

**Wildlife Conservation Society
Afghanistan Biodiversity Conservation
Programme**

**Ornithological Survey in Hazarajat
Breeding Birds of Band-i-Amir Proposed National Park and Ajar
Proposed Wildlife Reserve in May/June 2008**

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1 Executive Summary

The areas of the Band-i-Amir Proposed National Park (PNP) and Ajar Proposed Wildlife Reserve (PWR) were surveyed for breeding birds between 27/05/08 and 11/06/08. A total of 120 species was recorded. 94 species were recorded at Band-i-Amir PNP, of which 73 were recorded as possibly, probably or confirmed breeding. At Ajar PWR, 72 species were recorded with all 72 being recorded as possibly, probably or confirmed breeding. 33 new species were added to the Band-i-Amir PNP management plan bird list and 38 to the Ajar PWR list. Additionally, seven species that had previously only been suspected were confirmed as being present in Band-i-Amir PNP.

Key species recorded as breeding at both sites are Himalayan Snowcock (*Tetraogallus himalayensis*), Hume's Short-toed Lark (*Calandrella acutirostris*), Red-tailed Wheatear (*Oenanthe chrysopygia*), Sulphur-bellied Warbler (*Phylloscopus griseolus*), Hume's Whitethroat (*Sylvia althaea*), Brown Accentor (*Prunella fulvescens*), Gray-necked Bunting (*Emberiza buchanani*), White-winged Snowfinch (*Montifringilla nivalis*), Pale Rosefinch (*Carpodacus synoicus*) and Great Rosefinch (*Carpodacus rubicilla*). In Band-i-Amir PNP Lesser Sand Plover (*Charadrius mongolicus*), Afghan Snowfinch (*Pyrgilauda theresae*), Mongolian Trumpeter Finch (*Bucanetes mongolicus*) and Crimson-winged Finch (*Rhodopechys sanguinea*) were recorded as breeding, and in Ajar PWR Plain Leaf Warbler (*Phylloscopus neglectus*), White-capped Bunting (*Emberiza stewarti*) and Blyth's Rosefinch (*Carpodacus grandis*).

Based on the results of the survey, Band-i-Amir PNP can be confirmed as an Important Bird Area (IBA), and Ajar PWR was identified as a potential IBA awaiting further studies on the distribution of biome-restricted species in Ajar and alternative areas. In Ajar, the remaining juniper stands were identified as being of primary importance for the set of priority species identified. Collection of juniper wood needs careful regulation.

The recommendations made to the Wildlife Conservation Society, in order of priority, are:

- to carefully regulate the collection of wood, especially in Ajar.
- to repeat the transects in intervals of a few years to monitor the bird communities in the key habitats covered.
- to share results of this and future studies with Birdlife International in order for Ajar PWR to be considered as a potential IBA.
- to explore possibilities of conducting small studies with local and national staff as outlined in chapter 5.4.

2 Introduction

As part of its USAID-funded Afghanistan Biodiversity Conservation Program, the Wildlife Conservation Society (WCS) commissioned an ornithological survey of two Proposed Protected Areas – Band-i-Amir Proposed National Park (PNP) and Ajar Proposed Wildlife Reserve (PWR) – in spring 2008 as a component of its Hazarajat program. Raffael Ayé and Simon Busuttill, with support from many others, carried out the surveys between 27th May and 11th June, 2008. The objective of the survey was to provide baseline ornithological data of breeding birds for the Band-i-Amir PNP and Ajar PWR management plans.

2.1 Project Area

2.1.1 Band-i-Amir PNP

Band-i-Amir PNP lies 185 km north-northwest of Kabul and 55 km west of Bamiyan town. The area covered by the survey is the current PNP based on the watershed for the series of 6 lakes and associated wetlands that form the focus for the PNP. The size of the PNP is possibly as much as 80,000 ha. The surrounding land has been heavily grazed for centuries and is primarily made up of thorn cushion plants, dwarf shrubs and poisonous weeds often dominated by *Artemisia* – essentially a degraded cushion shrubland with areas of alpine meadow (for further details see *Provisional Management Plan 2008 - 2011*). Dryland farming of wheat and barley (known as lalmi) takes place. The lakes lie at 2,900 m asl, with the surrounding land mainly at altitudes of 3,200 to 3,400 m asl. In the northern part of the watershed land rises to 3,800 m asl. The Band-i-Amir PNP lake valley system contains several areas such as the reed-covered wetland near Dewkhana-i Payin. The valley is cultivated through irrigation, with planted poplars and willows adding variety.

2.1.2 Ajar PWR

The Ajar PWR Valley PPA lies 70 km north of Bamiyan town and covers 40,000 to 50,000 ha of mountainous land in the Hindu Kush range of central Afghanistan. The mountainous terrain is typical of the central Hindu Kush having a maximum relief of nearly 1,800 m. East-west running ridges with precipitous peaks rise to 3,800 m and are interspersed with gently rounded, vegetated mountain tops up to 3,200 m in elevation. Bisecting the Reserve from east to west is the Jawzari Canyon (Dara-i Jawzari) lying at about 2,200 m with cliffs up to 350m high. Vegetation is varied and complex with *Stipa*, *Carex*, *Artemisia* and *Amygdalus* communities and limited areas of juniper and willow remaining on remote crags and in wetland areas, respectively (for further details see *Draft Preliminary Management Plan 2008*).

2.2 Ornithological background

2.2.1 Ornithological background information for Band-i-Amir PNP

Band-i-Amir PNP is recognized (Evans 1994) as an Important Bird Area (IBA), IBA number AF008 (see Appendix 4 for full citation). Most of the information on which the status is based is from July to September 1970 when an Oxford University (OU) expedition covered the area, though efforts were focused on migrant birds. The IBA falls within the Afghanistan Mountains Endemic Bird Area (EBA number s073) as defined by Birdlife International.

Any documented observation ceased between 1979 and 2002 due to the political situation. Some *ad hoc* recording has taken place since then but no systematic survey of breeding species has been documented. The Management Plan states that 84 species have

been recorded for the area. The 2007 WCS Hazarajat Annual Report reported adding 16 new species to the Band-i-Amir PNP list.

2.2.2 Ornithological background information for Ajar PWR

Ajar PWR has no formal recognition as being of importance for birds. The draft Management Plan states that 57 species have been recorded and the 2007 WCS Annual Report states that a further 7 species had been added during the course of visits that year.

3 Methodology

Observer/field days totaled 25. Fifteen of these were at Band-i-Amir PNP and 10 at Ajar PWR. Two basic methods were used – walked transects and non-transect observation.

Our lists follow the taxonomy of Rasmussen & Anderton (2004) with minor changes where we felt that such were warranted. To allow for easier comparison with previous lists received through WCS, we followed the sequence of the latter.

3.1 Transects

In Band-i-Amir PNP 26 transects were carried out between 0500 and 1300 between 30/05 and 01/06 and then between 09/06 and 11/06 (total 6 days). In Ajar PWR 22 transects were carried out between 0525 and 1200 between 04/06 and 08/06 (5 days). Transect time averaged about one hour. Distance covered was more variable due to varying terrain conditions. All transects were made by a single observer (one of the two authors) using Garmin GPS 60 units to plot start and end points and, in most cases, routes (see Fig 1 for Band-i-Amir and Fig 2 for Ajar). Routes were not randomly selected but were chosen to try to represent as many habitat types across the two PPAs as possible within the time constraints and taking into account accessibility and security. All birds seen and heard were counted. Raw data was analyzed in Kabul on 13th June and the first draft of this report prepared on 14th to 16th June.

3.2 Non-transect observation

Non-transect observations were made in Band-i-Amir PNP throughout the period 27th May to 1st June and then again 9th to 11th June and in Ajar PWR between 4th and 8th June (all dates inclusive). Most non-transect observations were made on foot but some were made from vehicles whilst traveling. We attempted to note all birds, even though for common birds this could not always be achieved. Most observations were made whilst getting to and returning from the transect route and around the two base camps in Band-i-Amir PNP and Ajar PWR (see map Fig 2, p.9).

3.3 Breeding status

All species were allocated one of four breeding status on the basis of observation as defined by the British Trust for Ornithology (BTO) (www.bto.org.uk, accessed 14th June 2008) and as presented in Table 1. All codes for Possible, Probable and Confirmed Breeding related to individuals in potentially suitable nesting habitat.

Evidence for breeding status was collected both through transect and non-transect observation. Certain species were deliberately “targeted” for increased levels of observation effort where it was felt that the level of confirmation could be raised.

3.4 Literature Review

WCS (through Chris Shank) and the authors have made a significant effort to bring together existing information on the birds of Hazarajat, primarily Band-i-Amir PNP, including contacting the authors of records directly to clarify issues, e.g., where

taxonomic changes have led to a need to clarify which race of bird was originally involved. A list of sources referred to is contained in Section 7.

Table 1. British Trust for Ornithology Standard Categories Used for Breeding Status

Non-breeding

F Flying over

M Species Observed but suspected to be still on **M**igration

U Species Observed but suspected to be **s**Ummering non-breeder

Possible breeder

H Species Observed in breeding season in suitable nesting **H**abitat

S Singing male present (or breeding calls heard) in breeding season in suitable breeding habitat

Probable breeding

P **P**air Observed in suitable nesting habitat in breeding season

T Permanent **T**erritory presumed through registration of territorial behaviour (song etc) on at least two different days a week or more at the same place or many individuals on one day

D Courtship and **D**isplay (judged to be in or near potential breeding habitat; be cautious with wildfowl)

N Visiting probable **N**est site

A **A**gitated behaviour or anxiety calls from adults, suggesting probable presence of nest or young nearby

I Brood patch on adult examined in the hand, suggesting **I**ncubation

B Nest **B**uilding or excavating nest-hole

Confirmed breeding

DD **D**istractio**n-D**isplay or injury feigning

UN **U**sed **N**est or eggshells found (occupied or laid within period of survey)

FL Recently **F**ledged young (nidicolous species) or downy young (nidifugous species). Careful consideration should be given to the likely provenance of any fledged juvenile capable of significant geographical movement. Evidence of dependency on adults (e.g. feeding) is helpful. Be cautious, even if the record comes from suitable habitat.

ON Adults entering or leaving nest-site in circumstances indicating **O**ccupied **N**est (including high nests or nest holes, the contents of which can not be seen) or adults seen incubating

FF Adult carrying **F**aecal sac or **F**ood for young

NE Nest containing **E**ggs

NY Nest with **Y**oung seen or heard

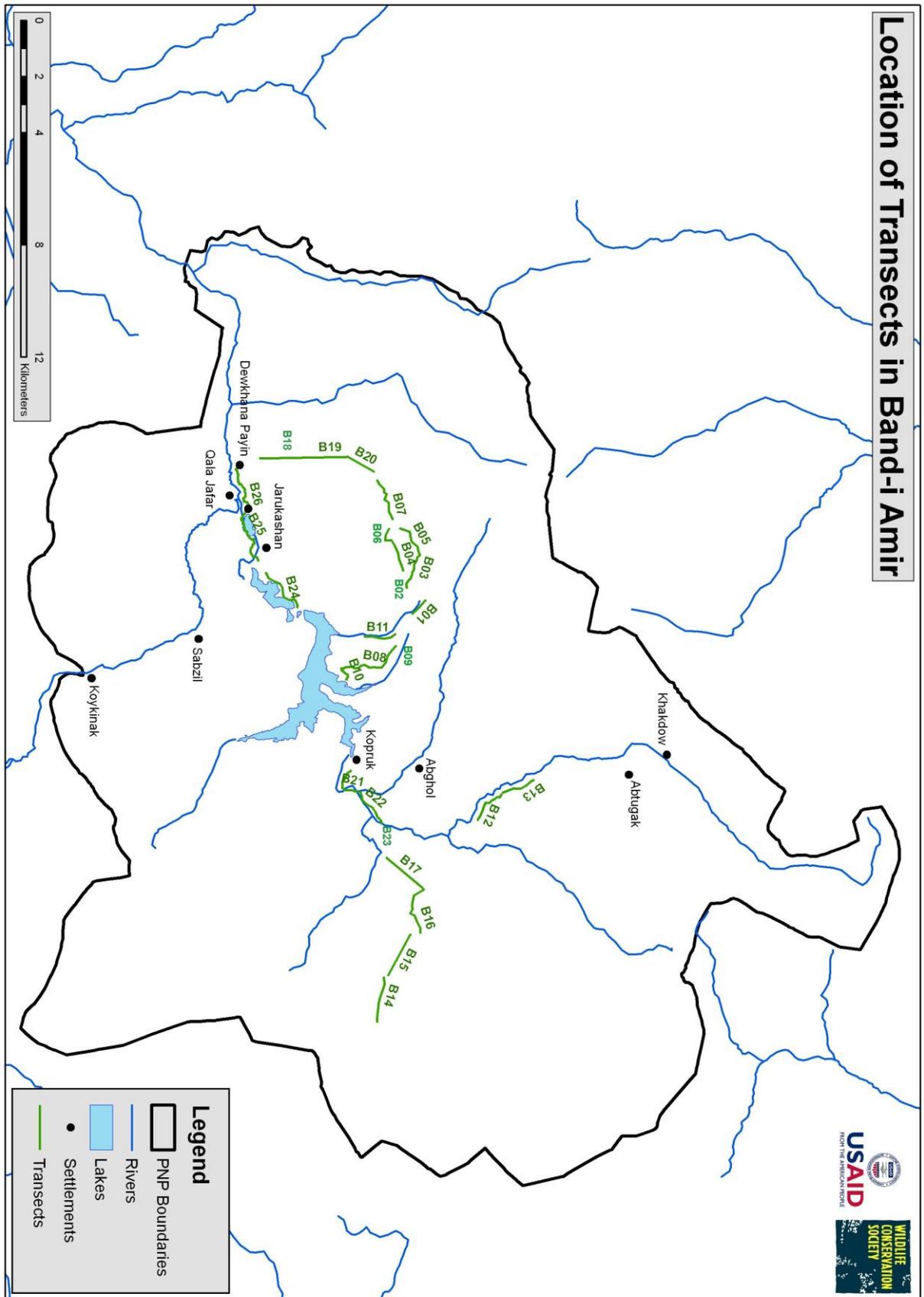


Figure 1. Schematic map of Band-i-Amir Proposed National Park showing survey transects.

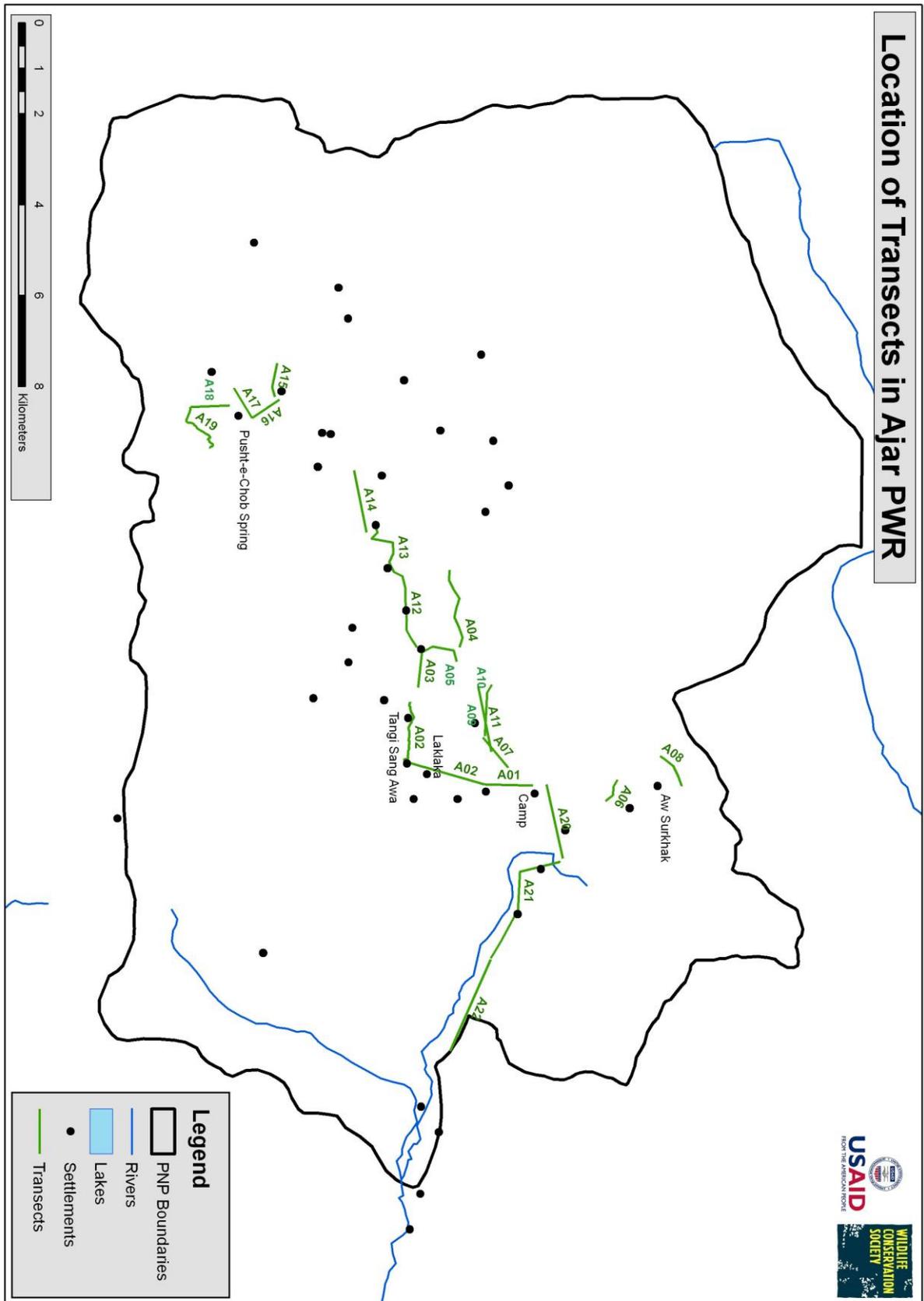


Figure 2. Schematic map of Ajar Proposed Wildlife Reserve showing survey transects.

4 Results

A total of 94 species was recorded at Band-i-Amir PNP of which 73 (77%) were recorded as possibly, probably or confirmed breeding. At Ajar PWR, 72 species were recorded with all 72 (100%) being recorded as possibly, probably or confirmed breeding.

We have used the BirdLife criteria for biome-restriction (Lachmann et al. 2006, M. Evans in litt. June 2008). Applying these criteria, based on published data, our own experience and conversations with other experts, we made changes to the biome-restricted status of three species. We consider that Hume's Whitethroat (*Sylvia althaea*) and Pale Rosefinch (*Carpodacus synoicus*) meet the criteria set for biome-restricted status and that Red-headed Bunting (*Emberiza bruniceps*) does not.

