

Bird Observations in Azerbaidshan

Report about an ornithological survey
from 24th February to 11th March 2001



Report for the

**Michael Succow Foundation
for the Protection of Nature**

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Picture 1: Look over the Shorgel lakes / Shirvan Zapovednik

1. Introduction

1.1. Participants

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Picture 2: The survey-team: M.Freude, T.Ryslavy, T.Heinicke & T.Langgemach (from right to left)

1.2. Goals and objectives

The survey was part of a journey within the engagement of the Michael Succow Foundation for the Protection of Nature in Azerbaijan aiming at the protection of biodiversity and natural resources. Goals of the journey were:

- to look for possibilities of co-operation between the Michael Succow Foundation and the Azerbaijan State Committee for Ecology in questions of the protection of biodiversity and natural resources
- to collect new ornithological data and data about the current status in several protected areas in preparation for possible projects; all visited protected areas are listed as Important Bird Areas (HEATH & EVANS 2000)
- to identify negative influences in the current system of protected areas

2. Schedule

2001-02-24	7. ¹⁵ h arrival in Baku, 8. ³⁰ h bay south of Baku, 9. ³⁰ -11. ⁰⁰ h Gobustan reserve from 12. ⁰⁰ h Shirvan Zapovednik
2001-02-25	a.m. & p.m. Shirvan Zapovednik; in the evening trip to Kyzyl Agach
2001-02-26	a.m. & p.m. Kyzyl Agach Zapovednik (trip to the northern part of the reserve)
2001-02-27	a.m. & p.m. Kyzyl Agach Zapovednik (northern part)
2001-02-28	a.m. Kyzyl Agach Zapovednik (trip back to the major office), p.m. Kyzyl Agach Zapovednik (boat trip across the Great Kyzyl Agach bay to the island Kur-Dili)
2001-03-01	a.m. Kyzyl Agach Zapovednik (southern part of Little Kyzyl Agach Bay), p.m. trip to the Shirvan Zapovednik (along the road several short stops: lake Mahmud-chala west of Sorsulu, near Sorsulu and at a small tugai forest at river Kura)
2001-03-02	until 16. ⁰⁰ h Shirvan Zapovednik & Zakaznik (trips in the western part and along the southern canal to the Caspian coast), after that drive to the Ag-Gel Zapovednik
2001-03-03	a.m. & p.m. Ag-Gel Zapovednik (trip from the major ranger station over the western part to the lock in the NE-part)
2001-03-04	a.m. & p.m. Ag-Gel Zapovednik (trip in the northern part)
2001-03-05	until 17. ⁰⁰ h Ag-Gel Zapovednik (trip to the NE-Part), after that drive to Zakatala
2001-03-06	a.m. Zakatala, visit of the Zapovednik office and museum, p.m. Magamala and surroundings (excursion in the foothills)
2001-03-07	9. ³⁰ -16. ⁰⁰ h excursion from Magamala to the Zakatala Zapovednik (Akimal)
2001-03-08	a.m. & p.m. Zakatala Zapovednik (Akimal; excursion in the subalpine and alpine zone)
2001-03-09	09. ⁰⁰ -14. ³⁰ h Zakatala Zapovednik (Akimal; excursion in the subalpine and alpine zone), from 14. ³⁰ -18. ³⁰ h trip back to Magamala
2001-03-10	noon Aquasi reservoir, later trip back to Baku
2001-03-11	a.m. & p.m. peninsula Absheron (trip to the Absheron Zakaznik)

weather conditions:

2001-02-24	the whole day weakly cloudy or without clouds, weak winds, no precipitation temp. up to 15°C
2001-02-25	the whole day no clouds, weak winds, p.m. refreshing, no precipitation, temp. up to 19°C
2001-02-26	the whole day weakly cloudy, a.m. no wind, later refreshing, no precipitation, temp. up to 18°C
2001-02-27	mostly cloudy, weak winds, no precipitation, temp. up to 12°C
2001-02-28	in the morning mist, at day misty, moderate winds, in the evening strongly refreshing, temp. up to 16°C
2001-03-01	a.m. mostly very cloudy, short times with rain, p.m. cloudy and weak cloudy, weak to moderate winds, temp. up to 12°C
2001-03-02	cloudy and weak cloudy, weak winds, no precipitation, temp. up to 12°C
2001-03-03	weakly cloudy, weak or no winds, no precipitation, temp. up to 17°C
2001-03-04	weakly cloudy, weak or no winds, no precipitation, temp. up to 20°C

2001-03-05 weakly cloudy, weak or no winds, no precipitation, temp. up to 22°C
 2001-03-06 weakly cloudy, weak or no winds, no precipitation, temp. up to 20°C
 2001-03-07 weakly cloudy, p.m. strongly cloudy and rain, weak winds, temp. up to 14°C
 2001-03-08 the whole strongly cloudy, partly mist, in the evening rain, weak winds, temp. up to 9°C
 2001-03-09 the whole day strong fog, only very short times without mist, in the alpine zone snowfall, otherwise rain, weak or no winds, temp. up to 5°C
 2001-03-10 the whole day cloudy, from time to time rain, stronger winds, temp. up to 10°C
 2001-03-11 the whole day weakly cloudy, strong winds, no precipitation, temp. up to 15°C



Picture 3: Overview about the visited areas (1-Zakatala, 2-Absheron, 3-Gobustan, 4-Ag-Gel, 5-Shirvan, 6-Mahmud-Chala, 7-Kyzyl Agach, 8-lake Krasnoye, 9-Divichi liman)

3. Methods

For transportation we used a rented bus together with a driver. If the roads in Zapovedniks were too bad, we used local cars from the Zapovednik administrations (Shirvan and Kyzyl Agach). Most of the survey points were reached by car, but at some places also longer trips were done on foot. In the Zakatal Zapovednik we also used horses to carry the luggage. To visit the island Kur-Dili in the Kyzyl Agach Zapovednik, we rented boats from local people.

For passing the night we used in the field local ranger stations in the protected areas, otherwise we went to hotels.

During the field work, main attention was focused on waterfowl, shorebirds, raptors and bustards. For bird observations and counts we used 2 telescopes (30 x, 20-60x) and field-glasses 10x40 and 10x50. For bird identification we used the books from JONSSON (1992) and SVENSSON et al. (2000).

The census of bird numbers was done by the method of absolute counting of individuals in particular areas by members of the survey team. When birds formed dense aggregations, the counting was approximate in tens or hundreds. The total amount of counted birds of each surveyed area was calculated on the base of adding the data from different particular places.

Additional data from Gusan Zakaznik, Divichi liman and lake Krasnoye were collected by Thomas Tennhardt and Vitali Kovalev and are included in the species list (see Annex I). Results of two other expeditions (16.6.-2.7.2001 and 21.4.-1.5.2000) are listed in Annex II and III.

4. Study areas

4.1. Gobustan

The Gobustan area is characterised by low semi-arid mountains, including the flat summits of Beukdash, Kichikdash, Kagnizdag, Djingirdag and the dry stream of Djeirankechmez. Some trees and bushes on the eastern slopes (wild *Pyrus*, *Ficus*, *Punica* etc.). Quarrying for limestone has taken place in the past.

habitats: semi-desert, forest and woodland (wooded desert/semi-desert), rocky areas (scree/boulders), scrub

land-use: agriculture, tourism/recreation



Picture 4: Rocky area at the Gobustan Nature Monument

4.2. Shirvan

The Shirvan area is an alluvial plain extending not far from the Caspian Sea. Predominantly are dry semi-desertlike steppes with *Artemisia* and a high diversity of grasses. Canals run across the steppe and there are also saline lakes. The Shorgel lakes, with their rich aquatic vegetation, are fed by irrigation water. A part of this wetland (3.500 ha) lies within the Shirvan Zapovednik, the remainder extending into a adjacent Zakaznik.

habitats: grassland (40%; steppe/dry calcareous grassland), wetland (standing fresh to brackish water, water-fringe vegetation)

land-use: nature conservation/research

4.3. Kyzyl Agach

The (Great) Kyzyl Agach Bay is an open bay connected to the Caspian Sea. Kichik (Little) Kyzyl Agach Bay, a freshwater reservoir, is separated from the sea by an artificial dam and is greatly silted-up and overgrown. Large parts of the area are protected within the Kyzyl Agach Zapovednik. The relief is characterised by alternating low ridges, open hollows and ancient, silted-up channels. Emergent vegetation includes beds of *Phragmites*, *Scirpus* and *Juncus*. Adjacent, low-lying semi-desert areas with *Artemisia*, *Salsola* and dry scrub with *Rubus*, but also arable land (north of the reserve) can be found. The quantity of the found habitats strongly depends on the Caspian Sea level, which is now slightly decreasing after a long period of rising.

habitats: artificial landscape (arable land), semi-desert, grassland (steppe/dry calcareous grassland), scrub, wetland (coastal lagoon, standing freshwater, standing brackish and saltwater, water-fringe vegetation)

land-use: agriculture, fisheries/aquaculture, hunting, nature conservation/research



Picture 5: Wetland area in the NW-part of the Kyzyl Agach Zapovednik; feeding area for thousands of shore- and waterbirds

4.4. Mahmud-Chala

A shallow saline lake (depth 0.5-2.0 m) with a few small islands. Reedbeds of *Phragmites* cover large parts of the lake, especially in the central and southern parts. Along the southern shore some (largely flooded) *Tamarix* groves can be found. The lake is surrounded by *Salsola* semideserts in the south and cotton fields in the north. In parts also saltmarshes are present. The wetland is rented by the Hunter's Society of Azerbaidshan. A protection status is missing.

habitats: artificial landscape (arable land), semi-desert, scrubs, wetlands (saltmarsh, standing brackish and saltwater, water-fringe vegetation)

land-use: agriculture, hunting

4.5. Ag-Gel

The Lake Ag-Gel is a shallow saline lake (freshwater in the past), 0,5-3m deep, with vast *Phragmites*, *Typha* and *Scirpus* beds, open-water areas linked by channels through reeds, together with saltmarsh fringes and semi-desert islands with *Salsola* etc., lying between the Kura and Arax rivers. Surrounding Mil Steppe is a slightly undulating alluvial plain with semi-desert and desert vegetation. The wetland area has recently decreased in size, having previously increased from 4.000 ha to 10.000 ha as a result of receiving water from irrigation systems. This wetland, together with lakes Boz Koba and Sarysu, forms the water-body system of the Mil steppe. Larger parts of the area are protected within the Ag-Gel Zapovednik.

habitats: wetland (standing brackish and saltwater; water-fringe vegetation)

land-use: fisheries/aquaculture, nature conservation/research

4.6. Zakatala

The Zakataly Zapovednik is an area on the southern slope of the main Caucasian ridge (Great Caucasus). All the high-altitude vegetation zones are well defined, from broad-leaved forest (mainly *Fagus*, also *Quercus*, *Carpinus*, *Acer* etc.) to alpine meadows. The relief is mountainous with deep chasms.

habitats: broad-leaved deciduous forest and woodland (67%); alpine/subalpine grassland (28%); rocky areas

land-use: nature conservation/research, agriculture (summer pastures), (forestry)



Picture 6: View at the subalpine zone near the ranger station at Akimal / Zakataly Zapovednik

4.7. Absheron

The southern part of the Absheron archipelago is a tip, formerly with sandy beaches, about third of which was flooded as the level of the Caspian Sea rose during the 1980s. The flooded area is now being colonised by reeds. All land-uses are prohibited. The area is partly protected within a Zakaznik.

habitats: wetland (100%; sand-dunes/sand beach; water-fringe vegetation)

land-use: fisheries/aquaculture, hunting, tourism/recreation

4.8. Further places

Thomas Tennhardt and Vitali Kovalev additionally visited two other important wetland areas: the Divichi liman in NE-Azerbaijan and the lake Krasnoye near Baku.

The Divichi liman (or lake Akzibir) near Sarvan is a large shallow lake (0.5-1.2 m) with vast reedbeds on its western side in the Khachmas coastal lowland. Beside the large lake several small lakes exist. Within the area, which has no protection status and is leased by the Hunter's Society of Azerbaijan, also large dune complexes and dry steppes can be found.

habitats: wetland (100%; standing fresh and brackish water, water-fringe vegetation), dune complexes, dry steppes

land-use: fisheries/aquaculture, hunting

The lake Krasnoye is situated near Baku in a very anthropogenic formed landscape. In the 1920s, Puta Bay of the Caspian Sea was dyked and partly land-claimed. The remaining water-body was known thereafter as lake Krasnoye (Ozero Krasnoye) or Kyzyl-Gel.

habitats: wetland (standing brackish water, reedbeds)

land-use: ?

5. Results

5.1. Globally threatened bird species

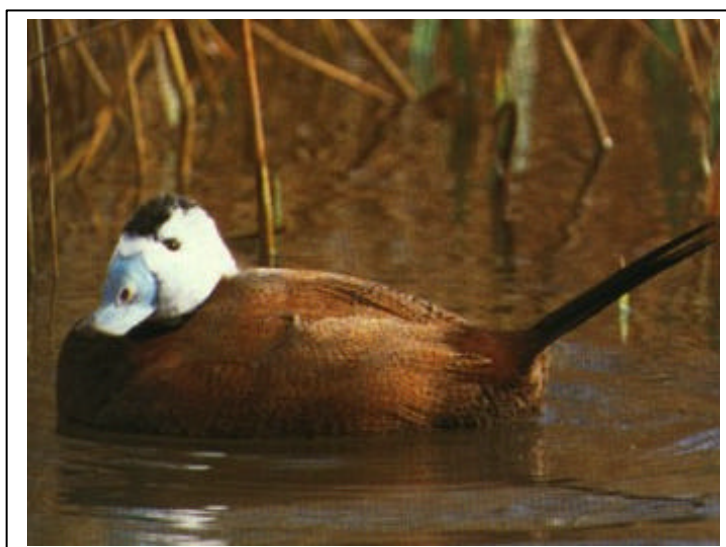
White-headed Duck *Oxyura leucocephala*

endangered

Azerbaijan is an extremely important staging area during migration and in winter time. A few places hold large numbers of that duck species, from them most important sites are the Kyzyl Agach and the Ag-Gel Zapovednik, but also the unprotected lake Krasnoye.

place	Amount
Ag-Gel Zapovednik	~2200 ind. (mainly at the large open water body)
Kyzyl Agach Zapovednik	595 ind. (ponds at the NW-part)
Lake Krasnoye	250 ind.

In both Zapovedniks were disturbances, mostly through an intensive and very effective hunting (especially in the Kyzyl Agach Zapovednik with up to 100 shots per hour). At the staging area in the Kyzyl Agach Zapovednik the hunters even used power-boats. In the Ag-Gel Zapovednik we found behind a local ranger station remains of a killed bird.



Picture 7: Adult male of White-headed Duck

Lesser White-fronted Goose *Anser erythropus*

vulnerable

Behind Iran Azerbaidshan is the most important wintering site for the western population of that goose species (major breeding grounds on the Taimyr-peninsula). Large staging flocks were found in the Kyzyl Agach area and in the Ag-Gel Zapovednik. In the first area the geese were some hundred meter outside the northern border of the Zapovednik. In both cases the goose were observed in mixed flocks with Greater White-fronted and Greylag Goose *Anser albifrons* and *Anser anser*. In both areas the geese were feeding on meadow vegetation.

Place	amount
Ag-Gel Zapovednik	1800-2000 ind.
Kyzyl Agach Zapovednik	565 ind.

In the Ag-Gel Zapovednik we counted 1640 ind. at March 3rd and 1800-2000 ind. at March 4th. The next day all geese had left the area!

Although the geese had a short flight distance, an impact by local hunters is probable. In the Ag-Gel reserve we found near a ranger station rests of a plucked bird, which was possibly a Lesser White-fronted Goose. Furthermore we observed successless hunting from locals to the geese and Little Bustards *Tetrax tetrax*, which were staging in the same area.

Furthermore, 1 calling ind. at lake Shorgel and 6 ind. at Divichi lima were observed by Tennhardt and Kovalev, indicating that these areas may also be important sites for that species.



Picture 8: 1,1 adult with one juvenile Lesser White-fronted Goose

Marbled Teal *Marmoretta angustirostris*

vulnerable

The Ag-Gel Zapovednik was the only site, where we found this duck species. In reachable parts in the NW of the reserve we counted a maximum amount of 145 ind. at March 3rd. Disturbance and hunting influence is probable.



Picture 9: Two adult Marbled Teals

Imperial Eagle *Aquila heliaca*

vulnerable

Only a few observations, mostly in the NW-parts of Azerbaidshan. During the survey time, the breeding pairs mostly had occupied their territories. Near the Aquasi reservoir 1 pair with a tree-nest was found. Near Baku-Evlar and Stareo a minimum of 3 occupied nests at pylons of electric power lines were registered.

place	amount
Shirvan Zapovednik	1,1 adult
Ag-Gel Zapovednik	7 (migrating NW at March 5 th)
Aquasi-reservoir	1 breeding pair
near Baku-Evlar (east of Stareo)	3 breeding pairs + 1 adult + 4 ind.

Greater Spotted Eagle *Aquila clanga*

vulnerable

Especially the coastal wetlands in the Kyzyl Agach area seem to be a regular wintering site. During our visit to the Kyzyl Agach Zapovednik we observed 8-10 different birds of that species.

