# Information Sheet on Ramsar Wetlands (RIS) – 2006-2008 version

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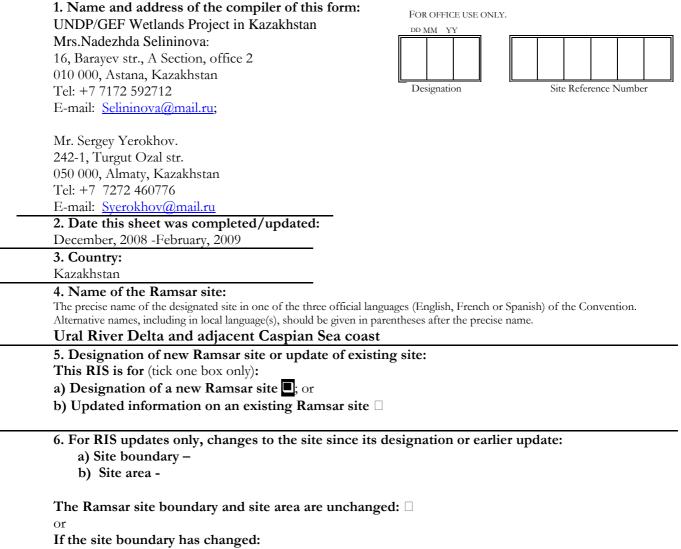
Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

#### Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands.* Compilers are strongly advised to read this guidance before filling in the RIS.

2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework and guidelines for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.

3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.



i) the boundary has been delineated more accurately  $\Box$ ; or

- ii) the boundary has been extended  $\Box$ ; or
- iii) the boundary has been restricted\*\*  $\Box$

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\*\* **Important note**: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

#### 7. Map of site:

Refer to Annex III of the *Explanatory Note and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) a hard copy (required for inclusion of site in the Ramsar List):  $\Box$ ;
- ii) an electronic format (e.g. a JPEG or ArcView image)
- iii) a GIS file providing geo-referenced site boundary vectors and attribute tables

Cluster	1
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0100001	
51°43' 35,388" E	47°3' 21,922" N
51°44' 7,896" E	46°57' 23,956" N
51°33' 3,710" E	46°50' 37,159" N
51°18' 33,633" E	46°55' 47,584" N
51°18' 15,240" E	47°2' 10,710" N
51°35' 20,502" E	47°6' 2,373" N
	51°44' 7,896" E 51°33' 3,710" E 51°18' 33,633" E 51°18' 15,240" E

Cluster 2

1	51°52' 26,576" E	46°55' 1,226" N
2	52°0' 26,876" E	46°47' 44,921" N
3	51°50' 59,578" E	46°41' 30,058" N
н4	51°36' 19,990" E	46°42' 51,641" N
5	51°36' 32,977" E	46°49' 44,856" N
6	51°41' 46,120" E	46°54' 57,877" N

#### b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park, etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

Boundaries of the wetlands match those of the projected protected natural territory – Akshaiyk State Nature Reserve.

**8. Geographical coordinates** (latitude/longitude, in degrees and minutes): Provide the coordinates of the approximate centre of the site and/or the limits of the site. If the site is composed of more than one separate area, provide coordinates for each of these areas.

N 46° 58' E 51° 45' - approximate center point of the wetlands.

#### 9. General location:

Include in which part of the country and which large administrative region(s) the site lies and the location of the nearest large town.

Western Kazakhstan, Atyrau oblast, 7 km south to the administrative center – city of Atyrau.

**10. Elevation:** (in metres: average and/or maximum & minimum)

The wetlands are situated within the limits of the negative absolute surface marks above sea level minimum -29 m above sea level in the south and 27 m above sea level in the north, with the absolute maximum mark of 20 m.

**11. Area:** (in hectares) Total site area is 111,500 ha. Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The wetlands are a part of the region situated on the northern shore of the Caspian Sea. It is a river delta, which has well-defined right and left shore fronts that are formed by a network of river branches coming out from the main river bed 2 to 7 meters deep. The largest branches have outlets to the Caspian Sea. Anadromous and semi-anadromous species of fish, including sturgeons, use these branches to migrate back and forth from the Caspian Sea to the Ural River.