4.1 List of Bird Species Recorded in Band-i-Amir PNP

English Name	Scientific Name	IUCN status ¹	Breeding Status	Estimated #ind observed ²	Conservation Importance ³
Little Grebe	<i>Tachybaptus ruficollis</i>	LC	Prob	3	1
Great Crested Grebe	<i>Podiceps cristatus</i>	LC	Conf	5	0
Great Cormorant	<i>Phalacrocorax carbo</i>	LC	Non - breeding	3	0
Great White Egret	<i>Egretta alba</i>	LC	Non - breeding	3	0
Mallard	<i>Anas platyrhynchos</i>	LC	Prob	5	0
Shoveler	<i>Anas clypeata</i>	LC	Non - breeding	1	0
Long-legged Buzzard	<i>Buteo rufinus</i>	LC	Poss	15	0
Golden Eagle	<i>Aquila chrysaetos</i>	LC	Prob	2	0
Himalayan Griffon	<i>Gyps himalayensis</i>	LC-br	Non - breeding	1	1
Cinereous Vulture	<i>Aegypius monachus</i>	NT	Non - breeding	2	3 (2?)
Bearded Vulture	<i>Gypaetus barbatus</i>	LC	Poss	4	0
Marsh Harrier	<i>Circus aeruginosus</i>	LC	Non - breeding	1	0
Common Kestrel	<i>Falco tinnunculus</i>	LC	Conf	35	0

¹ LC=least-concern, NT=near-threatened, EN=endangered, br=biome-restricted, en=endemic

² This approximately corresponds to the total number of individuals seen in the area. Wherever an individual was obviously noted twice or more often, it was excluded. However, we cannot exclude that some individuals have been counted twice. Therefore it is just an estimate of the number of individuals observed.

³ 0=no particular, 1=regional/subnational, 2=national, 3=international importance

English Name	Scientific Name	IUCN status ¹	Breed- ing Status	Estimated #ind observed ²	Conservation Importance ³
Eurasian Hobby	<i>Falco subbuteo</i>	LC	Poss	1	0
Saker Falcon	<i>Falco cherrug</i>	EN	Poss	1	3 (2?)
Himalayan Snowcock	<i>Tetraogallus himalayensis</i>	LC-br	Prob	10	2
Chukar	<i>Alectoris chukar</i>	LC	Prob	11	0
Eurasian Coot	<i>Fulica atra</i>	LC	Prob	166	1
Moorhen	<i>Gallinula chloropus</i>	LC	Prob	2	0
Black-winged Stilt	<i>H. himantopus</i>	LC	Non – breeding	1	0
Little Ringed Plover	<i>Charadrius dubius</i>	LC	Prob	3	0 (1?)
Lesser Sand Plover	<i>Charadrius mongolus</i>	LC-br	Conf	4	2
Common Sandpiper	<i>Actitis hypoleucos</i>	LC	Poss	1	0
Common Redshank	<i>Tringa totanus</i>	LC	Prob	21	1
Common Greenshank	<i>Tringa nebularia</i>	LC	Non - breeding	3	0
Black-headed Gull	<i>Larus ridibundus</i>	LC	Non - breeding	2	0
Common Tern	<i>Sterna hirundo</i>	LC	Poss	2	0
Whiskered Tern	<i>Chlidonias hybridus</i>	LC	Non - breeding	1	0
Black-bellied Sandgrouse	<i>Pterocles orientalis</i>	LC	Prob	67	1
Rock Dove	<i>Columba livia</i>	LC	Conf	67	0
Laughing Dove	<i>Streptopelia senegalensis</i>	LC	Prob	2	0
Common Cuckoo	<i>Cuculus canorus</i>	LC	Prob	14	0
Eagle Owl	<i>Bubo bubo</i>	LC	Non - breeding	1*	0
Common Swift	<i>Apus apus</i>	LC	Prob	112	0
White-bellied Swift	<i>Apus melba</i>	LC	Non - breeding	2	0
Hoopoe	<i>Upupa epops</i>	LC	Conf	18	0
Common Kingfisher	<i>Alcedo atthis</i>	LC	Poss	3	0-1
Hume's Short- toed Lark	<i>Calandrella acutirostris</i>	LC-br	Conf	197	2
Eurasian Skylark	<i>Alauda arvensis</i>	LC	Non - breeding	4	0
Horned Lark	<i>Eremophila alpestris</i>	LC	Conf	299	0
Common Sand Martin	<i>Riparia riparia</i>	LC	Non - breeding	10	1

English Name	Scientific Name	IUCN status ¹	Breed- ing Status	Estimated #ind observed ²	Conservation Importance ³
Pale Sand Martin	<i>Riparia diluta</i>	LC-br	Non - breeding	1	1
House Martin	<i>Delichon urbicum</i>	LC	Conf	98	0
Barn Swallow	<i>Hirundo rustica</i>	LC	Non - breeding	20	0-1
Crag Martin	<i>Ptyonoprogne rupestris</i>	LC	Conf	162	0
Citrine Wagtail	<i>Motacilla citreola</i>	LC	Conf	300	0
White Wagtail	<i>Motacilla alba</i>	LC	Conf	3	0
Tawny Pipit	<i>Anthus campestris</i>	LC	Poss	2	0 ⁴
Brown Accentor	<i>Prunella fulvescens</i>	LC-br	Prob	10	2
Black Redstart	<i>Phoenicurus ochruros</i>	LC	Conf	226	0
Siberian Stonechat	<i>Saxicola maura</i>	LC	Prob	6	0
Northern Wheatear	<i>Oenanthe oenanthe</i>	LC	Conf	94	0
Isabelline Wheatear	<i>Oenanthe isabellina</i>	LC	Poss	2	0
Desert Wheatear	<i>Oenanthe deserti</i>	LC	Prob	80	0
Red-tailed Wheatear	<i>Oenanthe chrysopygia</i>	LC-br	Prob	10	1
Red-tailed Rock Thrush	<i>Monticola saxatilis</i>	LC	Conf	21	0
Clamorous Reed Warbler	<i>Acrocephalus stentoreus</i>	LC	Prob	40	1
Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i>	LC	Non - breeding	4	0
Paddyfield Warbler	<i>Acrocephalus agricola</i>	LC	Prob	32	1
Sykes's Warbler	<i>Hippolais rama</i>	LC-br	Poss	7	0-2
Greater Whitethroat	<i>Sylvia communis</i>	LC	Non - breeding	6	0
Hume's Whitethroat ⁵	<i>Sylvia althaea</i>	LC-br	Prob	7	1
Siberian Chiffchaff	<i>Phylloscopus tristis</i>	LC	Non - breeding	4	0
Greenish Warbler	<i>Phylloscopus (trochiloides)</i>	LC	Non - breeding	2	0

⁴ The status of this species in Afghanistan is uncertain. Here we assume that it breeds – possibly in low densities – in other areas of Afghanistan, too.

⁵ Not listed as biome-restricted by Lachmann *et al.* 2006. However, we assume that this is erroneous. The species' breeding range is restricted to the Sino-Himalayan Temperate Forests with only very limited extension into the Irano-Turanian Mountains. This fits the criteria for biome-restriction.

English Name	Scientific Name	IUCN status ¹	Breed- ing Status	Estimated #ind observed ²	Conservation Importance ³
	<i>nitidus</i>				
Sulphur-bellied Warbler	<i>Phylloscopus griseolus</i>	LC-br	Conf	86	2
Asian Paradise-Flycatcher	<i>Terpsiphone paradisi</i>	LC	Poss	2	0
Eastern Rock Nuthatch	<i>Sitta tephronota</i>	LC-br	Conf	74	0
Wallcreeper	<i>Tichodroma muraria</i>	LC-br	Conf	10	0
Asian Golden Oriole	<i>Oriolus kundoo</i>	LC	Poss	1	0
Long-tailed Shrike	<i>Lanius schach</i>	LC	Poss	5	0
Lesser Gray Shrike	<i>Lanius minor</i>	LC	Poss	1	0
Black-billed Magpie	<i>Pica pica</i>	LC	Conf	32	0
Hooded Crow	<i>Corvus (corone) corone</i>	LC	Poss	3	0
Carrion Crow	<i>Corvus (corone) orientalis</i>	LC	Poss	2	0
Common Raven	<i>Corvus corax</i>	LC	Conf	16	0
Yellow-billed Chough	<i>Pyrrhocorax graculus</i>	LC	Prob	45	0
Red-billed Chough	<i>P. pyrrhocorax</i>	LC	Conf	237	0
Rosy Starling	<i>Sturnus roseus</i>	LC	Poss	4	0
Tree Sparrow	<i>Passer montanus</i>	LC	Conf	110	0
Bactrian Sparrow ⁶	<i>Passer indicus bactrianus</i>	LC	Prob	26	0
Rock Sparrow	<i>Petronia petronia</i>	LC	Conf	44	0
White-winged Snowfinch	<i>Montifringilla nivalis</i>	LC-br	Conf	385	0
Afghan Snowfinch	<i>Pyrgilauda theresae</i>	LC-en	Conf	47	3
Eurasian Chaffinch	<i>Fringilla coelebs</i>	LC	Non - breeding	1	0
Fire-fronted Serin	<i>Serinus pusillus</i>	LC-br	Prob	44	1
Gray Goldfinch	<i>Carduelis caniceps</i>	LC	Poss	5	0
Twite	<i>Carduelis flavirostris</i>	LC	Prob	170	0-1
Crimson-winged Finch	<i>Rhodopechys sanguinea</i>	LC-br	Conf	49	2
Mongolian	<i>Bucanetes</i>	LC	Prob	7	0

⁶ This taxon has often been included within House Sparrow *Passer domesticus*. However, we favour ascribing species status to this migratory taxon.

English Name	Scientific Name	IUCN status ¹	Breed- ing Status	Estimated #ind observed ²	Conservation Importance ³
Trumpeter	<i>mongolicus</i>				
Trumpeter Finch	<i>Bucanetes githagineus</i>	LC	Prob	13	0
Common Rosefinch	<i>Carpodacus erythrinus</i>	LC	Prob	172	0
Great Rosefinch	<i>Carpodacus rubicilla</i>	LC-br	Prob	12	3
Pale Rosefinch	<i>Carpodacus synoicus</i>	LC-br ⁷	Conf	47	2
Gray-necked Bunting	<i>Emberiza buchanani</i>	LC-br	Prob	25	1

⁷ Not formally recognised as biome-restricted by Birdlife International. In our view, despite the possibly increasing population (Mike Evans *in litt*) in the Middle East, the species is best treated as biome-restricted. If the species is as numerous in the rest of its Central Asian range as our fieldwork has shown it to be in Hazarajat, then it seems likely that over 75% of its world population occurs in the Eurasian High Mountain biome.

4.2 List of Bird Species Recorded in Ajar PWR

English Name	Scientific Name	IUCN status ⁸	Breed- ing Status	Estimated #ind Observed ⁹	Conservation Importance ¹⁰
Short-toed Eagle	<i>Circaetus gallicus</i>	LC	Poss	1	0
Golden Eagle	<i>Aquila chrysaetos</i>	LC	Prob	6	0 (1?)
Himalayan Griffon	<i>Gyps himalayensis</i>	LC-br	Poss	15	2
Bearded Vulture	<i>Gypaetus barbatus</i>	LC	Poss	5	0
Common Kestrel	<i>Falco tinnunculus</i>	LC	Conf	18	0
Barbary Falcon	<i>Falco pelegrinoides</i>	LC	Prob	2	1
Himalayan Snowcock	<i>Tetraogallus himalayensis</i>	LC-br	Prob	3	2
Chukar	<i>Alectoris chukar</i>	LC	Prob	67	0
See-see Partridge	<i>Ammoperdix griseogularis</i>	LC-br	Poss	4	2
Common Sandpiper	<i>Actitis hypoleucos</i>	LC	Poss	1	0
Rock Dove	<i>Columba livia</i>	LC	Conf	18	0
Common Cuckoo	<i>Cuculus canorus</i>	LC	Prob	8	0
Little Owl	<i>Athene noctua</i>	LC	Poss	1	0
Scops Owl	<i>Otus scops</i>	LC	Poss	1	0
Eurasian Nightjar	<i>Caprimulgus europaeus</i>	LC	Prob	4	0
Common Swift	<i>Apus apus</i>	LC	Conf	209	0
Hoopoe	<i>Upupa epops</i>	LC	Conf	7	0
Hume's Short-toed Lark	<i>Calandrella acutirostris</i>	LC-br	Poss	4	0-1
Horned Lark	<i>Eremophila alpestris</i>	LC	Prob	6	0
House Martin	<i>Delichon urbicum</i>	LC	Prob	24	0
Red-rumped Swallow	<i>Hirundo daurica</i>	LC	Prob	9	0
Crag Martin	<i>Ptyonoprogne rupestris</i>	LC	Conf	94	0
Gray Wagtail	<i>Motacilla cinerea</i>	LC	Conf	20	0
Citrine Wagtail	<i>Motacilla citreola</i>	LC	Prob	14	0
White Wagtail	<i>Motacilla alba</i>	LC	Conf	50	0
Tawny Pipit	<i>Anthus campestris</i>	LC	Conf	13	0 ¹¹

⁸ LC=least-concern, NT=near-threatened, EN=endangered, br=biome-restricted, en=endemic

⁹ This approximately corresponds to the total number of individuals seen in the area. Wherever an individual was obviously noted twice or more often, it was excluded. However, we cannot exclude that some individuals have been counted twice. Therefore it is just an estimate of the number of individuals Non - breedingerved.

¹⁰ 0=no particular, 1=regional/subnational, 2=national, 3=international importance

English Name	Scientific Name	IUCN status ⁸	Breed- ing Status	Estimated #ind Observed ⁹	Conservation Importance ¹⁰
White-bellied Dipper	<i>Cinclus cinclus</i>	LC	Poss	3	0
Brown Accentor	<i>Prunella fulvescens</i>	LC-br	Conf	22	2
Black Redstart	<i>Phoenicurus ochruros</i>	LC	Conf	242	0
Siberian Stonechat	<i>Saxicola maura</i>	LC	Conf	2	0
Northern Wheatear	<i>Oenanthe oenanthe</i>	LC	Prob	5	0
Desert Wheatear	<i>Oenanthe deserti</i>	LC	Prob	7	0
Red-tailed Wheatear	<i>Oenanthe chrysopygia</i>	LC-br	Conf	109	2
Variable Wheatear	<i>Oenanthe picata</i>	LC-br	Prob	9	2
Red-tailed Rock Thrush	<i>Monticola saxatilis</i>	LC	Poss	3	0
Blue Whistling Thrush	<i>Myophonus caeruleus</i>	LC	Conf	7	0
Cetti's Warbler	<i>Cettia cetti</i>	LC	Prob	24	0
Clamorous Reed Warbler	<i>Acrocephalus stentoreus</i>	LC	Prob	11	0
Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i>	LC	Poss	1	0
Hume's Whitethroat	<i>Sylvia althaea</i>	LC-br ¹²	Conf	39	2
Eastern Orphean Warbler	<i>Sylvia crassirostris</i>	LC	Prob	3	0
Plain Leaf Warbler	<i>Phylloscopus neglectus</i>	LC-br	Poss	4	3
Greenish Warbler	<i>Phylloscopus (trochiloides) nitidus</i>	LC	Poss	1	0
Sulphur-bellied Warbler	<i>Phylloscopus griseolus</i>	LC-br	Conf	34	2
Scrub Warbler	<i>Scotocerca inquieta</i>	LC	Prob	9	0
Black-breasted Tit	<i>Parus rufonuchalis</i>	LC-br	Poss	1	1
Yellow-breasted Tit	<i>Parus flavipectus</i>	LC-br	Poss	2	1
Eastern Rock Nuthatch	<i>Sitta tephronota</i>	LC-br	Conf	77	0
Wallcreeper	<i>Tichodroma</i>	LC-br	Conf	4	0

¹¹ The status of this species in Afghanistan is unclear. Here we assume that it is breeding – possibly at low densities – in many other areas of Afghanistan, too.

¹² Not listed as biome-restricted by Lachmann *et al.* 2006. However, we assume that this is erroneous. The species' breeding range is restricted to the Sino-Himalayan Temperate Forests with only very limited extension into the Irano-Turanian Mountains. This fits the criteria for biome-restriction.

English Name	Scientific Name	IUCN status ⁸	Breed- ing Status	Estimated #ind Observed ⁹	Conservation Importance ¹⁰
	<i>muraria</i>				
Long-tailed Shrike	<i>Lanius schach</i>	LC	Poss	5	0
Black-billed Magpie	<i>Pica pica</i>	LC	Conf	15	0
Hooded Crow	<i>Corvus (corone) corone</i>	LC	Poss	1	0
Common Raven	<i>Corvus corax</i>	LC	Poss	9	0
Yellow-billed Chough	<i>Pyrrhocorax graculus</i>	LC	Conf	86	0
Red-billed Chough	<i>P. pyrrhocorax</i>	LC	Conf	95	0
Common Myna	<i>Acridotheres tristis</i>	LC	Poss	4	0
Spanish Sparrow	<i>Passer hispaniolensis</i>	LC	Poss	86	0
Bactrian Sparrow ¹³	<i>Passer indicus bactrianus</i>	LC	Conf	31	0
Rock Sparrow	<i>Petronia petronia</i>	LC	Conf	72	0
White-winged Snowfinch	<i>Montifringilla nivalis</i>	LC-br	Conf	13	0
Fire-fronted Serin	<i>Serinus pusillus</i>	LC-br	Prob	147	2
Gray Goldfinch	<i>Carduelis caniceps</i>	LC	Conf	32	0
Twite	<i>Carduelis flavirostris</i>	LC	Prob	7	0
Trumpeter Finch	<i>Bucanetes githagineus</i>	LC	Poss	2	0
Common Rosefinch	<i>Carpodacus erythrinus</i>	LC	Poss	5	0
Blyth's Rosefinch	<i>Carpodacus grandis</i>	LC-br	Prob	32	3
Great Rosefinch	<i>Carpodacus rubicilla</i>	LC-br	Prob	4	2
Pale Rosefinch	<i>Carpodacus synoicus</i>	LC- br ¹⁴	Conf	82	2
Red-headed Bunting	<i>Emberiza bruniceps</i>	LC ¹⁵	Conf	30	0

¹³ This taxon has often been included within House Sparrow *Passer domesticus*.

However, the consultants favour ascribing species status to this migratory taxon.