Along the river Kura near the Ag-Gel Zapovednik and in the mountains near Zakatala a migration corridor for large raptors seem exist:

05.03.2001 1 adult + 1ad/subadult + 1 immature in 3 hours passing NW Ag-Gel Zapovednik (south of major ranger station)

06.03.2001 1 adult flying NW in the mountains near Magamala (near Zakatala)

Dalmatian Pelican *Pelecanus crispus*

conservation dependent

Only a few observations of small flocks or single birds at Shirvan, Kyzyl Agach and Ag-Gel.

place	amount
Kyzyl Agach Zapovednik	about 20 ind. (max. 17 in one flock)
Shirvan Zapovednik	4 (caspien coast)
Ag-Gel Zapovednik	up to 8 ind.

Pygmy Cormorant *Phalacrocorax pygmeus*

near threatened

For that species, Azerbaijan supports with about 5000 pairs a substantial proportion of the European and the world population. Birds can be found practically in each larger freshwater wetland with deeper open water and larger reedbeds along the coast and at the Kura/Arax depression. Other suitable habitats are larger irrigation canals.



Picture 10: Adult Pygmy Cormorant

place	Amount
Kyzyl Agach Zapovednik	together min. 1050 ind.
Ag-Gel Zapovednik	min. 170 ind.
Aquasi-reservoir	130 ind.
road between Gindar and Yevlax	min. 112 ind. at irrigation canals
Shirvan Zapovednik	~55 ind. at southern irrigation canal
Sorsulu	min. 8 ind.
Baku-Evlar (east of Stareo)	5 ind.

Ferruginous Duck *Aythya nyroca*

near threatened

Only a few observations from 3 visited sites. At least in the Ag-Gel Zapovednik birds were seen in suitable habitats for breeding, so a small breeding population is possible.

place	Amount
Kyzyl Agach Zapovednik	1,0 adult (coast)
Ag-Gel Zapovednik	min. 11 ind. (in some cases by pairs)
Aquasi-reservoir	1,1 adult

White-tailed Eagle *Haliaeetus albicilla*

near threatened

Several observations in the Kyzyl Agach and Ag-Gel Zapovedniks.

place	Amount
Kyzyl Agach Zapovednik	1 adult, 1 adult/subadult, 3 immatures
Ag-Gel Zapovednik	min. 1 adult, 3 2 nd -year ind.

Eurasian Black Vulture *Aegypius monachus*

near threatened

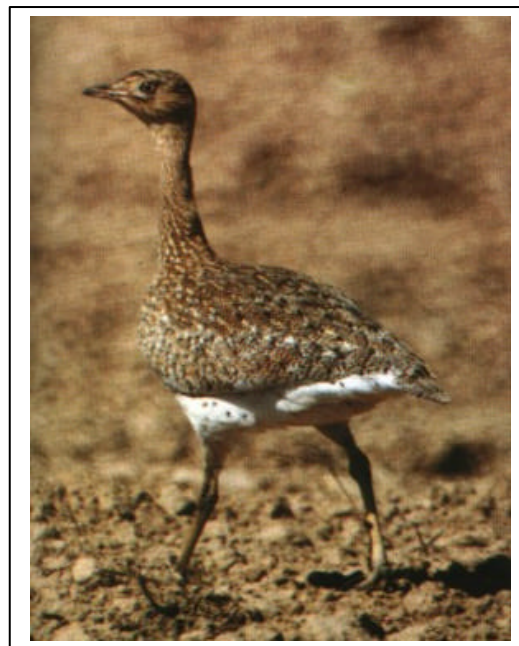
Only one observation: 25.02.2001 1 adult Shirvan reserve, near Caspian coast

Pallid Harrier *Circus macrourus*

near threatened

Three observations: 25.02.2001 0,1 adult Shirvan Zapovednik, 26.02.2001 1 female-like Kyzyl Agach Zapovednik (ponds at the NW-part), 03.03.2001 1,0 adult -> NE Ag-Gel Zapovednik.

Together with Iran Azerbaidshan holds the most important staging and wintering areas for the eastern population of the Little Bustard. Contrary to data from PATRIKKEEV & WILSON (2000) we found only small numbers in the Kyzyl Agach Zapovednik, but extremely large concentrations in the Shirvan and Ag-Gel area. The Shirvan area probably has most importance as staging area during migration. For the Ag-Gel area it is unknown, if these large numbers are only during migrating or also in winter. The birds preferred in Shirvan semi-desert habitats, whereas the birds in the Ag-Gel area fed on both, semi-desert and dry grassland vegetation.



Picture 11: Female of the Little Bustard

Place	Amount
Shirvan Zapovednik+Zakaznik	max. 13.500 ind. (2 nd March)
Ag-Gel Zapovednik	max. 24.400 (3 rd March) and >25.000 (4 th March)
Aquasi reservoir	185 (at fields east of the reservoir)
Kyzyl Agach Zapovednik	max. 28
Divichi liman	15

Caucasian Black Grouse *Tetrao mlokosiewiczii*

data deficient

Only one observation: 09.03.2001 0,1 shortly calling + fresh tracks Zakataly Zapovednik (Akimal).

5.2. Gobustan

Most interesting bird species were several Passerines, which are typical for rocky areas:

Wallcreeper *Tichodroma muraria*, Rock Nuthatch *Sitta neumayer* and Rock Sparrow *Petronia petronia*. Further species of special interest: Chough *Pyrrhocorax pyrrhocorax*, Finsch's Wheatear *Oenanthe finschii* and Black-throated Trush *Turdus ruficollis atrogularis*.

Species	Amount	Species	Amount
Woodlark	8	Black-throated Trush	1 adult
Calandra Lark	12	Rock Nuthatch	6
Tree Pipit	41	Wallcreeper	1
Dunnock	1	Chough	2
Black Redstart	1 singing male	Twite	23
Finsch's Wheatear	4,1	Rock Bunting	min. 4

5.3. Shirvan

Due to the extremely low water level at the Shorgel lakes only small numbers of waterfowl rested in the wetland. Higher numbers of waterfowl and shorebirds were found in muddy parts of the Caspian coast. From ornithological point of view most important observations were large concentrations of staging Little Bustards *Tetrax tetrax*. The results of several excursions at different days indicate, that the area has only a small wintering population, but holds large flocks during the spring migration for a relatively short period. The birds preferred semi-desert habitats.

The huge reedbeds holds sleeping places for several Passerines, like Common Starling *Sturnus vulgaris*, Spanish Sparrow *Passer hispaniolensis* and Common Linnets *Carduelis cannabina*.

Further observed species of special interest: Imperial Eagle *Aquila heliaca*, Black Vulture *Aegypius monachus*, Saker Falcon *Falco cherrug* and White-winged Larks *Melanocorypha leucoptera*. In the semi-desert also large flocks of Calandra Lark *Melanocorypha calandra* and Greater Short-toed Lark *Calandrella brachydactyla* were found.

The observation of 1 Lesser White-fronted Goose by Tennhardt and Kovalev may indicate, that the area has importance for that globally threatened species.

The main threats are grazing by sheep, continuing oil extraction and illegal hunting, but also fisherman camps at the Caspian coast. Problematically are the refugees from Nagorny Karabach, which have several small camps within the reserve (sheep-grazing, illegal hunting). The oil-drilling operation should be isolated from the reserve.

Furthermore, future management activities should take into consideration, that the Shorgel lakes have probably a artificial origin and that their further existence strongly depends on a forthcoming supply with irrigation waters.

Species	Amount	Species	Amount
Black-throated Loon	1, Caspian coast	Black Francolin	2
Great Crested Grebe	40, Caspian coast	Little Bustard	13.500
Pygmy Cormorant	55, southern irrigation canal	Short-eared Owl	3
Dalamtian Pelican	4, Caspian coast	Greater Short-toed Lark	>350, near Caspian coast
Black Vulture	1	Lesser Short-toed Lark	>30
Pallid Harrier	1	Calandra Lark	max. 580
Hen Harrier	140	White-winged Lark	75
Golden Eagle	1	Common Starling	20-25.000
Imperial Eagle	1,1 adult	Rock	4.500
Peregrine	2	Spanish Sparrow	560
Saker Falcon	2	Common Linnet	900

5.4. Kyzyl Agach

The Kyzyl Agach Zapovednik is the most important site for waterfowl and shorebirds in Azerbaidshan and one of the most important bird areas in the Caspian region. Because of its habitat structures and size, the Kyzyl Agach area is an immensely important breeding, stop-over and wintering site. During our survey we found large numbers of ducks, geese, flamingos, herons and shorebirds. The site has special importance for large concentrations of Pygmy Cormorants *Phalacrocorax pygmeus*, Lesser White-fronted Geese *Anser erythropus* and White-headed Ducks *Oxyura leucocephala*. Furthermore several Greater Spotted Eagles *Aquila clanga* and White-tailed Eagles *Haliaeetus albicilla* are regularly wintering here.

Some rarities were: Armenian Gulls *Larus armenicus*, Heuglin's Gull *Larus heuglini*, Red-throated Pipit *Anthus cervinus* and Red-tailed Shrike *Lanius isabellinus*.

Removal of water for irrigation and regulation of water have created unfavourable conditions for waterbirds, with changes in the aquatic vegetation. Outflow of water via many canals to the Caspian Sea has led to the drying-out of habitats. Water contaminated with pesticides flowing through the southern part of the reserve causes *Tamarix* thickets to dry out, thus threatening the colonies of *Ciconiiformes*, etc. there. Agricultural changes have affected the availability of food for geese. The presence of former fish-farms has adversely affected the surrounding steppe, which is now criss-crossed by canals, dams, and embankments and is gradually disappearing. In addition, there is disturbance and intensive hunting (up to 100 shots per hour), even involving reserve wardens and including the use of power-boats. This is largely subsistence hunting essential to local people (lots of shot or netted ducks and Coot *Fulica atra* are sold at the roadside), but complete refuges for waterbirds are urgently needed. There was no indication, that any conservation measures were being taken by the Zapovednik administration.

Species	Amount	Species	Amount
Great Crested Grebe	270	White-headed Duck	595
Black-necked Grebe	480	Common Pochard	1.050
Horned Grebe	min. 6	Tufted Duck	1.900
Great Cormorant	3.900	Hen Harrier	>30
Pygmy Cormorant	min. 1.050	Western Marsh Harrier	>250
Dalmatian Pelican	20	Eurasian Coot	15.400
Great Egret	320	Eurasian Oystercatcher	44
Little Egret	>650	Pied Avoset	6.840
Greater Flamingo	min. 5.100	Grey Plover	min. 53
Greater White-fronted Goose	390	Dunlin	3.990
Lesser White-fronted Goose	565	Little Stint	min. 116
Greylag Goose	960	Ruff	>260
Common Shelduck	1.450	Eurasian Curlew	1.910
Ruddy Shelduck	182	Black-tailed Godwit	5.510
Eurasian Wigeon	25.500	Common Redshank	2.300
Mallard	>2.000	Spotted Redshank	215
Gadwall	>140	Common Snipe	1.710
Northern Pintail	7.200	Pallas's Gull	27
Northern Shoveler	46.100	Whiskered Tern	410
Common Teal	>15.000	Common Starling	>16.000

5.5. Mahmud-Chala

Beside Kyzyl Agach and Ag-Gel this wetland holds the highest numbers of waterfowl during our fieldtrip. During a short census stop more than 33.500 waterbirds were counted, most of them were Eurasian Coots *Fulica atra*, Common Pochards *Aythya ferina* and Northern Shoveler *Anas clypeata*. Other interesting records were: 2 adult Greater Flamingo *Phoenicopterus ruber* and 1 adult Peregrine Falcon *Falco peregrinus*.

With our results the high importance of this wetland for waterbirds, figured by PATRIKKEEV & WILSON (2000), can be confirmed. Unfortunately, the lake Mahmud-Chala has until now no national protection status, which should be obvious for such a important wetland.

Major threats to the area are: pollution by pesticide run-off from surrounding cotton fields, intensive hunting, trampling of nests on islands by buffaloes grazing in water and effects of fluctuating water levels. These water level fluctuations take place mainly during the breeding time of *Pelecaniformis* and *Ciconiiformis* and are caused by watering of cotton fields further north.

Species	Amount	Species	Amount
Black-necked Grebe	6	Northern Shoveler	6.500
Greater Flamingo	2 ad	Eurasian Wigeon	3.500
Common Shelduck	15	Northern Pintail	4.000
Common Teal	2.500	Common Pochard	6.100
Gadwall	1.500	Eurasian Coot	9.550

5.6. Ag-Gel

This large wetland complex is beside the lake Sarysu the most important site for waterfowl in the Kura depression. Because of its habitat structure the area holds large numbers of several duck species, Coots *Fulica atra* and several shorebirds. The Ag-Gel Zapovednik is one of the most important staging and wintering areas for Lesser White-fronted Geese *Anser erythropus*, White-headed Ducks *Oxyura leucocephala* and Little Bustards *Tetrax tetrax* in the world. The site has also international importance for the Marbled Teal *Marmoretta angustirostris*. Because of the huge reedbeds large concentrations of Bearded Reedlings *Panurus biarmicus*, Eurasian Penduline Tits *Remiz pendulinus*, Reed Warblers

Acrocephalus spec. and Common Reed Buntings *Emberiza schoeniclus* can be found. Rarities in that area were: Bewick's and Whooper Swan *Cygnus bewicki* and *Cygnus cygnus*, Greater Scaup *Aythya marila*, Ferruginous Duck *Aythya nyroca*, White-tailed Plover *Chettusia leucura* and Red-fronted Serin *Serinus pusillus*. For the White-tailed Plover, the Ag-Gel area holds the largest number of breeding pairs of that shorebird in Azerbaidshan. Also from special interest was the migration route of raptors in northwestern direction over the Zapovednik area.

The main threats to the area are fluctuations in the water area and salinity, including the artificial lowering of the water-level in a quarter of the lake in order to create sheep pastures, and the drowning of birds in fishing nets. There is some poaching, which has not such an influence like in the Kyzyl Agach region. On the other hand, local people and wardens of the reserve have an negativ impact on several globally threatened species (Lesser White-fronted Goose, White-headed Duck, Ferruginous Duck and Little Bustard) by shooting single individuals of such species.

Species	Amount	Species	Amount
Pygmy Cormorant	min. 170	Tufted Duck	>100
Dalamtian Pelican	8	Hen Harrier	>30
Greater Flamingo	81	Western Marsh Harrier	>120
Bewick's Swan	7	Eurasian Coot	min. 45.000
Whooper Swan	calls	Purple Gallinule	min. 15
Greater White-fronted Goose	450	Little Bustard	>25.000
Lesser White-fronted Goose	1.800-2.000	Pied Avoset	>250
Greylag Goose	min. 1.150	White-tailed Plover	min. 48
Common Shelduck	1.180	Ruff	1.415
Ruddy Shelduck	260	Eurasian Curlew	325
Gadwall	>250	Black-tailed Godwit	1.850
Northern Pintail	>1.200	Common Redshank	min. 250
Northern Shoveler	>8.000	Marsh Redshank	18
Common Teal	>5.000	Common Snipe	>250
Marbled Teal	145	Water Pipit	>150
White-headed Duck	2.200	Bearded Reedling	>2.500
Common Pochard	>250	Eurasian Penduline Tit	>60
Ferruginous Duck	11	Common Reed Bunting	>700

5.7. Zakatala

According to the habitats a lot of wood birds and birds of the subalpine and alpine zone were observed. Interesting bird species in the broad-leaved forests were: Tawny Owl *Strix aluco*, Black Woodpecker *Dryocopus martius*, European Green Woodpecker *Picus viridis*, White-backed Woodpecker *Dendrocopos leucotos* and several Passerines. The mountains hold a lot of raptors, like Lammergeier *Gypaetus barbatus*, Eurasian Griffon Vulture *Gyps fulvus*, Golden Eagle *Aquila chrysaetos* and Long-legged Buzzard *Buteo rufinus*.

In the subalpine and alpine zone we observed several Caucasian Snowcocks *Tetraogallus caucasicus* and because of the weather conditions, we only heard one Caucasian Black Grouse *Tetrao mlokosiewiczzi* calling and found several fresh traps. Typical Passerines were: Alpine Accentor *Prunella collaris*, Ring Ouzel *Turdus torquatus*, Alpine Chough *Pyrrhocorax graculus*, Snow Finch *Montifringilla nivalis* and Great Rosefinch *Carpodacus rubicilla*.

Major threats to the area are the intensification and expansion of agriculture (sheep grazing), in some cases also illegal hunting.

Species	Amount	Species	Amount
Lammergeier	2 adult	White-backed Woodpecker	1,1 ad
Eurasian Griffon Vulture	2 adult + 1 immature	Alpine Accentor	1 male
Long-legged Buzzard	5 ind.	Ring Ouzel	7,2 adult
Golden Eagle	2 adult, 1immature, 1 2 nd -year ind.	Alpine Chough	~45
Caucasian Black Grouse	1 female calling, several tracks	Snow Finch	4
Caucasian Snowcock	min. 7	Great Rosefinch	3
Black Woodpecker	6		

5.7. Absheron

The coastal waters around the peninsula are an important wintering site for waterfowl. The northern part with several island hosts large gull colonies with Pontic Gull *Larus cachinnans*, Mew Gull *Larus canus* and Black-headed Gull *Larus ridibundus*. Interesting records were from Baraba Gull *Larus [heuglini] barabensis* and Mediterranean Gull *Larus melanocephalus*.

A part of the peninsula is leased by the Hunters' Society of Azerbaidshan. Main treats to the area are the pollution by oil and industrial waste, disturbance from recreation and intensive hunting, including the use of powerboats for poaching.