Areas between the branches that are close to sea are covered with water, forming a multitude of innerdelta lakes covering 0.3 - 7.0 hectares. They are reproduction areas for fish and natatorial birds, as well as a mammal – musk rat. Edges of these lakes are abundantly covered by reed, reed-mace and other abovewater vegetation, used for nesting by many species of ciconiiformes, rail and sparrow birds counting more than 80 species in total.

The part of the delta that is closest to the primary bank has a phreatic coat covered with hydrophilous and pratal vegetaion, osier trees and silver oleaster. Hog is the main occupant of these areas. Individual elevations are sand or loessial hills that are inhabited by fox, badger and hare. The northern part of the wetlands that is not dampened by the feeder current phenomena is represented by arenaceous-argillaceous arid and semi-arid areals, covered with sages, saltworts, *Nitraria schoberi* and various ephemers and grasses. Mammals are represented here by dog-fox, hare, and very rarely – saiga antelope. Rare bird species include great bustard and little bustard. The seaside part of the delta is an area of congregation for up to 200 000 migrating natatorial birds simultaneously, as well as the feeding site of a large number of fish species. Caspian seal comes here often from the sea.

#### 13. Ramsar Criteria:

Tick the box under each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11). All Criteria which apply should be ticked.



6. Global significance: Corresponds to Ramsar criteria 1a, 2a, 3, 4, 5, 7

#### 14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Criterion 1. The Ural delta, as well as the adjacent part of the Caspian sea shore, is an example of the water-marsh land of the shore zone of the north Caspian region. Its main characteristic is the mixed type of water supply. It gets fresh water from the Ural River and salt-water from the Caspian Sea. Because of this, there are species of plants and animals within the wetland territory that are characteristic to both fresh-water and marine ecosystems, among which there are several species of sea fish and Caspian seal.

Criterion 2a. Water reservoirs support the existance of 13 internationally threatened waterbird species: Lesser White-fronted Goose (*Anser erythropus*), Red-breasted Goose (*Branta ruficollis*), White-headed Duck (*Oxyura leucoephala*), Marbled Duck, (*Marmaronetta angustirostris*), Great Bustard (*Otis tarda*), Houbara Bustard (*Chlamydotis undulata*), Siberian Crane (*Grus leucogeranus*), Slender-billed Curlew (*Numenius tennuirostris*), Sociable Plover (*Vanellus gregaria*), Egyptian Vulture (*Neophron percnopterus*), Spotted Eagle (*Aquila clanga*), Imperial Eagle (*Aquila heliaca*), Dalmatian Pelican (*Pelecanus crispus*).