¹⁴ Not formally recognized as biome-restricted by Birdlife International. In our view, despite the possibly increasing population (Mike Evans *in litt*) in the Middle East, the species is best treated as biome-restricted. If the species is as numerous in the rest of its Central Asian range as our fieldwork has shown it to be in Hazarajat then it seems likely that over 75% of its world population occurs in the Eurasian High Mountain biome.

¹⁵ Considered as biome-restricted (Eurasian Desert and Semi-desert) by BirdLife International, however occurs in other biomes (Eurasian high montane) over large areas and in high numbers in Tajikistan and Afghanistan (R. Ayé, *pers. Obs.*) and is therefore considered non-restricted here.

English Name	Scientific Name	IUCN status ⁸	Breed- ing Status	Estimated #ind Observed ⁹	Conservation Importance ¹⁰
Rock Bunting	<i>Emberiza cia</i>	LC	Conf	31	0
White-capped Bunting	<i>Emberiza stewarti</i>	LC-br	Prob	7	2 (1?)
Gray-necked Bunting	<i>Emberiza buchanani</i>	LC-br	Conf	102	2

4.3 Priority Species for Conservation

Here we list all species for the conservation of which the surveyed area is considered to be of national or international importance. Our classification is mainly based on IUCN status, biome-restriction as defined by Birdlife International (Lachmann *et al.* 2006), abundance in the Central Asian region and the importance of the local populations in relation to the former.

Saker Falcon *Falco cherrug*

One bird was circling above Dewkhana Canyon, Band-i-Amir, on June 10th. As the species is relatively faithful to its breeding sites, it was categorised as a possible breeder (species Non - breedingerved during breeding season). More observations are needed to confirm its status.

The species is classified as Endangered by IUCN. We provisionally assigned international importance to Band-i-Amir PNP area relative to this species. It is one of the most attractive species for falconers and any breeding sites need to be kept strictly confidential.

Cinereous Vulture *Aegypius monachus*

Species observed in Band-i-Amir PNP only. Two birds were crossing Dewkhana Canyon at high altitude on May 30th. So far the species is classified as a non-breeding visitor, but future research could well prove it to be a breeder.

The species is classified as Near-Threatened by IUCN (one of only two classified species found in the surveyed areas). We provisionally assigned international importance to Band-i-Amir PNP area relative to this species.

Himalayan Griffon *Gyps himalayensis*

This species was more numerous in Ajar PWR than at Band-i-Amir. It was mainly observed at higher altitudes and was most numerous at Pusht-i-Jey. The species was classified as a possible breeding species in both areas. Possibly, future research will identify breeding cliffs, which would be the most essential areas to protect for this mobile species.

Himalayan Snowcock *Tetraogallus himalayensis*

A probable breeder on the highest terrains in both areas, Ajar PWR and Band-i-Amir PNP. Found preferentially on top of high cliffs and steep areas with many crags, always above 3,100m. The species is restricted to the Eurasian High Montane biome and reaches the western limit of its global distribution in the mountains of northern Afghanistan.

We assigned national importance for the conservation of Himalayan Snowcock to both areas.

See-see Partridge *Ammoperdix griseogularis*

Found in Ajar PWR only and in small numbers. It was found in steep rocky slopes. The fact that the species is biome-restricted (Irano-Turanian Mountains) and the presumed scarcity of the species in most parts of Afghanistan are reasons to classify Ajar PWR as being of national importance for its conservation.

Lesser Sand Plover *Charadrius mongolus (pamirensis)*

The species was observed in Band-i-Amir PNP only, where it was found breeding in a karst area on a flat mountain top on the eastern edge of the PNP. This observation constitutes a significant range extension, the closest known breeding areas having previously been in the Pamir mountains (Rasmussen & Anderton 2005). Band-i-Amir PNP is therefore assigned national importance for the species.

Hume's Short-toed Lark *Calandrella acutirostris*

This lark was strikingly numerous in open and undulating country in the Band-i-Amir PNP. In Ajar PWR it was found in relict numbers only. It was mainly found in the low to mid-level areas of Band-i-Amir PNP and less numerous on the highest plateaus. This coincides with the areas that are used for agriculture. However, we are not sure whether agriculture has a causal relationship with this distribution (in the Wakhan, the Pamir and the Darvoz mountains of Tajikistan the species breeds far away from agricultural lands, R. Ayé pers. obs.)¹⁶. Moreover the survey covered only a very short period of the year during the breeding season.

The species is restricted to the Eurasian High Montane biome and is close to the southwestern edge of its distribution range in Band-i-Amir PNP.

Brown Accentor *Prunella fulvescens*

This small passerine was found in canyons and along crags in higher altitudes of both areas, Ajar PWR and Band-i-Amir PNP.

The species is restricted to the Eurasian High Montane biome and is close to the southwestern edge of its distribution range in Band-i-Amir PNP.

Red-tailed Wheatear *Oenanthe chrysopygia*

Red-tailed Wheatear was more common in Ajar PWR than in Band-i-Amir PNP. It was found in boulder slopes, in dry rocky parts of the bottom of canyons and around crags with juniper.

The good numbers recorded of this biome-restricted (Irano-Turanian Mountains) species warrant classification of both areas as being of national importance for its conservation.

Variable Wheatear *Oenanthe picata*

This species was found in Ajar PWR only and mainly on the arid slopes adjacent to the agricultural land near Dehqanqala. All birds observed within the proposed protected area belonged to the *capistrata* form – the rarest of the three morphs of the species. Both the other forms – *opistholeuca* and *picata* were observed within 50km of the PWR at the village of Ruy-i Sang.

Variable Wheatear is restricted to the biome of the Irano-Turanian Mountains.

Sykes's Warbler *Hippolais rama*

¹⁶ Small surveys conducted by national and/or local researchers could contribute substantially to the evidence on habitat preference of Hume's Short-toed Lark (lalmi – i.e. land used for dryland agriculture – versus more pristine steppes).

The species was observed in areas of shrub in steep valleys and along streams in the Band-i-Amir PNP. The species may breed in such habitats and was therefore classified as a possible breeder. Future surveys will have to determine whether it really breeds. It is biome-restricted (Eurasian Desert and Semi-desert).

Hume's Whitethroat *Sylvia althaea*

This warbler was recorded in well-vegetated areas of both, Ajar PWR and Band-i-Amir PNP. In Ajar PWR the species was found mostly in juniper vegetation, in Band-i-Amir PNP mostly in willows and bushes of the *Rosaceae* family in canyons and along small streams.

Plain Leaf Warbler *Phylloscopus neglectus*

The species was observed in the Ajar PWR area on several occasions. All observations took place in the vicinity of juniper stands, including the densest remaining juniper stands in the main canyon.

The species is restricted to the Irano-Turanian Mountains biome and reaches the eastern (possibly north-eastern) limit of its distribution range in the wider surroundings of the surveyed areas. Paludan (1959) found only six individuals at three locations during his extensive expedition to Afghanistan. The closest of these locations is located more than 300 km to the west of our surveyed areas.

Sulphur-bellied Warbler *Phylloscopus griseolus*

This warbler was encountered quite commonly where there was some scrub on steep rocky slopes and on the edge of scree. It was also found in cliffs (including canyons) with shrubby vegetation.

Sulphur-bellied Warbler is restricted to the Eurasian High Montane biome.

Afghan Snowfinch *Pyrgilauda theresae*

The species was observed in the Band-i-Amir PNP area only, where it is a relatively common breeder in open habitats (*Artemisia* steppes, lalmi). It was missing in the canyons, screes and other habitats with very limited vegetation. Earlier ornithological work suggests that the species leaves the area (and likely the whole Hazarajat) in winter (R. Ayé 2006, *pers. obs.*). The observations made during this survey appear to be the first made of this species in Hazarajat during the breeding season since Paludan in 1948 (Paludan (1959)).

Afghan Snowfinch is an endemic species to Afghanistan – with specimens collected in winter in Turkmenistan and unsubstantiated records from Tajikistan – and was the reason for BirdLife International to designate central Afghanistan a secondary Endemic Bird Area (BirdLife International 2003 BirdLife's online World Bird Database: the site for bird conservation. Version 2.0. Cambridge, UK: BirdLife International. Accessed 12/8/2008, Tolstoy & Geipel 1990).

Fire-fronted Serin *Serinus pusillus*

This small finch was very numerous along crags, cliffs, canyons and in rocky valleys of both surveyed areas.

The large populations in these two areas are of national importance for the species' conservation.

Crimson-winged Finch *Rhodopechys sanguinea*

This finch was quite common at Band-i-Amir PNP. It was most commonly found in canyons (notably the large canyon east of Koprak), but also in relatively open undulating country including *Artemisia* steppe and fallow fields (lalmi or irrigated). We hypothesize that nearby crags and cliffs play a role for the occurrence of the species in open country.

Band-i-Amir PNP was assigned national importance for the conservation of this species based among others on the restriction of this species to one biome (Eurasian High Montane) and on the comparably high numbers found in the area.

Blyth's Rosefinch *Carpodacus grandis*

The species was found in Ajar PWR only – preferentially along the larger canyons and in places where there are junipers.

The surveyed area constitutes probably the westernmost limit of the distribution area of this overall rather scarce species. Paludan (1959) had found it exclusively in Nuristan. We therefore consider the area to be of international importance for the conservation of this species.

Great Rosefinch *Carpodacus rubicilla*

The species inhabited high cliffs and canyons in both areas, being more numerous in Band-i-Amir PNP. This seems to be a new finding, as the previously known range did not reach as far west. Paludan (1959) did not find the species on his expedition, but he did list it in his preliminary checklist of birds of Afghanistan. It is unclear whether, except for the type specimens of *diabolica* (see below), any museum specimens of this species exist from Afghanistan. The limited evidence therefore suggests that this is an isolated population that might well be of international significance.

The areas where the birds spend most of their time are completely inaccessible and knowledge of the voice of this species is therefore critical to find it. Several tentative records of this species were made in Band-i-Amir PNP before it could be positively identified and recorded. It seems to be somewhat more numerous and widespread in Band-i-Amir PNP than in Ajar PWR.

The populations of Great Rosefinch occurring from the Himalayas through the Hindu Kush up to the Altai Mountains in the north have been separated from the Caucasian populations as Spotted Great Rosefinch *Carpodacus severtzovi*. If *C. severtzovi* is recognized, our birds should be attributed to this taxon. A subspecies of its own, *diabolica*, was described from Sanglech, Afghanistan (Vaurie 1949). It is unclear both whether the subspecies is valid at all and whether the birds found in our surveyed area belong to this taxon.

Pale Rosefinch *Carpodacus synoicus*

The species was quite common in both areas and was found mainly in rocky areas, including canyons, screes, cliffs and arid slopes with boulders. Pale Rosefinch occurs in Afghanistan as an endemic subspecies, *salimalii*. The species itself is considered biome-restricted for the purpose of this report (see footnote 12).

White-capped Bunting *Emberiza stewarti*

White-capped Bunting was observed at Ajar PWR only. There it was found in the main canyon around the area where juniper grows most densely.

The species is biome-restricted. Ajar PWR has provisionally been assigned national importance, as the species seems to be scarce in Afghanistan and because Ajar PWR is close to the western edge of its distribution range.

Gray-necked Bunting *Emberiza buchanani*

This bunting was found in both areas but was particularly numerous in Ajar PWR, and therefore Ajar PWR was classified as being of national importance for this species, which is restricted to the biome of Irano-Turanian Mountains. It was most commonly found on slopes with some scrubs or bushes, spanning screes with single bushes to *Artemisia* steppes that cover a majority of the areas.

4.4 Results of Transects

4.4.1 Band-i-Amir PNP

A total of 26 transects was walked covering 35.1 km (average transect length = 1.35 km). 1,878 individual birds of 61 species were recorded. This equates to 53 birds/km.

If only biome-restricted or IUCN-listed species are taken into account, the observations during transects add up to 521 individuals of 16 species. This equates to 15.0 birds/km.

Time taken to do these transects was 24 hrs 42 minutes (average transect time = 57 mins). This equates to 76 birds/hour.

Of the total number of species recorded in Band-i-Amir PNP, 65% were recorded on the transects (61 species from a total recorded of 94).

4.4.2 Ajar PWR

A total of 22 transects covering 28.9 km (average transect length = 1.32 km) were walked. 1,333 individual birds of 55 species were recorded. This equates to 46 birds/km.

Time taken to do these transects was 21 hrs 48 mins (average transect time = 59 mins). This equates to 62 birds/hour.

If only biome-restricted or IUCN-listed species are taken into account, the observations during transects add up to 429 individuals of 17 species. This equates to 14.8 birds/km.

Of the total number of species recorded at Ajar, 76% were recorded on the transects (55 species from a total recorded of 72).

Summary of transect information

		Band-i-Amir	Ajar
1	No. of transects	26	22
2	Total length (km)	35.1	28.9
3	Average length (km)	1.35	1.32
4	Time taken	24 hr 42 min	21 hr 48 min
5	Average transect time	57 mins	59 mins
6	Min altitude (m)	2,875	2,017
7	Max altitude (m)	3,668	3,612
8	No. of bird species recorded on transects	61	55
9	Total no. of bird species recorded on site by survey	94	72
10	No. of species recorded on transect	65%	76%

	as % of total no. of species recorded		
11	No.of individual birds recorded on transects	1,878	1,333
12	No.of individual birds recorded per hour of transect	76	62
13	No.of individual birds recorded per km of transect	53	46
14	No.of individual birds recorded on site by survey	3,914	2,121
15	% of individuals recorded on transects vs total	48%	63%
16	No of individuals of biome-restricted species recorded in total survey	1,026	714
17	No of individuals of biome-restricted species recorded on transect	521	429
18	Above as % of total number of individuals of of biome-restricted species recorded	51%	60%
19	Number of individuals of biome-restricted species as % of total number of all individuals recorded on the full survey	13%	34%

There were no significant differences between the two sets of transects (Ajar and Band-i-Amir). The two sets were split roughly half and half between the two observers and there were no significant differences in the types of transect covered by each of the observers.

The analysis should be looked on with caution for a number of reasons. The objective of the survey was to collect baseline data, especially of breeding species for both Band-i-Amir PNP and Ajar PWR, and not to carry out distance sampling or collect data on habitat, so few conclusions can be drawn from comparing the two sites. We spent 50% more time in the field (as measured by field days) at Band-i-Amir than Ajar. No distance restriction was placed on our transect recording. All birds seen or heard while walking transects were recorded.

The analysis shows that transect length and time were similar between the two sites. A greater number of species and total individuals were recorded at Band-i-Amir than Ajar and the number per km and per hour was greater. No attempt was made to choose transects randomly or to standardize them (other than methodologically) between the two sites, so this could be an artifact.

The number of species and of individuals recorded on the transects, as a percentage of the total number of species and individuals recorded, was higher for Ajar than for Band-i-Amir in both cases. This probably reflects both the greater amount of time spent at Band-i-Amir (50% more) where birds seen were still counted towards the total, and the ease of transport around that site compared to Ajar. At Ajar, in order to maximize time recording on transects, a higher proportion of the limited field time was spent on transects. With the network of drivable tracks at Band-i-Amir, more time was spent driving between transects and recording birds outside transects (mostly to assess

breeding status). At Ajar the difficult conditions (e.g., heat, topography) and limited time forced us to concentrate on the transects.

A total of 34% of all individuals recorded at Ajar were of biome-restricted species compared to 13% at Band-i-Amir. This probably reflects both the smaller area of anthropogenic habitat (permanent settlement, irrigated agriculture) at Ajar and the greater area of wetland at Band-i-Amir, holding a high number of individuals of non-biome-restricted species.

5 Conclusions

5.1 Importance of Band-i-Amir for the Conservation of Breeding Birds

A total of 94 species were recorded in Band-i-Amir PNP, of which 73 were possibly, probably or confirmed breeding. Of these breeding species, one (Saker Falcon) is classified as Globally Threatened (Endangered) by IUCN, 17 are classified as biome-restricted by Birdlife International (Lachmann *et al.* 2006) or ourselves and one species (Afghan Snowfinch *Pyrgilauda theresae*) is classified as a breeding endemic. A further two observed species (i.e., not found to be breeding) are of importance, one being classified as Globally Near-Threatened (Cinereous Vulture *Aegypius monachus*) and another as biome-restricted (Pale Sand Martin *Riparia diluta*). It is certainly possible that Cinereous Vulture breeds within the PNP area.

Of the 10 species cited in the Band-i-Amir IBA citation (Evans 1994), we are able to confirm Himalayan Snowcock (*Tetraogallus himalayensis*), Bearded Vulture (*Gypaetus barbatus*), Hume's (Short-toed) Lark (*Calandrella acutirostris*), Hume's Whitethroat (*Sylvia althaea*), Red-tailed Wheatear (*Oenanthe chrysopygia*)¹⁷, White-winged Snowfinch (*Montifringilla nivalis*), Afghan Snowfinch (*Pyrgilauda theresae*) and Crimson-winged Finch (*Rhodopechys sanguinea*) as breeding within the PNP area, which for the purposes of this report is assumed to cover the same area as the IBA. We were unable to confirm the presence of Variable Wheatear (*Oenanthe picata*) or Small (Desert) Whitethroat (*Sylvia minula*)¹⁸. We are also able to confirm as breeding Citrine Wagtail (*Motacilla citreola*), Pale Rosefinch (*Carpodacus synoicus*), Mongolian Trumpeter Finch (*Rhodopechys mongolica*), Gray-necked Bunting (*Emberiza buchanani*) and Sulphur-bellied warbler (*Phylloscopus griseolus*). These findings confirm the status of Band-i-Amir as an IBA.

5.2 Importance of Ajar PWR for the Conservation of Breeding Birds

The consultants found 73 species at Ajar, all of which were found to be possibly, probably or confirmed breeding. None are classified as Globally Threatened, but 21 are classified as biome-restricted by Birdlife International (Lachmann *et al.* 2006) and by ourselves.

¹⁷ Listed as *Oenanthe xanthopryma* in the citation this species has been split since the IBA citation into *Oenanthe xanthopryma* and *Oenanthe chrysopygia*.

¹⁸ After discussion with R. Ayé and consultation of newer literature (mainly Shirihai, H., G. Gargallo and A.J. Helbig (2001): *Sylvia* Warblers. Identification, taxonomy and phylogeny of the genus *Sylvia*. Christopher Helm, London.), the leader of the OU expedition came to the conclusion that they did not actually capture any *Sylvia minula*, mainly based on the measurements and the wing formula of the captured birds.

The area is clearly of high importance for the conservation of breeding birds. A high number of biome-restricted species were found to be possible, probable or confirmed breeders. Priority species like See-see Partridge *Ammoperdix griseogularis* and Plain Leaf Warbler *Phylloscopus neglectus* reach the eastern edge of their distribution range here, while Yellow-breasted Tit *Parus flavipectus*, Black-breasted Tit *P. rufonuchalis*, and Blyth's Rosefinch *Carpodacus grandis* reach the western edge of their distribution range.