Species	Amount	Species	Amount
Eurasian Wigeon	120	Eurasian Coot	>4.000
Mallard	>200	Black-headed Gull	>2.000
Common Teal	600	Mew Gull	>.1500
Tufted Duck	180	Pontic Gull	>5.000
Red-breasted Merganser	>30		

5.8. Further places

After our data, the Aquasi reservoir and its surroundings qualify as an Internationally important Bird Area. For Little Bustard *Tetrax tetrax*, a species of global conservation concern, the number of together 185 individuals fits the IBA-criteria. Beside this, also larger numbers of waterbirds and a nesting pair of Imperial Eagle *Aquila heliaca* are present. Nevertheless further data are necessary to support the listing as a new Important Bird Area and to collect about possible threats. As we know, the area has no protection status.

Species	Amount	Species	Amount
Pygmy Cormorant	130	Imperial Eagle	1 nesting pair
Great Egret	38	Eurasian Coot	310
Eurasian Spoonbill	3	Little Bustard	185
Mallard	320	Northern Lapwing	2.300
Ferruginous Duck	1,1		

A further Important Bird Area is the lake Krasnoye, where Tennhardt & Kovalev found concentrations of 250 White-headed ducks *Oxyura leucocephala* and 3.000 Northern Shovelers *Anas clypeata*. After PATRIKKEV & WILSON (2000), in the early 1940s, several duck species, Eurasian Coot *Fulica atra* and Greater Flamingo *Phoenicopterus ruber* wintered at this lake, where some stands of *Typha* were present. In the late 1980s, the lake no longer supported any emergent vegetation. A chemical factory was constructed on its shores, causing severe water pollution. However, 140 *Oxyura leucocephala* were seen there in February 1998 (CRANSWICK et al. 1998). The once more observation indicate a much better water quality then about 10 years ago. The special importance of this site for the globally threatened White-headed Duck should lead to conservation measures and a national protection status of the site.

6. Summary

During our expedition, a lot of new data about the avifauna of several protected areas and the current conservation status of these areas were collected (HEATH & EVANS 2000). Except one site, all visited areas are already listed as Important Bird Areas by BirdLife International. After our data, the Aquasi reservoir and surroundings also qualify as IBA, fitting the IBA-criteria A for the Little Bustard *Tetrax tetrax*. Practically all large inland and costal wetlands qualify also as sites for the RAMSAR-Konvention (see BIRDLIFE INTERNATIONAL 2001) . Currently only the Kyzyl Agach Zapovednik is designated as Ramsar-site.

Fortunately, formerly unknown numbers of globally threatened species were found. Outstanding are the found large concentrations of Lesser White-fronted Goose *Anser erythropus*, White-headed Duck *Oxyura leucocephala* and Little Bustard *Tetrax tetrax*. For these three species, Azerbaidshan has an enormous international importance and responsibility. Nearly the complete western population (estimated of not more than 10.000 individuals) of Lesser White-fronted Goose is wintering in Azerbaidshan and Iran. For White-headed ducks, Azerbaidshan holds more than 25 % of the world population (estimated at 15-20.000 individuals) in winter and during migration. In the last years, the breeding population of Little Bustards in Russia and Kazakhstan strongly increased (now estimated of up to 100.000 individuals), so that huge numbers are again wintering in Iran and Azerbaidshan.

The conservation status of all the visited protected areas is insufficient. Main problems, especially in the wetland areas, are illegal hunting, negative influences from agriculture and fisheries, and a insufficient water management. Under the given circumstances, a monitoring of the avifauna by the staff of the reserves (Zapovedniks and Zakazniks) is not possible.

Furthermore, several extremely important wetlands have no national protection status, e.g. lakes Mahmud-chala and Krasnoye. In these areas, conservation measures are urgent.

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Annex I: Species list (expedition 24.2.-11.3.2001)

abbreviations:

mp	moulting to summer plumage	pm	on passage migration
sp	summer plumage	bp	breeding pair
wp	winter plumage	sM	singing male

Black-throated Loon *Gavia arctica*

25.02.2001 1 adult mp Shirvan reserve (Caspian coast)

Great Crested Grebe *Podiceps cristatus*

24.02.2001 11 Baku

25.02.2001 ~40 Shirvan reserve (Caspian coast)

26.02.2001 1 sp Kyzyl Agach Zapovednik (central part)

27.02.2001 min. 50 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)

28.02.2001 >80 Kyzyl Agach Zapovednik (Kyzyl Agach Bay west of island Kur-Dili)

01.03.2001 6 Kyzyl Agach Zapovednik (south of the major gate); >25 Kyzyl Agach Zapovednik (coast near Narimanabad); min. 110 Kyzyl Agach Zapovednik (Little Kyzyl Agach Bay near dam)

02.03.2001 2 Shirvan reserve (Caspian coast)

03.03.2001 min. 15 Ag-Gel Zapovednik

10.03.2001 30 Aquasi-reservoir

11.03.2001 ~15 coast near Gürgen; >20 Absheron Zakaznik

16.03.2001 5 Divichi liman (T. Tennhardt, V. Kovalev)

Red-necked Grebe *Podiceps grisegena*

28.02.2001 1 adult sp Kyzyl Agach Zapovednik (ponds at the NW-part)

01.03.2001 2 adult sp Kyzyl Agach Zapovednik (Little Kyzyl Agach Bay near dam)

Black-necked Grebe *Podiceps nigricollis*

24.02.2001 4 Baku, >150 bay south of Baku

26.02.2001 9 Kyzyl Agach Zapovednik(central part); >250 Kyzyl Agach Zapovednik (ponds at the NW-part)

27.02.2001 65 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)

28.02.2001 >400 Kyzyl Agach Zapovednik (ponds at the NW-part)

01.03.2001 3 Kyzyl Agach Zapovednik (south of major gate); 5 Kyzyl Agach Zapovednik (coast near Narimanabad); min. 6 Lake Mahmud-Chala

11.03.2001 >30 Absheron Zakaznik

16.03.2001 2 Divichi liman (T. Tennhardt, V. Kovalev)

Horned Grebe *Podiceps auritus*

26.02.2001 min. 2 Kyzyl Agach Zapovednik (ponds at the NW-part)

28.02.2001 min. 6 Kyzyl Agach Zapovednik (ponds at the NW-part)

Little Grebe *Tachybaptus ruficollis*

26.02.2001 min. 8 Kyzyl Agach Zapovednik (near major gate); min. 10 Kyzyl Agach Zapovednik (central part)

27.02.2001 2 Kyzyl Agach Zapovednik (near northern ranger station); 2 Kyzyl Agach Zapovednik (most northern part of the Kyzyl Agach Bay)

01.03.2001 >10 Kyzyl Agach Zapovednik (Little Kyzyl Agach Bay near dam)

03.03.2001 >45 Ag-Gel Zapovednik

11.03.2001 3 coast near Gürgen; min. 6 Absheron Zakaznik

Great Cormorant *Phalacrocorax carbo*

24.02.2001 1 sp flying Baku, 12 bay south of Baku

25.02.2001 1 adult sp Shirvan reserve (Caspian coast)

26.02.2001 >80 Kyzyl Agach Zapovednik (near major gate); 140 Kyzyl Agach Zapovednik (central part); 180 Kyzyl Agach Zapovednik (ponds at the NW-part)

27.02.2001 >40, partly nest-building Kyzyl Agach Zapovednik (east of northern ranger station); 940 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)

01.03.2001 610 Kyzyl Agach Zapovednik (south of major gate); 2300 Kyzyl Agach Zapovednik (Coast near Narimanabad)

03.03.2001 >150 Ag-Gel Zapovednik

- 05.03.2001 110+120+110 -> NW Ag-Gel Zapovednik (near major ranger station)
06.03.2001 43 -> N pm Zakatala
- Pygmy Cormorant** *Phalacrocorax pygmeus*
26.02.2001 min. 80 Kyzyl Agach Zapovednik (near major gate)
27.02.2001 min. 380 Kyzyl Agach Zapovednik (near northern ranger station); >60 Kyzyl Agach Zapovednik (east of northern ranger station)
28.02.2001 460 flying off at sleeping place Kyzyl Agach Zapovednik (northern ranger station); 1 rest of a plucked bird Kyzyl Agach Zapovednik (near major gate); min. 450 Kyzyl Agach Zapovednik (island Kur-Dili)
01.03.2001 min. 100 Kyzyl Agach Zapovednik (south of major gate); 1 rest of a tail Kyzyl Agach Zapovednik (Coast near Narimanabad); >40 Kyzyl Agach Zapovednik (Little Kyzyl Agach Bay near dam); min. 8 Sorsulu
02.03.2001 ~55 Shirvan Zapovednik (southern canal)
03.03.2001 min. 170 Ag-Gel Zapovednik
05.03.2001 min. 112 along road between Gindar and Yevlax
10.03.2001 130 Aquasi-reservoir; 5 near Baku-Evlar (east of Stareo)
- Dalmatian Pelican** *Pelecanus crispus*
25.02.2001 4 Shirvan reserve (Caspian coast)
28.02.2001 1 adult Kyzyl Agach Zapovednik (central part); 2 adult sp Kyzyl Agach Zapovednik (island Kur-Dili)
01.03.2001 2 adult sp +15 immature Kyzyl Agach Zapovednik (Coast near Narimanabad)
03.03.2001 8 Ag-Gel Zapovednik
04.03.2001 5+2 flying Ag-Gel Zapovednik
- Great White Pelican** *Pelecanus onocrotalus*
03.03.2001 16 (3 adult) -> N flying road between Gobustan and Shirvan (Sattar) (T.Tennhardt, V.Kovalev)
- Great Bittern** *Botaurus stellaris*
03.03.2001 1 flying Ag-Gel Zapovednik
16.03.2001 1 Divichi liman (T. Tennhardt, V. Kovalev)
- Little Bittern** *Ixobrychus minutus*
16.03.2001 2 Divichi liman (T. Tennhardt, V. Kovalev)
- Black-crowned Night Heron** *Nycticorax nycticorax*
26.02.2001 1 plucked bird Kyzyl Agach Zapovednik (near major gate)
27.02.2001 1 subadult Kyzyl Agach Zapovednik (near northern ranger station); 1 adult Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 2 2nd-year Kyzyl Agach Zapovednik (northern ranger station); 1 2nd-year Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 2 adult found dead Kyzyl Agach Zapovednik (south of major gate)
05.03.2001 2 along road between Gindar and Yevlax
- Great Egret** *Egretta alba*
24.02.2001 1 Shirvan Zapovednik
25.02.2001 6 Shirvan reserve (Caspian coast)
26.02.2001 90 Kyzyl Agach Zapovednik (near major gate); >40 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 >40 Kyzyl Agach Zapovednik (east of northern ranger station)
28.02.2001 >90 Kyzyl Agach Zapovednik (central part)
01.03.2001 150 Kyzyl Agach Zapovednik (south of major gate)
03.03.2001 5 Ag-Gel Zapovednik
05.03.2001 2 Ag-Gel Zapovednik
10.03.2001 38 Aquasi-reservoir
11.03.2001 4 Absheron Zakaznik
- Little Egret** *Egretta garzetta*
24.02.2001 2 Baku
25.02.2001 1 Shirvan reserve (Caspian coast)
26.02.2001 >600+ several plucked birds Kyzyl Agach Zapovednik (near major gate)
27.02.2001 7 Kyzyl Agach Zapovednik (east of northern ranger station); >40 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)

- 01.03.2001 270 Kyzyl Agach Zapovednik (south of major gate); 1 tugai forest at river Kura
04.03.2001 2 Ag-Gel Zapovednik
05.03.2001 1 along road between Gindar and Yevlax
11.03.2001 1 coast near Gürgen
16.03.2001 1 Divichi liman (T. Tennhardt, V. Kovalev)
- Grey Heron** *Ardea cinerea*
26.02.2001 35 Kyzyl Agach Zapovednik (near major gate)
28.02.2001 >40 Kyzyl Agach Zapovednik (central part)
02.03.2001 1 Shirvan Zapovednik
03.03.2001 7 Ag-Gel Zapovednik
10.03.2001 14 Aquasi-reservoir
11.03.2001 14 Absheron Zakaznik
- Purple Heron** *Ardea purpurea*
11.03.2001 1 Absheron Zakaznik
- White Stork** *Ciconia ciconia*
05.03.2001 2 adult (1 adult at nest) + 1 adult near Gindar; 2 occupied nests along road between Gindar and Yevlax
10.03.2001 1 Aquasi-reservoir; 5 near Baku-Evlar (east of Stareo)
- Spoonbill** *Platalea leucorodia*
10.03.2001 2 adult 1 immature Aquasi-reservoir
- Greater Flamingo** *Phoenicopterus ruber*
27.02.2001 1 adult Kyzyl Agach Zapovednik (east of northern ranger station); min. 1350 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 2 adult 2 2nd-year Kyzyl Agach Zapovednik (ponds at the NW-part); 2100 Kyzyl Agach Zapovednik (Kyzyl Agach Bay west of island Kur-Dili); >3000 Kyzyl Agach Zapovednik (northern part of Kyzyl Agach Bay)
01.03.2001 2 adult Lake Mahmud-Chala
03.03.2001 1 adult 10 immature + 70 mostly 2nd-year Ag-Gel Zapovednik
- Whooper Swan** *Cygnus cygnus*
03.03.2001 calls Ag-Gel Zapovednik
- Mute Swan** *Cygnus olor*
03.03.2001 4 adult 3 2nd-year Ag-Gel Zapovednik
05.03.2001 2 adult 1 2nd-year flying over Ag-Gel Zapovednik (near major ranger station)
- Bewick's Swan** *Cygnus (columbianus) bewickii*
04.03.2001 1 adult 5 2nd-year + 1 2nd-year Ag-Gel Zapovednik
- Greater White-fronted Goose** *Anser albifrons*
24.02.2001 at night calls from migrating birds Shirvan reserve
27.02.2001 110 flying Kyzyl Agach Zapovednik (east of northern ranger station); 280 in mixed flock with 565 *Anser erythr.* and 310 *Anser anser* at fields north of Kyzyl Agach Zapovednik, sometimes changing to Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
03.03.2001 450 in a mixed flock with 1640 *Anser erythropus* and 650 *Anser anser* Ag-Gel Zapovednik
04.03.2001 ~450 Ag-Gel Zapovednik
- Greylag Goose** *Anser anser*
24.02.2001 6 Shirvan Zapovednik
25.02.2001 40 -> N/NE pm Shirvan Zapovednik
26.02.2001 118 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 530 Kyzyl Agach Zapovednik (near northern ranger station); 310 in mixed flock with 565 *Anser erythr.* and 280 *Anser albifrons* at fields north of Kyzyl Agach Zapovednik, sometimes changing to Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 48 Kyzyl Agach Zapovednik (ponds at the NW-part)
03.03.2001 min. 500 + 650 in a mixed flock with 1640 *Anser erythropus* and 450 *Anser albifrons* Ag-Gel Zapovednik; 36 Shirvan Zapovednik (T.Tennhardt, V.Kovalev)
04.03.2001 ~600 Ag-Gel Zapovednik
05.03.2001 460 (310+30+120) flying Ag-Gel Zapovednik (near major ranger station)

- 16.03.2001 70 Divichi liman (T. Tennhardt, V. Kovalev)
Lesser White-fronted Goose *Anser erythropus*
27.02.2001 565 in mixed flock with 280 *Anser albifrons* and 310 *Anser anser* at fields north of Kyzyl Agach Zapovednik, sometimes changing to Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
03.03.2001 1640 in a mixed flock with 450 *Anser albifrons* and 650 *Anser anser* Ag-Gel Zapovednik; min. 1 calling Shirvan Zapovednik (T.Tennhardt, V.Kovalev)
04.03.2001 1800-2000 Ag-Gel Zapovednik
05.03.2001 no goose ! Ag-Gel Zapovednik
16.03.2001 6 Divichi liman (T. Tennhardt, V. Kovalev)
Common Shelduck *Tadorna tadorna*
24.02.2001 13 Shirvan Zapovednik
25.02.2001 22 Shirvan Zapovednik; min. 8 Shirvan reserve (Caspian coast)
26.02.2001 ~25 Kyzyl Agach Zapovednik (central part); 180 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 155 + 1 plucked bird Kyzyl Agach Zapovednik (near northern ranger station); 250 Kyzyl Agach Zapovednik (east of northern ranger station); 1050 Kyzyl Agach Zapovednik (most northern part of the Kyzyl Agach Bay)
28.02.2001 >300 Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 ~15 Lake Mahmud-Chala
03.03.2001 min. 450 Ag-Gel Zapovednik; 65 Shirvan Zapovednik (T.Tennhardt, V.Kovalev)
04.03.2001 470 Ag-Gel Zapovednik
05.03.2001 710 Ag-Gel Zapovednik (NE-part, east of the lock)
16.03.2001 40 Divichi liman (T. Tennhardt, V. Kovalev)
Ruddy Shelduck *Tadorna ferruginea*
24.02.2001 30 Shirvan Zapovednik
26.02.2001 2 Kyzyl Agach Zapovednik (central part)
27.02.2001 178 Kyzyl Agach Zapovednik (near northern ranger station); 2 adult Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
02.03.2001 2 Shirvan Zapovednik
03.03.2001 129 Ag-Gel Zapovednik; 2 Shirvan Zapovednik (T.Tennhardt, V.Kovalev)
04.03.2001 260 Ag-Gel Zapovednik
05.03.2001 2 Ag-Gel Zapovednik
Eurasian Wigeon *Anas penelope*
24.02.2001 ~15 bay south of Baku
25.02.2001 35+3,2 Shirvan reserve (Caspian coast)
26.02.2001 1 Kyzyl Agach Zapovednik (near major gate); >15 Kyzyl Agach Zapovednik (central part); >3500 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 60 Kyzyl Agach Zapovednik (near northern ranger station); 25 Kyzyl Agach Zapovednik (east of northern ranger station); 5700 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 19500 Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 >350 Kyzyl Agach Zapovednik (Little Kyzyl Agach Bay near dam); 3500 lake Mahmud-Chala
03.03.2001 80 Shirvan Zapovednik (T.Tennhardt, V.Kovalev)
10.03.2001 55 Aquasi-reservoir
11.03.2001 120 Absheron Zakaznik
Mallard *Anas platyrhynchos*
24.02.2001 1,1 bay south of Baku, ~25 Shirvan reserve
25.02.2001 >50 Shirvan reserve (Caspian coast)
26.02.2001 >500 Kyzyl Agach Zapovednik (central part)
27.02.2001 1500 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
03.03.2001 >250 Ag-Gel Zapovednik
10.03.2001 320 Aquasi-reservoir
11.03.2001 >200 Absheron Zakaznik
Gadwall *Anas strepera*
24.02.2001 3,1 Shirvan Zapovednik