S.no	Scientific name	Scientific name Vernacular name					
		Mammals				List	
1.	Saiga tatarica.	Saigak	CR	-	App1	-	
2	Eptesicus bobrinskoi	Kozhanok Bobrinskogo		-	-	EN	
		Birds				<u>.</u>	
1	Cygnus cygnus – breeding kazakhstanian population	Lebed-klikun	-	-	-	EN	
2.	Cygnus bewickii	Malyi lebed		-	-	NT	
3.	Anser erythropus	Piskulka	EN		App1	EN	
4.	Rufibrenta ruficollis	Krasnozobaya kazarka	EN		App1	EN	
5.	Oxyura leucocephala	Savka	EN	-	-	EN	
6.	Marmaronetta angustirostris	Mramornyi chirok	VU	-	-	EN	
7.	Aythya nyroca	Beloglazaya chernet	NT	-	App1	EN	
8.	Bubo bubo	Filin	-	App2	-	VU	
9.	Tetrax tetrax	Strepet	NT	App2	-	EN	
10	Otis tarda	Drofa	VU	App2	App2	EN	
11	Chlamydotis undulata	Drofa-krasotka	VU	-	App2	EN	
12	Grus grus	Seryi zhuravl		App2	-	VU	
13	Grus leucogeranus	Sterkh	CR	App1	App1	CR	
14.	Anthropoides virgo	Zhuravl-krasavka	-	-	-	VU	
15	Crex crex	Korostel	NT	-	App2	-	
16	Porphyrio porphyrio	Sultanka	-	-	-	VU	
17	Syrrhaptes paradoxus	Sadzha	-	-	-	EN	
18	Pterocles alchata	Belobryuhiy ryabok	-	-	-	EN	
19	Pterocles orientalis	Chernobruchiy ryabok	-	-	-	EN	
20	Numenius tenuirostris	Tonkoklyuvyi kronshnep	CR	-	App1	EX?	
21	Vanellus gregarius	Krechetka	CR	-	App1	EN	
22	Larus ichthyaetus	Chenogolovyi chochotun			App2	VU	
23	Pandion haliaetus	Skopa		-	-	EN	
24	Haliaeetus albicilla	Orlan belohvost	-	-	-	VU	
25	Neophron percnopterus	Stervyatnik	EN	-	-	EN	
26	Circaetus gallicus	Zmeyeyad	-	-	-	VU	
27	Circus macrourus	Stepnoi lun	NT	-	-	-	
28	Aquila clanga	Bolshoi podorlik	VU	-	-	EN	
29	Aquila chrysaetos	Berkut	-	-	-	VU	
30	Aquila rapax	Stepnoy orel	-	-	-	VU	
31	Aquila heliaca	Mogilnik	VU	App1	-	EN	
32	Hieraaetus pennatus	Orel-karlik	-	-	-	DD	
33	Phalacrocorax pygmaeus	Malyi baklan	-	-	App2	VU	
34	Egretta garzeta	Malaya belaya tzaplya	-	-	-	NT	
35	Bubulcus ibis	Egipetskaya tzaplya	-	-	-	VU	
36	Ardeola ralloides	Zheltaya tzaplya	-	-	-	EN	
37	Plegadis falcinellus	Karavaika	-	-	App2	VU	
38	Phoenicopterus roseus	Flamingo	-	-	-	VU	
39	Platalea leucorodia	Kolpitza	-	App 2	App2	VU	
40	Pelecanus onocrotalus	Rozovyi pelican	-	-	-	VU	
41	Pelecanus crispus	Kudryavyi pelican	VU	App 1	App1	EN	
42	Ciconia nigra	Chernyi aist	-	App 2	App2	VU	
		<u>Fish</u>					

### The List of Threatened and Endangered Species of Plants and Animals in the site.

S.no	Scientific name	IUCN Redlist	CITES , App I	CMS	Nati onal List	
1	Caspiomyzon wagneri Kessler	Kaspiyskaya minoga		-	-	VU
2	A. Ruthenus Linne	Sterlyad	VU	App 2	-	-
3	A. kessleri volgensis Berg	Volzhskaya mnogotychinkovaya seld	-	-	-	VU
4	R. frisii kutum Kamensky	Kutum	-	-	-	EN
5	Salmo trutta caspius Kessler	Caspiyski losos (kumzha)	-	-	-	EN
6	Stenodus leucichthys leucichthys Guldenstadt	Byelorybitza	DD	-	-	DD
7	Chondrostoma nasus variabile	Volzhskiy podust	-	-	-	DD
8	Barbus brachycephalus caspicus Berg	Kaspiysky usach	-	-	-	DD
9.	Huso huso Linne	Beluga	VU	App2	-	-
10.	Acipenser stellatus Pallas	Sevryuga	VU	-	-	-
11.	A. nudiventris Lowetzky	Ship	VU	-	-	-
12.	A. Guldenstadti Brandt	Russkiy osetr	VU	-	-	-
		<b><u>Reptiles</u></b>	I	1		-1
1	Coluber caspius	Zheltobryuhiy poloz	-	-	-	VU
2	Elaphe quatuorlineata	Chetyrehpolosyi poloz		-	-	DD
		Insect	1			
1.	Ischnura aralenais Haritonov	Tonkohvost aralskiy	-	-	-	EN
2.	Calopteryx virgo L.	Krasotka devushka	-	-	-	VU
3.	Anax imperator Leach	Dozorshik-imperator	-	-	-	VU
4.	Bolivaria brachyptera Pall.	Bolivariya korotkokrylaya	-	-	-	VU
5.	Saga pedo Pall	Dybka stepnaya	VU	-	-	VU
6.	Onconotus servillei F.d.W.	Sevchuk servilya	-	-	-	VU
7.	Ceraeocercus fuscipermis	Kuznechik tyemnokrylyi	-	-	-	VU
8.	Porphyrophora polonica L.	Koshenil polskaya	-	-	-	VU
9.	Callisthenes reticulatus F.	Krasotel setchatyi	-	-	-	VU
10.	Lucanus cervus L.	Zhuk olen	-	-	-	CR
11	Dorcus parallelopipedus L.	Olenek	-	-	-	EX?
13	Bolboceras armiger Scop	Podvizhnorogiy navoznik	-	-	-	EX?
14	Cnemisus rufescens Motsch	Knemizus evropeiskyi	-	-	-	VU
15	Haplosoma ordinatum Sem.	Gaplozoma obychnaya	-	-	-	VU
17	<i>Chilocorus bipustulatus</i> L	Hilokorus dvutochechnyi	-	-	-	VU
18	Stethorus punctillum Weise*	Tochechnaya korovka	-	-	-	VU
19	Scolia maculata Drury	Skoliya gigant	-	-	-	VU
20	Scolia hirta Schrenk	Skoliya stepnaya	-	-	-	VU
21	Hoplitis fulva Eversm	Goplit ryzhiy	-	-	-	VU
22	Zerynthia polyxena Denis et Schiffermuller	Polixena	-	-	-	VU
23	Microzegris pyrothoe Eversm	Mikrozergis plamennyi	-	-	-	VU
24	Aricia chinensis myrmecias Christoph	Golybyanka mirmikinda	-	-	-	VU
25	Scolitantides bavius Eversm	Golubyanka baviya	-	-	-	VU
26	Philotes panope Eversm	Golubyanka panopa	-	-	-	CR
1	Tuana kang - Let	Flora	ENI			TINT
1	Trapa kasachstanica	Orech kazakhstanskyi	EN			EN