5.3 Implication for Management of the Protected Areas

Several observations were made though we recognize the limited snapshot that we were able to get of the interactions between the human and cultural aspects of these areas and the birds using the areas.

Current human use of the wetlands appears to be of benefit to those species Non-breeding. In particular, grazing and cutting/burning of the vegetation seems to have created a non-uniform mix of open grassland, sedge fen, *Phragmites* bed and open water, preventing succession to uniform stands of *Phragmites* or *Salix*. Disturbance to some species (e.g., Common Redshank *Tringa totanus*) might be a problem, but given the importance of these areas for human use and the fact that these species are of lower conservation importance, we would make no recommendation at this point. On-going monitoring, e.g., photo-monitoring of the habitat, and regular bird counts throughout the year (or whenever possible) would be useful though not of a priority (see below).

Several crag, canyon and cliff species were observed to be using the irrigated-farming areas at this time of year for feeding. In particular, White-winged Snowfinch, Fire-fronted Serin, Crimson-winged Finch and Twite were noted using both fallow fields and actively growing crops for feeding. These or other species may (also) use these areas at other times of year.

Several species were observed to be closely associated with areas of bushes and wood vegetation. In particular this habitat is probably crucial for eight of the biome-restricted species – Sykes's, Sulphur-bellied and Plain Leaf Warblers, Hume's Whitethroat, Fire-fronted Serin, Blyth's Rosefinch and White-capped and Gray-necked Buntings. We observed that juniper trees are burnt *in situ* – presumably to kill them in order to be allowed to collect their wood afterwards (dead juniper wood can legally be collected, but not live wood). The collection of this vegetation, and in particular the collection of juniper, needs careful regulation. This is the single most important recommendation we make.

5.4 Potential Future Studies

There are several simple studies that could be suitable for national or even local personnel and could be carried out under supervision of the WCS Hazarajat Program Manager without or with limited input from external consultants. Study questions that seem most suitable to us include:

- Phenology of breeding of key species, e.g., Crimson-winged Finch.
- Use of different habitats (grazed *Artemisia* steppes, lalmi, watered agricultural fields, etc.) by species like Hume's Short-toed Lark, Afghan Snowfinch, Crimson-winged Finch.
- Collation of knowledge of local communities about breeding sites of large raptors (eagles, colonies of vultures, etc.). Identification and recording of these sites (bearing

in mind that Saker Falcon is threatened by nest-raiding across large parts of its Asian range).

- Regular and standardized wetland bird counts at Band-i Amir.

6 Recommendations

Recognising that this was only a baseline survey and that all conclusions necessarily need to be somewhat provisional, we make the following recommendations in sequence of their priority:

1. Carefully regulate the collection of wood in Ajar, taking into account what kind of incentives the regulations put on the local community and protecting as much as possible the remaining juniper stands that are of crucial importance for the priority species found in Ajar PWR.
2. Repeat the transects conducted during this survey in order to monitor the bird communities occurring in the key habitats covered. This could be done every few years on a more or less regular basis.
3. Share the results of this and possible future studies with Birdlife International in order for the status of Ajar PWR as a potential IBA to be investigated.
4. Explore the potential of conducting small studies as outlined in chapter 5.4.

7 References

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Appendix 1. Band-i-Amir PNP bird list – Comparison between Management Plan and 2008 survey results

		Recorded in Band-i-Amir PNP Management Plan and Annual Report 2007	Recorded by 2008 survey
Chukar	<i>Alectoris chukar</i>	X	X
Greater(?) White-fronted Goose	<i>Anser albifrons(?)</i>	X	
Gadwall	<i>Anas strepera</i>	X?	
Eurasian Teal	<i>Anas crecca</i>	X	
Mallard	<i>Anas platyrhynchos</i>	X	X
Northern Pintail	<i>Anas acuta</i>	X	
Northern Shoveler	<i>Anas clypeata</i>	X	X
Ferruginous Pochard	<i>Aythya nyroca</i>	X	
Red-crested Pochard	<i>Netta rufina</i>	X	
Eurasian Wigeon	<i>Anas penelope</i>	X	
Great Crested Grebe	<i>Podiceps cristatus</i>	X	X
Horned Grebe	<i>Podiceps auritus</i>	X	
Black-necked Grebe	<i>Podiceps nigricollis</i>	X	
Gray Heron	<i>Ardea cinerea</i>	X	
Great Egret	<i>Egretta alba</i>	X	X
Little Bittern	<i>Ixobrychus minutus</i>	X	
Great Cormorant	<i>Phalacrocorax carbo</i>	X	X
Pygmy Cormorant	<i>Phalacrocorax pygmaeus</i>	X Species Unknown	
Little Cormorant	<i>Phalacrocorax niger</i>		
Eurasian Kestrel	<i>Falco tinnunculus</i>	X	X
Saker Falcon	<i>Falco cherrug</i>	X?	X
Bearded Vulture	<i>Gypaetus barbatus</i>	X	X
Egyptian Vulture	<i>Neophron percnopterus</i>	X	
Himalayan Griffon	<i>Gyps himalayensis</i>	X	X
Western Marsh-Harrier	<i>Circus aeruginosus</i>	X	X
Pallid Harrier	<i>Circus macrourus</i>	X?	
Eurasian Sparrowhawk	<i>Accipiter nisus</i>	X	
Long-legged Buzzard	<i>Buteo rufinus</i>	X? Reported as Upland Buzzard	X
Rough-legged Buzzard	<i>Buteo lagopus</i>	X?	
Steppe Eagle	<i>Aquila nipalensis</i>	X?	
Golden Eagle	<i>Aquila chrysaetos</i>	X	X
Common Moorhen	<i>Gallinula chloropus</i>	X	X
Eurasian Coot	<i>Fulica atra</i>	X	X
Black-winged Stilt	<i>Himantopus himantopus</i>	X	X
Little Ringed Plover	<i>Charadrius dubius</i>	X	X
Northern Lapwing	<i>Vanellus vanellus</i>	X	
Common Redshank	<i>Tringa totanus</i>	X	X
Marsh Sandpiper	<i>Tringa stagnatilis</i>	X	
Green Sandpiper	<i>Tringa ochropus</i>	X	
Common Sandpiper	<i>Actitis hypoleucos</i>	X	X
Lesser Black-backed Gull	<i>Larus fuscus</i>	X Unknown Species	
Great Black-headed Gull	<i>Larus ichthyaetus</i>		
Black-headed Gull	<i>Larus ridibundus</i>		X

		Recorded in Band-i-Amir PNP Management Plan and Annual Report 2007	Recorded by 2008 survey
Slender-billed Gull	<i>Larus genei</i>		
Kittiwake	<i>Rissa tridactyla</i>		
Whiskered Tern	<i>Chlidonias hybridus</i>	X?	X
Pin-tailed Sandgrouse	<i>Pterocles alchata</i>	X Unknown species	
Spotted Sandgrouse	<i>Pterocles senegallus</i>		
Black-bellied Sandgrouse	<i>Pterocles orientalis</i>		X
Crowned Sandgrouse	<i>Pterocles coronatus</i>		
Rock Pigeon	<i>Columba livia</i>	X	X
Oriental Turtle-Dove	<i>Streptopelia orientalis</i>	X	
Common Cuckoo	<i>Cuculus canorus</i>	X	X
Eurasian Eagle-Owl	<i>Bubo bubo</i>	X	X
Common Swift	<i>Apus apus</i>	X	X
European Roller	<i>Coracias garrulus</i>	X	
Common Kingfisher	<i>Alcedo atthis</i>	X	X
European Bee-eater	<i>Merops apiaster</i>	X	
Hoopoe	<i>Upupa epops</i>	X	X
Long-tailed Shrike	<i>Lanius schach</i>	X	X
Lesser Gray Shrike	<i>Lanius minor</i>	X	X
Eurasian Golden Oriole	<i>Oriolus oriolus</i>	X	X
Eurasian Magpie	<i>Pica pica</i>	X	X
Eurasian Nutcracker	<i>Nucifraga caryocatactes</i>	X	
Red-billed Chough	<i>Pyrrhocorax pyrrhocorax</i>	X	X
Yellow-billed Chough	<i>Pyrrhocorax graculus</i>	X	X
Carrion Crow	<i>Corvus corone</i>	X	X
Large-billed Crow	<i>Corvus macrorhynchos</i>	Listed but without tick	
Common Raven	<i>Corvus corax</i>	X	X
Hooded Crow	<i>Corvus cornix</i>	X	X
Willow Tit	<i>Parus montanus</i>	X	
Blue Tit	<i>Parus caeruleus</i>	X	
Eurasian Crag-Martin	<i>Ptyonoprogne rupestris</i>	X	X
Barn Swallow	<i>Hirundo rustica</i>	X	X
Common House-Martin	<i>Delichon urbica</i>	X	X
Greater Short-toed Lark	<i>Calandrella brachydactyla</i>	X?	
Crested Lark	<i>Galerida cristata</i>	X	
Eurasian Skylark	<i>Alauda arvensis</i>	X	X
Horned Lark	<i>Eremophila alpestris</i>	X	X
Common Bulbul	<i>Pycnonotus barbatus</i>	X	
Common Chiffchaff	<i>Phylloscopus collybita</i>	X Species Unknown	X
Mountain Chiffchaff	<i>Phylloscopus sindianus</i>		
Plain Leaf-Warbler	<i>Phylloscopus neglectus</i>		X
Greenish Warbler	<i>Phylloscopus trochiloides</i>		
Sulphur-bellied Warbler	<i>Phylloscopus griseolus</i>	X?	X
Lemon-rumped Warbler	<i>Phylloscopus proregulus</i>	X Species Unknown	
Brooks's Leaf-Warbler	<i>Phylloscopus subviridis</i>		
Hume's Warbler	<i>Phylloscopus humei</i>	X Species Unknown	
Green Warbler	<i>Phylloscopus nitidus</i>		X
Tytler's Leaf-Warbler	<i>Phylloscopus tytleri</i>		
Western Crowned Leaf-Warbler	<i>Phylloscopus occipitalis</i>		

		Recorded in Band-i-Amir PNP Management Plan and Annual Report 2007	Recorded by 2008 survey
Greater Whitethroat	<i>Sylvia communis</i>	X	X
Lesser Whitethroat	<i>Sylvia curruca</i>	X	
Hume's Whitethroat	<i>Sylvia althaea</i>	X?	X
Eastern Rock Nuthatch	<i>Sitta tephronota</i>	X	X
Wallcreeper	<i>Tichodroma muraria</i>	X	X
Rock Nuthatch	<i>Sitta neumayer</i>	X	
Common Myna	<i>Acridotheres tristis</i>	X	
Rosy Starling	<i>Pastor roseus</i>	X	X
Red-breasted Flycatcher	<i>Ficedula parva</i>	X	
Bluethroat	<i>Luscinia svecica</i>	X	
Rufous-backed Redstart	<i>Phoenicurus erythronota</i>	X Unknown Species	
Blue-capped Redstart	<i>P. caeruleocephalus</i>		
Black Redstart	<i>Phoenicurus ochruros</i>	X	X
White-winged Redstart	<i>P. erythrogaster</i>	X Unknown Species	
Blue-fronted Redstart	<i>Phoenicurus frontalis</i>		
White-capped Redstart	<i>Chaimarrornis leucocephalus</i>		
Plumbeous Redstart	<i>Rhyacornis fuliginosus</i>		
Siberian Stonechat ¹⁹	<i>Saxicola (torquata) maura</i>	X	X
Hume's Wheatear	<i>Oenanthe alboniger</i>	X Unknown Species	
Northern Wheatear	<i>Oenanthe oenanthe</i>		X
Finsch's Wheatear	<i>Oenanthe finschii</i>		
Variable Wheatear	<i>Oenanthe picata</i>		
Pied Wheatear	<i>Oenanthe pleschanka</i>	X	
Red-tailed Wheatear	<i>Oenanthe chrysopygia</i>	X	X
Desert Wheatear	<i>Oenanthe deserti</i>	X	X
Isabelline Wheatear	<i>Oenanthe isabellina</i>	X	X
House Sparrow ²⁰	<i>Passer domesticus</i>	X	X
Eurasian Tree Sparrow	<i>Passer montanus</i>	X	X
White-winged Snowfinch	<i>Montifringilla nivalis</i>	X	X
White Wagtail	<i>Motacilla alba</i>	X	X
Citrine Wagtail	<i>Motacilla citreola</i>	X	X
Gray Wagtail	<i>Motacilla cinerea</i>	X	
Water Pipit	<i>Anthus spinoletta</i>	X	
Common Rosefinch	<i>Carpodacus erythrinus</i>	X	X
Twite	<i>Carduelis flavirostris</i>	X	X
Eurasian Linnet	<i>Carduelis cannabina</i>	X	
Crimson-winged Finch	<i>Rhodopechys sanguinea</i>	X	X
Corn Bunting	<i>Emberiza calandra</i>	X	

¹⁹ The previous list included “Stonechat *Saxicola torquata*”. European Stonechat *Saxicola torquata rubicola* is highly unlikely in this area and we believe the record probably refers to Siberian Stonechat *Saxicola (torquata) maura*. During our survey we have been able to confirm Siberian Stonechat, which we don't treat as a new species.

²⁰ The local taxon belonging to the House Sparrow group is a distinct and migratory one and is best referred to as Bactrian Sparrow *Passer indicus bactrianus*.

The 2008 breeding bird survey added the following 33 species to the Band-i-Amir PNP list as is shown in the Management Plan. ***NB 22 of these species were recorded by the Oxford University team between end of July and September 1970²¹ during a migration study***

Little Grebe	<i>Tachybaptus rufficollis</i>
Himalayan Griffon	<i>Gyps himalayensis</i>
Cinereous Vulture	<i>Aegypius monachus</i>
Eurasian Hobby	<i>Falco subbuteo</i>
Himalayan Snowcock	<i>Tetraogallus himalayensis</i>
Lesser Sand Plover	<i>Charadrius mongolus</i>
Common Greenshank	<i>Tringa nebularia</i>
Common Tern	<i>Sterna hirundo</i>
Laughing Dove	<i>Streptopelia senegalensis</i>
White-bellied Swift	<i>Apus melba</i>
Common Kingfisher	<i>Alcedo atthis</i>
Hume's Short-toed Lark	<i>Calandrella acutirostris</i>
Asian Golden Oriole ²²	<i>Oriolus kundoo</i>
Common Sand Martin	<i>Riparia riparia</i>
Pale Sand Martin	<i>Riparia diluta</i>
Tawny Pipit	<i>Anthus campestris</i>
Brown Accentor	<i>Prunella fulvescens</i>
Red-tailed Rock Thrush	<i>Monticola saxatilis</i>
Clamorous Reed Warbler	<i>Acrocephalus stentoreus</i>
Blyth's Reed Warbler	<i>Acrocephalus dumetorum</i>
Paddyfield Warbler	<i>Acrocephalus agricola</i>
Sykes's Warbler	<i>Hippolais rama</i>
Asian Paradise-Flycatcher	<i>Terpsiphone paradise</i>
Rock Sparrow	<i>Petronia petronia</i>
Afghan Snowfinch	<i>Pyrgilauda theresae</i>
Eurasian Chaffinch	<i>Fringilla coelebs</i>
Fire-fronted Serin	<i>Serinus pusillus</i>
Gray Goldfinch	<i>Carduelis caniceps</i>
Mongolian Trumpeter	<i>Bucanetes mongolicus</i>
Trumpeter Finch	<i>Bucanetes githagineus</i>
Great Rosefinch	<i>Carpodacus rubicilla</i>
Pale Rosefinch	<i>Carpodacus synoicus</i>
Gray-necked Bunting	<i>Emberiza buchanani</i>

The 2008 Survey confirmed the presence of the following 7 species that were suspected previously:

Saker Falcon	<i>Falco cherrug</i>
Black-headed Gull	<i>Larus ridibundus</i>
Whiskered Tern	<i>Chlidonias hybridus</i>
Black-bellied Sandgrouse	<i>Pterocles orientalis</i>
Siberian Chiffchaff	<i>Phylloscopus tristis</i>
Green(ish) Warbler	<i>Phylloscopus (trochiloides) nitidus</i>
Sulphur-bellied Warbler	<i>Phylloscopus griseolus</i>

²¹ Madge S, *unpubl manuscript* & Pimm, S (2008), *unpubl manuscript*.

²² We have treated Asian Golden Oriole *Oriolus kundoo* as a separate species. Eurasian Golden oriole *Oriolus oriolus* was trapped by the OU team in 1970 (Madge, S. *unpubl manuscript*)

Appendix 2. List of Species Previously Listed for Band-i-Amir But for Which More Conclusive Documentation Is Needed

Laggar Falcon *Falco jugger*

In the 1970s, literature on large falcons was very limited. The species is extremely similar to Saker in plumage, with high variation and consequently overlap. The species was previously thought to be more widespread in Central Asia (including former Soviet countries), but this is unsubstantiated. Most probably the species is restricted to the lowlands of South Asia and its occurrence in Afghanistan, let alone in the northern half of it at 3,000 m, needs confirmation.

Kittiwake *Rissa tridactyla*

Not reliably recorded in Afghanistan so far.

Blue-fronted Redstart *Phoenicurus frontalis*

A species of the well-watered areas south of the main Hindu Kush range.

'Desert' Whitethroat *Sylvia minula*

There are so far no documented records of this species (see footnote 16, p. 23). Its occurrence is not excluded, however identification and taxonomy are under discussion.

Brooks's Leaf Warbler *Phylloscopus subviridis*

A species of the well-watered areas south of the main Hindu Kush range. No suitable habitat available.

Lemon-rumped Leaf Warbler *Phylloscopus proregulus* (or *chloronotus*)

A species of the well-watered areas south of the main Hindu Kush range. No suitable habitat available.

Tytler's Leaf Warbler *Phylloscopus tytleri*

A species of the well-watered areas south of the main Hindu Kush range. No suitable habitat available.

Western Rock Nuthatch *Sitta neumayer*

The species is not known to occur east of Mashad, Iran, and the record is most likely to be confusion with Eastern Rock Nuthatch *Sitta tephronota*.

Large-billed Crow *Corvus macrorhynchus*

A species of the well-watered areas south of the main Hindu Kush range. Highly unlikely to occur.

Willow Tit *Parus montanus*

Highly unlikely to occur in Afghanistan. There are no documented records.

Common Bulbul *Pycnonotus barbatus*

A North African species that has never been recorded in Afghanistan.