27.02.2001 0,3 Kyzyl Agach Zapovednik (east of northern ranger station)
28.02.2001 3,1 Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 >140 Kyzyl Agach Zapovednik (Little Kyzyl Agach Baynear dam); ~1500 lake Mahmud-Chala
03.03.2001 >250 Ag-Gel Zapovednik
11.03.2001 ~40 Absheron Zakaznik

Northern Pintail *Anas acuta*
24.02.2001 8 Shirvan Zapovednik
25.02.2001 5,3 Shirvan reserve (Caspian coast)
26.02.2001 >60 Kyzyl Agach Zapovednik(central part); >250 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 min. 430 Kyzyl Agach Zapovednik(east of northern ranger station); 5900 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 850 Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 4000 Lake Mahmud-Chala
03.03.2001 >1200 Ag-Gel Zapovednik; 200 Shirvan Zapovednik (T.Tennhardt, V.Kovalev)
05.03.2001 min. 750 Ag-Gel Zapovednik (NE-part, east of the lock)
10.03.2001 26 Aquasi-reservoir
11.03.2001 >30 Absheron Zakaznik

Northern Shoveler *Anas clypeata*
25.02.2001 1,0 Shirvan reserve
26.02.2001 >40 Kyzyl Agach Zapovednik (central part); 880 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 120 Kyzyl Agach Zapovednik(near northern ranger station); 280 Kyzyl Agach Zapovednik (east of northern ranger station); 27700 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 18.000 Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 4500 Lake Mahmud-Chala
03.03.2001 >8000 Ag-Gel Zapovednik; 140 Shirvan Zapovednik (T.Tennhardt, V.Kovalev)
05.03.2001 ~2500 Ag-Gel Zapovednik (NE-part, east of the lock)
06.03.2001 >25 -> NE pm Zakatala
10.03.2001 28 Aquasi-reservoir
11.03.2001 ~15 Absheron Zakaznik
16.03.2001 100 Divichi liman (T. Tennhardt, V. Kovalev)
17.03.2001 3000 lake Krasnoye (T. Tennhardt, V. Kovalev)

Common Teal *Anas crecca*
24.02.2001 >15 Shirvan Zapovednik
25.02.2001 60 Shirvan reserve
26.02.2001 >40 Kyzyl Agach Zapovednik (near major gate); >250 Kyzyl Agach Zapovednik (central part); >8000 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 >5000 Kyzyl Agach Zapovednik (near northern ranger station); >200 Kyzyl Agach Zapovednik (east of northern ranger station); 1600 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 >1500 Kyzyl Agach Zapovednik (northern ranger station); >5000 Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 ~2500 Lake Mahmud-Chala
03.03.2001 >5000 Ag-Gel Zapovednik; 300 Shirvan Zapovednik (T.Tennhardt, V.Kovalev)
05.03.2001 ~1000 Ag-Gel Zapovednik (NE-part, east of the lock)
10.03.2001 58 Aquasi-reservoir
11.03.2001 600 Absheron Zakaznik
16.03.2001 50 Divichi liman (T. Tennhardt, V. Kovalev)

Garganey *Anas querquedula*
03.03.2001 9,3 Ag-Gel Zapovednik
10.03.2001 4,3 Aquasi-reservoir
11.03.2001 2,0 Absheron Zakaznik

Marbled Teal *Marmoretta angustirostris*
03.03.2001 145 Ag-Gel Zapovednik

White-headed Duck *Oxyura leucocephala*

- 26.02.2001 min. 415 (1/3 females, otherwise males) Kyzyl Agach Zapovednik (ponds at the NW-part)
28.02.2001 595 (~3/4 males) Kyzyl Agach Zapovednik (ponds at the NW-part)
03.03.2001 min. 2130 at lake Ag-Gel, further 39,29 at small lake Ag-Gel Zapovednik
05.03.2001 270 Ag-Gel Zapovednik (NE-part, east of the lock)
17.03.2001 250 lake Krasnoye (T. Tennhardt, V. Kovalev)

Red-crested Pochard *Netta rufina*

- 24.02.2001 0,1 bay south of Baku
28.02.2001 1 plucked bird Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 1 old rest of a bird Kyzyl Agach Zapovednik (south of major gate)
02.03.2001 1 flying Shirvan Zapovednik
04.03.2001 ~35 Ag-Gel Zapovednik
05.03.2001 1,1 Ag-Gel Zapovednik (near major ranger station)
10.03.2001 8 Aquasi-reservoir
11.03.2001 3,3 Absheron Zakaznik

Common Pochard *Aythya ferina*

- 24.02.2001 >150 bay south of Baku
26.02.2001 >250 Kyzyl Agach Zapovednik (ponds at the NW-part)
28.02.2001 450 Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 600 Kyzyl Agach Zapovednik (south of major gate); 6100 lake Mahmud-Chala
03.03.2001 >250 Ag-Gel Zapovednik
10.03.2001 30 Aquasi-reservoir
11.03.2001 8 coast near Gürgen; ~20 Absheron Zakaznik

Ferruginous Duck *Aythya nyroca*

- 01.03.2001 1,0 adult Kyzyl Agach Zapovednik (Coast near Narimanabad)
03.03.2001 3+1,1+2 Ag-Gel Zapovednik
04.03.2001 4 on other places than at day before Ag-Gel Zapovednik
05.03.2001 1,1 Ag-Gel Zapovednik (near major ranger station)
10.03.2001 1,1 Aquasi-reservoir

Tufted Duck *Aythya fuligula*

- 24.02.2001 >4000 bay south of Baku
25.02.2001 15 Shirvan reserve (Caspian coast)
26.02.2001 >600 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 1100 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 380 Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 40 Kyzyl Agach Zapovednik (south of major gate); >150 + 1,0 adult hybrid *fuligula* x *marila* Kyzyl Agach Zapovednik (Coast near Narimanabad)
03.03.2001 >100 Ag-Gel Zapovednik
10.03.2001 30 Aquasi-reservoir
11.03.2001 ~15 coast near Gürgen; 180 Absheron Zakaznik
16.03.2001 10 Divichi liman (T. Tennhardt, V. Kovalev)

Greater Scaup *Aythya marila*

- 05.03.2001 1,0 adult Ag-Gel Zapovednik

Common Goldeneye *Bucephala clangula*

- 27.02.2001 26 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 2,4 Kyzyl Agach Zapovednik (ponds at the NW-part); >50 Kyzyl Agach Zapovednik (Kyzyl Agach Bay west of island Kur-Dili)
01.03.2001 >30 Kyzyl Agach Zapovednik (Coast near Narimanabad)
03.03.2001 ~15 female-like Ag-Gel Zapovednik

Smew *Mergus albellus*

- 01.03.2001 2,4 Kyzyl Agach Zapovednik (Coast near Narimanabad)

Red-breasted Merganser *Mergus serrator*

- 27.02.2001 2,5 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
11.03.2001 >30 Absheron Zakaznik

Goosander *Mergus merganser*

- 25.02.2001 1,0 Shirvan Zapovednik

Black Kite *Milvus migrans*
28.02.2001 1 ssp. *lineatus* Kyzyl Agach Zapovednik (central part)

Lammergeier *Gypaetus barbatus*
06.03.2001 2 adult flying over the mountains Magamala near Zakatala
07.03.2001 1 adult between Magamala and Akimal (Zakatal Zapovednik)
08.03.2001 1 adult Zakatal Zapovednik (Akimal)

Eurasian Black Vulture *Aegypius monachus*
25.02.2001 1 adult Shirvan reserve, near Caspian coast

Eurasian Griffon Vulture *Gyps fulvus*
06.03.2001 2 adult 1 immature flying over the mountains Magamala near Zakatala

Pallid Harrier *Circus macrourus*
25.02.2001 0,1 adult Shirvan Zapovednik
26.02.2001 1 female-like Kyzyl Agach Zapovednik (ponds at the NW-part)
03.03.2001 1,0 adult -> NE Ag-Gel Zapovednik

Hen Harrier *Circus cyaneus*
24.02.2001 1 female-like Baku, min. 35 (5 adult males) Shirvan Zapovednik
25.02.2001 >30 Shirvan Zapovednik
26.02.2001 1,0 adult Kyzyl Agach Zapovednik (central part); >30 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 2,0 Kyzyl Agach Zapovednik (near northern ranger station)
28.02.2001 >10 Kyzyl Agach Zapovednik (central part); 3 Kyzyl Agach Zapovednik (island Kur-Dili)
02.03.2001 min. 140 Shirvan Zapovednik
03.03.2001 >30 Ag-Gel Zapovednik
11.03.2001 2 Absheron Zakaznik

Western Marsh Harrier *Circus aeruginosus*
24.02.2001 2 female-like Shirvan Zapovednik
25.02.2001 0,1 ad+0,1 2nd-year Shirvan Zapovednik
26.02.2001 >250 Kyzyl Agach Zapovednik (central part)
28.02.2001 >200 Kyzyl Agach Zapovednik (central part)
03.03.2001 >80 Ag-Gel Zapovednik
05.03.2001 >120 Ag-Gel Zapovednik
11.03.2001 6 Absheron Zakaznik
16.03.2001 20 Divichi liman (T. Tennhardt, V. Kovalev)

Eurasian Sparrowhawk *Accipiter nisus*
24.02.2001 1 Baku, 1,0 Gobustan reserve
25.02.2001 1 Shirvan Zapovednik
26.02.2001 2 Kyzyl Agach Zapovednik (central part)
27.02.2001 1,1 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 0,1 adult Kyzyl Agach Zapovednik (island Kur-Dili)
01.03.2001 1 Tugai forest at river Kura
03.03.2001 6 Ag-Gel Zapovednik
06.03.2001 0,2 flying Magamala near Zakatala
08.03.2001 0,1 Zakatal Zapovednik (Akimal)

Northern Goshawk *Accipiter gentilis*
06.03.2001 1,0 adult Magamala near Zakatala
10.03.2001 1,0 adult Aquasi-reservoir

Steppe Buzzard *Buteo buteo vulpinus*
01.03.2001 1 small wood at road south of Sorsulu
05.03.2001 1 -> NW Ag-Gel Zapovednik (near major ranger station); 1 in 3 hours pm NNW Ag-Gel Zapovednik (south of major ranger station)
06.03.2001 1 Magamala near Zakatala
09.03.2001 min. 4 between Magamala and Akimal (Zakatal Zapovednik)

Long-legged Buzzard *Buteo rufinus*
24.02.2001 1 Shirvan Zapovednik
25.02.2001 1 Shirvan Zapovednik
26.02.2001 1 Kyzyl Agach Zapovednik (ponds at the NW-part)

- 27.02.2001 1 adult + 2 Kyzyl Agach Zapovednik (east of northern ranger station); 2+1 at fields north of Kyzyl Agach Zapovednik
 01.03.2001 1 small wood at road south of Sorsulu
 02.03.2001 2 Shirvan Zapovednik
 03.03.2001 1 Ag-Gel Zapovednik
 05.03.2001 1 +1 adult flying over Ag-Gel Zapovednik (south of major ranger station)
 06.03.2001 2 flying over the mountains + 3 Magamala near Zakatala

White-tailed Eagle *Haliaeetus albicilla*

- 27.02.2001 1 subadult/adult Kyzyl Agach Zapovednik (near northern ranger station); 1 immature Kyzyl Agach Zapovednik (east of northern ranger station); 1 immature Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
 28.02.2001 1 adult Kyzyl Agach Zapovednik (ponds at the NW-part); 1 immature Kyzyl Agach Zapovednik (central part)
 03.03.2001 1 adult + 1 Ag-Gel Zapovednik
 04.03.2001 1 adult 1 2nd-year + 2x 1 2nd-year Ag-Gel Zapovednik
 16.03.2001 1 Divichi liman (T. Tennhardt, V. Kovalev)

Golden Eagle *Aquila chrysaetos*

- 25.02.2001 1 ad/subadult Shirvan Zapovednik
 06.03.2001 2 adult 1 immature 1 2nd-year in the mountains Magamala near Zakatala
 07.03.2001 1 immature between Magamala and Akimal (Zakatal Zapovednik)

Imperial Eagle *Aquila heliaca*

- 25.02.2001 1,1 adult Shirvan reserve
 05.03.2001 1 adult flying over Ag-Gel Zapovednik (near major ranger station); 2 adult 2 immature 1 2nd-year in 3 hours pm NW Ag-Gel Zapovednik (south of major station); 1 adult Ag-Gel Zapovednik (NE-part, east of lock)
 10.03.2001 1 bp with a nest at a tree east of Aquasi-reservoir; 3 bp with nests at electric power lines +1 adult + 4 near Baku-Evlar (east of Stareo)

Steppe Eagle *Aquila nipalensis*

- 28.02.2001 1 adult 2 subadult 2 immature (1 3rd-year) Kyzyl Agach Zapovednik (central part)
 04.03.2001 1 adult light morphe Ag-Gel Zapovednik
 05.03.2001 3x 1 subadult/ adult in 3 hours pm NW Ag-Gel Zapovednik (south of major ranger station)

Greater Spotted Eagle *Aquila clanga*

- 26.02.2001 1 adult 1 2nd-year Kyzyl Agach Zapovednik (near major gate)
 27.02.2001 1 adult + 1+2 Kyzyl Agach Zapovednik (near northern ranger station); 1 Kyzyl Agach Zapovednik (east of northern ranger station)
 28.02.2001 2 adult Kyzyl Agach Zapovednik (ponds at the NW-part); 2 adult 1 2nd-year Kyzyl Agach Zapovednik (central part)
 03.03.2001 1 adult Ag-Gel Zapovednik
 05.03.2001 1 adult 1ad/subadult 1 immature in 3 hours pm NW Ag-Gel Zapovednik (south of major ranger station)
 06.03.2001 1 adult flying in the mountains Magamala near Zakatala

Undeterm. Eagle *Aquila spec.*

- 25.02.2001 1, probably Steppe Eagle Shirvan Zapovednik
 26.02.2001 2, probably Greater Spotted Eagle Kyzyl Agach Zapovednik (near major gate)
 27.02.2001 2 probably Greater Spotted Eagle Kyzyl Agach Zapovednik (near northern ranger station)
 05.03.2001 1 in 3 hours pm NW Ag-Gel Zapovednik (south of major ranger station)
 06.03.2001 11, probably Steppe Eagle 17.45 h some minutes circulating, later -> NW fly off mountains near Magamala (near Zakatala)

Booted Eagle *Hieraetus pennatus*

- 15.03.2001 2 Gusar Zakaznik (T. Tennhardt, V. Kovalev)

Common Kestrel *Falco tinnunculus*

- 24.02.2001 1 female-like Baku, 6 along road between Gobustan reserve and Shirvan Zapovednik, 1,0 Shirvan Zapovednik
 25.02.2001 1 Shirvan Zapovednik, 1 Shirvan reserve (Caspian coast)
 26.02.2001 1 Kyzyl Agach Zapovednik (near major gate); 0,1 Kyzyl Agach Zapovednik (central part)