S.no	Scientific name	Vernacular name	IUCN Redlist	CITES , App I	CMS	Nati onal List
2	Tulipa schrenkii Regel	Tulpan Shrenka	EN			EN

Criterion 3. In different periods of the annual biological cycle there are 103 species of aquatic and semiaquatic birds that inhabit water sources with at least 25,000 birds during nesting. The main species for nesting season: Great Black-headed Gull (Larus ichtyaetus) - up to 4500 couples; Common Coot (Fulica atra) – 2500; Great Cormorant (Phalacrocorax carbo) – 1500; Red Crested Pochard (Netta rufina) – 1200; Black-headed Gull (Larus ridibundus) - 1000 and Yellow-legged Gull (Larus cachinnans) - 1000 couples 40,000 – 60,000 during moulting. The main species for moulting season Common Teal (Anas crecca) and Garganey (Anas querquedula), both – up 20 000; Mallard (Anas platyrhynchos) – 12000; Common Coot (Fulica atra) - 8000: Great Cormorant (Phalacrocorax carbo) - 3000 and 300,000 during seasonal migrations. The main species during seasonal migrations: Common Coot (Fulica atra) - 65000; Common Teal (Anas crecca) and Garganey (Anas querquedula), both – 49000, Mute Swan (Cygnus olor) - 22000. The system supports the existance of a large number of plant and animal species, mainly various populations of migrating natatorial birds. The site is habitat for the globally threatened Dalmatian Pelican (Pelecanus crispus), with a nesting population of about 50 couples (2004-2005, 2007-2008), and a migratory population up to 4000 specimens (2007-2008). It is habitat for 1% or more from the biogeographical population of: Great Cormorant (Phalacrocorax carbo), with a nesting population of 1500 couples (2003-2005, 2007-2008), and migratory population of 4000-6000 species (2007-2008), Great White Egret (Egretta Alba): nesting population - 200-500 couples (2004-2008); Great Black-headed Gull (Larus ichtyaetus), with a nesting population up to 4500 couples (2003-2004, 2007). The site has a simultaneous population of waterbird during migration of 60 000 - 90 000 species (2005-2008). It is habitat for more than 30 waterfowl and coastal bird species included on the Red-listed species of the Republic of Kazakhstan (see Annexes) (Sklyarenko S.L., Welch G.R. and Brombacher M., eds. 2008).

**Criterion 4.** Lakes are the site for the mass molting of Mute Swan (*Cygnus olor*), Mallard (*Anas platyrhynchos*), Teal (*A. crecca*), Garganey (*A. querquedula*), Gadwall (*A. strepera*), Red-crested Pochard (*Netta rufina*) and Pochard (*Aythya ferina*).