Appendix 3. Ajar PWR bird list – Comparison between existing information and 2008 survey results

		Recorded in Draft Man Plan and WCS 2007 Annual Report	Recorded by 2008 WCS Ornithological Survey
Himalayan Snowcock	<i>Tetraogallus himalayensis</i>	X	X
Chukar	<i>Alectoris chukar</i>	X	X
Black Stork	<i>Ciconia nigra</i>	X	
Eurasian Kestrel	<i>Falco tinnunculus</i>	X	X
Bearded Vulture	<i>Gypaetus barbatus</i>	X	X
Egyptian Vulture	<i>Neophron percnopterus</i>	X	
Eurasian Griffon	<i>Gyps fulvus</i>	X	
Eurasian Sparrowhawk	<i>Accipiter nisus</i>	X	
Northern Goshawk	<i>Accipiter gentiles</i>	X	
Golden Eagle	<i>Aquila chrysaetos</i>	X	X
Marsh Sandpiper	<i>Tringa stagnatilis</i>	X	
Common Tern	<i>Sterna hirundo</i>	X	
Rock Pigeon	<i>Columba livia</i>	X	X
Common Wood-Pigeon	<i>Columba palumbus</i>	X?	
Alpine Swift	<i>Tachymarptis melba</i>	X	
Common Swift	<i>Apus apus</i>	X	X
Common Kingfisher	<i>Alcedo atthis</i>	X	
Hoopoe	<i>Upupa epops</i>	X	X
Crested Lark	<i>Galerida cristata</i>	X	
Lesser Gray Shrike	<i>Lanius minor</i>	X	
Eurasian Magpie	<i>Pica pica</i>	X	X
Red-billed Chough	<i>Pyrrhocorax pyrrhocorax</i>	X	X
Yellow-billed Chough	<i>Pyrrhocorax graculus</i>	X	X
Common Raven	<i>Corvus corax</i>	X	X
Blue Tit	<i>Parus caeruleus</i>	X	
Common Sand Martin	<i>Riparia riparia</i>	X	
Eurasian Crag-Martin	<i>Ptyonoprogne rupestris</i>	X	X
Red-rumped Swallow	<i>Cecropis daurica</i>	X	X
Common House-Martin	<i>Delichon urbica</i>	X	X
Cetti's Warbler	<i>Cettia cetti</i>	X	X
Eurasian Reed-Warbler	<i>Acrocephalus scirpaceus</i>	X	
Blyth's Reed-Warbler	<i>Acrocephalus dumetorum</i>	X	X
Indian Reed-Warbler	<i>Acrocephalus stentoreus</i>	X	X
Upcher's Warbler	<i>Hippolais languida</i>	X	
Common Chiffchaff	<i>Phylloscopus collybita</i>	X Species Unknown	
Mountain Chiffchaff	<i>Phylloscopus sindianus</i>		
Plain Leaf-Warbler	<i>Phylloscopus neglectus</i>		X
Greenish Warbler	<i>Phylloscopus trochiloides</i>		
Sulphur-bellied Warbler	<i>Phylloscopus griseolus</i>		X
Lemon-rumped Warbler	<i>Phylloscopus proregulus</i>		
Brooks's Leaf-Warbler	<i>Phylloscopus subviridis</i>		
Hume's Warbler	<i>Phylloscopus humei</i>		
Green Warbler	<i>Phylloscopus nitidus</i>		X
Tyler's Leaf-Warbler	<i>Phylloscopus tyleri</i>		X Species Unknown
Western Crowned Leaf-Warbler	<i>Phylloscopus occipitalis</i>		

Greater Whitethroat	<i>Sylvia communis</i>	X?	
Lesser Whitethroat	<i>Sylvia curruca</i>	X	
Hume's Whitethroat	<i>Sylvia althaea</i>	X?	X
Winter Wren	<i>Troglodytes troglodytes</i>	X	
Eastern Rock Nuthatch	<i>Sitta tephronota</i>	X	X
Wallcreeper	<i>Tichodroma muraria</i>	X	X
Rufous-tailed Rock-Thrush	<i>Monticola saxatilis</i>	X	X
Eurasian Blackbird	<i>Turdus merula</i>	X	
Red-breasted Flycatcher	<i>Ficedula parva</i>	X	
Bluethroat	<i>Luscinia svecica</i>	X	
Black Redstart	<i>Phoenicurus ochruros</i>	X	X
Siberian Stonechat ²³	<i>Saxicola (torquata) maura</i>	X	X
Pied Wheatear	<i>Oenanthe pleschanka</i>	X	
Red-tailed Wheatear	<i>Oenanthe chrysopygia</i>	X	X
Isabelline Wheatear	<i>Oenanthe isabellina</i>	X	
Black-throated Accentor	<i>Prunella atrogularis</i>	X?	
White Wagtail	<i>Motacilla alba</i>	X	X
Citrine Wagtail	<i>Motacilla citreola</i>	X	X
Yellow Wagtail	<i>Motacilla flava</i>	X	
Gray Wagtail	<i>Motacilla cinerea</i>	X	X
Sinai Rosefinch	<i>Carpodacus synoicus</i>	X	X
Fire-fronted Serin	<i>Serinus pusillus</i>	X	X
Red-headed Bunting	<i>Emberiza bruniceps</i>	X	X

NB The above list is as it appears in the Draft Proposed Management Plan for Ajar PWR with the addition of Crested Lark *Galerida cristata* as it appears in the WCS 2007 Annual Report.

The 2008 Breeding bird survey added the following 38 species to the Ajar PWR list

Short-toed Eagle	<i>Circaetus gallicus</i>
Himalayan Griffon	<i>Gyps himalayensis</i>
Barbary Falcon	<i>Falco pelegrinoides</i>
See-see Partridge	<i>Ammoperdix griseogularis</i>
Common Sandpiper	<i>Actitis hypoleucos</i>
Common Cuckoo	<i>Cuculus canorus</i>
Little Owl	<i>Athene noctua</i>
Scops Owl	<i>Otus scops</i>
Eurasian Nightjar	<i>Caprimulgus europaeus</i>
Hume's Short-toed Lark	<i>Calandrella acutirostris</i>
Horned Lark	<i>Eremophila alpestris</i>
Tawny Pipit	<i>Anthus campestris</i>
White-bellied Dipper	<i>Cinclus cinclus</i>
Brown Accentor	<i>Prunella fulvescens</i>
Northern Wheatear	<i>Oenanthe oenanthe</i>
Desert Wheatear	<i>Oenanthe deserti</i>
Variable Wheatear	<i>Oenanthe picata</i>
Blue Whistling Thrush	<i>Myophonus caeruleus</i>

²³ The previous list included "Stonechat *Saxicola torquata*". European Stonechat *Saxicola torquata torquata* is highly unlikely in this area and we believe the record probably refers to Siberian Stonechat *Saxicola (torquata) maura*. During our survey we have been able to confirm Siberian Stonechat, which we don't treat as a new species.

Eastern Orphean Warbler	<i>Sylvia crassirostris</i>
Scrub Warbler	<i>Scotocerca inquieta</i>
Black-breasted Tit	<i>Parus rufonuchalis</i>
Yellow-breasted Tit	<i>Parus flavipectus</i>
Long-tailed Shrike	<i>Lanius schach</i>
Hooded Crow	<i>Corvus (corone) corone</i>
Common Myna	<i>Acridotheres tristis</i>
Spanish Sparrow	<i>Passer hispaniolensis</i>
Bactrian Sparrow ²⁴	<i>Passer indicus bactrianus</i>
Rock Sparrow	<i>Petronia petronia</i>
White-winged Snowfinch	<i>Montifringilla nivalis</i>
Gray Goldfinch	<i>Carduelis caniceps</i>
Twite	<i>Carduelis flavirostris</i>
Trumpeter Finch	<i>Bucanetes githagineus</i>
Common Rosefinch	<i>Carpodacus erythrinus</i>
Blyth's Rosefinch	<i>Carpodacus grandis</i>
Great Rosefinch	<i>Carpodacus rubicilla</i>
Rock Bunting	<i>Emberiza cia</i>
White-capped Bunting	<i>Emberiza stewarti</i>
Gray-necked Bunting	<i>Emberiza buchanani</i>

Appendix 4. IBA Citation for Band-i-Amir PNP IBA

Species	Season	Year	Min	Max	Quality	Criteria
Himalayan Snowcock (<i>Tetraogallus himalayensis</i>)	resident	1970	5	0	poor	A3
Lammergeier (<i>Gypaetus barbatus</i>)	resident	1970	1	0	poor	B2
Hume's Lark (<i>Calandrella acutirostris</i>)	breeding	1970	0	0	-	A3
Small Whitethroat (<i>Sylvia minula</i>)	passage	1970	20	0	poor	B3
Hume's Whitethroat (<i>Sylvia althaea</i>)	passage	1970	1	0	poor	B3
Variable Wheatear (<i>Oenanthe picata</i>)	non-br (during br season)	1970	0	0	-	B3
(<i>Oenanthe xanthopyrna</i>)	non-br (during br season)	1970	0	0	-	B3
White-winged Snowfinch (<i>Montifringilla nivalis</i>)	resident	1970	0	0	-	A3
Afghan Snowfinch (<i>Montifringilla theresae</i>)	resident	1970	0	0	-	A2, A3
Crimson-winged Finch (<i>Rhodopechys sanguineus</i>)	resident	1970	0	0	-	A3

Birds. Other breeding species include *Falco jugger* (possibly), *Falco pelegrinoides*, *Tetraogallus himalayensis*, *Bubo bubo*, *Calandrella acutirostris*, *Motacilla citreola*, *Montifringilla nivalis*, *Carpodacus synoicus* (possibly), *Rhodopechys mongolica* and *Emberiza buchanani*. An excellent migration study area, with 152 species recorded (mostly during August-September 1970); species include *Phylloscopus griseolus* and *P. trochiloides nitidus*.

Appendix 5. Descriptive Notes on Transects

Transects in Band-i-Amir PNP

Transect#1

Starting Point 34.87083N/067.20595E, 3235m asl

End Point 34.87532N/067.20018E, 3345m asl

Length 0.73km

Time 05:48-06:51, 30th May 2008

Transect leads up a small valley with shrubs and bushes. Try to walk on the scree rather than on the vegetation to avoid increased erosion. While walking on scree, stop every 25m to look around and listen. The transect ends at the cliff itself (even though the coordinate point had to be taken 20m further down due to lack of reception below the cliff).

Transect#2

Starting Point 34.86912N/067.19592E, 3476m asl

End Point 34.87054N/067.19105E, 3635m asl

Length 0.52km

Time 07:45-08:20, 30th May 2008

Start at big boulder, end at rocky outcrop at top of slope.

Transect#3

Starting Point 34.87054N/067.19105E, 3635m asl

End Point 34.87215N/067.17915E, 3507m asl

Length 1.21km

Time 09:15-10:15, 30th May 2008

From the top of the hill, head downwards and then follow the valley through off to your left.

Transect#4

Starting Point 34.86791N/067.18927E, 3668m asl

End Point 34.86499N/067.17912, 3640m asl

Length 0.99km

Time 09:24-09:50, 30th May 2008

Start at a small boulder, cross *Artemisia* steppe on a relatively flat mountain top, end at point, where vegetation gets richer.

Transect#5

Starting Point 34.87215N/067.17925E, 3507m asl

End Point 34.86667N/067.17251E, 3456m asl

Length 1.05km

Time 10:20-11:00, 30th May 2008

Follow the valley starting at the end of transect#3. End where the valley becomes rocky and turns into a low canyon.

Transect#6

Starting Point 34.86499N/067.17912E, 3640m asl

End Point 34.86316N/067.17243E, 3465m asl

Length 0.93km

Time 10:00-10:35, 30th May 2008

Start at endpoint of transect#4, at point where vegetation is lush and greener. Follow the slope around a bend into the small valley to the southwest. Here vegetation gets a little scarcer. End transect, where valley gets more arid and rocky.

Transect#7

Starting Point 34.86423N/067.16932E, 3422m asl

End Point 34.85894N/067.15366E, 3332m asl

Length 1.72km

Time 11:52-12:50, 30th May 2008

Starting a few hundred meters below transect#5, follow the canyon down.

Transect#8

Starting Point 34.86150N/067.22691E, 3123m asl

End Point 34.84979N/067.22734E, 3094m asl

Length 1.43km

Time 05:47-06:50, 31st May 2008

Starts at road and follow well-marked track in depression between very low slopes. Track meanders towards Band-i Zolfeqar. Area heavily cultivated. End at rocky outcrops on both sides of track – small gully.

Transect#9

Starting Point 34.86150N/067.22692E, 3122m asl

End Point 34.86613N/067.21816E, 3171m asl

Length 0.97km

Time 05:43- 06:32, 31st May 2008

Start near road. Head up towards first hill, which is crossed almost at top. Then head towards steep, eroded second hill, which is crossed on its southern flank. End where approximately straight line leads to eroded steep slopes.

Transect#10

Starting Point 34.84979N/067.22734E, 3094m asl

End Point 34.85015N/067.23215E, 3042m asl

Length 0.70km

Time 06:55-07:40, 31st May 2008

Continue from transect#8 through the gully, swinging left along cliff top above lake and then following path downslope to the right and out to the end of the promontory out into the lake.

Transect#11

Starting Point 34.86588N/067.21354E, 3103m asl

End Point 34.85563N/067.21500E, 3030m asl

Length 1.19km

Time 06:49-07:45, 31st May 2008

Walk along little stream across wet *Carex* meadows. End at road. Transect did include a drinking place for sandgrouse at the time of survey.

Transect#12

Starting Point 34.90067N/067.27539E, 3145m asl

End Point 34.89308N/067.28566E, 3125m asl

Length 1.48km

Time 09:15-10:10, 31st May 2008

From place where track crosses river, head downstream past shepherds temporary dwellings following stream into deepening canyon.

Transect#13

Starting Point 34.90065N/067.27505E, 3140m asl

End Point 34.91093N/067.26958E, 3153m asl

Length 1.27km

Time 09:14-10:12, 31st May 2008

Starting point close to starting point of transect#12. Follow river upstream surveying shrubs and nearby slopes.

Transect#14

Starting Point 34.86200N/067.36534E, 3495m asl

End Point 34.86386N/067.34747E, 3423m asl

Length 1.68km

Time 05:13-05:57, 01st June 2008

Describe a straight line heading towards quarry, where slabs are (were) collected.

Transect leaves through *Artemisia* steppe with quite some amount of grass in between (similar to transect#15).

Transect#15

Starting Point 34.86523N/067.34711E, 3424m asl

End Point 34.87215N/067.33102E, 3329m asl

Length 1.69km

Time 06:15-07:15, 01st June 2008

Start near endpoint of transect#14 and end at entrance to a side canyon. The habitat is steppe with some rocky outcrops and no agriculture.

Transect#16

Starting Point 34.87536N/067.33046E, 3310m asl

End Point 34.87590N/067.31270E, 3229m asl

Length 2.01km

Time 07:42-09:11, 01st June 2008

Follow the deepening canyon. End at one of very few slightly more open points with GPS reception.

Transect#17

Starting Point 34.87612N/067.31265E, 3229m asl

End Point 35.37072N/067.36514E, 2482m asl

Length 1.72km

Time 09:40-10:50, 01st June 2008

Start in immediate vicinity of endpoint of #16. Continue down the canyon. Endpoint determined by GPS reception.

Transect#18

Starting Point 34.82109N/067.14639E, 2899m asl

End Point 34.83524N/067.14564E altitude not available

Length 1.57km

Time 06:00-07:00, 09th June 2008

Start just beyond edge of village Dewkhana. Follow main track across boulder slope (building going on) towards entrance of valley. Swing rightwards into valley.

Transect#19

Starting Point 34.83524N/067.14564E altitude not available
End Point 34.84941N/067.14489E, 2937m asl
Length 1.57km
Time 07:05-08:15, 09th June 2008
Start at endpoint of #18. Follow valley.

Transect#20

Starting Point 34.84941N/067.14489E, 2937m asl
End Point 34.85814N/067.15073E, 2972m asl
Length 1.12km
Time 08:40-09:40, 09th June 2008
Start at endpoint of #20. Follow valley.

Transect#21

Starting Point 34.85249N/067.26707E, 2972m asl
End Point 34.85498N/067.27540E, 3224m asl
Length 1.38km
Time: 06:05-07:30, 10th June 2008
Follow the Koprük canyon upstream. More vegetated and greener than most areas that are found in Band-i-Amir PNP. Transect includes several crossings of cold stream. End before side canyon to north.

Transect#22

Starting Point 34.85528N/067.27548E, altitude unavailable
End Point 34.86N/0.67.283E altitude unavailable
Length 0.91km
Time: 07:40-08:40
Start at endpoint of #21. Continue upstream. More river crossings.

Transect#23

Starting Point 34.86020N/067.28274E altitude unavailable
End Point 34.86275N/067.28777E, 3009m asl
Length 0.55km
Time 08:45-09:17, 10th June 2008
Continue from endpoint of #22 up dried up river bed. At major fork in canyon, take left and continue for few hundred meters over difficult boulder terrain.

Transect#24

Starting Point 34.82392N/067.19057, 2910m asl
End Point 34.83418N/067.20426E, 3002m asl
Length 1.92km
Time 05:05-06:45, 11th June 2008
Start close to ranger station, just after crossing small canal for drinking water. Follow small track uphill and across flat agricultural land on hilltop. Endpoint gives beautiful view over Band-i Panir, Band-i Pudina and Band-i Zolfeqar.

Transect#25

Starting Point 34.82153N/067.18652E, 2907m asl
End Point 34.81789N/067.16597E, 2880m asl

Length 2.63km

Time 05:10-06:10, 11th June 2008

From ranger station head south down left hand side of river, staying close to river.

Transect#26

Starting Point 34.81789N/067.16597E, 2880m asl

End Point 34.81494N/067.14911E, 2875m asl

Length 2.16km

Time 06:10-07:10, 11th June 2008

Cross river and staying close to it continue to hydro-power station and then on to finish at mosque at Dewkhana.

Transects in Ajar PWR

Transect #1

Starting Point 35.38.584N/067.39822E, 2255m asl

End Point 35.37611N/067.39822E, 2300m asl

Length 1.06km

Time 05:30-06:45, 04th June 2008

Starting from the default camping place in Jawzari Valley, follow the Jawzari Canyon to the west. Stop 200m east of the waypoint 72.

Transect #2

Starting Point 35.37611N/067.39822E, 2300m asl

End Point 35.36124N/067.37849E, 2186m asl

Length 3.30km

Time 07:00-08:25, 04th June 2008

Follow the Jawzari Canyon.