- 27.02.2001 2 Kyzyl Agach Zapovednik(east of northern ranger station); 0,1 at fields north of the Kyzyl Agach Zapovednik
- 28.02.2001 0,1 Kyzyl Agach Zapovednik (central part); min. 12 Kyzyl Agach Zapovednik (island Kur-Dili)
- 01.03.2001 1 tugai forest at river Kura
- 02.03.2001 7 Shirvan Zapovednik
- 08.03.2001 0,1 Zakatal Zapovednik (Akimal)
- 11.03.2001 1 Absheron Zakaznik
- Peregrine Falcon** *Falco peregrinus*
- 25.02.2001 1,0 2nd-year (ssp. *calidus*) Shirvan Zapovednik, 1 adult Shirvan reserve, near Caspian coast
- 26.02.2001 3 adult (3x1, no *calidus*) Kyzyl Agach Zapovednik (central part)
- 28.02.2001 1,0 2nd-year Kyzyl Agach Zapovednik (near major gate)
- 01.03.2001 1 adult ssp. *calidus* (completely with underparts) Kyzyl Agach Zapovednik (Little Kyzyl Agach Bay near dam); 1 adult Lake Mahmud-Chala
- 06.03.2001 2 (1 2nd-year) mountains near Magamala (near Zakatala)
- 11.03.2001 1 adult (very pale; *calidus*?) coast near Gürgen
- Merlin** *Falco columbarius*
- 24.02.2001 1 hunting Baku, 4,1 Shirvan reserve
- 25.02.2001 1,4 ssp. *aesalon* + 1,0 ssp. *pallidus* Shirvan Zapovednik
- 26.02.2001 1 Kyzyl Agach Zapovednik (near major gate); 1,0 *pallidus* + 3 Kyzyl Agach Zapovednik (central part)
- 27.02.2001 1 Kyzyl Agach Zapovednik (near northern ranger station); 1 Kyzyl Agach Zapovednik (east of northern ranger station)
- 02.03.2001 2 Shirvan Zapovednik
- 03.03.2001 min. 4 Ag-Gel Zapovednik
- 04.03.2001 5 + 1,0 *pallidus* Ag-Gel Zapovednik
- 16.03.2001 1,0 Divichi liman (T. Tennhardt, V. Kovalev)
- Saker Falcon** *Falco cherrug*
- 25.02.2001 1 adult + 1 immature Shirvan reserve, near Caspian coast
- 27.02.2001 1 hunting Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
- Caucasian Black Grouse** *Tetrao mlokosiewiczii*
- 09.03.2001 0,1 shortly calling + fresh tracks Zakatal Zapovednik (Akimal)
- Caucasian Snowcock** *Tetraogallus caucasicus*
- 08.03.2001 7 Zakatal Zapovednik (Akimal)
- 09.03.2001 3 calling males Zakatal Zapovednik (Akimal)
- Black Francolin** *Francolinus francolinus*
- 24.02.2001 1 Shirvan Zapovednik
- 25.02.2001 1+ 1 calling Shirvan Zapovednik
- 28.02.2001 1,0 Kyzyl Agach Zapovednik (island Kur-Dili)
- 02.03.2001 2 calling Shirvan Zapovednik
- 03.03.2001 2 + 1 tail feather found Ag-Gel Zapovednik
- 04.03.2001 min. 3 Ag-Gel Zapovednik
- 05.03.2001 1 Ag-Gel Zapovednik (NE-part, east of the lock)
- Chukar** *Alectoris chukar*
- 24.02.2001 2 calling (of them 1 male) Baku
- 08.03.2001 1 old rest of a plucked bird Zakatal Zapovednik (Akimal)
- Pheasant** *Phasianus colchicus*
- 05.03.2001 1,0 Ag-Gel Zapovednik (NE-part, east of the lock)
- Common Quail** *Coturnix coturnix*
- 24.02.2001 3 Shirvan Zapovednik
- 27.02.2001 1 Kyzyl Agach Zapovednik (east of northern ranger station); 1 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
- Little Crane** *Porzana parva*
- 04.03.2001 1,0 calling Ag-Gel Zapovednik
- Water Rail** *Rallus aquaticus*
- 26.02.2001 1 calling Kyzyl Agach Zapovednik (near major gate)

- 28.02.2001 2 calling Kyzyl Agach Zapovednik (ponds at the NW-part)
03.03.2001 min. 10 Ag-Gel Zapovednik
11.03.2001 1 calling Absheron Zakaznik
- Common Moorhen** *Gallinula chloropus*
24.02.2001 5 adult Baku
26.02.2001 >15 Kyzyl Agach Zapovednik (central part)
27.02.2001 min. 12 Kyzyl Agach Zapovednik (near northern ranger station)
03.03.2001 >15 Ag-Gel Zapovednik
- Eurasian Coot** *Fulica atra*
24.02.2001 >15.000 bay south of Baku
26.02.2001 >800 Kyzyl Agach Zapovednik (ponds at the NW-part)
28.02.2001 >8000 Kyzyl Agach Zapovednik (Kyzyl Agach Bay west of island Kur-Dili)
01.03.2001 >100 Kyzyl Agach Zapovednik (south of major gate); min. 6500 Kyzyl Agach Zapovednik (Little Kyzyl Agach Bay near dam); 9950 Lake Mahmud-Chala
03.03.2001 min. 45.000 Ag-Gel Zapovednik
05.03.2001 ~3000 Ag-Gel Zapovednik (NE-part, east of the lock)
10.03.2001 310 Aquasi-reservoir
11.03.2001 >1000 coast near Gürgen; >4000 Absheron Zakaznik
16.03.2001 2000 Divichi liman (T. Tennhardt, V. Kovalev)
- Purple Gallinule** *Porphyrio porphyrio*
26.02.2001 1 calling, 1 plucked bird + 1 rest of a plucked bird Kyzyl Agach Zapovednik (near major gate)
27.02.2001 2 adult Kyzyl Agach Zapovednik (near northern ranger station); 3 adult Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
03.03.2001 min. 15 + 1 plucked Ag-Gel Zapovednik
11.03.2001 1 feather (primary) found Absheron Zakaznik
- Little Bustard** *Tetrax tetrax*
24.02.2001 35+1,2+160 Shirvan Zapovednik
25.02.2001 1,3+2+3+25+60+2+>100+2+2+1+1+3+5+1+3+1+2+5+5+3+17+29+25+2+25+42 +8+630 Shirvan Zapovednik; 1 Shirvan reserve (Caspian coast)
26.02.2001 1 Kyzyl Agach Zapovednik (central part)
28.02.2001 25 Kyzyl Agach Zapovednik (central part)
02.03.2001 17+1+950+7800+2500+550+110+800+20+788 Shirvan Zapovednik
03.03.2001 600+900+1100+1800+2000+1400+5800+1700+2100+800+4800+150+1200 Ag-Gel Zapovednik
04.03.2001 >10.000 north of the Ag-Gel Zapovednik, further ~15.000 within the Zapovednik and nearby surroundings
05.03.2001 29 Ag-Gel Zapovednik (near major ranger station); max. 2500 Ag-Gel Zapovednik (N-part)
10.03.2001 80+35+70 fields east of Aquasi-reservoir
16.03.2001 15 Divichi liman (T. Tennhardt, V. Kovalev)
- Eurasian Oystercatcher** *Haematopus ostralegus*
27.02.2001 44 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
- Black-winged Stilt** *Himantopus himantopus*
03.03.2001 5,3 adult 1 2nd-year+18 Ag-Gel Zapovednik
05.03.2001 12 Ag-Gel Zapovednik (NE-part, east of the lock)
- Pied Avoset** *Recurvirostra avosetta*
26.02.2001 1 Kyzyl Agach Zapovednik (central part); 1610 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 910 Kyzyl Agach Zapovednik (east of northern ranger station); 4320 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 min. 600 Kyzyl Agach Zapovednik (ponds at the NW-part)
03.03.2001 >250 Ag-Gel Zapovednik
- Common Ringed Plover** *Charadrius hiaticula*
28.02.2001 3 Kyzyl Agach Zapovednik (island Kur-Dili)
- Little Ringed Plover** *Charadrius dubius*
03.03.2001 1 flying Ag-Gel Zapovednik

11.03.2001 3 wp Absheron Zakaznik
Kentish Plover *Charadrius alexandrinus*
25.02.2001 >10 Shirvan reserve (Caspian coast)
04.03.2001 15 (2 adult sp, otherwise mp/wp) Ag-Gel Zapovednik
11.03.2001 1 Absheron Zakaznik
European Golden Plover *Pluvialis apricaria*
25.02.2001 45 Shirvan reserve
27.02.2001 ~20 wp at fields north of Kyzyl Agach Zapovednik
10.03.2001 ~15 Aquasi-reservoir
Grey Plover *Pluvialis squatarola*
25.02.2001 1 adult wp + 2 Shirvan reserve (Caspian coast)
27.02.2001 min. 8 Kyzyl Agach Zapovednik (east of northern ranger station)
27.02.2001 min. 45 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
04.03.2001 1 rest of a plucked bird Ag-Gel Zapovednik
White-tailed Plover *Chettusia leucura*
03.03.2001 7x1 adult + 6x2 ad+2x5 adult Ag-Gel Zapovednik
04.03.2001 1x3+3x2+19 others than at day before (7+12) Ag-Gel Zapovednik
05.03.2001 2 Ag-Gel Zapovednik (near major ranger station)
Northern Lapwing *Vanellus vanellus*
24.02.2001 ~20 Shirvan Zapovednik
26.02.2001 15 Kyzyl Agach Zapovednik (central part); ~40 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 >70 Kyzyl Agach Zapovednik (east of northern ranger station); >60 at fields north of Kyzyl Agach Zapovednik
03.03.2001 64 Ag-Gel Zapovednik
10.03.2001 2300 Aquasi-reservoir
15.03.2001 50 Gusar Zakaznik (T. Tennhardt, V. Kovalev)
16.03.2001 200 Divichi liman (T. Tennhardt, V. Kovalev)
Dunlin *Calidris alpina*
25.02.2001 3 wp+>180 Shirvan reserve (Caspian coast)
26.02.2001 >40 Kyzyl Agach Zapovednik (central part); 430 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 120 Kyzyl Agach Zapovednik (east of northern ranger station); 3150 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 ~250 Kyzyl Agach Zapovednik (island Kur-Dili)
04.03.2001 min. 6 Ag-Gel Zapovednik
Little Stint *Calidris minuta*
25.02.2001 1 Shirvan reserve (Caspian coast)
26.02.2001 11 Kyzyl Agach Zapovednik (central part); 30 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 min. 15 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
28.02.2001 min. 60 Kyzyl Agach Zapovednik (island Kur-Dili)
04.03.2001 5 Ag-Gel Zapovednik
11.03.2001 4 Absheron Zakaznik
Ruff *Philomachus pugnax*
24.02.2001 5,2 Shirvan Zapovednik
26.02.2001 0,1 Kyzyl Agach Zapovednik (near major gate); >60 Kyzyl Agach Zapovednik (central part); >190 Kyzyl Agach Zapovednik (ponds at the NW-part)
27.02.2001 min. 12 Kyzyl Agach Zapovednik (east of northern ranger station)
01.03.2001 min. 18 Lake Mahmud-Chala
02.03.2001 16 -> S pm Shirvan Zapovednik
03.03.2001 1415 (sleeping place near major station) Ag-Gel Zapovednik
05.03.2001 >300 Ag-Gel Zapovednik (NE-part, east of the lock)
10.03.2001 6 Aquasi-reservoir
16.03.2001 20 Divichi liman (T. Tennhardt, V. Kovalev)
Eurasian Curlew *Numenius arquata*
25.02.2001 14 (min. 5 ssp. *orientalis*) Shirvan reserve (Caspian coast)

- 26.02.2001 min. 4 Kyzyl Agach Zapovednik (central part)
 27.02.2001 10 (2 ssp. *arquata*) Kyzyl Agach Zapovednik (near northern ranger station); 1880 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
 28.02.2001 >15 Kyzyl Agach Zapovednik (Island Kur-Dili)
 02.03.2001 19 flying Shirvan Zapovednik
 03.03.2001 min. 325 at sleeping place Ag-Gel Zapovednik
 04.03.2001 2 Ind. ssp. *arquata* Ag-Gel Zapovednik
- Black-tailed Godwit** *Limosa limosa*
 24.02.2001 1 Shirvan Zapovednik
 26.02.2001 min. 14 Kyzyl Agach Zapovednik (near major gate); 76 Kyzyl Agach Zapovednik (central part); 1990 Kyzyl Agach Zapovednik (ponds at the NW-part)
 27.02.2001 54 Kyzyl Agach Zapovednik (near northern ranger station); 1450 + 1 rest of a plucked bird Kyzyl Agach Zapovednik (east of northern ranger station); 1770 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
 28.02.2001 ~2000 Kyzyl Agach Zapovednik (ponds at the NW-part); >150 Kyzyl Agach Zapovednik (Island Kur-Dili)
 03.03.2001 min. 1850 Ag-Gel Zapovednik
 05.03.2001 250 Ag-Gel Zapovednik (NE-part, east of the lock)
- Common Redshank** *Tringa totanus*
 24.02.2001 36 (7 wp) Baku
 25.02.2001 2 Shirvan Zapovednik; min. 26 Shirvan reserve (Caspian coast)
 26.02.2001 >25 Kyzyl Agach Zapovednik (near major gate); >75 Kyzyl Agach Zapovednik (central part); >160 Kyzyl Agach Zapovednik (ponds at the NW-part)
 27.02.2001 min. 280 Kyzyl Agach Zapovednik (east of northern ranger station); >80 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
 28.02.2001 >150 Kyzyl Agach Zapovednik (ponds at the NW-part); >600 Kyzyl Agach Zapovednik (Island Kur-Dili)
 01.03.2001 75 Kyzyl Agach Zapovednik (south of major gate)
 02.03.2001 2 Shirvan Zapovednik
 03.03.2001 min. 250 Ag-Gel Zapovednik
- Spotted Redshank** *Tringa erythropus*
 24.02.2001 1 calling Shirvan Zapovednik
 26.02.2001 min. 14 Kyzyl Agach Zapovednik (central part); >190 Kyzyl Agach Zapovednik (ponds at the NW-part)
 27.02.2001 1 calling + >10 Kyzyl Agach Zapovednik (east of northern ranger station)
 03.03.2001 min.3 Ag-Gel Zapovednik
- Common Greenshank** *Tringa nebularia*
 25.02.2001 1+1 2nd-year Shirvan reserve (Caspian coast)
 26.02.2001 1 Kyzyl Agach Zapovednik (near major gate)
- Common Sandpiper** *Actitis hypoleucos*
 28.02.2001 1 calling Kyzyl Agach Zapovednik (Island Kur-Dili)
- Green Sandpiper** *Tringa ochropus*
 24.02.2001 1 Baku, 1 Shirvan Zapovednik
 25.02.2001 1 calling Shirvan Zapovednik
 26.02.2001 1 flying Kyzyl Agach Zapovednik (central part)
 27.02.2001 3 Kyzyl Agach Zapovednik (near northern ranger station); 5 Kyzyl Agach Zapovednik (east of northern ranger station)
 28.02.2001 1 Kyzyl Agach Zapovednik (ponds at the NW-part)
 01.03.2001 1 Lake Mahmud-Chala
 03.03.2001 5 Ag-Gel Zapovednik
- Marsh Sandpiper** *Tringa stagnatilis*
 26.02.2001 1 wp Kyzyl Agach Zapovednik (central part)
 28.02.2001 2 wp Kyzyl Agach Zapovednik (ponds at the NW-part); 12 wp Kyzyl Agach Zapovednik (Island Kur-Dili)
 03.03.2001 min. 26 Ag-Gel Zapovednik
 04.03.2001 6 Ag-Gel Zapovednik
 05.03.2001 18 wp Ag-Gel Zapovednik (near major ranger station)

- Eurasian Woodcock** *Scolopax rusticola*
 28.02.2001 1 rest of a plucked bird Kyzyl Agach Zapovednik (near major gate)
 01.03.2001 1 tugai forest at river Kura
- Common Snipe** *Gallinago gallinago*
 24.02.2001 2 Shirvan Zapovednik
 26.02.2001 >200 Kyzyl Agach Zapovednik (central part)
 27.02.2001 >10 Kyzyl Agach Zapovednik (near northern ranger station); min. 38 Kyzyl Agach Zapovednik (east of northern ranger station)
 28.02.2001 min. 580 Kyzyl Agach Zapovednik (ponds at the NW-part); >800 Kyzyl Agach Zapovednik (Island Kur-Dili)
 01.03.2001 >80 Kyzyl Agach Zapovednik (south of major gate)
 03.03.2001 >250 Ag-Gel Zapovednik
 11.03.2001 35 Absheron Zakaznik
 16.03.2001 3 Divichi liman (T. Tennhardt, V. Kovalev)
- Mediterranean Gull** *Larus melanocephalus*
 11.03.2001 1 2nd-year found dead Absheron Zakaznik
- Slender-billed Gull** *Larus genei*
 27.02.2001 49 Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
 28.02.2001 >30 Kyzyl Agach Zapovednik (near major gate)
 01.03.2001 ~50 Kyzyl Agach Zapovednik (south of major gate); ~15 Kyzyl Agach Zapovednik (Little Kyzyl Agach Bay near dam)
 03.03.2001 >70 Ag-Gel Zapovednik
 11.03.2001 >50 Absheron Zakaznik
- Little Gull** *Larus minutus*
 16.03.2001 1 Divichi liman (T. Tennhardt, V. Kovalev)
- Black-headed Gull** *Larus ridibundus*
 24.02.2001 >30 Baku
 28.02.2001 >40 Kyzyl Agach Zapovednik (near major gate)
 01.03.2001 ~50 Kyzyl Agach Zapovednik (south of major gate)
 03.03.2001 >30 Ag-Gel Zapovednik
 10.03.2001 3 Aquasi-reservoir
 11.03.2001 >2000 Absheron Zakaznik
- Mew Gull** *Larus canus*
 24.02.2001 2 adult Baku
 28.02.2001 2 adult Kyzyl Agach Zapovednik (Island Kur-Dili)
 03.03.2001 min. 25 adult Ag-Gel Zapovednik
 11.03.2001 >1500 Absheron Zakaznik
- Pallas's Gull** *Larus ichthyaetus*
 25.02.2001 1 3rd-year Shirvan reserve (Caspian coast)
 01.03.2001 8 adult 19 immature Kyzyl Agach Zapovednik (Coast near Narimanabad)
 10.03.2001 1 adult Aquasi-reservoir
 11.03.2001 min. 8 adult 3 immature Absheron Zakaznik
- Pontic Gull** *Larus cachinnans*
 24.02.2001 2 adult Baku, 1 adult bay south of Baku
 25.02.2001 min. 8 Shirvan reserve (Caspian coast)
 26.02.2001 >15 Kyzyl Agach Zapovednik (near major gate)
 27.02.2001 14 adult 2 immature Kyzyl Agach Zapovednik (northernmost part of the Kyzyl Agach Bay)
 28.02.2001 >40 ad+immature Kyzyl Agach Zapovednik (Island Kur-Dili)
 01.03.2001 10 Kyzyl Agach Zapovednik (south of major gate); >60 Kyzyl Agach Zapovednik (Coast near Narimanabad)
 02.03.2001 6 adult Shirvan Zapovednik
 11.03.2001 >5000 (large colony) Absheron Zakaznik
- Baraba Gull** *Larus [heuglini] barabensis*
 11.03.2001 2 adult Absheron Zakaznik
- Armenian Gull** *Larus armenicus*
 01.03.2001 4 immature Kyzyl Agach Zapovednik (Coast near Narimanabad)

