.**

This project has addressed a number of CBD articles, in particular;

Articles 5, 16, 17 & 18 (building strong links between conservation organisations in range and non-range states and through close collaboration of partners). The Birdlife partnership has been at the heart of this project from the outset. Birdlife partners in Russia (Russian Bird Conservation Union (RBCU)), Turkey (Doga Dernegi (DD)) and India (Bombay Natural History Society (BNHS)) have carried out work as planned. New project partnerships have developed as our findings suggested that the migration routes and wintering grounds have played a more important role in the species' decline than first considered. New project partners include the Syrian Society for Conservation and Wildlife (SSCW), Nature Iraq (NI) and the Sudanese Wildlife Society (SWS). Email has been the main form of communication between partner organisations, and all project partners were included in an email circulation group to track progress of satellite tagged birds. During the collation of historical records there was extensive dialogue between project staff (Johannes Kamp and Maxim Koshkin) and researchers and birdwatchers from more than 20 range states. Maxim Koshkin of ACBK has developed strong working relationships with a number of researchers within RBCU and participated in survey work in SW Russia in September 2007. Vitaliy Gromov, Director of ACBK gave a presentation of the Sociable Lapwing project at the Birdlife partnership meeting in Argentina in 2008 attended by representatives of Birdlife partners across the globe. Representatives of all the original and new project partners attended the International Species Action Plan workshop in Kazakhstan in March 2009. The strength of these relationships is highlighted by the Darwin Post Project which has all the above organisations involved as official project partners.

Article 6 (by producing a new International Species Action Plan under the auspices of AEWA). International Species Action Plan workshop held and the Action Plan is currently being revised (**see Annex 11**) and is due for completion during 2010. An International Working Group chaired by Maxim Koshkin of ACBK has been established through the AEWA Secretariat. This group will help oversee the implementation of the International Species Action Plan, and also the development of National Species Action Plans.

Article 7 (by identifying the causes of decline of Sociable Lapwing). The initial hypothesis that the cause of the decline was linked to low productivity on the breeding grounds appears to be no longer supported by the data we have collected. Indeed, the key cause is likely to be low annual survival caused by hunting on the migration route. This focus on the migration routes and wintering grounds is the main emphasis of the Darwin Post Project grant.

Article 12 (through formal and experiential training). Training has been at the heart of this project, particularly in Kazakhstan, where formal training has been given to more than 30 students attending workshops and more than 80 weeks of fieldwork experience. A great amount of time and effort has been invested in Maxim Koshkin through a combination of formal and experiential training, regular visits to the UK and attendance at International conferences. Maxim Koshkin now chairs the International Sociable Lapwing Working Group and oversees Sociable Lapwing conservation work in Kazakhstan.

Article 13 (through raising public awareness in core Sociable Lapwing areas). The project team works closely with local people and stakeholders in the core study area around Korgalzhyn, Kazakhstan. In addition project staff have liaised closely with staff at the Korgalzhyn State

Nature Reserve, Institute of Zoology and the Committee for Hunting and Forestry. Numerous popular articles have been produced in English, Russian, Polish, German, Turkish and Swedish. **See Annexes 12 & 13.** And awareness raising of the hunting issue is underway. **See Annex 14.**

All BirdLife project partners are in regular contact with their CMS and CBD focal points and ensure that data generated by the project are fed into CMS and CBD reporting, via their national focal points.

3 Project Partnerships

Through the course of the project, the key partnership between RSPB and ACBK in Kazakhstan developed successfully and has been always effective and fruitful. Links with DD, RBCU and BNHS developed well and significant progress made in the respective countries. Under the umbrella of the Birdlife and AEWA Secretariats the revision process for the International Species Action Plan has commenced.

Fieldwork and survey efforts have always been well supported in all project countries and RSPB sabbatical staff and volunteers have helped contribute to that work. A vast number of birdwatchers, conservationists and researchers have contributed information and data that has been utilized in conservation efforts for the species. Notably, Dutch ornithologists working with Syrian nationals, contributed greatly to the realization that hunting could be a key issues for Sociable Lapwings migrating through Middle Eastern countries.

Despite the wide geographical spread, communication and understanding between partners has been excellent, with no major difficulties experienced. The excellent partnership working culminated in a hugely successful workshop in Almaty, Kazakhstan, to revise the International Species Action Plan. **See Annexes 10 & 11.**

The Sociable Lapwing project team have developed a number of links with key projects within Kazakhstan, notably the Altyn Dala Conservation Initiative and the UNDP Wetlands project, both of which are within the Sociable Lapwing breeding range. Information exchange between the projects have led to the discovery of previously unknown breeding areas. In addition, partnership working with other initiatives such as the establishment of bird-watching clubs (supported by GEF funding) in Universities across Kazakhstan has increased the projects ability to identify and develop individuals for conservation training.

From the outset, ACBK and the Sociable Lapwing project team have worked closely with the Committee of Forestry and Hunting – the CBD focal point for Kazakhstan. The committee have been extremely supportive of the project and have provided logistical and administrative support to the project. The Committee attended the Action Plan Workshop and are ready to ratify and implement the recommendations of the final document.

New partnerships have been developed during the project to include SSCW (Syria), NI (Iraq) and SWS (Sudan) and these organizations are all part of the Darwin Post Project partnership.