Transect #3

Starting Point 35.36269N/067.37508E, altitude unavailable

EndPoint 35.36957N/067.36583E, altitude unavailable

Length 1.51km

Time 08:55-09:51, 04th June 2008

Follow the Jawzari Canyon initially, and turn into a side canyon to the north at waypoint 35.36337°N/067.36656°E. Continue for short while, until climbing gets difficult (see endpoint).

Transect #4

Starting Point 35.37072N/067.36514E, 2482m asl

End Point 35.3685N/067.34631E, 2668m asl

Length 1.84km

Time 10:43-12:00, 04th June 2008

Follow the track. Track in GPS makes small notch below bands of rock (identification of Plain Leaf Warbler). End on top of small hill.

Transect #5

Starting Point 35.3696N/067.36588E, altitude unavailable

End Point 35.37026N/067.36861E, altitude unavailable

Length unknown (loop with GPS track lost and only endpoints available)

Time 10:45-11:45, 04th June 2008 Dry, overgrazed *Artemisia* slopes.

Meandering loop, taking in rocky outcrops and views down into gullies.

Transect #6

Starting Point 35.4001N/067.40185E, 2350m asl

End Point 35.40251N/067.39656E, 2427m asl

Length 0.58km

Time 06:00-06:40, 05th June 2008

Steep eroded slope with juniper and thorny shrubs.

Transect starts on western side of Ab-e Surkhak river, just as exiting from the narrow gorge. Follow small trail – difficult terrain, climbing down an eroded slope of exposed soil and up some boulders.

Transect #7

Starting Point 35.38076N/067.39415E, 2221m asl

End Point 35.37567N/067.38679E, 2563m asl

Length 0.87km

Time 05:30-06:30, 05th June 2008

Dry, overgrazed *Artemisia* slopes to north of campsite (similar in habitat to transect #5).

Trying to take in views down into gullies and from rocky outcrops.

Transect #8

Starting Point 35.41507N/067.39773E, 3029m asl

End Point 35.41066N/067.39071E, 2888m asl

Length 0.84km

Time 09:30-10:30, 05th June 2008

Open juniper stands in steep *Artemisia* slope and scree with isolated thorn shrub.

From transect #6, climb down to Ab-e Surkhak where small side river joins. Climb up other side to largest juniper trees (avoid climbing through juniper stands in order not to scare away birds from the transect). Flank steep slope gently going downwards, above remarkable juniper with two big trunks lying almost flat on ground.

Transect #9

Starting Point 35.37607N/067.38660E, 2557m asl

End Point 35.37640N/067.37580E, 2750m asl

Length 0.98km

Time 06:30-07:30, 05th June 2008

North of transect #7. Meandering transect taking in gullies and rocky outcrops. Slightly higher altitude than #7. Ends just below habitat change to vertical rocky habitat with significant amount of juniper (visible habitat change – see #10).

Transect #10

Starting Point 35.37643N/067.37581E, 2764m asl

End Point 35.37725N/067.37404E, 2871m asl

Length 0.18km

Time 07:57-08:27, 05th June 2008

Attempt to cover steep rocky outcrops and juniper at end of #9. Difficult terrain, short duration.

Transect #11

Starting Point 35.37461N/067.37452E, 2739m asl

End Point 35.37739N/067.39027E, 2446m asl

Length 1.47km

Time 09:00-10:00, 05th June 2008

Back off the rocks and juniper area of #10, back on rolling soil-based “shoulder”.
Artemisia dominated, overgrazed, with little vegetation coverage. Heading back towards
campsite.

Transect #12

Starting Point 35.36237N/067.36532E, 2204m asl

End Point 35.35729N/067.34247E, 2213m asl

Length 2.29km

Time 07:55-08:55, 06th June 2008

Following Jawzari Canyon west from waypoint 35.36337°N/067.36656°E (see transect
#3).

Transect #13

Starting Point 35.35729N/067.34247, 2213m asl

End Point 35.35393N/067.33696E, 2490m asl

Length 0.97km

Time 09:00-09:50, 06th June 2008

For short distance following Jawzari Canyon, then turning south into steep side canyon,
which it follows up to the plateau on top (follow the trail). Stop at big boulder.

Transect #14

Starting Point 35.35197N/067.33760E, 2482m asl

End Point 35.34927N/067.32280, 2588m asl

Length 1.39km

Time 10:00-11:00, 06th June 2008

Start at big boulder at the top of the side canyon (see #13). Walk across plateau following
one of the most obvious trails.

Transect #15

Starting Point 35.33347N/067.30518E, 2974m asl

End Point 35.33383N/067.29694E, 2966m asl

Length 0.77km

Time 05:25-06:10, 07th June 2008

Starting from large boulder above spring of Pusht-e Jey. Follow small trail to the west at
bottom end of scree and steeper slope, across mostly well-vegetated rolling terrain.

Transect #16

Starting Point 35.33435N/067.30579E, 2958m asl

End Point 35.32906N/067.31030E, 3196m asl

Length 0.72km as-the-crow-flies (in reality, probably at least twice as long – follow the
track up the narrow canyon)

Time 05:30-06:30, 07th June 2008

From Pusht-e Jey camp, go to and follow canyon to south up to upper plateau.

Transect #17

Starting Point 35.32901N/067.31042E, 3209m asl

End Point 35.32536N/067.30315E, 3375m asl

Length 0.78km as-the-crow-flies (in reality, probably about 1.5times as long – follow the
valley)

Time 06:45-07:45, 07th June 2008

Continuation of #16 up valley (*Artemisia* slope to east, crags to west), turn west at end of crags to the west (where the spring is).

Transect #18

Starting Point 35.3245N/067.3075E, 3320m asl

End Point 35.31678N/067.30798E, 3605m asl

Length 0.85km

Time 07:55-08:55, 07th June 2008

Return to point where #17 turn west (at the spring). Continue straight up the valley (south) to the rocky outcrop at top of valley.

Transect #19

Starting Point 35.31676N/067.30791E, 3612m asl

End Point 35.32086N/067.31782E, 3413m asl

Length 1.34km

Time 09:20-10:00, 07th June 2008

Traverse gentle slope walking east. At point where you meet a large valley, turn north past a rocky outcrop. At second rocky outcrop, descend into valley, zigzagging. In middle of slope, transect ends (descending moving scree, where birdwatching was no longer possible).

Transect #20

Starting Point 35.38840N/067.3979E, 2297m asl

End Point 35.39188N/067.41592E, altitude unavailable

Length 1.67km

Time 05:40-06:35, 08th June 2008

Start transect at the farm/house near Jawzari campsite, head east and then south towards Ajar PWR.

Transect #21

Starting Point 35.39135N/067.41656E, 2215m asl

End Point 35.37784N/067.44044E, 2017m asl

Length 2.98km

Time 06:40-08:15, 08th June 2008

Head to tail with #20. Follow canyon south until rivers exits canyon into open grassy area. End at a boulder.

Transect #22

Starting Point 35.39022N/067.41766E, altitude unavailable

End Point 35.37025N/067.46298E, altitude unavailable

Length 2.19km

Time 08:26-09:30, 08th June 2008

Start about 50m south of end of #21. Follow main track towards village with river and irrigated farmland on your right. End at arbitrary mark.

Appendix 6. Results of Transects – Raw Data for Future Surveys

The raw data was handed out to the Wildlife Conservation Society Afghanistan Program as two files named “TransectDataAjar.xls” and “TransectDataBandeAmir.xls”. To assure their availability the data are copied once again here.

Transect#	Non - breedingerver	Date	Species	#ind
B01	RA	30/05/08	<i>Emberiza buchanani</i>	4
B01	RA	30/05/08	<i>Phylloscopus griseolus</i>	4
B01	RA	30/05/08	<i>Carpodacus erythrinus</i>	1
B01	RA	30/05/08	<i>Pyrrhocorax pyrrhocorax</i>	6
B01	RA	30/05/08	<i>Columba livia</i>	2
B01	RA	30/05/08	<i>Phoenicurus ochruros phoenicuroides</i>	2
B01	RA	30/05/08	<i>Alectoris chucar</i>	3
B01	RA	30/05/08	<i>Sitta tephronota</i>	1
B01	RA	30/05/08	<i>Apus apus</i>	2
B01	RA	30/05/08	<i>Ptyonoprogne rupestris</i>	3
B01	RA	30/05/08	<i>Delichon urbicum</i>	7
B01	RA	30/05/08	<i>Sylvia althaea</i>	1
B01	RA	30/05/08	<i>Carduelis flavirostris</i>	1
B01	RA	30/05/08	<i>Hipolais rama</i>	1
B02	SB	30/05/08	<i>Phoenicurus ochruros phoenicuroides</i>	3
B02	SB	30/05/08	<i>Montifringilla nivalis</i>	6
B02	SB	30/05/08	<i>Oenanthe deserti</i>	4
B02	SB	30/05/08	<i>Pyrrhocorax pyrrhocorax</i>	3
B02	SB	30/05/08	<i>Carduelis flavirostris</i>	2
B02	SB	30/05/08	<i>Phylloscopus griseolus</i>	2
B02	SB	30/05/08	<i>Oenanthe oenanthe</i>	1
B02	SB	30/05/08	<i>Eremophila alpestris</i>	3
B03	SB	30/05/08	<i>Oenanthe deserti</i>	5
B03	SB	30/05/08	<i>Eremophila alpestris</i>	14
B03	SB	30/05/08	<i>Montifringilla nivalis</i>	3
B03	SB	30/05/08	<i>Carduelis flavirostris</i>	3
B03	SB	30/05/08	<i>Calandrella acutirostris</i>	6
B03	SB	30/05/08	<i>Oenanthe oenanthe</i>	7
B03	SB	30/05/08	<i>Pyrgilauda theresae</i>	2
B03	SB	30/05/08	<i>Phoenicurus ochruros phoenicuroides</i>	2
B03	SB	30/05/08	<i>Anthus campestris</i>	1
B04	RA	30/05/08	<i>Eremophila alpestris</i>	7
B04	RA	30/05/08	<i>Oenanthe deserti</i>	1
B04	RA	30/05/08	<i>Carduelis flavirostris</i>	2
B05	SB	30/05/08	<i>Oenanthe oenanthe</i>	8
B05	SB	30/05/08	<i>Carduelis flavirostris</i>	7
B05	SB	30/05/08	<i>Oenanthe deserti</i>	4
B05	SB	30/05/08	<i>Eremophila alpestris</i>	13
B05	SB	30/05/08	<i>Phylloscopus griseolus</i>	1
B05	SB	30/05/08	<i>Calandrella acutirostris</i>	7
B05	SB	30/05/08	<i>Montifringilla nivalis</i>	20
B05	SB	30/05/08	<i>Monticola saxatilis</i>	2
B06	RA	30/05/08	<i>Eremophila alpestris</i>	3
B06	RA	30/05/08	<i>Calandrella acutirostris</i>	1

B06	RA	30/05/08	<i>Oenanthe deserti</i>	2
B06	RA	30/05/08	<i>Oenanthe oenanthe</i>	3
B06	RA	30/05/08	<i>Carduelis flavirostris</i>	2
B06	RA	30/05/08	<i>Montifringilla nivalis</i>	4
B07	RA	30/05/08	<i>Ptyonoprogne rupestris</i>	9
B07	RA	30/05/08	<i>Monticola saxatilis</i>	3
B07	RA	30/05/08	<i>Phoenicurus ochruros phoenicuroides</i>	14
B07	RA	30/05/08	<i>Montifringilla nivalis</i>	8
B07	RA	30/05/08	<i>Phylloscopus griseolus</i>	7
B07	RA	30/05/08	<i>Oenanthe oenanthe</i>	1
B07	RA	30/05/08	<i>Prunella fulvescens</i>	3
B07	RA	30/05/08	<i>Carpodacus synoicus</i>	3
B07	RA	30/05/08	<i>Oenanthe deserti</i>	1
B07	RA	30/05/08	<i>Sitta tephronota</i>	1
B07	RA	30/05/08	<i>Cuculus canorus</i>	1
B07	RA	30/05/08	<i>Alectoris chucar</i>	2
B08	SB	31/05/08	<i>Calandrella acutirostris</i>	41
B08	SB	31/05/08	<i>Eremophila alpestris</i>	24
B08	SB	31/05/08	<i>Falco tinnunculus</i>	3
B08	SB	31/05/08	<i>Montifringilla nivalis</i>	5
B08	SB	31/05/08	<i>Pyrrhocorax pyrrhocorax</i>	1
B08	SB	31/05/08	<i>Carduelis flavirostris</i>	3
B08	SB	31/05/08	<i>Motacilla citreola calcarata</i>	1
B08	SB	31/05/08	<i>Pterocles orientalis</i>	2
B08	SB	31/05/08	<i>Rhodopechys sanguinea</i>	2
B08	SB	31/05/08	<i>Oenanthe chrysopygia</i>	1
B08	SB	31/05/08	<i>Pyrgilauda theresae</i>	3
B08	SB	31/05/08	<i>Apus apus</i>	2
B08	SB	31/05/08	<i>Phoenicurus ochruros phoenicuroides</i>	1
B09	RA	31/05/08	<i>Calandrella acutirostris</i>	12
B09	RA	31/05/08	<i>Eremophila alpestris</i>	11
B09	RA	31/05/08	<i>Pyrrhocorax pyrrhocorax</i>	1
B09	RA	31/05/08	<i>Upupa epops</i>	1
B09	RA	31/05/08	<i>Cuculus canorus</i>	1
B09	RA	31/05/08	<i>Pyrgilauda theresae</i>	1
B09	RA	31/05/08	<i>Carduelis flavirostris</i>	5
B09	RA	31/05/08	<i>Oenanthe deserti</i>	1
B09	RA	31/05/08	<i>Petronia petronia</i>	1
B09	RA	31/05/08	<i>Montifringilla nivalis</i>	7
B09	RA	31/05/08	<i>Apus apus</i>	14
B09	RA	31/05/08	<i>Falco tinnunculus</i>	1
B10	SB	31/05/08	<i>Oenanthe deserti</i>	2
B10	SB	31/05/08	<i>Calandrella acutirostris</i>	9
B10	SB	31/05/08	<i>Phoenicurus ochruros phoenicuroides</i>	4
B10	SB	31/05/08	<i>Delichon urbicum</i>	3
B10	SB	31/05/08	<i>Carpodacus synoicus</i>	1
B10	SB	31/05/08	<i>Oenanthe chrysopygia</i>	1
B10	SB	31/05/08	<i>Sitta tephronota</i>	3
B10	SB	31/05/08	<i>Buteo rufinus</i>	1
B10	SB	31/05/08	<i>Carduelis flavirostris</i>	6
B10	SB	31/05/08	<i>Emberiza buchanani</i>	1
B10	SB	31/05/08	<i>Montifringilla nivalis</i>	1
B10	SB	31/05/08	<i>Monticola saxatilis</i>	1
B10	SB	31/05/08	<i>Pyrgilauda theresae</i>	1

B11	RA	31/05/08	<i>Carduelis flavirostris</i>	20
B11	RA	31/05/08	<i>Oenanthe oenanthe</i>	3
B11	RA	31/05/08	<i>Oenanthe deserti</i>	2
B11	RA	31/05/08	<i>Eremophila alpestris</i>	11
B11	RA	31/05/08	<i>Calandrella acutirostris</i>	3
B11	RA	31/05/08	<i>Motacilla citreola citreola</i>	1
B11	RA	31/05/08	<i>Motacilla citreola calcarata</i>	10
B11	RA	31/05/08	<i>Pyrgilauda theresae</i>	2
B11	RA	31/05/08	<i>Montifringilla nivalis</i>	3
B11	RA	31/05/08	<i>Falco tinnunculus</i>	1
B11	RA	31/05/08	<i>Pterocles orientalis</i>	55
B11	RA	31/05/08	<i>Petronia petronia</i>	1
B11	RA	31/05/08	<i>Acrocephalus spec.</i>	1
B12	SB	31/05/08	<i>Oenanthe deserti</i>	2
B12	SB	31/05/08	<i>Apus apus</i>	3
B12	SB	31/05/08	<i>Buteo rufinus</i>	1
B12	SB	31/05/08	<i>Corvus corone corone</i>	1
B12	SB	31/05/08	<i>Delichon urbicum</i>	7
B12	SB	31/05/08	<i>Oenanthe oenanthe</i>	8
B12	SB	31/05/08	<i>Carduelis flavirostris</i>	14
B12	SB	31/05/08	<i>Motacilla citreola calcarata</i>	22
B12	SB	31/05/08	<i>Motacilla citreola citreola</i>	2
B12	SB	31/05/08	<i>Petronia petronia</i>	1
B12	SB	31/05/08	<i>Passer indicus bactrianus</i>	1
B12	SB	31/05/08	<i>Pyrgilauda theresae</i>	5
B12	SB	31/05/08	<i>Prunella fulvescens</i>	1
B12	SB	31/05/08	<i>Montifringilla nivalis</i>	12
B12	SB	31/05/08	<i>Ptyonoprogne rupestris</i>	6
B12	SB	31/05/08	<i>Eremophila alpestris</i>	2
B12	SB	31/05/08	<i>Phoenicurus ochruros phoenicuroides</i>	5
B12	SB	31/05/08	<i>Pyrrhocorax pyrrhocorax</i>	2
B12	SB	31/05/08	<i>Rhodopechys sanguinea</i>	3
B12	SB	31/05/08	<i>Monticola saxatilis</i>	3
B12	SB	31/05/08	<i>Alcedo atthis</i>	1
B12	SB	31/05/08	<i>Phylloscopus collybita tristis</i>	1
B12	SB	31/05/08	<i>Hipolais rama</i>	2
B13	RA	31/05/08	<i>Buteo rufinus</i>	1
B13	RA	31/05/08	<i>Motacilla citreola calcarata</i>	11
B13	RA	31/05/08	<i>Motacilla citreola citreola</i>	1
B13	RA	31/05/08	<i>Carduelis flavirostris</i>	11
B13	RA	31/05/08	<i>Hipolais spec.</i>	2
B13	RA	31/05/08	<i>Pyrrhocorax pyrrhocorax</i>	2
B13	RA	31/05/08	<i>Apus apus</i>	2
B13	RA	31/05/08	<i>Eremophila alpestris</i>	8
B13	RA	31/05/08	<i>Falco tinnunculus</i>	2
B13	RA	31/05/08	<i>Rhodopechys sanguinea</i>	3
B13	RA	31/05/08	<i>Oenanthe isabellina</i>	1
B13	RA	31/05/08	<i>Pyrgilauda theresae</i>	3
B13	RA	31/05/08	<i>Delichon urbicum</i>	2
B13	RA	31/05/08	<i>Oenanthe deserti</i>	2
B13	RA	31/05/08	<i>Oenanthe oenanthe</i>	5
B13	RA	31/05/08	<i>Ptyonoprogne rupestris</i>	1
B13	RA	31/05/08	<i>Phylloscopus trochiloides</i>	1
B13	RA	31/05/08	<i>Montifringilla nivalis</i>	3