	Name		Population	Period present		
Scientific name	English	Russian/vernacular		_		
Pelecanus crispus	Dalmatian Pelican	Kudryavyi pelican	4700	vagrant, migration		
Phalacrocorax carbo	Cormorant	Bolshoi Baklan	3000 6000	breeding migration		
Anser anser	Grey Lag-Goose	Seryi goose	3000	migration		
Cygnus olor	Mute Swan	Lebed shipun	22000	migration		
Anas platyrhynchos	Mallard	Kryakva	12000	moulting		
Anas crecca	Teal	Chirok-svistunok	15000	moulting		
Anas querquedula	Garganey	Chirok-treskunok	5000	moulting		
Anas crecca	Teal	Chirok-svistunok	35000	migration		
Anas querquedula	Garganey	Chirok-treskunok	14000	migration		
Aythya ferina	Common Pochard	Krasnogolovaya chernet	18000	migration		
Larus ichthyaetus	Great Black-headed Gull	Chernogologyi hohotun	12000	migration		
Fulica atra	Coot	Lysuha	2500 8000 65000	breeding, moulting migration		

#### Population of waterfowl during summer moulting and seasonal migration at the designated site

**Criterion 5.** According to the data for the spring-summer 2007 period, the total number of aquatic and semi-aquatic birds in this wetland territory was 136,000 and 32,000 respectively.

Scientific name	English name	Vernacular name	Population
Podiceps cristatus	Great Grebe	Bolshaja poganka	4000 - spring
Cygnus olor	Mute swan	Lebed- shipun	22000 - spring
Anser anser	Gray goose	Seryi goose	3000 - spring
Anas platerhynchos	Mallard	Kryakva	12000 - summer
Netta rufina	Red-crested Pochard	Krasnonosyi nyrok	15 000 - spring 6000 - summer
Aythya ferina	Pochard	Krasnogoloviy nyrok	18000 - spring
Anas crecca	European Teal	Schirok-svistunok	35000 - spring 12000 - summer
Anas querquedula	Garganey	Schirok-treskunok	14000 - spring 8000 - summer
Fulica atra	Common coot	Lysukha	18000- spring 8000 - summer

**Criterion 6:** This wetland supports 1% of Great Cormorant (*Phalacrocorax carbo*) in the South West Asian population (subspecies: *sinensis*). Approximately 4,000-6,000 individuals have been recorded at the site during migration, in excess of the 1% threshold of 1,000 individuals (Wetlands International 2004).

**Criterion 7:** Out of the six sturgeon species that inhabit the Caspian basin, four come to the Ural River for spawning: Beluga sturgeon (*Huso huso*), Starry sturgeon (*Acipenser stellatus*), Russian sturgeon (*Acipenser gueldenstadtii*) and Spiny sturgeon (*Acipenser nudiventris*). Sterlet (*Acipenser rulhenus*) and Persian sturgeon (*Acipenser persicus*) are seen sporadically.

**15. Biogeography** (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region: According to Udvardy (1975), this wetland territory is situated in the northern desert land zone of Eurasia, with the arid extremely continental climate that is slightly softened by the sea influence on the shore. High level of insolation throughout the year.

Brown, alkaline and solonchak soils are prevalent. The terrestrial part of the wetland territory has a typical semidesert and desert canopy. Only in places, like in depressions close to the river, pratal vegetation dominates. Green cover of the wetted part of the wetland territory is emergent and immersed vegetation of the border or mosaic type. The sea ajacent part of the wetlands has vast arenaceous and shelly shallow waters up to 2 meters deep.

b) biogeographic regionalisation scheme (include reference citation):

Palearctic realm. This wetland territory is situated on a coastal plain with wormwood vegetation of the sea and lake shores on marsh solonchak and alkaline soils (Atlas of Natural Conditions and Resourses in the Kazakh SSR, Moscow, 1982).

#### 16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

In the geological structure of the Ural delta they separate the foundation and the platform residual sedimentary cover. Parent material of the foundation is hosted at depth of 7 - 8 km and is represented by platform facies of marine and continental origin. Most ancient deposits of the Permian system consist of the arenacaous - argilliferous variegated sandstone and boulder flint bed. Formations of the Jurassic system are clearly divided into two types: Lower - mainly terrigenous, and Upper - marine. Medium and fine-grained sands, sandrocks and micaceous dark-grey clays are usual for the Lower Jura, and an alternation of grey and brown clays, often thin-bedded and rusty, is characteristic for the Upper Jura.