4 Project Achievements

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

As the project aimed to provide a framework for the conservation of a threatened steppe bird in Central Asia through increased knowledge and capacity, rather than attempting to bring about significant changes in its status, the impacts (as defined by the Darwin Initiative) of this project are not necessarily relevant in assessing its success. However, some significant impacts have been brought about. The unwritten goal of the project, and the stated aim of the revised Species Recovery Plan it sought to support, was to bring about a favourable change in the conservation status of Sociable Lapwing. This has partly been achieved, as the discovery that the species is more widespread and numerous than previously thought, and information that its area of breeding habitat is likely to be safe, at least in the short term, may result in its IUCN threat status being down-listed. Furthermore, the main threat has now been identified, in the form of hunting on migration staging points, and is currently being addressed. The project has raised the capacity of a large number of young researchers in Kazakhstan, several of them going on to gain full time employment in conservation.

4.2 Outcomes: achievement of the project purpose and outcomes

The Project Purpose was “To develop effective mechanisms and capacity to improve the conservation status of the critically endangered Sociable Lapwing”. The mechanisms and capacity have been developed to a degree beyond that expected, and already actions are underway as a result to influence the conservation status of the species. Intensive research in Kazakhstan has shown that the species requires a particular type of steppe formed only where heavy grazing by domestic cattle reduces the vegetation to low height. Changes in the numbers of grazing animals suggest that at least in the near future, Sociable Lapwing habitat is likely to increase. **See Annex 8.** However, now the socioeconomic drivers are well understood, this provides conservationists with a useful tool to estimate future impacts of agricultural change on the species. The research has also led to a greatly improved understanding of the species’ migration routes and wintering areas, and identified hunting in Syria and Iraq as the likely main threat to the species. The production of a revised Species Action Plan, developed and agreed by representatives from all range states, marks a significant step forward in improving the species’ conservation status. It is expected that a better understanding of the species’ status and threats, and ongoing effort to address those threats, will see Sociable Lapwing down-listed to a lower IUCN category of threat in the near future.

4.3 Outputs (and activities)

The Project Team are justifiably proud of the progress against the expected project outputs. Full details of the success of the outputs and activities, and the extent to which indicators were met, are given in **Annex I.**

The majority of the outputs have been achieved, and indeed expectations exceeded. A number of outputs are still work in progress and form part of the Darwin Post Project grant and the International Species Action Plan.

One of the key problems we encountered was adapting to the revised hypothesis midway through the project and the need to focus more efforts on the migration routes and wintering grounds. The project adapted superbly with support from AEWA and Birdlife Secretariats, and new partnerships were developed to help deliver survey and monitoring work in new countries such as Sudan, Iraq and Syria.

The expanding project required additional financial support that was partly achieved through the Birdlife Preventing Extinctions Programme. RSPB and Swarovski Optik became joint

Sociable Lapwing Species Champions and committed extra financial and logistical support for Sociable Lapwing conservation.

There were a number of issues relating to the development of the Sociable Lapwing Project web-site. Problems associated with web designers and technical support led to the less than satisfactory development of this project output. However, these problems are now being overcome and a fully functioning project web-site will be delivered as part of the Darwin Post Project.

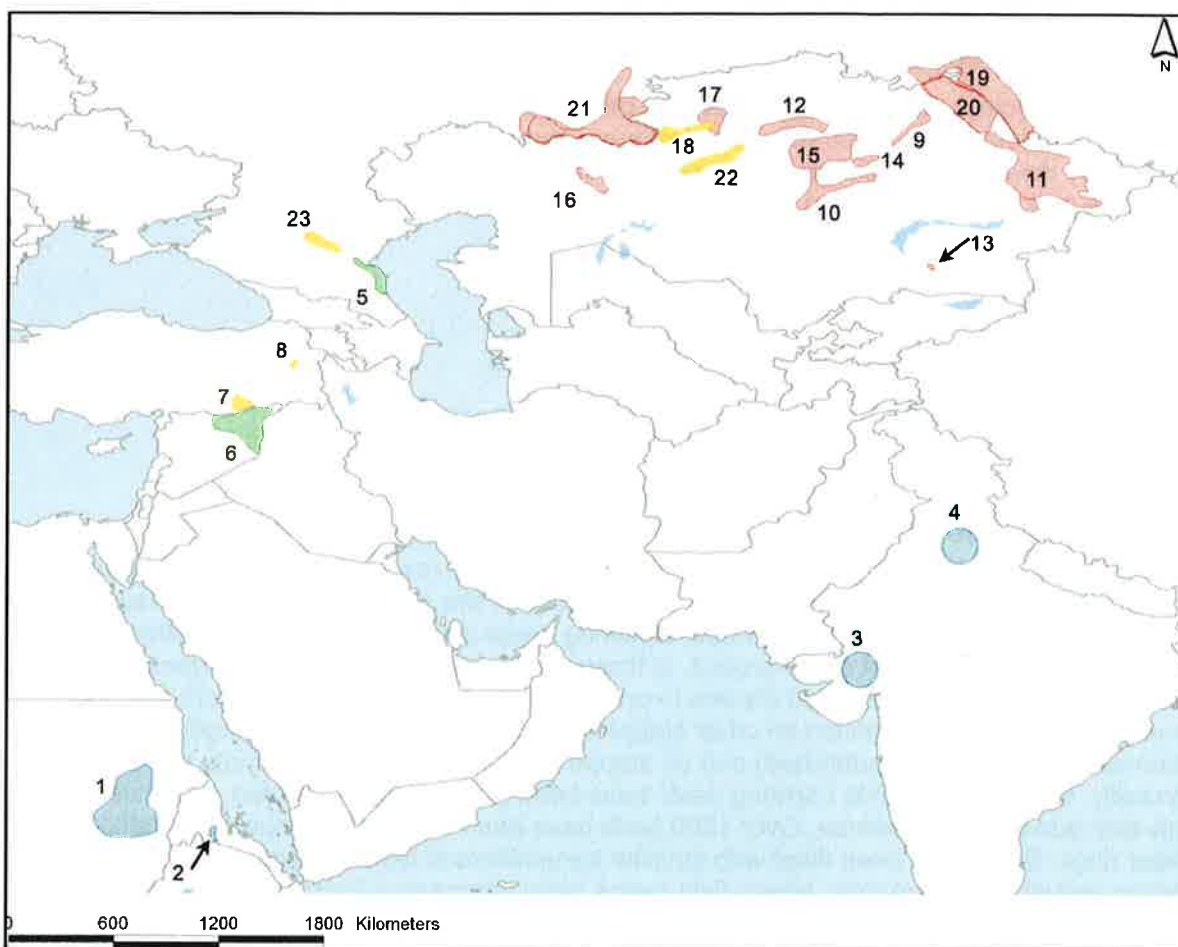
4.4 Project standard measures and publications