B13	RA	31/05/08	<i>Calandrella acutirostris</i>	1
B13	RA	31/05/08	<i>Saxicola maura</i>	1
B13	RA	31/05/08	<i>Charadrius dubius</i>	1
B14	RA	6/1/08	<i>Eremophila alpestris</i>	33
B14	RA	6/1/08	<i>Oenanthe deserti</i>	6
B14	RA	6/1/08	<i>Oenanthe oenanthe</i>	2
B14	RA	6/1/08	<i>Carduelis flavirostris</i>	1
B14	RA	6/1/08	<i>Calandrella acutirostris</i>	1
B15	SB	6/1/08	<i>Calandrella acutirostris</i>	5
B15	SB	6/1/08	<i>Oenanthe deserti</i>	7
B15	SB	6/1/08	<i>Oenanthe oenanthe</i>	6
B15	SB	6/1/08	<i>Eremophila alpestris</i>	20
B15	SB	6/1/08	<i>Carduelis flavirostris</i>	1
B15	SB	6/1/08	<i>Montifringilla nivalis</i>	10
B15	SB	6/1/08	<i>Pyrrhocorax pyrrhocorax</i>	6
B15	SB	6/1/08	<i>Ptyonoprogne rupestris</i>	1
B15	SB	6/1/08	<i>Pyrgilauda theresae</i>	4
B16	RA	6/1/08	<i>Oenanthe oenanthe</i>	4
B16	RA	6/1/08	<i>Phoenicurus ochruros phoenicuroides</i>	15
B16	RA	6/1/08	<i>Eremophila alpestris</i>	4
B16	RA	6/1/08	<i>Calandrella acutirostris</i>	3
B16	RA	6/1/08	<i>Pyrrhocorax pyrrhocorax</i>	4
B16	RA	6/1/08	<i>Oenanthe deserti</i>	1
B16	RA	6/1/08	<i>Montifringilla nivalis</i>	4
B16	RA	6/1/08	<i>Columba livia domestica</i>	6
B16	RA	6/1/08	<i>Rhodopechys sanguinea</i>	2
B16	RA	6/1/08	<i>Sitta tephronota</i>	1
B16	RA	6/1/08	<i>Monticola saxatilis</i>	2
B16	RA	6/1/08	<i>Phylloscopus griseolus</i>	1
B16	RA	6/1/08	<i>Carpodacus synoicus</i>	2
B16	RA	6/1/08	<i>Ptyonoprogne rupestris</i>	5
B16	RA	6/1/08	<i>Tichodroma muraria</i>	2
B16	RA	6/1/08	<i>Hipolais spec.</i>	2
B17	SB	6/1/08	<i>Phoenicurus ochruros phoenicuroides</i>	20
B17	SB	6/1/08	<i>Tichodroma muraria</i>	2
B17	SB	6/1/08	<i>Montifringilla nivalis</i>	7
B17	SB	6/1/08	<i>Columba livia</i>	5
B17	SB	6/1/08	<i>Carpodacus synoicus</i>	6
B17	SB	6/1/08	<i>Phylloscopus griseolus</i>	2
B17	SB	6/1/08	<i>Carpodacus erythrinus</i>	5
B17	SB	6/1/08	<i>Ptyonoprogne rupestris</i>	6
B17	SB	6/1/08	<i>Pyrrhocorax pyrrhocorax</i>	2
B17	SB	6/1/08	<i>Apus apus</i>	1
B17	SB	6/1/08	<i>Serinus pusillus</i>	2
B17	SB	6/1/08	<i>Hipolais spec.</i>	1
B18	SB	9-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	18
B18	SB	9-Jun-08	<i>Apus apus</i>	5
B18	SB	9-Jun-08	<i>Sitta tephronota</i>	7
B18	SB	9-Jun-08	<i>Carpodacus erythrinus</i>	2
B18	SB	9-Jun-08	<i>Serinus pusillus</i>	8
B18	SB	9-Jun-08	<i>Delichon urbicum</i>	4
B18	SB	9-Jun-08	<i>Carpodacus synoicus</i>	6
B18	SB	9-Jun-08	<i>Falco tinnunculus</i>	2
B18	SB	9-Jun-08	<i>Rhodopechys sanguinea</i>	1

B18	SB	9-Jun-08	<i>Carpodacus rubicilla</i>	2
B18	SB	9-Jun-08	<i>Ptyonoprogne rupestris</i>	4
B18	SB	9-Jun-08	<i>Montifringilla nivalis</i>	9
B18	SB	9-Jun-08	<i>Oenanthe chrysopygia</i>	1
B18	SB	9-Jun-08	<i>Alectoris chucar</i>	1
B18	SB	9-Jun-08	<i>Pyrrhocorax garrulus</i>	4
B18	SB	9-Jun-08	<i>Phylloscopus griseolus</i>	5
B18	SB	9-Jun-08	<i>Oenanthe deserti</i>	1
B18	SB	9-Jun-08	<i>Columba livia</i>	2
B19	SB	9-Jun-08	<i>Falco tinnunculus</i>	3
B19	SB	9-Jun-08	<i>Serinus pusillus</i>	4
B19	SB	9-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	12
B19	SB	9-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	10
B19	SB	9-Jun-08	<i>Columba livia</i>	4
B19	SB	9-Jun-08	<i>Carpodacus synoicus</i>	8
B19	SB	9-Jun-08	<i>Sitta tephronota</i>	8
B19	SB	9-Jun-08	<i>Motacilla citreola calcarata</i>	2
B19	SB	9-Jun-08	<i>Phylloscopus griseolus</i>	10
B19	SB	9-Jun-08	<i>Tetraogallus himalayensis</i>	2
B19	SB	9-Jun-08	<i>Carpodacus rubicilla</i>	2
B19	SB	9-Jun-08	<i>Prunella fulvescens</i>	2
B19	SB	9-Jun-08	<i>Pyrrhocorax garrulus</i>	10
B19	SB	9-Jun-08	<i>Rhodopechys sanguinea</i>	2
B19	SB	9-Jun-08	<i>Montifringilla nivalis</i>	7
B19	SB	9-Jun-08	<i>Apus apus</i>	2
B19	SB	9-Jun-08	<i>Delichon urbicum</i>	2
B20	SB	9-Jun-08	<i>Rhodopechys sanguinea</i>	6
B20	SB	9-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	14
B20	SB	9-Jun-08	<i>Pyrrhocorax garrulus</i>	4
B20	SB	9-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	13
B20	SB	9-Jun-08	<i>Phylloscopus griseolus</i>	7
B20	SB	9-Jun-08	<i>Serinus pusillus</i>	14
B20	SB	9-Jun-08	<i>Ptyonoprogne rupestris</i>	5
B20	SB	9-Jun-08	<i>Falco tinnunculus</i>	2
B20	SB	9-Jun-08	<i>Delichon urbicum</i>	3
B20	SB	9-Jun-08	<i>Apus apus</i>	2
B20	SB	9-Jun-08	<i>Montifringilla nivalis</i>	4
B20	SB	9-Jun-08	<i>Carpodacus synoicus</i>	6
B20	SB	9-Jun-08	<i>Oenanthe chrysopygia</i>	1
B20	SB	9-Jun-08	<i>Sylvia althaea</i>	1
B20	SB	9-Jun-08	<i>Sitta tephronota</i>	6
B20	SB	9-Jun-08	<i>Carpodacus erythrinus</i>	1
B20	SB	9-Jun-08	<i>Carduelis carduelis caniceps</i>	1
B20	SB	9-Jun-08	<i>Motacilla citreola calcarata</i>	1
B20	SB	9-Jun-08	<i>Alectoris chucar</i>	1
B20	SB	9-Jun-08	<i>Carpodacus rubicilla</i>	1
B21	RA	10-Jun-08	<i>Columba livia domestica</i>	5
B21	RA	10-Jun-08	<i>Montifringilla nivalis</i>	21
B21	RA	10-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	12
B21	RA	10-Jun-08	<i>Motacilla citreola calcarata</i>	2
B21	RA	10-Jun-08	<i>Rhodopechys sanguinea</i>	3
B21	RA	10-Jun-08	<i>Pica pica</i>	3
B21	RA	10-Jun-08	<i>Petronia petronia</i>	2
B21	RA	10-Jun-08	<i>Ptyonoprogne rupestris</i>	6

B21	RA	10-Jun-08	<i>Carpodacus erythrinus</i>	6
B21	RA	10-Jun-08	<i>Monticola saxatilis</i>	1
B21	RA	10-Jun-08	<i>Sitta tephronota</i>	2
B21	RA	10-Jun-08	<i>Apus apus</i>	2
B21	RA	10-Jun-08	<i>Delichon urbicum</i>	1
B22	SB	10-Jun-08	<i>Ptyonoprogne rupestris</i>	0:00
B22	SB	10-Jun-08	<i>Carpodacus erythrinus</i>	37
B22	SB	10-Jun-08	<i>Streptopelia senegallensis</i>	2
B22	SB	10-Jun-08	<i>Delichon urbicum</i>	13
B22	SB	10-Jun-08	<i>Petronia petronia</i>	6
B22	SB	10-Jun-08	<i>Sitta tephronota</i>	10
B22	SB	10-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	8
B22	SB	10-Jun-08	<i>Montifringilla nivalis</i>	5
B22	SB	10-Jun-08	<i>Apus apus</i>	9
B22	SB	10-Jun-08	<i>Carduelis carduelis caniceps</i>	1
B22	SB	10-Jun-08	<i>Falco tinnunculus</i>	3
B22	SB	10-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	24
B22	SB	10-Jun-08	<i>Serinus pusillus</i>	2
B22	SB	10-Jun-08	<i>Sylvia althaea</i>	1
B22	SB	10-Jun-08	<i>Columba livia domestica</i>	6
B22	SB	10-Jun-08	<i>Columba livia</i>	27
B23	SB	10-Jun-08	<i>Carpodacus erythrinus</i>	4
B23	SB	10-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	4
B23	SB	10-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	3
B23	SB	10-Jun-08	<i>Ptyonoprogne rupestris</i>	5
B23	SB	10-Jun-08	<i>Sitta tephronota</i>	2
B23	SB	10-Jun-08	<i>Carpodacus synoicus</i>	1
B23	SB	10-Jun-08	<i>Rhodopechys sanguinea</i>	2
B23	SB	10-Jun-08	<i>Carduelis carduelis caniceps</i>	2
B23	SB	10-Jun-08	<i>Serinus pusillus</i>	2
B23	SB	10-Jun-08	<i>Apus apus</i>	8
B23	SB	10-Jun-08	<i>Delichon urbicum</i>	8
B23	SB	10-Jun-08	<i>Columba livia</i>	5
B23	SB	10-Jun-08	<i>Pyrrhocorax garrulus</i>	1
B23	SB	10-Jun-08	<i>Tichodroma muraria</i>	1
B23	SB	10-Jun-08	<i>Falco tinnunculus</i>	1
B23	SB	10-Jun-08	<i>Sylvia althaea</i>	1
B24	RA	11-Jun-08	<i>Montifringilla nivalis</i>	16
B24	RA	11-Jun-08	<i>Calandrella acutirostris</i>	25
B24	RA	11-Jun-08	<i>Carduelis flavirostris</i>	8
B24	RA	11-Jun-08	<i>Apus apus</i>	17
B24	RA	11-Jun-08	<i>Carpodacus erythrinus</i>	3
B24	RA	11-Jun-08	<i>Upupa epops</i>	2
B24	RA	11-Jun-08	<i>Oenanthe deserti</i>	3
B24	RA	11-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	7
B24	RA	11-Jun-08	<i>Tringa totanus</i>	1
B24	RA	11-Jun-08	<i>Motacilla citreola calcarata</i>	1
B24	RA	11-Jun-08	<i>Tetraogallus himalayensis</i>	1
B24	RA	11-Jun-08	<i>Petronia petronia</i>	2
B24	RA	11-Jun-08	<i>Eremophila alpestris</i>	5
B24	RA	11-Jun-08	<i>Delichon urbicum</i>	4
B24	RA	11-Jun-08	<i>Ptyonoprogne rupestris</i>	1
B24	RA	11-Jun-08	<i>Falco tinnunculus</i>	1
B24	RA	11-Jun-08	<i>Sitta tephronota</i>	1

B24	RA	11-Jun-08	<i>Bucanetes githagineus</i>	2
B24	RA	11-Jun-08	<i>Bucanetes mongolicus</i>	4
B24	RA	11-Jun-08	<i>Carpodacus synoicus</i>	1
B24	RA	11-Jun-08	<i>Corvus corone corone</i>	1
B24	RA	11-Jun-08	<i>Monticola saxatilis</i>	1
B24	RA	11-Jun-08	<i>Phalacrocorax carbo</i>	2
B24	RA	11-Jun-08	<i>Carduelis carduelis caniceps</i>	1
B24	RA	11-Jun-08	<i>Pyrgilauda theresae</i>	2
B24	RA	11-Jun-08	<i>Corvus corax</i>	1
B25	SB	11-Jun-08	<i>Motacilla citreola calcarata</i>	25
B25	SB	11-Jun-08	<i>Carpodacus erythrinus</i>	9
B25	SB	11-Jun-08	<i>Columba livia domestica</i>	7
B25	SB	11-Jun-08	<i>Columba livia</i>	4
B25	SB	11-Jun-08	<i>Passer montanus</i>	12
B25	SB	11-Jun-08	<i>Montifringilla nivalis</i>	3
B25	SB	11-Jun-08	<i>Oenanthe oenanthe</i>	5
B25	SB	11-Jun-08	<i>Acrocephalus stentoreus</i>	20
B25	SB	11-Jun-08	<i>Tringa totanus</i>	5
B25	SB	11-Jun-08	<i>Cuculus canorus</i>	5
B25	SB	11-Jun-08	<i>Upupa epops</i>	5
B25	SB	11-Jun-08	<i>Carduelis flavirostris</i>	1
B25	SB	11-Jun-08	<i>Acrocephalus agricola</i>	8
B25	SB	11-Jun-08	<i>Fulica atra</i>	56
B25	SB	11-Jun-08	<i>Tachybaptus ruficollis</i>	2
B25	SB	11-Jun-08	<i>Petronia petronia</i>	4
B25	SB	11-Jun-08	<i>Emberiza buchanani</i>	5
B25	SB	11-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	1
B25	SB	11-Jun-08	<i>Saxicola maura</i>	3
B25	SB	11-Jun-08	<i>Delichon urbicum</i>	1
B25	SB	11-Jun-08	<i>Pica pica</i>	4
B26	SB	11-Jun-08	<i>Motacilla citreola calcarata</i>	15
B26	SB	11-Jun-08	<i>Carpodacus erythrinus</i>	18
B26	SB	11-Jun-08	<i>Corvus corax</i>	1
B26	SB	11-Jun-08	<i>Corvus corone hybridus</i>	3
B26	SB	11-Jun-08	<i>Rhodopechys sanguinea</i>	3
B26	SB	11-Jun-08	<i>Carduelis flavirostris</i>	4
B26	SB	11-Jun-08	<i>Columba livia domestica</i>	8
B26	SB	11-Jun-08	<i>Columba livia</i>	8
B26	SB	11-Jun-08	<i>Acrocephalus agricola</i>	2
B26	SB	11-Jun-08	<i>Pica pica</i>	6
B26	SB	11-Jun-08	<i>Passer montanus</i>	18
B26	SB	11-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	6
B26	SB	11-Jun-08	<i>Cuculus canorus</i>	2
B26	SB	11-Jun-08	<i>Emberiza buchanani</i>	2
B26	SB	11-Jun-08	<i>Upupa epops</i>	1
B26	SB	11-Jun-08	<i>Montifringilla nivalis</i>	10
B26	SB	11-Jun-08	<i>Passer indicus bactrianus</i>	2

Transect#	Non - breedingerver	Date	Species	#ind
Ajar01	SB	4-Jun-08	<i>Serinus pusillus</i>	26
Ajar01	SB	4-Jun-08	<i>Pica pica</i>	2
Ajar01	SB	4-Jun-08	<i>Pyrrhocorax garrulus</i>	14
Ajar01	SB	4-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	12
Ajar01	SB	4-Jun-08	<i>Apus apus</i>	12

Ajar01	SB	4-Jun-08	<i>Ptyonoprogne rupestris</i>	10
Ajar01	SB	4-Jun-08	<i>Sitta tephronota</i>	6
Ajar01	SB	4-Jun-08	<i>Carpodacus synoicus</i>	3
Ajar01	SB	4-Jun-08	<i>Lanius schach</i>	1
Ajar01	SB	4-Jun-08	<i>Petronia petronia</i>	20
Ajar01	SB	4-Jun-08	<i>Falco pelegrinoides</i>	2
Ajar01	SB	4-Jun-08	<i>Oenanthe chrysopygia</i>	1
Ajar01	SB	4-Jun-08	<i>Emberiza buchanani</i>	1
Ajar01	SB	4-Jun-08	<i>Passer indicus bactrianus</i>	12
Ajar01	SB	4-Jun-08	<i>Sylvia althaea</i>	1
Ajar01	SB	4-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	2
Ajar02	RA	4-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	21
Ajar02	RA	4-Jun-08	<i>Pyrrhocorax garrulus</i>	18
Ajar02	RA	4-Jun-08	<i>Falco tinnunculus</i>	3
Ajar02	RA	4-Jun-08	<i>Aquila chrysaetos</i>	1
Ajar02	RA	4-Jun-08	<i>Sitta tephronota</i>	11
Ajar02	RA	4-Jun-08	<i>Serinus pusillus</i>	21
Ajar02	RA	4-Jun-08	<i>Carpodacus grandis</i>	4
Ajar02	RA	4-Jun-08	<i>Carpodacus synoicus</i>	8
Ajar02	RA	4-Jun-08	<i>Apus apus</i>	17
Ajar02	RA	4-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	10
Ajar02	RA	4-Jun-08	<i>Sylvia althaea</i>	3
Ajar02	RA	4-Jun-08	<i>Columba livia</i>	6
Ajar02	RA	4-Jun-08	<i>Upupa epops</i>	1
Ajar02	RA	4-Jun-08	<i>Ptyonoprogne rupestris</i>	5
Ajar02	RA	4-Jun-08	<i>Oenanthe chrysopygia</i>	2
Ajar03	SB	4-Jun-08	<i>Oenanthe chrysopygia</i>	7
Ajar03	SB	4-Jun-08	<i>Carpodacus grandis</i>	1
Ajar03	SB	4-Jun-08	<i>Sitta tephronota</i>	3
Ajar03	SB	4-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	3
Ajar03	SB	4-Jun-08	<i>Emberiza buchanani</i>	1
Ajar03	SB	4-Jun-08	<i>Pyrrhocorax garrulus</i>	4
Ajar03	SB	4-Jun-08	<i>Ptyonoprogne rupestris</i>	4
Ajar03	SB	4-Jun-08	<i>Falco tinnunculus</i>	1
Ajar03	SB	4-Jun-08	<i>Carpodacus synoicus</i>	2
Ajar03	SB	4-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	3
Ajar03	SB	4-Jun-08	<i>Scotocerca inquieta</i>	1
Ajar03	SB	4-Jun-08	<i>Serinus pusillus</i>	1
Ajar04	RA	4-Jun-08	<i>Cuculus canorus</i>	1
Ajar04	RA	4-Jun-08	<i>Serinus pusillus</i>	2
Ajar04	RA	4-Jun-08	<i>Emberiza buchanani</i>	5
Ajar04	RA	4-Jun-08	<i>Apus apus</i>	1
Ajar04	RA	4-Jun-08	<i>Oenanthe chrysopygia</i>	6
Ajar04	RA	4-Jun-08	<i>Phylloscopus neglectus</i>	1
Ajar04	RA	4-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	3
Ajar04	RA	4-Jun-08	<i>Scotocerca inquieta</i>	4
Ajar04	RA	4-Jun-08	<i>Sylvia althaea</i>	1
Ajar04	RA	4-Jun-08	<i>Alectoris chukar</i>	3
Ajar04	RA	4-Jun-08	<i>Pyrrhocorax garrulus</i>	4
Ajar05	SB	4-Jun-08	<i>Emberiza buchanani</i>	5
Ajar05	SB	4-Jun-08	<i>Serinus pusillus</i>	3
Ajar05	SB	4-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	1
Ajar05	SB	4-Jun-08	<i>Oenanthe chrysopygia</i>	3
Ajar05	SB	4-Jun-08	<i>Cuculus canorus</i>	1

