

Darwin Initiative: Half Year Report

(due 31 October 2012)

Project Ref No	Ref.: 18-004
Project Title	Altyn Dala: supporting ecosystem-scale conservation in Kazakhstan
Country(ies)	Kazakhstan
UK Organisation	The Royal Society for the Protection of Birds (RSPB)
Collaborator(s)	<ul style="list-style-type: none">• Association for the Conservation of Biodiversity of Kazakhstan• Karaganda State University• North Kazakhstan State University of Petropavlovsk• Ministry of Agriculture of Kazakhstan• Frankfurt Zoological Society
Project Leader	<i>Dr Paul Donald</i>
Report date	<i>31st October 2012</i>
Report No. (HYR 1/2/3/4)	<i>HYR3</i>
Project website	www.acbk.kz

1. Outline progress over the last 6 months (April – September) against the agreed baseline timetable for the project (if your project has started less than 6 months ago, please report on the period since start up).

The project is well on track and no changes to the objectives and activities have needed to be made.

Botanists:

- Restoration potential of abandoned farmland in southern zone of Altyn Dala
- Satellite analysis ground truthing

In 2012, botanists worked alongside the ornithology team in the SW part of the Altyn-Dala region and with the team undertaking the small mammals survey (see below). The botanical research will be used to derive habitat variables necessary for comparative analyses of distribution and density of birds and small mammals.

Ornithologists:

- Influence of changing land use on steppe birds, birds mapping
 - Birds distribution and abundance in the SW of the Altyn Dala territory, bird counts
 - Sociable Lapwing monitoring of colonies and colour-ringed birds
- 1) Work on the Critically Endangered Sociable Lapwing (*Vanellus gregarius*) has been continued. 44 nests have been found and monitored, 46 chicks colour-ringed and their survival followed. Analysis of these data are currently underway. Unfortunately 2012 was a difficult breeding season with uncharacteristic weather contributing to the birds' relative lack of success compared to usual.
 - 2) The second research team has conducted long-range bird count transects in the south-western area of Altyn Dala, mainly in Priaralsky Karakum sands. The aim was to register all steppe bird species in the period of 11th and 27th May through walked and car transects, undertaking at the same time a botanical description of the transect plots. Three ACBK staff and 2 students of ACBK's network participated in the survey.

The total length of the transects was 1350 km, the length of walked transects was 150 km. 280 walked transects have been conducted in 15 areas. The distance between the transect plots was 20-25 km. Along the driven transects a total of more than 130 observations of steppe species were made.

According to the data collected along the all transects, the dominant species of the sandy semi-desert were: Bimaculated Lark *Melanocorypha bimaculata*, Greater Short-toed Lark *Calandrella cinerea*, Lesser Short-toed Lark *Calandrella rufescens* and Red-headed Bunting *Emberiza bruniceps*; other common species were: Isabelline Wheatear *Oenanthe isabellina*, Desert Wheatear *Oenanthe deserti*, Desert Warbler *Sylvia nana*, Lesser Whitethroat *Sylvia curruca*, Southern Booted Warbler *Hippolais rama* and Turkestan Shrike *Lanius phoenicuroides*. At some areas big aggregations (more than 300 birds) of Pin-tailed Sandgrouse *Pterocles alchata* were observed.

The fauna of reptiles and amphibians was represented by the following species: *Bufo viridis*, *Agrionemys horsfieldi*, *Phrynocephalus guttatus*, *Trapelus sanguinolentus*, *Alsophylax pipiens*, *Eremias lineolata*, *Eremias intermedia*, *Eremias velox*, *Eremias grammica*, *Vipera berus*, *Vipera ursini*, *Psammophis lineolatum* and *Gloydus halys*; not far to the north from the transect area, *Emys orbicularis* was recorded.

Of mammals, Red Fox *Vulpes vulpes*, Saiga *Saiga tatarica*, several species of erbils and Desert Hare *Lepus tolai* were observed.

Among interesting observations of rarer species were: Imperial Eagle *Aquila heliaca* (IUCN – VU), Black Vulture *Aegipius monachus* (NT), White-tailed Sea-eagle *Haliaeetus albicilla*, Pallid Harrier *Circus macrourus* (NT), Lesser Kestrel *Falco naumanni* (VU), Steppe Eagle *Aquila nipalensis*, Eurasian Curlew *Numenius arquata* (NT), Caspian Plover *Charadrius asiaticus*, Demoiselle Crane *Grus virgo*, Houbara Bustard *Chlamydotis undulata* (VU), Black-bellied Sandgrouse *Pterocles orientalis*, Pin-tailed Sandgrouse *Pterocles alchata* and Pallas's Sandgrouse *Syrrhaptes paradoxus*.

Small mammals:

In the 2012 surveys, 3 ACBK staff and 2 students participated in small mammal research. Based on results of 2011, the monitoring of small mammals communities was continued at the same areas to increase the data set and reliability of statistical analyses of the influence of land use or grazing of domestic ungulates. Two field surveys were conducted in 2012: in spring - early summer (first peak of activity of rodents, first generation of young) and in autumn (second generation of young and second peak of activity). Besides the monitoring of last year's plots, two additional plots with high density of domestic animals near villages were explored.

So, during two years, four types of plots in pristine steppes have been surveyed – dry steppe weakly grazed by Saiga, dry steppe with little presence of Saiga and domestic animals, dry steppe area moderately to intensively grazed by domestic animals, herb-bunchgrass steppe moderately to intensively grazed by domestic animals. At each study area several methods were applied for observation of different kind of rodents: Live traps have been used for small and medium-sized rodents and insectivores. Line transects for counting and observation of boreholes, droppings and other signs. Point observation of big rodents (susliks). Night line transects (by car): counting jerboas using headlight beams. In total, 3070 trap/days were undertaken in two years. *Mus musculus*, *Meriones tamariscinus*, *Allocricetulus evermanni*, *Cricetus cricetus*, *Cricetulus migratorius* were trapped. 40 observation points, 80 line transects (500 m each) and 500 km of night car transects were done. At the transects, *Spermophilus pygmaeus*, *Spermophilus fulvus*, *Allactaga major*, *Allactaga elater*, *Pygeretmus pumilio*, *Pygeretmus platyurus*, *Stylodipus telum* were registered.

Data on the small mammal survey is currently being analyzed by a staff member of ACBK as part of their Master thesis. Small mammal density, species diversity, Shannon-Wiener index, dominance, community evenness (uniformity), community similarity and biometrics of trapped animals are being analysed.

3. Do you expect to have any significant (eg more than £5,000) underspend in your budget for this year?

Yes No

If yes, and you wish to request a carryforward of funds, this should be done as soon as possible. It would help Defra manage Darwin funds more efficiently if you could give an indication of how much you expect this request might be for.

Estimated carryforward request:

4. Are there any other issues you wish to raise relating to the project or to Darwin's management, monitoring, or financial procedures?

No

If you were asked to provide a response to this year's annual report review with your next half year report, please attach your response to this document.

Please note: Any planned modifications to your project schedule/workplan or budget should not be discussed in this report but raised with LTS International directly.

Please send your **completed form by email** to Eilidh Young at Darwin-Projects@ltsi.co.uk . The report should be between 1-2 pages maximum. **Please state your project reference number in the header of your email message eg Subject: 17-075 Darwin Half Year Report**