See Annex 4 and Annex 5

4.5 Technical and Scientific achievements and co-operation

Research formed a central component of the project, and the research aims have all been exceeded. Full details are given in **Annex I**. As a result of this work, the species' ecology, population, distribution, migratory flyways, wintering areas and threats are all far better understood than at the start of the project. In three years, Sociable Lapwing has gone from being one of the least understood waders to one of the best understood. This work has also generated important information on other steppe species (a paper on Black-winged Pratincole *Glareola nordmanni* was published) and on steppe ecosystems and their threats more generally. Over 600 Sociable Lapwing nests have been located and monitored, some using high-tech surveillance cameras. Over 1300 birds have been fitted with unique combinations of colour rings. Birds have been fitted with satellite transmitters to lead researchers to their staging and wintering grounds, where field teams have intercepted them to count numbers, look for colour rings and assess habitat use. Cattle have been fitted with electronic data-loggers to monitor spatial patterns of grazing intensity. Complex statistical models have been used to predict the species' range in Kazakhstan and identify suitable habitat and its correlates. A large database of historical and recent sightings has been compiled. A scientific paper presenting the results of some of this work was published in the international journal *Ibis* in 2009, and further papers will emerge when ongoing fieldwork being undertaken as part of the Darwin post-project is complete. All this information has been fed into a revision of the existing Species Action Plan, the original version of which was based upon few and poor quality data, to produce a document backed by sound science, which clearly identifies the main threats to the species and provides a science-based blueprint for saving the species.

Scientific collaboration with partner organisations and a range of other individuals has generated a wealth of information across the species' range (see the map overleaf). The satellite tagging work was undertaken with the co-operation of Prof Rhys Green of Cambridge University. Two bursaries have been received, for Maxim Koshkin and also Ruslan Urazaliev, to attend the Cambridge Student Conference on Conservation Science.



Map 1. Areas surveyed for Sociable Lapwings 2004–2010. A number of surveys were partly or wholly funded by the Darwin Project (**see Annex 15 for further details**). Research on habitat associations, productivity and survival of adults and chicks was carried out in areas 15 (2004–2010) and 20 (2007 only).

4.6 Capacity building

The success of the research component of the project has been greatly assisted by the capacity-building element, which has been core to the project's success. A model was established by which university lecturers around Kazakhstan were asked to identify the best of their undergraduate students. These were then invited to a week-long intensive training workshop in animal survey and census methods, which took place before the start of each field season. The workshops, attended by over 30 undergraduates in Y2 and Y3 (and by 20 prior to the start of Y1 of the Darwin-funded project) comprised formal lectures by UK experts and field exercises, with an informal examination and presentation of certificates at the end. The best of these students were then offered places on field teams for periods of up to 2 months, during which they worked side by side with professional field researchers on a number of projects. Some also visited the UK to attend the Cambridge Student Conference on Conservation Science. This staged model of training has been so successful that two former undergraduate students who worked their way through the programme now work full-time on the staff of ACBK. At the same time, considerable effort has been invested in developing the career of Maxim Koshkin, the ACBK staff member most involved in the project. Over the course of the project, Maxim has taken on more and more responsibility and is now able to run the field research unaided, and to deliver technical training courses himself. A Darwin Fellowship application to help Maxim to develop his career further has recently been submitted. It is felt that the model of capacity-building developed during this project has been a particularly

important and successful outcome, and RSPB hopes to use it elsewhere. The project indicator of increased capacity, that the proportion of work undertaken by local partners increased through the project, has been more than met.