Ajar05	SB	4-Jun-08	<i>Calandrella acutirostris</i>	1
Ajar05	SB	4-Jun-08	<i>Pyrrhocorax garrulus</i>	1
Ajar06	RA	5-Jun-08	<i>Upupa epops</i>	1
Ajar06	RA	5-Jun-08	<i>Oenanthe chrysopygia</i>	4
Ajar06	RA	5-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	5
Ajar06	RA	5-Jun-08	<i>Serinus pusillus</i>	2
Ajar06	RA	5-Jun-08	<i>Pyrrhocorax garrulus</i>	2
Ajar06	RA	5-Jun-08	<i>Ptyonoprogne rupestris</i>	1
Ajar06	RA	5-Jun-08	<i>Phylloscopus griseolus</i>	1
Ajar06	RA	5-Jun-08	<i>Phylloscopus neglectus</i>	1
Ajar07	SB	5-Jun-08	<i>Cuculus canorus</i>	1
Ajar07	SB	5-Jun-08	<i>Oenanthe chrysopygia</i>	8
Ajar07	SB	5-Jun-08	<i>Emberiza buchanani</i>	7
Ajar07	SB	5-Jun-08	<i>Calandrella acutirostris</i>	2
Ajar07	SB	5-Jun-08	<i>Alectoris chukar</i>	3
Ajar07	SB	5-Jun-08	<i>Upupa epops</i>	1
Ajar07	SB	5-Jun-08	<i>Petronia petronia</i>	2
Ajar07	SB	5-Jun-08	<i>Sylvia althaea</i>	1
Ajar07	SB	5-Jun-08	<i>Anthus campestris</i>	1
Ajar07	SB	5-Jun-08	<i>Ptyonoprogne rupestris</i>	1
Ajar07	SB	5-Jun-08	<i>Apus apus</i>	9
Ajar07	SB	5-Jun-08	<i>Pyrrhocorax garrulus</i>	1
Ajar07	SB	5-Jun-08	<i>Oenanthe picata capistrata</i>	1
Ajar08	RA	5-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	4
Ajar08	RA	5-Jun-08	<i>Ptyonoprogne rupestris</i>	1
Ajar08	RA	5-Jun-08	<i>Parus rufonuchalis</i>	1
Ajar08	RA	5-Jun-08	<i>Passer indicus bactrianus</i>	1
Ajar08	RA	5-Jun-08	<i>Pyrrhocorax garrulus</i>	4
Ajar08	RA	5-Jun-08	<i>Pica pica</i>	1
Ajar08	RA	5-Jun-08	<i>Alectoris chukar</i>	18
Ajar08	RA	5-Jun-08	<i>Serinus pusillus</i>	4
Ajar08	RA	5-Jun-08	<i>Phylloscopus griseolus</i>	1
Ajar08	RA	5-Jun-08	<i>Sylvia althaea</i>	1
Ajar08	RA	5-Jun-08	<i>Falco tinnunculus</i>	1
Ajar08	RA	5-Jun-08	<i>Oenanthe chrysopygia</i>	1
Ajar09	SB	5-Jun-08	<i>Petronia petronia</i>	12
Ajar09	SB	5-Jun-08	<i>Anthus campestris</i>	1
Ajar09	SB	5-Jun-08	<i>Alectoris chukar</i>	9
Ajar09	SB	5-Jun-08	<i>Emberiza buchanani</i>	6
Ajar09	SB	5-Jun-08	<i>Cuculus canorus</i>	2
Ajar09	SB	5-Jun-08	<i>Apus apus</i>	6
Ajar09	SB	5-Jun-08	<i>Oenanthe chrysopygia</i>	7
Ajar09	SB	5-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	3
Ajar09	SB	5-Jun-08	<i>Upupa epops</i>	1
Ajar09	SB	5-Jun-08	<i>Emberiza cia</i>	2
Ajar09	SB	5-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	2
Ajar09	SB	5-Jun-08	<i>Serinus pusillus</i>	2
Ajar10	SB	5-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	4
Ajar10	SB	5-Jun-08	<i>Oenanthe chrysopygia</i>	3
Ajar10	SB	5-Jun-08	<i>Emberiza cia</i>	1
Ajar10	SB	5-Jun-08	<i>Phylloscopus griseolus</i>	1
Ajar10	SB	5-Jun-08	<i>Pyrrhocorax garrulus</i>	2
Ajar10	SB	5-Jun-08	<i>Sitta tephronota</i>	1
Ajar11	SB	5-Jun-08	<i>Oenanthe chrysopygia</i>	3

Ajar11	SB	5-Jun-08	<i>Emberiza buchanani</i>	5
Ajar11	SB	5-Jun-08	<i>Alectoris chukar</i>	1
Ajar11	SB	5-Jun-08	<i>Falco tinnunculus</i>	1
Ajar11	SB	5-Jun-08	<i>Oenanthe picata capistrata</i>	1
Ajar12	RA	6-Jun-08	<i>Serinus pusillus</i>	9
Ajar12	RA	6-Jun-08	<i>Sitta tephronota</i>	7
Ajar12	RA	6-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	18
Ajar12	RA	6-Jun-08	<i>Alectoris chukar</i>	1
Ajar12	RA	6-Jun-08	<i>Passer indicus bactrianus</i>	2
Ajar12	RA	6-Jun-08	<i>Apus apus</i>	9
Ajar12	RA	6-Jun-08	<i>Carpodacus grandis</i>	3
Ajar12	RA	6-Jun-08	<i>Oenanthe chrysopygia</i>	3
Ajar12	RA	6-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	9
Ajar12	RA	6-Jun-08	<i>Ptyonoprogne rupestris</i>	2
Ajar12	RA	6-Jun-08	<i>Carpodacus synoicus</i>	10
Ajar12	RA	6-Jun-08	<i>Scotocerca inquieta</i>	1
Ajar12	RA	6-Jun-08	<i>Columba livia</i>	2
Ajar13	RA	6-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	3
Ajar13	RA	6-Jun-08	<i>Apus apus</i>	4
Ajar13	RA	6-Jun-08	<i>Oenanthe chrysopygia</i>	2
Ajar13	RA	6-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	2
Ajar13	RA	6-Jun-08	<i>Ptyonoprogne rupestris</i>	5
Ajar13	RA	6-Jun-08	<i>Carpodacus synoicus</i>	7
Ajar13	RA	6-Jun-08	<i>Sylvia althaea</i>	5
Ajar13	RA	6-Jun-08	<i>Pyrrhocorax garrulus</i>	4
Ajar13	RA	6-Jun-08	<i>Emberiza buchanani</i>	3
Ajar13	RA	6-Jun-08	<i>Bucanetes githagineus</i>	2
Ajar14	SB	6-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	3
Ajar14	SB	6-Jun-08	<i>Ptyonoprogne rupestris</i>	1
Ajar14	SB	6-Jun-08	<i>Apus apus</i>	2
Ajar14	SB	6-Jun-08	<i>Emberiza buchanani</i>	10
Ajar14	SB	6-Jun-08	<i>Alectoris chukar</i>	2
Ajar14	SB	6-Jun-08	<i>Oenanthe chrysopygia</i>	6
Ajar14	SB	6-Jun-08	<i>Anthus campestris</i>	1
Ajar14	SB	6-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	1
Ajar14	SB	6-Jun-08	<i>Carduelis flavirostris</i>	1
Ajar14	SB	6-Jun-08	<i>Petronia petronia</i>	8
Ajar14	SB	6-Jun-08	<i>Scotocerca inquieta</i>	1
Ajar15	RA	7-Jun-08	<i>Emberiza buchanani</i>	15
Ajar15	RA	7-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	3
Ajar15	RA	7-Jun-08	<i>Oenanthe chrysopygia</i>	3
Ajar15	RA	7-Jun-08	<i>Carpodacus grandis</i>	1
Ajar15	RA	7-Jun-08	<i>Sylvia althaea</i>	2
Ajar15	RA	7-Jun-08	<i>Carduelis flavirostris</i>	1
Ajar15	RA	7-Jun-08	<i>Anthus campestris</i>	1
Ajar15	RA	7-Jun-08	<i>Emberiza cia</i>	3
Ajar15	RA	7-Jun-08	<i>Serinus pusillus</i>	3
Ajar15	RA	7-Jun-08	<i>Carpodacus synoicus</i>	1
Ajar15	RA	7-Jun-08	<i>Alectoris chukar</i>	2
Ajar15	RA	7-Jun-08	<i>Phylloscopus griseolus</i>	2
Ajar15	RA	7-Jun-08	<i>Pyrrhocorax garrulus</i>	3
Ajar16	SB	7-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	13
Ajar16	SB	7-Jun-08	<i>Emberiza buchanani</i>	6
Ajar16	SB	7-Jun-08	<i>Carpodacus synoicus</i>	1

Ajar16	SB	7-Jun-08	<i>Oenanthe chrysopygia</i>	1
Ajar16	SB	7-Jun-08	<i>Phylloscopus griseolus</i>	3
Ajar16	SB	7-Jun-08	<i>Emberiza cia</i>	4
Ajar16	SB	7-Jun-08	<i>Serinus pusillus</i>	1
Ajar16	SB	7-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	1
Ajar16	SB	7-Jun-08	<i>Alectoris chukar</i>	1
Ajar16	SB	7-Jun-08	<i>Sitta tephronota</i>	3
Ajar16	SB	7-Jun-08	<i>Prunella fulvescens</i>	1
Ajar17	SB	7-Jun-08	<i>Montifringilla nivalis</i>	8
Ajar17	SB	7-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	16
Ajar17	SB	7-Jun-08	<i>Phylloscopus griseolus</i>	6
Ajar17	SB	7-Jun-08	<i>Alectoris chukar</i>	2
Ajar17	SB	7-Jun-08	<i>Prunella fulvescens</i>	9
Ajar17	SB	7-Jun-08	<i>Gypaetus barbatus</i>	1
Ajar17	SB	7-Jun-08	<i>Tetraogallus himalayensis</i>	2
Ajar17	SB	7-Jun-08	<i>Emberiza buchanani</i>	8
Ajar17	SB	7-Jun-08	<i>Emberiza cia</i>	2
Ajar17	SB	7-Jun-08	<i>Carpodacus synoicus</i>	6
Ajar17	SB	7-Jun-08	<i>Carduelis flavirostris</i>	1
Ajar18	SB	7-Jun-08	<i>Prunella fulvescens</i>	5
Ajar18	SB	7-Jun-08	<i>Emberiza buchanani</i>	4
Ajar18	SB	7-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	10
Ajar18	SB	7-Jun-08	<i>Carduelis flavirostris</i>	2
Ajar18	SB	7-Jun-08	<i>Phylloscopus griseolus</i>	1
Ajar18	SB	7-Jun-08	<i>Oenanthe oenanthe</i>	3
Ajar18	SB	7-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	2
Ajar18	SB	7-Jun-08	<i>Eremophila alpestris</i>	3
Ajar18	SB	7-Jun-08	<i>Anthus campestris</i>	1
Ajar18	SB	7-Jun-08	<i>Oenanthe deserti</i>	2
Ajar19	RA	7-Jun-08	<i>Eremophila alpestris</i>	2
Ajar19	RA	7-Jun-08	<i>Oenanthe deserti</i>	4
Ajar19	RA	7-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	2
Ajar19	RA	7-Jun-08	<i>Anthus campestris</i>	1
Ajar19	RA	7-Jun-08	<i>Oenanthe oenanthe</i>	1
Ajar19	RA	7-Jun-08	<i>Emberiza buchanani</i>	1
Ajar20	SB	8-Jun-08	<i>Serinus pusillus</i>	6
Ajar20	SB	8-Jun-08	<i>Pica pica</i>	1
Ajar20	SB	8-Jun-08	<i>Sitta tephronota</i>	14
Ajar20	SB	8-Jun-08	<i>Ptyonoprogne rupestris</i>	4
Ajar20	SB	8-Jun-08	<i>Falco tinnunculus</i>	2
Ajar20	SB	8-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	21
Ajar20	SB	8-Jun-08	<i>Hirundo dauurica</i>	3
Ajar20	SB	8-Jun-08	<i>Carpodacus synoicus</i>	5
Ajar20	SB	8-Jun-08	<i>Apus apus</i>	6
Ajar20	SB	8-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	6
Ajar20	SB	8-Jun-08	<i>Carduelis carduelis caniceps</i>	5
Ajar20	SB	8-Jun-08	<i>Passer indicus bactrianus</i>	3
Ajar20	SB	8-Jun-08	<i>Petronia petronia</i>	6
Ajar20	SB	8-Jun-08	<i>Ammoperdix griseogularis</i>	1
Ajar20	SB	8-Jun-08	<i>Cuculus canorus</i>	1
Ajar20	SB	8-Jun-08	<i>Carpodacus grandis</i>	2
Ajar20	SB	8-Jun-08	<i>Sylvia althaea</i>	1
Ajar21	RA	8-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	21
Ajar21	RA	8-Jun-08	<i>Sitta tephronota</i>	2

Ajar21	RA	8-Jun-08	<i>Phylloscopus griseolus</i>	7
Ajar21	RA	8-Jun-08	<i>Emberiza stewarti</i>	2
Ajar21	RA	8-Jun-08	<i>Sylvia althaea</i>	5
Ajar21	RA	8-Jun-08	<i>Passer hispaniolensis</i>	45
Ajar21	RA	8-Jun-08	<i>Serinus pusillus</i>	8
Ajar21	RA	8-Jun-08	<i>Apus apus</i>	13
Ajar21	RA	8-Jun-08	<i>Ptyonoprogne rupestris</i>	8
Ajar21	RA	8-Jun-08	<i>Falco tinnunculus</i>	1
Ajar21	RA	8-Jun-08	<i>Carpodacus grandis</i>	3
Ajar21	RA	8-Jun-08	<i>Pyrrhocorax pyrrhocorax</i>	4
Ajar21	RA	8-Jun-08	<i>Carpodacus synoicus</i>	4
Ajar21	RA	8-Jun-08	<i>Carduelis carduelis caniceps</i>	3
Ajar21	RA	8-Jun-08	<i>Phylloscopus neglectus</i>	1
Ajar21	RA	8-Jun-08	<i>Motacilla cinerea</i>	7
Ajar21	RA	8-Jun-08	<i>Motacilla alba personata</i>	11
Ajar21	RA	8-Jun-08	<i>Delichon urbicum</i>	1
Ajar21	RA	8-Jun-08	<i>Cettia cetti</i>	1
Ajar21	RA	8-Jun-08	<i>Myophonus caeruleus</i>	2
Ajar21	RA	8-Jun-08	<i>Motacilla citreola calcarata</i>	1
Ajar22	SB	8-Jun-08	<i>Cettia cetti</i>	15
Ajar22	SB	8-Jun-08	<i>Passer hispaniolensis</i>	37
Ajar22	SB	8-Jun-08	<i>Oenanthe chrysopygia</i>	2
Ajar22	SB	8-Jun-08	<i>Sylvia hortensis</i>	1
Ajar22	SB	8-Jun-08	<i>Apus apus</i>	100
Ajar22	SB	8-Jun-08	<i>Delichon urbicum</i>	12
Ajar22	SB	8-Jun-08	<i>Myophonus caeruleus</i>	2
Ajar22	SB	8-Jun-08	<i>Phoenicurus ochruros phoenicuroides</i>	3
Ajar22	SB	8-Jun-08	<i>Motacilla alba personata</i>	11
Ajar22	SB	8-Jun-08	<i>Sylvia althaea</i>	1
Ajar22	SB	8-Jun-08	<i>Sitta tephronota</i>	10
Ajar22	SB	8-Jun-08	<i>Carpodacus erythrinus</i>	1
Ajar22	SB	8-Jun-08	<i>Motacilla citreola calcarata</i>	2
Ajar22	SB	8-Jun-08	<i>Hirundo dauurica</i>	2
Ajar22	SB	8-Jun-08	<i>Ptyonoprogne rupestris</i>	12
Ajar22	SB	8-Jun-08	<i>Pica pica</i>	4
Ajar22	SB	8-Jun-08	<i>Lanius schach</i>	3
Ajar22	SB	8-Jun-08	<i>Emberiza bruniceps</i>	16
Ajar22	SB	8-Jun-08	<i>Acrocephalus stentoreus</i>	10
Ajar22	SB	8-Jun-08	<i>Upupa epops</i>	2
Ajar22	SB	8-Jun-08	<i>Oenanthe picata capistrata</i>	4
Ajar22	SB	8-Jun-08	<i>Passer indicus bactrianus</i>	10
Ajar22	SB	8-Jun-08	<i>Pyrrhocorax garrulus</i>	5