Heuglin's Gull *Larus heuglini*
01.03.2001 1 immature (2nd/3rd-year) Kyzyl Agach Zapovednik (Coast near Narimanabad)

Caspian Tern *Sterna caspia*
01.03.2001 1 adult mp Kyzyl Agach Zapovednik (Little Kyzyl Agach Bay near dam)
11.03.2001 3 adult Absheron Zakaznik

Whiskered Tern *Chlidonias hybridus*
01.03.2001 min. 410 wp + mp Kyzyl Agach Zapovednik (Little Kyzyl Agach Bay near dam)

Common Wood Pigeon *Columba palumbus*
01.03.2001 1 small wood at road south of Sorsulu; 2 tugai forest at river Kura
06.03.2001 1 Zakatala; 14 mountains near Magamala (near Zakatala)
07.03.2001 85+45 between Magamala and Akimal (Zakatal Zapovednik)

Stock Dove *Columba oenas*
03.03.2001 3+4+12+2 Ag-Gel Zapovednik
04.03.2001 2 flying + 14->N Ag-Gel Zapovednik
05.03.2001 2+4 Ag-Gel Zapovednik (near major ranger station)

Rock Dove *Columba livia*
24.02.2001 2 Gobustan reserve

Feral Dove *Columba livia f.domestica*
24.02.2001 3 Baku

Eurasian Collared Dove *Streptopelia decaocto*
24.02.2001 >35 (1 x 25 Ex in 1 flock, ~10 single birds) Baku
06.03.2001 1 Zakatala

Common Cuckoo *Cuculus canorus*
28.02.2001 1 calling Kyzyl Agach Zapovednik (central part)
01.03.2001 1 calling Tugai forest at river Kura
05.03.2001 1 calling Ag-Gel Zapovednik (near major ranger station)

Short-eared Owl *Asio flammeus*
02.03.2001 3 Shirvan Zapovednik
11.03.2001 1 plucked bird Absheron Zakaznik
16.03.2001 1 Divichi liman (T. Tennhardt, V. Kovalev)

Long-eared Owl *Asio otus*
27.02.2001 1 plucked bird at field north of Kyzyl Agach Zapovednik
05.03.2001 1 south of Ag-Gel Zapovednik
11.03.2001 1 flying Absheron Zakaznik

Tawny Owl *Strix aluco*
06.03.2001 1 Magamala near Zakatala
08.03.2001 1 calling at night Zakatal Zapovednik (Akimal)

Common Kingfisher *Alcedo atthis*
26.02.2001 1 Kyzyl Agach Zapovednik (central part)
27.02.2001 4 Kyzyl Agach Zapovednik (near northern ranger station)
28.02.2001 4 Kyzyl Agach Zapovednik (northern ranger station); 1 rest of a plucked bird Kyzyl Agach Zapovednik (near major gate)
03.03.2001 1 flying Ag-Gel Zapovednik

Eurasian Hoopoe *Upupa epops*
03.03.2001 2 Ag-Gel Zapovednik
05.03.2001 1 Ag-Gel Zapovednik (near major ranger station)
15.03.2001 2 Gusar Zakaznik (T. Tennhardt, V. Kovalev)
16.03.2001 2 Divichi liman (T. Tennhardt, V. Kovalev)

Black Woodpecker *Dryocopus martius*
06.03.2001 1 Magamala near Zakatala
07.03.2001 min. 5 + 1 drumming between Magamala and Akimal (Zakatal Zapovednik)

European Green Woodpecker *Picus viridis*
01.03.2001 min. 4 Tugai forest at river Kura
06.03.2001 1 calling Magamala near Zakatala
07.03.2001 1 Magamala; 1 calling between Magamala and Akimal (Zakatal Zapovednik)
15.03.2001 3 calling Gusar Zakaznik (T. Tennhardt, V. Kovalev)

Great Spotted Woodpecker *Dendrocopos major*

06.03.2001 1 Zakatala; 2 Magamala near Zakatala
07.03.2001 1 Magamala; 13 between Magamala and Akimal (Zakatal Zapovednik)

White-backed Woodpecker *Dendrocopos leucotos*
07.03.2001 1,1 ssp. *liffordi* between Magamala and Akimal (Zakatal Zapovednik)

Syrian Woodpecker *Dendrocopos syriacus*
01.03.2001 2 small wood at road south of Sorsulu; min. 4 Tugai forest at river Kura

Lesser Spotted Woodpecker *Dendrocopos minor*
06.03.2001 3 Magamala near Zakatala
07.03.2001 1 Magamala; 1,0 calling between Magamala and Akimal (Zakatal Zapovednik)

Eurasian Skylark *Alauda arvensis*
24.02.2001 >200 Shirvan Zapovednik
25.02.2001 >50 Shirvan reserve (Caspian coast)
28.02.2001 >50 Kyzyl Agach Zapovednik (Island Kur-Dili)
02.03.2001 >150 Shirvan Zapovednik
03.03.2001 >30 Ag-Gel Zapovednik
11.03.2001 >150 Absheron Zakaznik
16.03.2001 250 Divichi liman (T. Tennhardt, V. Kovalev)

Woodlark *Lullula arborea*
24.02.2001 8 Gobustan reserve
02.03.2001 2 Shirvan Zapovednik
08.03.2001 1 Zakatal Zapovednik (Akimal)
15.03.2001 1 sM Gusar Zakaznik (T. Tennhardt, V. Kovalev)

Crested Lark *Galerida cristata*
24.02.2001 1+1sM Baku, >20 Gobustan reserve, min. 40 Shirvan reserve
26.02.2001 >20 Kyzyl Agach Zapovednik (central part)

Greater Short-toed Lark *Calandrella brachydactyla*
24.02.2001 min. 50 Shirvan Zapovednik
25.02.2001 >350 Shirvan reserve (Caspian coast)
03.03.2001 min. 15 Ag-Gel Zapovednik
04.03.2001 >150 Ag-Gel Zapovednik

Lesser Short-toed Lark *Calandrella rufescens*
24.02.2001 >30 Shirvan Zapovednik
25.02.2001 min. 10 Shirvan reserve (Caspian coast)
04.03.2001 min. 6 Ag-Gel Zapovednik

Calandra Lark *Melanocorypha calandra*
24.02.2001 12 Gobustan reserve, min. 17 Shirvan reserve
25.02.2001 min. 25 Shirvan Zapovednik
02.03.2001 540 in 5 flocks + ~40 Shirvan Zapovednik
03.03.2001 min. 35 Ag-Gel Zapovednik
11.03.2001 ~10 Absheron Zakaznik
16.03.2001 15 Divichi liman (T. Tennhardt, V. Kovalev)

White-winged Lark *Melanocorypha leucoptera*
02.03.2001 30+45 Shirvan Zapovednik

Barn Swallow *Hirundo rustica*
10.03.2001 1 Aquasi-reservoir
16.03.2001 20 Divichi liman (T. Tennhardt, V. Kovalev)

Water Pipit *Anthus spinoletta*
24.02.2001 ~10 Shirvan Zapovednik
25.02.2001 1 Shirvan reserve
26.02.2001 >15 Kyzyl Agach Zapovednik (central part)
27.02.2001 21 Kyzyl Agach Zapovednik (near northern ranger station)
03.03.2001 >150 Ag-Gel Zapovednik

Tree Pipit *Anthus trivialis*
24.02.2001 1 sM + 40 Gobustan reserve, min. 3 Shirvan reserve
26.02.2001 1 calling Kyzyl Agach Zapovednik (central part)

Meadow Pipit *Anthus pratensis*
24.02.2001 1 Gobustan reserve, min. 40 Shirvan reserve

- 25.02.2001 10 Shirvan Zapovednik; 12 Shirvan reserve (Caspian coast)
 27.02.2001 20 Kyzyl Agach Zapovednik (east of northern ranger station)
 28.02.2001 >100 Kyzyl Agach Zapovednik (Island Kur-Dili)
 11.03.2001 >10 Absheron Zakaznik
- Red-throated Pipit** *Anthus cervinus*
 28.02.2001 1 calling Kyzyl Agach Zapovednik (central part)
- White Wagtail** *Motacilla alba*
 24.02.2001 min. 6 Baku, 8 Shirvan reserve
 25.02.2001 1 Shirvan Zapovednik
 26.02.2001 >10 Kyzyl Agach Zapovednik (central part)
 27.02.2001 >15 Kyzyl Agach Zapovednik (east of northern ranger station)
 04.03.2001 >30 Ag-Gel Zapovednik
 05.03.2001 80 Ag-Gel Zapovednik
 06.03.2001 2 Magamala near Zakatala
 10.03.2001 ~30 Aquasi-reservoir
- Grey Wagtail** *Motacilla cinerea*
 27.02.2001 1 Kyzyl Agach Zapovednik (east of northern ranger station)
 06.03.2001 1 Magamala near Zakatala
- Yellow Wagtail** *Motacilla flava*
 26.02.2001 1 flying over + 1 calling (ssp. ?) Kyzyl Agach Zapovednik (central part)
 27.02.2001 1 Kyzyl Agach Zapovednik (near northern ranger station)
- Dipper** *Cinclus cinclus*
 07.03.2001 1 adult between Magamala and Akimal (Zakatal Zapovednik)
 09.03.2001 1,1 adult (1 adult collecting nesting material) between Magamala and Akimal (Zakatal Zapovednik)
- Wren** *Troglodytes troglodytes*
 24.02.2001 2 sM Gobustan reserve
 26.02.2001 6 Kyzyl Agach Zapovednik (near major gate)
 27.02.2001 1 sM + 3 Kyzyl Agach Zapovednik (near northern ranger station)
 01.03.2001 min. 6 Kyzyl Agach Zapovednik (south of major gate)
 03.03.2001 >15 Ag-Gel Zapovednik
 06.03.2001 1 sM Zakatala; 5 sM Magamala near Zakatala
- Dunnock** *Prunella modularis*
 24.02.2001 1 Gobustan reserve
 06.03.2001 1 Magamala near Zakatala
- Alpine Accentor** *Prunella collaris*
 08.03.2001 1 Zakatal Zapovednik (Akimal)
- European Robin** *Erithacus rubecula*
 24.02.2001 1 Gobustan reserve
 25.02.2001 1 Shirvan Zapovednik
 26.02.2001 1 Kyzyl Agach Zapovednik (near major gate)
 27.02.2001 min. 6 sM Kyzyl Agach Zapovednik (near northern ranger station); 3 Kyzyl Agach Zapovednik (east of northern ranger station)
 28.02.2001 1 Kyzyl Agach Zapovednik (ponds at the NW-part); >10 Kyzyl Agach Zapovednik (near major ranger station)
 01.03.2001 2 Kyzyl Agach Zapovednik(south of major gate)
 03.03.2001 6 sM + >10 Ag-Gel Zapovednik
 06.03.2001 2 Zakatala
- Bluethroat** *Luscinia svecica*
 28.02.2001 1,0 2nd-year singing Kyzyl Agach Zapovednik (ponds at the NW-part)
 04.03.2001 1,0 adult (completely blue throat) Ag-Gel Zapovednik
 09.03.2001 1 Ex Zakatal Zapovednik (Akimal)
- Black Redstart** *Phoenicurus ochruros*
 24.02.2001 1,0 partly singing Gobustan reserve
- Stonechat** *Saxicola torquata*
 03.03.2001 1,0 sp + 1,0 mp Ag-Gel Zapovednik
 04.03.2001 1,0 Ag-Gel Zapovednik

05.03.2001 1,0 mp/sp Ag-Gel Zapovednik (near major ranger station)
08.03.2001 1,0 2nd-year Zakatal Zapovednik (Akimal)

Northern Wheatear *Oenanthe oenanthe*
24.02.2001 0,1 Gobustan reserve
02.03.2001 0,1 Shirvan Zapovednik
04.03.2001 4 Ag-Gel Zapovednik
05.03.2001 2 Ag-Gel Zapovednik (near major ranger station)
11.03.2001 0,1 Absheron Zakaznik

Isabelline Wheatear *Oenanthe isabellina*
25.02.2001 1 adult Shirvan reserve, near Caspian coast
02.03.2001 5 Shirvan Zapovednik
04.03.2001 2+1sM Ag-Gel Zapovednik
05.03.2001 1 sM Ag-Gel Zapovednik (near major ranger station)
16.03.2001 2 Divichi liman (T. Tennhardt, V. Kovalev)

Finsch's Wheatear *Oenanthe finschii*
24.02.2001 4,1 Gobustan reserve
11.03.2001 1,0 Absheron Zakaznik

Ring Ouzel *Turdus torquatus*
08.03.2001 7,2 ssp. *amicorum* Zakatal Zapovednik (Akimal)

Common Blackbird *Turdus merula*
24.02.2001 3 Baku, 1,0 Gobustan reserve
26.02.2001 3 Kyzyl Agach Zapovednik (near major gate); >10 Kyzyl Agach Zapovednik (central part)
28.02.2001 >20 Kyzyl Agach Zapovednik (near major gate)
01.03.2001 min. 8 Tugai forest at river Kura
06.03.2001 min. 4 Zakatala; >40 Magamala near Zakatala
07.03.2001 >250 between Magamala and Akimal (Zakatal Zapovednik)

Fieldfare *Turdus pilaris*
26.02.2001 1 Kyzyl Agach Zapovednik (near major gate); 1 Kyzyl Agach Zapovednik (central part)
01.03.2001 ~15 small wood at road south of Sorsulu
08.03.2001 4 Zakatal Zapovednik (Akimal)
09.03.2001 ~20 Zakatal Zapovednik (Akimal)

Redwing *Turdus iliacus*
28.02.2001 1 freshly plucked bird Kyzyl Agach Zapovednik (Island Kur-Dili)
05.03.2001 1 Ag-Gel Zapovednik (near major ranger station)

Song Thrush *Turdus philomelos*
24.02.2001 1 Gobustan reserve
28.02.2001 8 Kyzyl Agach Zapovednik (Island Kur-Dili)
01.03.2001 1 with food Kyzyl Agach Zapovednik (near major gate)
06.03.2001 1 pm Zakatala; 2 sM Magamala near Zakatala
07.03.2001 1 calling Magamala; 2 between Magamala and Akimal (Zakatal Zapovednik)

Mistle Thrush *Turdus viscivorus*
24.02.2001 8 Gobustan reserve
06.03.2001 1 Magamala near Zakatala
07.03.2001 4 (1sM) between Magamala and Akimal (Zakatal Zapovednik)
08.03.2001 15 Zakatal Zapovednik (Akimal)
09.03.2001 ~20 Zakatal Zapovednik (Akimal)

Black-throated Thrush *Turdus ruficollis atrogularis*
24.02.2001 1 adult Gobustan reserve

Common Grasshopper Warbler *Locustella naevia*
03.03.2001 2 sM Ag-Gel Zapovednik

Cetti's Warbler *Cettia cetti*
25.02.2001 1 shortly singing Shirvan Zapovednik
26.02.2001 min. 2 sM Kyzyl Agach Zapovednik (central part)
27.02.2001 2 sM Kyzyl Agach Zapovednik (near northern ranger station)
28.02.2001 1 sM Kyzyl Agach Zapovednik (ponds at the NW-part)
01.03.2001 1 Kyzyl Agach Zapovednik (south of major gate); 1 sM Tugai forest at river Kura

03.03.2001 8 sM Ag-Gel Zapovednik
04.03.2001 2 sM Ag-Gel Zapovednik
16.03.2001 1 sM Divichi liman (T. Tennhardt, V. Kovalev)

Moustached Warbler *Acrocephalus melanopogon*
24.02.2001 1 Shirvan Zapovednik
26.02.2001 min. 2 sM Kyzyl Agach Zapovednik (near major gate)
03.03.2001 >50 sM Ag-Gel Zapovednik
05.03.2001 >40 sM Ag-Gel Zapovednik

Sedge Warbler *Acrocephalus schoenobaenus*
03.03.2001 1 sM Ag-Gel Zapovednik

European Reed Warbler *Acrocephalus scirpaceus*
26.02.2001 min. 2 sM Kyzyl Agach Zapovednik (near major gate)
03.03.2001 1 sM Ag-Gel Zapovednik
04.03.2001 2 sM Ag-Gel Zapovednik
16.03.2001 3 sM Divichi liman (T. Tennhardt, V. Kovalev)

Paddyfield Warbler *Acrocephalus agricola*
26.02.2001 min. 3 sM Kyzyl Agach Zapovednik (near major gate)
03.03.2001 >25 sM Ag-Gel Zapovednik

Chiffchaff *Phylloscopus collybita*
27.02.2001 1 sM Kyzyl Agach Zapovednik (near northern ranger station)
28.02.2001 1 sM Kyzyl Agach Zapovednik (central part); 1 sM Kyzyl Agach Zapovednik (near major ranger station)
03.03.2001 2 sM Ag-Gel Zapovednik
05.03.2001 ~40 (min. 4 *abietinus* + 1 *tristis*) Ag-Gel Zapovednik (near major ranger station)