4.7 Sustainability and Legacy

Perhaps the most enduring legacy of the project lies in the ability of ACBK to undertake field research with minimal outside assistance, and by the growth of a cadre of new conservation scientists emerging from the training provided by the project. The scientific expertise gained by the project is now also being fed back through ACBK's network of student birdwatching clubs. There is no doubt that the project has contributed greatly to the future growth of conservation in Kazakhstan. The second main legacy of the project is in the wealth of information it has generated on the ecology, distribution and threats of one of Asia's rarest species of bird. This has allowed an international Species Action Plan, overseen by AEWA and so endorsed by the Bonn Convention, to be fully revised using full information.

Furthermore, an International Working Group has been established under the auspices of AEWA to continue collaboration across a greater number of range states than is covered by both this project and the follow-up project. This will ensure the continuation of Sociable Lapwing conservation efforts for many years to come.

5 Lessons learned, dissemination and communication

The key lesson from this project, though not unique, is the importance of building capacity and helping to develop collaborations rather than being overly reliant on Western conservation expertise. This project exemplifies this approach and is clearly demonstrated by the reduction of UK input to Sociable Lapwing research and monitoring in Kazakhstan with no decline in quality or standards.

5.1 Darwin identity

Project staff have been keen to promote the Darwin Initiative in all project outputs and acknowledge funding wherever possible. In the first few months of the project an official launch event was held and hosted by the UK Ambassador, Mr Paul Burrell, in Almaty, Kazakhstan. This generated widespread media coverage and raised the profile of the Initiative within Kazakhstan and central Asia. Diplomatic staff from both the UK and Germany have visited the study area and have been impressed with all that the Darwin Initiative funded project is trying to achieve. Numerous scientific presentations have been made by project staff and the huge contribution made by the Darwin Initiative acknowledged to a wide range of audiences – examples include International Wader Study Group conferences in the Netherlands, Germany and France; Birdlife International conference in Argentina; Ornithological Society of the Middle East annual conference in the UK and a number of ornithological conferences in Russia and Kazakhstan.

The project has been widely promoted in the scientific community, the popular press and the media (**see Annexes 12 & 13 for examples**) with the Darwin logo displayed where possible and at the very least acknowledged. The aims and objectives of the Darwin Initiative have been promoted to as wide an audience as possible in the UK, Kazakhstan, Russia, Syria, Turkey, Iraq, Sudan and India.

6 Monitoring and evaluation

In addition to the required Darwin reporting, the project was annually reviewed internally by RSPB peers and through the RSPB annual staff appraisal system. The Project Leader in conjunction with Maxim Koshkin undertook regular reviews by telephone conference.

There were no changes to the log-frame during the life of the project. The outputs, activities and indicators developed at the start of the project remained fit for purpose and largely effective. The project planning had sufficient flexibility to allow change in the emphasis of the work in the final stages, with an added focus on the migration routes and wintering grounds.

6.1 Actions taken in response to annual report reviews

The use of GPS collars on cattle was queried in several of the reports to Darwin, with the reviewer not convinced by the necessity for the approach we adopted. We remain convinced that the approach we took had its merits, and indeed the data generated was utilised in a peer reviewed publication (**see Annex 8**).

It was acknowledged that we had to adapt our project implementation to incorporate a greater emphasis away from Kazakhstan and Russia given the better breeding success than expected (see Yr 2 report). Whilst we didn't need to take any specific actions from these comments, it gave the project team a great deal of confidence that the approach we were taking was a valid one.

7 Finance and administration

7.1 Project expenditure

Item	Original Budget	Revised Budget	Expenditure	Variance
Rent, rates, heating, overheads etc				
Office costs (eg postage, telephone, stationery)				
Travel and subsistence				
Printing				
Conferences, seminars, etc				
Capital items/equipment (see below) <i>Radio Tags</i> <i>Computers</i> <i>Vehicle</i> <i>Camping Equipment</i>				
Other Costs (see below) <i>Survey work</i>				
Salaries (see below) <i>UK Project Manager</i> <i>Lead Researcher</i> <i>Project Advisor</i> <i>Project Officer</i> <i>ACBK Manager</i> <i>Researchers / Field Assistants</i>				
TOTAL				

Requests to transfer grant between budget lines to match actual spend more closely were submitted to Darwin and approved in 2007 and 2008. The need for budget amendments primarily arose from the increase in travel costs that were inflating at a much higher rate than expected during the course of the project. A more expensive than originally envisaged vehicle was purchased. This was to ensure reliability and to avoid the high maintenance charges that would have been incurred by a cheaper vehicle.

The only budget line to eventually come in more than 10% under budget was the **Conferences** budget line. This line has a tendency to be underspent because much conference spend (eg. travel to and accommodation at conferences) are allocated to the Travel budget line. It is inferred that this mis-allocation has happened with this project.

7.2 Additional funds or in-kind contributions secured

The following additional funding was secured during the period of this Darwin project, and contributed to the project plan, outputs and activities:

Funder	Contribution	Period	Purpose
Swarovski Optic	>£30,000	2008-2011	Preventing Extinctions Programme
Rufford	£4990	2008-2009	Satellite tagging and surveys
OSME	£1320	2008-2009	Satellite tagging and surveys
AEWA	£10,000	2008-2009	Satellite tagging and surveys
BOU	£1000	2006-2007	Surveys in SW Russia
Anonymous donor	£12,000	2008-2009	Support SAP workshop
D-OG	£1500	2007-2008	Support Johannes Kamp's fieldwork
Birdlife small grants	£2000	2007-2009	Support surveys on wintering grounds

7.3 Value of DI funding

In the absence of Darwin Initiative funding, very little (perhaps none) of the work described in this report would have been accomplished, as no alternative funding was available.

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

Project summary	Measurable Indicators	Progress and Achievements April 2006 - March 2009	Actions required/planned for next period
<p>Goal: To draw on expertise relevant to biodiversity from within the United Kingdom to work with local partners in countries rich in biodiversity but constrained in resources to achieve</p> <ul style="list-style-type: none"> • The conservation of biological diversity, • The sustainable use of its components, and • The fair and equitable sharing of the benefits arising out of the utilisation of genetic resources 	<p>Species' conservation status clarified by end of year 3</p> <p>Targets to reverse decline agreed by key decision makers through adoption of a revised Species Action Plan by end of year 3</p>	<p>The conservation status of Sociable Lapwing is likely to be down-listed in the future.</p> <p>The species has acted as a flagship species for the Central Asian steppes – one of the least understood habitats in the world. Arguably, this project has stimulated other conservation programmes, such as the Altyn Data Conservation Initiative.</p>	<p>The results of the first project indicated that the threats to the species lie outside Kazakhstan, so efforts to protect the species have expanded into other countries. This is being funded by a Darwin post-project</p> <p>SAP to be finalised and published in 2010 by secretariat of Africa-Eurasia Waterbirds Agreement (AEWA)</p>
<p>Purpose To develop effective mechanisms and capacity to improve the conservation status of the critically endangered Sociable Lapwing</p>	<p>Completed: understanding of numbers, distribution, threat, habitat requirements, responses to land management, migration routes and wintering grounds now sufficient to develop SAP and initiate targeted conservation action</p> <p>Completed: international Species Action Plan workshop held in Almaty, Kazakhstan, in March 2009, targets for action agreed among stakeholders from all range states</p> <p>Completed: Capacity has been greatly enhanced through a combination of direct and experiential training.</p>	<p>Completed, although further scientific papers still awaiting the completion of post-project data collection. It is now known that, contrary to previous beliefs, the main problems facing the species occur not on the breeding</p>	
<p>Output 1. Causes of decline of Sociable Lapwing identified</p>	<p>Demographic mechanisms and causal processes demonstrated</p>		

		<p>grounds but along their migration routes, particularly in Syria and Iraq, where birds are being targeted by hunters. Recognition of this has led to an expansion of the project into these areas, and this is being supported by a Darwin post-project.</p>
<p>Output 2.Breeding and wintering populations and distribution estimated and migratory routes clarified</p>	<p>Population estimates and range maps based on accepted scientific methods available by end of project</p>	<p>Achieved, though ongoing work still needed to clarify migration routes. The breeding distribution has been modelled in terms of a number of variables, the results showing that birds are confined to the periphery of villages that retain high densities of grazing animals, particularly cows. A scientific paper published in <i>Ibis</i> in 2009 outlines these findings. Surveys have been undertaken at a number of sites in Kazakhstan and southern Russia, often using volunteers to expand the coverage that would otherwise be achievable through the project. The migration routes have been clarified by fitting birds with satellite transmitters and by field surveys in Russia, Syria, Turkey, Sudan and India. The winter distribution remains less clearly known, but during the project, historical wintering sites last surveyed in the 1930s were confirmed in Sudan. The winter distribution of 98% of the population was unknown before this discovery.</p>
<p>Output 3.Conservation solutions identified and tested</p>	<p>Conditions for SL improve demonstrably where recommended measures are implemented</p>	<p>Ongoing. Initial concerns that the problems lay on the breeding ground proved to be unfounded, so efforts to improve conditions for birds there proved unnecessary, although much has been learned about what conditions birds need there, providing insurance against future changes. Efforts have been started to improve conditions for birds being hunted in Syria and Iraq, with an education programme launched and regular checks of hunting areas to try to dissuade hunters from targeting Sociable Lapwings. This work will grow under the ongoing Darwin post-project.</p>
<p>Output 4.Capacity of key partners for research and conservation management increased</p>	<p>Proportion of research undertaken by partners increases through life of project; strategies for future research developed by partners</p>	<p>Achieved with great success. The proportion of project planning and implementation undertaken by project partners, particularly in Kazakhstan, increased greatly through the life of the project and most was being undertaken with little supervision by Y3. This was achieved through a series of training workshops aimed at the best undergraduate students in Kazakhstan, and then offering the best of these places on the project. The students have been excellent, and benefited from experiential training alongside conservation researchers. Several have joined the project for more than one year, and some are now employed full-time by ACBK or other conservation organisations in Kazakhstan (e.g. Kseniya Grishina at Naurzum State Nature reserve). At the same time, Maxim Koshkin has become increasingly effective and proficient in leading work in Kazakhstan and can now not only lead fieldwork teams with minimal supervision but is</p>