Goldcrest *Regulus regulus*
01.03.2001 1,0 small wood at road south of Sorsulu; 3 Tugai forest at river Kura
06.03.2001 2 Zakatala
08.03.2001 min. 2 Zakatala Zapovednik (Akimal)

Bearded Reedling *Panurus biarmicus*
24.02.2001 ~15 Shirvan Zapovednik
25.02.2001 2 ruf. Shirvan Zapovednik
26.02.2001 min. 2 Kyzyl Agach Zapovednik (near major gate); >30 Kyzyl Agach Zapovednik (central part)
03.03.2001 >2500 Ag-Gel Zapovednik
11.03.2001 >20 Absheron Zakaznik

Eurasian Penduline Tit *Remiz pendulinus*
24.02.2001 1 Shirvan Zapovednik
25.02.2001 min. 5 Shirvan Zapovednik
26.02.2001 >30 Kyzyl Agach Zapovednik (central part)
27.02.2001 >15 Kyzyl Agach Zapovednik (east of northern ranger station)
01.03.2001 1 Kyzyl Agach Zapovednik (south of major gate)
03.03.2001 >60 Ag-Gel Zapovednik

Blue Tit *Parus caeruleus*
27.02.2001 1 Kyzyl Agach Zapovednik (east of northern ranger station)
01.03.2001 4 small wood at road south of Sorsulu; 8 Tugai forest at river Kura
03.03.2001 ~10 Ag-Gel Zapovednik
05.03.2001 3 Ag-Gel Zapovednik (near major ranger station)
06.03.2001 >10 Magamala near Zakatala
07.03.2001 >30 between Magamala and Akimal (Zakatala Zapovednik)

Coal Tit *Parus ater*
01.03.2001 2 small wood at road south of Sorsulu
06.03.2001 2 Zakatala; min. 15 Magamala near Zakatala
07.03.2001 >100 between Magamala and Akimal (Zakatala Zapovednik)

Great Tit *Parus major*
26.02.2001 2 Kyzyl Agach Zapovednik (near major gate); 1 Kyzyl Agach Zapovednik (central part)
28.02.2001 2 Kyzyl Agach Zapovednik (northern ranger station)
01.03.2001 6 small wood at road south of Sorsulu; >20 Tugai forest at river Kura

06.03.2001 >15 Magamala near Zakatala
07.03.2001 >20 between Magamala and Akimal (Zakatal Zapovednik)

Long-tailed Tit *Aegithalos caudatus*
06.03.2001 8 Zakatala; 2 Magamala near Zakatala
07.03.2001 min. 3 Magamala; >30 between Magamala and Akimal (Zakatal Zapovednik)

Rock Nuthatch *Sitta neumayer*
24.02.2001 6 Gobustan reserve

Nuthatch *Sitta europaea*
06.03.2001 5 Magamala near Zakatala
07.03.2001 min. 45 between Magamala and Akimal (Zakatal Zapovednik)
09.03.2001 >50 between Magamala and Akimal (Zakatal Zapovednik)

Wallcreeper *Tichodroma muraria*
24.02.2001 1 Gobustan reserve
06.03.2001 1 + 1 wp Magamala near Zakatala

Eurasian Treecreeper *Certhia familiaris*
01.03.2001 1 small wood at road south of Sorsulu
06.03.2001 1 Zakatala
07.03.2001 10 between Magamala and Akimal (Zakatal Zapovednik)
08.03.2001 min. 4 Zakatal Zapovednik (Akimal)

Great Grey Shrike *Lanius excubitor*
24.02.2001 2 Shirvan Zapovednik
26.02.2001 2+1 Kyzyl Agach Zapovednik (near major gate)
03.03.2001 1 Ag-Gel Zapovednik
04.03.2001 1 Ag-Gel Zapovednik
05.03.2001 1 adult (large) south of Ag-Gel Zapovednik
08.03.2001 1 Zakatal Zapovednik (Akimal)

Red-tailed Shrike *Lanius (isabellinus) phoenicuroides*
26.02.2001 1 2nd-year (ssp. isabellinus ?) Kyzyl Agach Zapovednik (central part)
28.02.2001 1 2nd-year (ssp. isabellinus ?; same bird) Kyzyl Agach Zapovednik (central part)

Common Starling *Sturnus vulgaris*
24.02.2001 1 Baku, >500 semidesert south of Baku, >1500 at sleeping place Shirvan reserve
25.02.2001 >10.000 Shirvan Zapovednik
26.02.2001 >8000 Kyzyl Agach Zapovednik (central part)
28.02.2001 >8000 Kyzyl Agach Zapovednik (northern ranger station); >250 Kyzyl Agach Zapovednik (Island Kur-Dili)
02.03.2001 20-25.000 Shirvan Zapovednik
03.03.2001 >1500 Ag-Gel Zapovednik

Eurasian Jay *Garrulus glandarius*
05.03.2001 2+4 south of Ag-Gel Zapovednik
06.03.2001 4 Zakatala
07.03.2001 2 Magamala
08.03.2001 >15 Zakatal Zapovednik (Akimal)
09.03.2001 >25 between Magamala and Akimal (Zakatal Zapovednik)

Common Magpie *Pica pica*
24.02.2001 1 at road between Gobustan reserve and Shirvan Zapovednik, >30 Shirvan Zapovednik
25.02.2001 36 Shirvan Zapovednik
28.02.2001 80 (4 fledged juveniles !) Kyzyl Agach Zapovednik (northern ranger station)
02.03.2001 45 Shirvan Zapovednik
03.03.2001 >50 Ag-Gel Zapovednik

Alpine Chough *Pyrrhocorax graculus*
06.03.2001 ~15 flying in the mountains Magamala near Zakatala
07.03.2001 ~45 between Magamala and Akimal (Zakatal Zapovednik)

Chough *Pyrrhocorax pyrrhocorax*
24.02.2001 2 Gobustan reserve

Western Jackdaw *Corvus monedula*
24.02.2001 2 Baku
28.02.2001 1 Kyzyl Agach Zapovednik (near major gate)

05.03.2001 1 flying over Ag-Gel Zapovednik (near major ranger station)

Common Raven *Corvus corax*

06.03.2001 2 Zakatala; 1 flying in the mountains + 15 (13 in 1 flock) Magamala near Zakatala

07.03.2001 1 calling between Magamala and Akimal (Zakatal Zapovednik)

08.03.2001 4 Zakatal Zapovednik (Akimal)

Carrion Crow *Corvus corone (sharpi, orientalis)*

24.02.2001 1 Baku

03.03.2001 >30 Ag-Gel Zapovednik

Rook *Corvus frugilegus*

24.02.2001 >100 Baku, >1500 Shirvan Zapovednik

25.02.2001 min. 400 Shirvan Zapovednik

02.03.2001 4500 Shirvan Zapovednik

03.03.2001 >40 Ag-Gel Zapovednik

05.03.2001 2 colonies (1x500, 1x30 nests; partly occupied) along road between Gindar and Yevlax

06.03.2001 min. 230 -> N/NE pm Zakatala

Eurasian Tree Sparrow *Passer montanus*

24.02.2001 1 at a settlement near Gobustan reserve

01.03.2001 1 small wood at road south of Sorsulu

05.03.2001 1 Ag-Gel Zapovednik (near major ranger station)

06.03.2001 10 Zakatala

House Sparrow *Passer domesticus*

24.02.2001 3 Baku, <10 Gobustan reserve

25.02.2001 ~15 Shirvan reserve (Caspian coast)

01.03.2001 >250 small wood at road south of Sorsulu

06.03.2001 >150 Zakatala

Spanish Sparrow *Passer hispaniolensis*

24.02.2001 8 Gobustan reserve, >500 am Schlafplatz Shirvan Zapovednik

25.02.2001 >200 Shirvan Zapovednik

26.02.2001 >30 Kyzyl Agach Zapovednik (central part)

27.02.2001 2 Kyzyl Agach Zapovednik (near northern ranger station)

28.02.2001 >40 (several nests) Kyzyl Agach Zapovednik (Island Kur-Dili)

03.03.2001 >150 Ag-Gel Zapovednik; 560 Shirvan Zapovednik (T.Tennhardt, V.Kovalev)

Rock Sparrow *Petronia petronia*

24.02.2001 min. 2 Gobustan reserve

Snow Finch *Montifringilla nivalis*

08.03.2001 2 flying + 2 calling Zakatal Zapovednik (Akimal)

Common Chaffinch *Fringilla coelebs*

24.02.2001 3 Gobustan reserve

28.02.2001 >60 Kyzyl Agach Zapovednik (Island Kur-Dili)

01.03.2001 >150 mostly males Tugai forest at river Kura

03.03.2001 65 Ag-Gel Zapovednik

06.03.2001 >20 Zakatala; >5000 Magamala near Zakatala

07.03.2001 >2500 between Magamala and Akimal (Zakatal Zapovednik)

09.03.2001 >20.000 in the evening flying from the mountains in the valley, of them 17.200 in 25 min between Magamala and Akimal (Zakatal Zapovednik)

Brambling *Fringilla montifringilla*

24.02.2001 1 calling bay south of Baku, min. 20 Shirvan reserve

26.02.2001 min. 4 Kyzyl Agach Zapovednik (near major gate)

27.02.2001 1 Kyzyl Agach Zapovednik (near northern ranger station)

28.02.2001 min. 6 Kyzyl Agach Zapovednik (Island Kur-Dili)

01.03.2001 min. 2 Kyzyl Agach Zapovednik (south of major gate)

04.03.2001 4 Ag-Gel Zapovednik

05.03.2001 3 Ag-Gel Zapovednik (near major ranger station)

06.03.2001 1,0+6 Magamala near Zakatala

07.03.2001 >250 between Magamala and Akimal (Zakatal Zapovednik)

Hawfinch *Coccothraustes coccothraustes*

01.03.2001 3 Tugai forest at river Kura
03.03.2001 1 flying over Ag-Gel Zapovednik
05.03.2001 1 south of Ag-Gel Zapovednik
06.03.2001 4 Zakatala; ~250 Magamala near Zakatala
07.03.2001 >25 between Magamala and Akimal (Zakatal Zapovednik)

Eurasian Siskin *Carduelis spinus*
01.03.2001 3 small wood at road south of Sorsulu
03.03.2001 1 flying over Ag-Gel Zapovednik
06.03.2001 min. 4 Zakatala
07.03.2001 min. 4 between Magamala and Akimal (Zakatal Zapovednik)

Greenfinch *Carduelis chloris*
06.03.2001 min. 20 Zakatala

European Goldfinch *Carduelis carduelis*
24.02.2001 8 Gobustan reserve
01.03.2001 1 Kyzyl Agach Zapovednik (south of major gate); ~15 Tugai forest at river Kura
06.03.2001 1 Zakatala
10.03.2001 45 Aquasi-reservoir

Eurasian Bullfinch *Pyrrhula pyrrhula*
07.03.2001 1,1 + 1 sM + 1 calling between Magamala and Akimal (Zakatal Zapovednik)
08.03.2001 min. 4 Zakatal Zapovednik (Akimal)
09.03.2001 min. 5 between Magamala and Akimal (Zakatal Zapovednik)

Common Linnet *Carduelis cannabina*
24.02.2001 3,1 Gobustan reserve, min. 275 Shirvan Zapovednik
25.02.2001 850 Shirvan Zapovednik
27.02.2001 300 Kyzyl Agach Zapovednik (near northern ranger station)
28.02.2001 >200 Kyzyl Agach Zapovednik (Island Kur-Dili)
02.03.2001 ~900 Shirvan Zapovednik

Twite *Carduelis flavirostris*
24.02.2001 23 Gobustan reserve, ~15 Shirvan reserve
02.03.2001 ~60 Shirvan Zapovednik

Red-fronted Serin *Serinus pusillus*
05.03.2001 1,0 Ag-Gel Zapovednik (near major ranger station)
06.03.2001 2+2 Magamala near Zakatala

Great Rosefinch *Carpodacus rubicilla*
08.03.2001 3 (min. 1,0) Zakatal Zapovednik (Akimal)

Mongolian Finch *Bucanetes mongolicus*
24.02.2001 1 Gobustan reserve

Common Crossbill *Loxia curvirostra*
10.03.2001 3 Agsu-pass (north of Agsu)

Pine Bunting *Emberiza leucocephalos*
03.03.2001 1,2 Ag-Gel Zapovednik
11.03.2001 2,1 Absheron Zakaznik

Yellowhammer *Emberiza citrinella*
24.02.2001 2 Gobustan reserve
27.02.2001 1 Kyzyl Agach Zapovednik (near northern ranger station)
07.03.2001 1 between Magamala and Akimal (Zakatal Zapovednik)
08.03.2001 min. 7 Zakatal Zapovednik (Akimal)
09.03.2001 18 Zakatal Zapovednik (Akimal)
11.03.2001 4 Absheron Zakaznik

Rock Bunting *Emberiza cia*
24.02.2001 min. 4 Gobustan reserve
06.03.2001 6 Magamala near Zakatala
07.03.2001 1 between Magamala and Akimal (Zakatal Zapovednik)

Common Reed Bunting *Emberiza schoeniclus*
24.02.2001 min. 25 Shirvan Zapovednik
25.02.2001 2 Shirvan reserve (Caspian coast)
26.02.2001 >150 Kyzyl Agach Zapovednik (near major gate)

28.02.2001 >80 Kyzyl Agach Zapovednik (Island Kur-Dili)
 03.03.2001 >700 Ag-Gel Zapovednik
 08.03.2001 3 Zakatal Zapovednik (Akimal)
 11.03.2001 >50 Absheron Zakaznik
Corn Bunting *Emberiza calandra*
 24.02.2001 2 sM Shirvan Zapovednik
 25.02.2001 2 sM Shirvan Zapovednik
 26.02.2001 >110 Kyzyl Agach Zapovednik (central part)
 27.02.2001 ~15 Kyzyl Agach Zapovednik (near northern ranger station)
 05.03.2001 1 sM Ag-Gel Zapovednik (near major ranger station)
 15.03.2001 30 Gusar Zakaznik (T. Tennhardt, V. Kovalev)

Annex II: Species list (field trip 16.6.-02.7.2001; obs.: Prof. M.Freude)

Great Crested Grebe *Podiceps cristatus*
Little Grebe *Tachybaptus ruficollis*
Great Cormorant *Phalacrocorax carbo*
Pygmy Cormorant *Phalacrocorax pygmeus*
Black-crowned Night Heron *Nycticorax nycticorax*
Cattle Egret *Bubulcus ibis*
Little Egret *Egretta garzetta*
Grey Heron *Ardea cinerea*
White Stork *Ciconia ciconia*
Greylag Goose *Anser anser*
Common Shelduck *Tadorna tadorna*
Ruddy Shelduck *Tadorna ferruginea*
Mallard *Anas platyrhynchos*
Gadwall *Anas strepera*
Northern Shoveler *Anas clypeata*
Garganey *Anas querquedula*
Common Pochard *Aythya ferina*
Black Kite *Milvus migrans*
Lammergeier *Gypaetus barbatus*
Egyptian Vulture *Neophron percnopterus*
Eurasian Black Vulture *Aegypius monachus*
Eurasian Griffon Vulture *Gyps fulvus*
Montagu's Harrier *Circus pygargus*
Western Marsh Harrier *Circus aeruginosus*
Eurasian Sparrowhawk *Accipiter nisus*
Northern Goshawk *Accipiter gentilis*
Honey Buzzard *Pernis apivorus*
Steppe Buzzard *Buteo buteo vulpinus*
Long-legged Buzzard *Buteo rufinus*
Golden Eagle *Aquila chrysaetos*
Imperial Eagle *Aquila heliaca*
Short-toed Eagle *Circaetus gallicus*
Common Kestrel *Falco tinnunculus*
Lesser Kestrel *Falco naumanni*
Peregrine Falcon *Falco peregrinus*
Caucasian Black Grouse *Tetrao mlokosiewiczii*
Caucasian Snowcock *Tetraogallus caucasicus*
Chukar *Alectoris chukar*
Common Quail *Coturnix coturnix*
Common Moorhen *Gallinula chloropus*
Eurasian Coot *Fulica atra*

Black-winged Stilt *Himantopus himantopus*
Pied Avoset *Recurvirostra avosetta*
Unident. Pratincole *Glareola spec.*
Little Ringed Plover *Charadrius dubius*
Northern Lapwing *Vanellus vanellus*
Common Sandpiper *Actitis hypoleucos*
Wood Sandpiper *Tringa glareola*
Black-headed Gull *Larus ridibundus*
Mew Gull *Larus canus*
Pontic Gull *Larus cachinnans*
Common Tern *Sterna hirundo*
Whiskered Tern *Chlidonias hybridus*
Common Wood Pigeon *Columba palumbus*
Stock Dove *Columba oenas*
Feral Dove *Columba livia (f.domestica)*
Eurasian Collared Dove *Streptopelia decaocto*
Turtle Dove *Streptopelia turtur*
Palm Dove *Streptopelia senegalensis*
Common Cuckoo *Cuculus canorus*
Little Owl *Athene noctua*
European Nightjar *Caprimulgus europaeus*
Alpine Swift *Apus melba*
Swift *Apus apus*
Blue-cheeked Bee-eater *Merops persicus*
Bee-eater *Merops apiaster*
Roller *Coracias garrulus*
Eurasian Hoopoe *Upupa epops*
Wryneck *Jynx torquilla*
Black Woodpecker *Dryocopus martius*
European Green Woodpecker *Picus viridis*
Great Spotted Woodpecker *Dendrocopos major*
Syrian Woodpecker *Dendrocopos syriacus*
Middle Spotted Woodpecker *Dendrocopos medius*
Eurasian Skylark *Alauda arvensis*
Woodlark *Lullula arborea*
Crested Lark *Galerida cristata*
Lesser Short-toed Lark *Calandrella rufescens*
Shore Lark *Eremophila alpestris*
Crag Martin *Ptyonoprogne rupestris*
Sand Martin *Riparia riparia*