		<p>also capable of delivering training courses in field methods and theory. Maxim has applied for a Darwin Fellowship, to build upon his successes in this project. ACBK played a lead role in the 2009 Species Action Plan workshop, and the whole workshop was organised by ACBK, a major undertaking. Maxim also chairs the AEWA International Sociable Lapwing Working Group.</p>
<p>Output 5. Capacity of key partners for conservation advocacy established</p>	<p>Partners working with key decision makers to implement species action plans; advocacy strategy prepared</p>	<p>Work undertaken before this project suggested that the problems for the species lay on the breeding grounds and were related to patterns of livestock husbandry, and therefore that advocacy was required in Kazakhstan to address the problems. However, research has shown that the problems lie elsewhere so the need for advocacy has shifted. Instead, BirdLife Partners in Syria and Iraq are now working to develop (through a Darwin post-project) advocacy actions in the Middle East, where hunting is the main problem. Contact has already been made with hunters, and posters and pin badges prepared. All project partners, and others outside the project, have contributed to the development of an international Species Action Plan in which an advocacy strategy is laid out.</p>
<p>Output 6. System for monitoring impact of conservation actions developed</p>	<p>Appropriate monitoring protocol developed and tested</p>	<p>Achieved in full. The species is now monitored each year on a number of colonies around central Kazakhstan, and is also monitored at key staging posts along its migration route, in Russia, Turkey and Syria. Large quantities of data on distribution and population have been collected in Kazakhstan to act as a baseline for future monitoring.</p> <p>Monitoring and survey guidelines are currently being published in two Russian journals to enable Russian and Kazakh researchers to more effectively search for SL colonies.</p>
<p>Output 7. International Species Action Plan (SAP) revised and national plans published in key states</p>	<p>SAP meetings held and plans published and adopted</p>	<p>Completed, although revised SAP yet to be formally adopted by AEWA (due 2010). An international SAP workshop was held in March 2009 and involved representatives from all range states.</p>
<p>Output 8. Resources for key partners to continue activities listed in the revised SAP are being sought before end of project</p>	<p>Project proposals submitted to potential funding bodies</p>	<p>Completed. Darwin post-project successfully applied for (2009-2011). Further resources received from Swarowski Optik under the auspices of Birdlife International's Preventing Extinctions Programme. RSPB & Swarovski will act as Species Champions and provide continued financial and technical support for Sociable Lapwing conservation.</p>

Research: Activity 1 Undertake field-based research in Kazakhstan to estimate productivity and survival and their correlates	Successfully completed: 635 nests found and monitored, 1300 birds fitted with individual colour ring combinations, 100 birds re-sighted. These data have been analysed but not yet written up, as papers will be produced when data collection during the post-project is complete.
Research: Activity 2 Test intensive species management options	Completed in Y1: the effects of nest protection measures on dummy eggs assessed. Impacts of grazing pressure on breeding Sociable Lapwings assessed by fixing data loggers to grazing animals.
Research: Activity 3 Socio-economic research on grazing systems	Ongoing; trends in steppe management published in paper in <i>Ibis</i> in 2009. The work on Sociable Lapwing has led to a new Darwin-funded project being established on wider steppe species and this incorporates a high degree of socioeconomic research.
Research: Activity 4 Support surveys to estimate breeding and wintering populations in other range states and determine migration routes and stopovers	Ongoing: one of the most important outputs of the project. Birds fitted with satellite tags have been tracked to Sudan, the first records of this species in the country for many years. It now appears likely that Sudan is the most important wintering area. Tracking of tagged birds has led to the discovery of major migration stop-over points in Russia, Turkey and Syria, flocks at these sites on migration numbering up to 3000 birds, more than the estimated world population at the start of the project. Field surveys of migrating or wintering birds have been undertaken in western Kazakhstan, Russia, Turkey, Syria, Iraq, Sudan and India, involving a range of partner organisations. These led to the discovery of heavy hunting pressure in Syria and Iraq, and subsequently conservation efforts, supported by a Darwin post-project, have turned to these countries.
Research: Activity 5 Establish web site to capture ad hoc sightings	Ongoing: the project web-site continues to develop following technical difficulties. Output will be completed to a high standard during the Darwin Post Project.
Research: Activity 6 Analyse historical data	A database of recent and historical records has also been compiled, and this now holds over 2400 records. Historical data was used with great success to target areas for surveys across the breeding range.
Research: Activity 7 Develop and use new technologies as appropriate	This project has benefited from the use of a wide range of technologies, including the use of satellite tags (when this started, Sociable Lapwings were the smallest bird ever tracked with this method), electronic infrared motion-activated nest cameras, dataloggers to track the movements of cattle and radio tracking.
Training: Activity 1 Run two training workshops for at least 15 ornithologists in key partners	Completed. Workshops held in Kazakhstan in April 2008 and April 2009, with over 30 undergraduates attending, most from Kazakhstan but several

ornithologists in key partners	from Russia or other Central Asian countries. Several of these were then employed in field teams over the summer, giving them further experiential training. Two have gone on to become full time members of staff of ACBK.
Training: Activity 2 Provide expert advice and both formal and experiential training in research and advocacy throughout	Completed. This has been a very important part in the success of this project. A large number of people from Kazakhstan have joined the project for various periods, as volunteers or placement students. As the project has evolved, so more and more of the data being collected is being collected by local partners. We are now seeking funding for a Darwin Fellowship to help to develop further Maxim Koshkin, our main project partner in Kazakhstan. The capacity built by this project will greatly help the new Darwin project (announced 2010) on Altyn Dala.
Advocacy and PR: Activity 1 Appoint and train staff; develop species and steppe advocacy strategy	ACBK staff training in a variety of advocacy and PR skills. Species and steppe advocacy strategy subsumed within the revised international Species Action Plan.
Advocacy and PR: Activity 2 Provide advocacy input to international and national action plans	Completed. Particular emphasis on advocacy in Syria and Iraq now that it is known that hunting pressure there is high. This forms the core of the Darwin post-project.
Advocacy and PR: Activity 3 Develop media strategy and web site to obtain maximum publicity	Completed. The project has benefited from a range of media events, including a feature article in the RSPB magazine <i>Birds</i> , a variety of popular articles in a number of languages, a number of press releases (see previous Annual Reports). Numerous presentations at scientific conferences, particularly the International Wader Study Group. Presentations at a variety of NGO meetings, for example OSME summer meeting, RSPB volunteers conference. A project website has been established and continues to be developed.
Advocacy and PR: Activity 4 Link project to wider issues	The Sociable Lapwing project has close links to ongoing efforts to support landscape-scale steppe conservation in Kazakhstan ("Altyn Dala") and has led to a new Darwin-project on wider steppe biodiversity and the socioeconomics of steppe management. Project staff have managed to collect data on other taxa, and one of the project's outputs is a paper on the Black-winged Pratincole (Kamp et al. 2009b). The project is increasingly contributing to efforts to reduce hunting pressure on migrant birds in the Middle East.
Conservation Action: Activity 1 Identify, test and advocate research-based solutions at key locations	Completed. Nest protectors were tested in Kazakhstan but found by research to be unnecessary, as nest survival rates were higher than previous work suggested. Work on habitat selection has identified the key

	components of Sociable Lapwing breeding habitat, allowing conservationists to gauge the likely impacts of future socioeconomic change on the steppe.
Conservation Action: Activity 2 Update international species action plan to take account of new findings and develop and implement national plans in key range states	Completed, revised SAP due for formal adoption by AEWA in 2010. International workshop held in March 2009 brought together representatives from all range states. The new information collected by the project was used to improve substantially the previous version, which was based on far less information. The new international SAP will form the central pillar of future conservation efforts, and includes actions to be undertaken in all range states.
Conservation Action: Activity 3 Promote best management at key sites	Ongoing. Site-based action is moving away from Kazakhstan and towards the Middle East, where hunting is now known to be a major threat. This site-based work is being supported by a Darwin post-project.
Sustainability: Activity 1 Establish Sociable Lapwing working group	Informal group established, centred on delegates at the international SAP workshop.
Sustainability: Activity 2 Seek funds to implement SAP in key range states	Darwin post-project successfully applied for (2009-2011). Further resources received from Swarowski Optik under the auspices of Birdlife International's Preventing Extinctions Programme. RSPB & Swarovski will act as Species Champions and provide continued financial and technical support for Sociable Lapwing conservation.
Sustainability: Activity 3 Seek funds to undertake any necessary research or monitoring	As above – funding so far secured can be utilised for a combination of research, survey, monitoring and conservation actions.

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

As above – although there was a greater emphasis on survey work and conservation efforts on the migration routes and wintering grounds, the projects logframe did not change during the life of the project. The additional funding secured during the project enabled the emphasis to switch without any detriment to the initial project aims on the breeding grounds of Kazakhstan and Russia.

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	5	Develop national strategies that integrate conservation and sustainable use.
7. Identification and Monitoring		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	10	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		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	70	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	10	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	5	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

Code	Description	Totals (plus additional detail as required)
Training Measures		
1a	Number of people to submit PhD thesis	
1b	Number of PhD qualifications obtained	
2	Number of Masters qualifications obtained	1: Johannes Kamp
3	Number of other qualifications obtained	6: Diplomas (BSc) theses of Kazakhstani students (Natalya Kucheryavaya (fieldwork season 2006), Kseniya Grishina, Madina Makhmetova, Albert Salemgareev (2007), Elena Merkulova, Ruslan Urazaliev (2008)
4a	Number of undergraduate students receiving training	9 direct field experience; 42 attending training workshops
4b	Number of training weeks provided to undergraduate students	72 weeks of direct training during fieldwork
4c	Number of postgraduate students receiving training (not 1-3 above)	1 direct field experience: Syryngul' Saripova
4d	Number of training weeks for postgraduate students	10 weeks
5	Number of people receiving other forms of long-term (>1yr) training not leading to formal qualification(ie not categories 1-4 above)	1: Maxim Koshkin. Direct support and training throughout the project. Three visits to the UK to undertake training at RSPB headquarters. Darwin Fellowship currently being sought.
6a	Number of people receiving other forms of short-term education/training (ie not categories 1-5 above)	32
6b	Number of training weeks not leading to formal qualification	Two 3-day courses delivered by Dr Paul Donald in Kazakhstan to 32 undergraduate students
7	Number of types of training materials produced for use by host country(s)	
Research Measures		
8	Number of weeks spent by UK project staff on project work in host country(s)	38 weeks (Johannes Kamp) 25 weeks (Dr Rob Sheldon) 12 weeks (Dr Rob Field) = 112 5 weeks (Dr Paul Donald) 32 weeks (RSPB sabbatical staff)
9	Number of species/habitat management plans (or action plans) produced for Governments, public authorities or other implementing agencies in the host country (s)	Revision of AEWA International Species Action Plan commenced in March 2009 (due for completion by end 2010).