Barn Swallow *Hirundo rustica*
House Martin *Delichon urbica*
Water Pipit *Anthus spinoletta*
Tree Pipit *Anthus trivialis*
Tawny Pipit *Anthus campestris*
White Wagtail *Motacilla alba*
Grey Wagtail *Motacilla cinerea*
Yellow Wagtail *Motacilla flava*
Dipper *Cinclus cinclus*
Wren *Troglodytes troglodytes*
Alpine Accentor *Prunella collaris*
Dunnock *Prunella modularis*
European Robin *Erithacus rubecula*
Nightingale *Luscinia megarhynchos*
Redstart *Phoenicurus phoenicurus*
Black Redstart *Phoenicurus ochruros*
Güldenstädt's Redstart *Phoenicurus erythrogaster*
Whinchat *Saxicola rubetra*
Stonechat *Saxicola torquata*
Northern Wheatear *Oenanthe oenanthe*
Isabelline Wheatear *Oenanthe isabellina*
Black-eared Wheatear *Oenanthe hispanica*
Pied Wheatear *Oenanthe pleschanka*
Ring Ouzel *Turdus torquata*
Common Blackbird *Turdus merula*
Song Thrush *Turdus philomelos*
Mistle Thrush *Turdus viscivorus*
Sedge Warbler *Acrocephalus schoenobaenus*
European Reed Warbler *Acrocephalus scirpaceus*
Marsh Warbler *Acrocephalus palustris*
Olivaceous Warbler *Hippolais pallida*
Garden Warbler *Sylvia borin*
Lesser Whitethroat *Sylvia curruca*
Whitethroat *Sylvia communis*
Blackcap *Sylvia atricapilla*
Chiffchaff *Phylloscopus collybita*
Mountain Chiffchaff *Phylloscopus sindianus*
Green Warbler *Phylloscopus [trochiloides] nitidus*
Goldcrest *Regulus regulus*
Spotted Flycatcher *Muscicapa striata*
Red-breasted Flycatcher *Ficedula parva*
Eurasian Penduline Tit *Remiz pendulinus*
Blue Tit *Parus caeruleus*
Coal Tit *Parus ater*
Great Tit *Parus major*
Long-tailed Tit *Aegithalos caudatus*
Nuthatch *Sitta europaea*
Wallcreeper *Tichodroma muraria*
Treecreeper *Certhia familiaris*
Red-backed Shrike *Lanius collurio*
Lesser Grey Shrike *Lanius minor*
Woodchat Shrike *Lanius senator*
Common Starling *Sturnus vulgaris*
Rose-coloured Starling *Sturnus roseus*
Golden Oriole *Oriolus oriolus*
Eurasian Jay *Garrulus glandarius*
Common Magpie *Pica pica*
Alpine Chough *Pyrrhocorax graculus*
Chough *Pyrrhocorax pyrrhocorax*
Western Jackdaw *Corvus monedula*
Common Raven *Corvus corax*
Carrion Crow *Corvus corone*
Rook *Corvus frugilegus*
Eurasian Tree Sparrow *Passer montanus*
House Sparrow *Passer domesticus*
Spanish Sparrow *Passer hispaniolensis*
Rock Sparrow *Petronia petronia*
Common Chaffinch *Fringilla coelebs*
Hawfinch *Coccothraustes coccothraustes*
Greenfinch *Carduelis chloris*
European Goldfinch *Carduelis carduelis*
Eurasian Bullfinch *Pyrrhula pyrrhula*
Common Linnet *Carduelis cannabina*
Twite *Carduelis flavirostris*
Red-fronted Serin *Serinus pusillus*
Scarlet Rosefinch *Carpodacus erythrinus*
Rock Bunting *Emberiza cia*
Ortolan Bunting *Emberiza hortulana*
Black-headed Bunting *Emberiza melanocephala*
Common Reed Bunting *Emberiza schoeniclus*
Corn Bunting *Emberiza calandra*

Annex III: Species list (field trip 21.4.-01.5.2000; obs.: Prof. M.Freude + T.Tennhardt)

21.4.2000

Baku:

Common Kestrel *Falco tinnunculus*
Black-headed Gull *Larus ridibundus*
Eurasian Collared Dove *Streptopelia decaocto*
Swift *Apus apus*

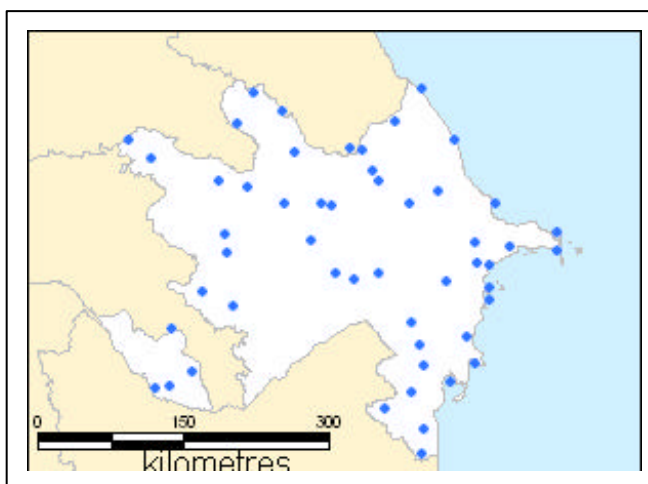
Annex IV: Overview of globally threatened bird species in Azerbaijan

Species listed by IUCN Red List category					
Endemic	Species	Family	Category	Global pop.	Pop trend
ENDANGERED					
No	White-headed Duck <i>Oxyura leucocephala</i>	ANATIDAE	EN	2,500-10,000	↓
VULNERABLE					
No	Lesser White-fronted Goose <i>Anser erythropus</i>	ANATIDAE	VU	25000-30000	↓
No	Red-breasted Goose <i>Branta ruficollis</i>	ANATIDAE	VU	88000	unknown
No	Marbled Teal <i>Marmoretta angustirostris</i>	ANATIDAE	VU	9000-19000	↓
No	Imperial Eagle <i>Aquila heliaca</i>	ACCIPITRIDAE	VU	2,500-10,000	↓
No	Lesser Kestrel <i>Falco naumanni</i>	FALCONIDAE	VU	50000-60000	↓
No	Corncrake <i>Crex crex</i>	RALLIDAE	VU	3400000-6000000	↓
CONSERVATION DEPENDENT					
No	Dalmatian Pelican <i>Pelecanus crispus</i>	PELECANIDAE	CD	15000-20000	stable
NEAR THREATENED					
No	Pygmy Cormorant <i>Phalacrocorax pygmeus</i>	PHALACROCORACIDAE	NT	44690-54110	
No	Ferruginous Duck <i>Aythya nyroca</i>	ANATIDAE	NT	>10,000	↓
No	White-tailed Eagle <i>Haliaeetus albicilla</i>	ACCIPITRIDAE	NT	10000-14000	↓
No	Black Vulture <i>Aegypius monachus</i>	ACCIPITRIDAE	NT	>10,000	↓
No	Little Bustard <i>Tetrax tetrax</i>	OTIDIDAE	NT	240000	↓
No	Houbara Bustard <i>Clamydotis undulata</i>	OTIDIDAE	NT	49000-62000	↓
DATA DEFICIENT					
No	Caucasian Black Grouse <i>Tetrao mlokosiewiczi</i>	TETRAONIDAE	DD	70500	
No	Black-winged Pratincole <i>Glareola nordmanni</i>	GLAREOLIDAE	DD	250000-800000	

Annex V: Important Bird Areas in Azerbaidshan (after HEATH & EVANS 2000)

Covering an area of 86,600 km², Azerbaijan lies in the eastern part of Transcaucasia, its eastern border being formed by the shore of the Caspian Sea. The country is bounded by Iran in the south, in the west by Armenia, and in the north by Georgia and Russia. To the south-west, but geographically separated from the rest of Azerbaijan by Armenian territory, lies the Autonomous Republic of Nakhichevan, which also borders on Iran and Turkey. The south-eastern part of the Great (Greater) Caucasus extends into and dominates the north-eastern part of the country, while the lower mountains of the Little (Lesser) Caucasus lie in the south-western part and the Talysh mountains are situated on the border with Iran in the south-east. The central part of Azerbaijan is a depression drained by the Kura river and the lower reaches of its tributary, the Aras.

Azerbaijan has 52 Important Bird Areas (IBAs), covering 6,161 km² or 7% of the country's surface area (Table 1). IBAs are relatively evenly distributed over the country, though there are gaps in the Nagorno-Karabakh region (scene of a recent war with Armenia) (Map 1). The previous pan-European IBA inventory (Grimmett and Jones 1989) identified nine IBAs in Azerbaijan (as part of the former USSR), all of which are included in the current total of 52, two sites (previously IBAs SU078 and 080) (i.e. the combined water-bodies of Shirvan steppe/Shirvan reserve) having been merged to make current site 043 (Table 1).



Area	Status	Number of IBAs	Area of IBAs (ha)
Europe	Complete inventory published in 1989 and 2000. Many national inventories.	3,619	93,167,728
Azerbaijan	Published: 1989, 2000	52	616,100

IBA Code	International Name	Criteria	Area of IBAs (ha)
AZ034	Absheron archipelago (north) and Artem bay	B1i	1,000
AZ006	Akstafa -chai valley	B2	200
AZ003	Alazani river valley	A1, B2	5,000
AZ027	Alty Agach area	A1, B2	5,500
AZ052	Astara -chai valley	B2, B3	2,000
AZ029	Barda tugai forest	A1, B2	4,000
AZ024	Divichi liman (or Lake Akzibir)	A1, A4i, A4iii, B1i, B2	7,000
AZ011	Gekchai Bozdag mountains	A1, B2	5,000
AZ051	Girkan forest	B2	4,500
AZ040	Glynanyi island	A4i, B1i, B2	200
AZ038	Gobustan area	B3	5,000
AZ002	Ilisu area	A1	9,345
AZ026	Ismailly area	A1	5,778
AZ005	Karayazi forest	A1	10,000
AZ048	Kizil Agach Bay	A1, A4i, B1i	132,500
AZ008	Korchai area	A1, B2	15,000
AZ046	Kura Delta	A1, A4i, B1i	10,000
AZ022	Kusari (Gusari) area	B2	15,000
AZ015	Lachin area	A1	20,000

AZ030	Lake Aggel	A1, A4i, B1i, B2	9,173
AZ031	Lake Boz-Koba	A4iii	4,000
AZ012	Lake Gey Gel	A1, A3	7,131
AZ041	Lake Hadjikabul	A1, A4i, B1i	1,500
AZ036	Lake Krasnoie and other waterbodies of the Absheron peninsula	A1, A4i, B1i	0
AZ045	Lake Mahmud-chala	A1, A4i, A4iii, B1i	10,000
AZ032	Lake Sarysu	A1, A4i, B1i, B2	20,000
AZ047	Lake Ych-chala (Novogolovka-chala)	A1, A4i, B1i	2,500
AZ025	Mount Babadaq	A1, A3	9,000
AZ020	Mount Bazar-Duzu	A1, A3	4,000
AZ014	Mount Dalidaq	A3, B2	10,000
AZ013	Mount Giamysh	A1, A3, B2	8,500
AZ018	Mount Ilandaq	B2	4,000
AZ037	Mount Kargabazar and Mount Gush-gaya	A1	3,000
AZ021	Mount Shahdaq	A1, A3	3,500
AZ044	Mugan steppe	A1	100,000
AZ019	Negram mountains	B2	3,500
AZ017	Ordubad area	A3, B2	40,000
AZ028	Pirgulu (Pirkuli)	B2	1,520
AZ042	Pirsagat Islands and Los Island	A4i, B1i, B2	250
AZ023	Samur Delta	B2	6,000
AZ039	Sangachal Bay	A4i, A4iii, B1i	1,000
AZ035	Shah Cape (Shakhova Kosa)	A4i, A4iii, B1i	500
AZ016	Shahbuz area	A3, B2	7,000
AZ007	Shamkhor area	A1, B2	10,000
AZ004	Sheki upland	A1	10,400
AZ043	Shorgel lakes/Shirvan reserve	A1, A4i, B1i, B2	26,000
AZ010	Turianchai	B2	12,600
AZ009	Varvara Reservoir	A1	4,000
AZ049	Vilajchai valley	B2	1,000
AZ033	Yashma Island	B1i	200
AZ001	Zakataly	A1, A3	23,844
AZ050	Zuvand upland	B2	15,000

Habitats and Threats

Azerbaijan has an altitudinal range extending from areas below sea-level on the Caspian littoral up to the rocky landscapes, snowfields and glaciers of high peaks in the Great Caucasus at over 4,000 m. The mountains of the Great Caucasus show the typical succession of vegetation and soils from lower to higher slopes related to changes in temperature, precipitation and gradient. In the lower belts, and in plains by the foothills (including in river valleys), mixed broadleaved forests of the warm-temperate type (*Castanea*, *Fagus*, *Quercus*) flourish, often with evergreen undergrowth. Higher up, *Fagus* predominates; higher still, conifer forest (*Picea*, *Abies*) and some broadleaved trees. On the upper treeline, there is dwarf *Fagus* and *Betula*, with dwarf *Juniperus* in drier places and, in the subalpine belt, *Rhododendron* and meadows; in the alpine belt similarly, short-grass meadows. Mountain steppe and mountain meadows prevail in the Little Caucasus, while the Talysh mountains have slopes clothed with broadleaved forests, the summits with meadow steppe. Some lower mountain areas have sparse arid forest chiefly of *Juniperus*. The Kura-Aras lowland is a semi-desert plain with a natural steppe region in the Lower Kura valley, where steppe or desert soils require irrigation for crop production (notably cotton). Wetlands in Azerbaijan include coastal bays, river deltas and marshes along the Caspian, as well as lakes (saline and freshwater, some man-made) there and further inland, river valleys and irrigation channels across plains.

Key species in the main habitats are as follows: *Ciconia nigra*, raptors, *Coracias garrulus* and woodpeckers are important in wooded river valleys. Raptors also occur higher up in mountains where there is a mixture of forest and rocky areas. *Tetrao mlokosiewiczzi*, *Tetraogallus caucasicus* and *T.*

caspius, and passerines such as *Anthus spinoletta*, *Prunella collaris* (very locally, *P. ocularis*), *Phoenicurus erythrogaster* and *Carpodacus rubicilla* occur in areas of rocks, shrubs and mountain meadows. Wintering geese and *Tetrax tetrax* occur on lowland plains, with resident *Francoelinus francoelinus* also occurring in thickets along rivers and canals there. Wetlands in Azerbaijan are immensely important, both nationally and internationally, for breeding, wintering and passage waterbirds, such as *Phalacrocorax pygmeus*, *Marmaronetta angustirostris*, *Oxyura leucocephala* and *Porphyrio porphyrio*.

The main threats are unsustainable levels of exploitation, affecting 64% of IBAs (mainly legal and illegal hunting at over 30 IBAs), and agricultural intensification/expansion (60%) . Waterbirds at Azerbaijan's most important wetlands are severely affected by hunting and poaching, also by the accompanying disturbance which, as has been suggested for some sites, is the more serious threat. Through habitat loss caused by grazing, agricultural intensification/expansion has an impact on upland species such as *Tetrao mlokosiewiczzi*, *Tetraogallus caucasicus* and *Tetraogallus caspius*, and on geese. Problems are similarly created at wetlands (the most threatened IBAs) through drainage and run-off of pesticides from cotton fields; the hydrology of coastal wetlands has been further altered by the fall and rise of the Caspian Sea over the last 70 years.

Introduction to avifauna

There are 119 species of European conservation concern breeding regularly in Azerbaijan . Of these, *Marmaronetta angustirostris*, *Aythya nyroca*, *Aquila heliaca* and *Falco naumanni* are globally threatened, *Phalacrocorax pygmeus*, *Haliaeetus albicilla* (perhaps no longer breeding regularly), *Aegypius monachus* and *Tetrao mlokosiewiczzi* are globally near-threatened and a further 77 species have an unfavourable conservation status in Europe. Fifty-four SPECs occur regularly on passage or overwinter, and these include the globally threatened or near-threatened *Pelecanus crispus*, *Anser erythropus*, *Branta ruficollis*, *Oxyura leucocephala*, *Circus macrourus*, *Aquila clanga*, *Crex crex*, *Tetrax tetrax*, *Otis tarda*, *Glareola nordmanni* (has bred), *Chettusia gregaria*, *Numenius tenuirostris* (possibly regular and *Gallinago media*.

Although some species (e.g. certain raptors, *Grus grus*) migrate on a broad front through Azerbaijan, wildfowl, shorebirds, other Waterbirds, and some passerines (about whose movements far less information is available), tend to follow a coastal route, such that IBAs Divichi liman in the north, the Kura delta, Sangachal Bay, Shah Cape, Yashma island, Kizil Agach Bay.

Adapted from Michael Patrikeev and Michael Wilson (2000) in M. F. Heath and M. I. Evans, eds. *Important Bird Areas in Europe: Priority sites for conservation*. 2: Southern Europe. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 8).