Code	Description	Totals (plus additional detail as required)
10	Number of formal documents produced to assist work related to species identification, classification and recording.	
11a	Number of papers published or accepted for publication in peer reviewed journals	2 (Ibis and pratincoles)
11b	Number of papers published or accepted for publication elsewhere	
12a	Number of computer-based databases established (containing species/generic information) and handed over to host country	Sociable Lapwing sightings and historical records database (see Annex 7), handed over to ACBK
12b	Number of computer-based databases enhanced (containing species/genetic information) and handed over to host country	
13a	Number of species reference collections established and handed over to host country(s)	
13b	Number of species reference collections enhanced and handed over to host country(s)	
Dissemination Measures		
14a	Number of conferences/seminars/workshops organised to present/disseminate findings from Darwin project work	1; International Species Action Plan Review workshop (see Annexes 10 & 11)
14b	Number of conferences/seminars/ workshops attended at which findings from Darwin project work will be presented/ disseminated.	International Wader Study Group annual conference 2007, 2008, 2009. Conference of the German Ornithological Society (DO-G) 2008 Birdlife partners conference, Argentina 2007.
15a	Number of national press releases or publicity articles in host country(s)	5
15b	Number of local press releases or publicity articles in host country(s)	4
15c	Number of national press releases or publicity articles in UK	3
15d	Number of local press releases or publicity articles in UK	1
16a	Number of issues of newsletters produced in the host country(s)	Circulated as part of ACBK newsletter – in Russian (2)
16b	Estimated circulation of each newsletter in the host country(s)	500+
16c	Estimated circulation of each newsletter in the UK	
17a	Number of dissemination networks established	1 (International Working Group established under auspices of AEWA)

Code	Description	Totals (plus additional detail as required)
17b	Number of dissemination networks enhanced or extended	
18a	Number of national TV programmes/features in host country(s)	2
18b	Number of national TV programme/features in the UK	
18c	Number of local TV programme/features in host country	
18d	Number of local TV programme features in the UK	
19a	Number of national radio interviews/features in host country(s)	3 (including Radio Liberty)
19b	Number of national radio interviews/features in the UK	1 (BBC Radio 4's World on the Move series)
19c	Number of local radio interviews/features in host country (s)	
19d	Number of local radio interviews/features in the UK	1 (BBC Radio Wales)
Physical Measures		
20	Estimated value (£s) of physical assets handed over to host country(s)	£25,000
21	Number of permanent educational/training/research facilities or organisation established	
22	Number of permanent field plots established	
23	Value of additional resources raised for project	
Other Measures used by the project and not currently including in DI standard measures		

Annex 5 Publications

Peer Reviewed publications

Type *	Detail (title, author, year)	Publishers (name, city)	Available from (eg contact address, website)
Journal "Steppe Bulletin" (in Russian)	"Sociable Lapwing" Project goes on... - Koshkin et al, 2008	Ecoclub, Novosibirsk, Russia	http://ecoclub.nsu.ru/books/Step-23-24/Sb23-24.pdf (page 36)
Bird Conservation International	Kamp et al 2009. Population size, breeding performance and habitat selection of the black-winged pratincole	Cambridge University Press	Bird Conservation International
Wader Study Group Bulletin	Field et al 2007. The Chagraiskoje Reservoir area of Stavropol Region, SW Russia, harbours significant numbers of migrating Sociable Lapwing <i>Vanellus gregarius</i> . 2007	International Wader Study Group	www.waderstudygroup.org
IBIS	Kamp et al 2009. Post-Soviet steppe management causes pronounced synanthropy in the globally threatened Sociable Lapwing <i>Vanellus gregarius</i>	BOU	www.bou.org

Key popular articles

Type	Detail (author, year)	Title & publication
Journal	Radziszewski M (2009)	Zagadkowe losy czajki towarzyskiej. <u>Ptaki</u> 1/2009 : 12–15. [In Polish.]
Journal	Kamp J (2008)	Forschung an einer weltweit bedrohten Vogelart – der Steppenkiebitz. <u>Der Falke</u> 55 : 130–135. [In German.]
Magazine	Day M (2008)	Sociable Lapwings – unsociable hours. <u>Birds</u> 22 : 72–79.

Popular articles in Russian include:

Хроков ВВ & Камп Й (2009). Встречи Кречетки в Павлодарской области в 2008г. Казахстанский орнитологический бюллетень 2008: 167.

Хроков ВВ, Фаустов ЛВ, Голдстоун Э (2008). Экспедиция по поиску Кречетки на востоке Казахстана в 2007г. Казахстанский орнитологический бюллетень 2007: 135–136.

Кошкин МА, Шелдон РД, Камп Й (2007). Проект 'Кречетка' продолжается. Степной бюллетень 2007 (23/24): 36–37.

Хроков ВВ & Найт Э (2007). Результаты поиска Кречетки в Павлодарской области в 2006г. Казахстанский орнитологический бюллетень 2006: 147–148.

Кошкин МА, Хроков ВВ, Шелдон РД, Доналд ПФ, Камп Й (2006). Краткий обзор полевых работ 2004–2005 гг в рамках проекта «Кречетка». Информационные материалы Рабочей группы по куликам 19: 29–30

Annex 6 Darwin Contacts

Ref No	15-032
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