Origins of these wetlands are no doubt natural, only for few arms of the delta there were attempts to erect ground dams and small tail-water channels during different periods of the human activity.

The modern Ural delta begins almost within the city boundaries of Atyrau with the left branch, Peretask, and then stretches to the south, south-west for almost 40 km. The river part of the Ural-Caspian channel lies in the Golden arm, which then turns into the sea part of the channel with depths up to 1.8 meters within the next 16 km. This channel connects the Ural estuary with the Ural watersink – the deepest part of the North Caspian. The Ural watersink is the continuation of the underwater Ural river bed and was worked up by the river during the time of lower sea levels.

The Ural river belongs to typical rivers fed almost exclusively by snow. Its stream flow is generally formed in the highlands, where the river network is very developed. Apart from shallow Barbastau river, the Ural does not have feeders below Uralsk city until it reaches the sea.

Ice formation in the Ural lowlands begins at the end of November – beginning of December, and its duration fluctuates between 82 to 156 days. Ice drift happens in the beginning of March – middle of April, and during mild winters can begin during the first two weeks of April.

From the moment of ice dissolution the water warm-up process is intensive. By the end of April, water temperature rises up to +7 to  $+8^{\circ}$ C, during some periods up to +10 to  $+13^{\circ}$ C. During the sharp rise of the water level (beginning of May) water temperature stabilizes somewhat, then rapidly increases, reaching +17 + 19, and sometimes  $+20^{\circ}$ C at the end of May. The highest water temperature happens in July-August, matching the period of zero water levels in the river.

Spring flood in the Ural begins in March-April with the snow melting and continues until the end of May – middle of June. During the spring flood 60-70 % of the annual stream flow takes place. The variation coefficient of the annual stream flow for the Ural is 0.6. Usually, during wet years, a significant part of stream flow takes place during spring, i.e. annual distribution of stream flow is irregular. The summary volume of spring flood for April-July within the 1936-1965 period composed 78.2 % of the annual stream flow. In recent years this index was 76-83 %. In different years, flood peak starts at different time. The average date of the flood peak is May 20th. The earliest date of the flood peak is May 4th, latest – June 14th. The duration of the flooding is 89 days on average.

The fall low-water period is at the end of August, beginning of September. During this time the river water level is minimal. Later it increases somewhat and remains constant until ice formation takes place at the end of November, beginning of December. During recent decades harsh winters in the North Caspian region happen increasingly less often. Significant temperature drops are short-lived and ice formation happens with a delayed timeline.

#### 17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, and climate (including climate type).

The terrain within the projected territory is formed mostly by sea activities. It is flat and is characterized by slight compartmentalization of the surface. They distinguish theree types of terrain: sea accumulative plain, alluvial-delta plain and fragmented plain of the denudation origin. The denudation plain is represented on small areas of salt-dome structures, where stone salts of the Permian period can be seen.

The Ural delta is a large accumulative form of terrain, shaped by river sediments and formed at the river estuary by the alluvial material. The processes are characterized by complexity, as a gradual shift from the river conditions into sea conditions takes place here. The primary sea plain loses its original features and converts into the fluvial-sea type of terrain. During the Quarternary period, the Caspian Sea level fluctuated, and the coast line shifted by tens of kilometers. Along with overall sea level rise, the recurring setting down influences the water level decrease. During recent decades, due to the fluctuations of the Caspian Sea level, when sea withdrew by 10-15 km (1996-2002) land formation was not characterized by the active delta development, but rather by a sea level drop. During this period the majority of the Ural arms became non-flowing, and the flow concentrated in the main bed.

Climate of the region is continental, arid and formed under the influence of arctic, Iranian and Turan air masses. During the cold part of the year, air masses from the western offset of the Siberian anticyclone dominate here. During the warm period they are interchanged by heated tropic masses from central Asian and Iranian deserts. Average annual sunshine duration is very high and is 2,590 hours (Atyrau), number of days without sun is 54 day on average.

Average annual temperature changes within the region from 8 to 12. Annual amplitude of air temperature fluctuates from 33 to 36. Duration of the period with the average daily air temperature above 0 is 180-210 days.

Winter is moderately cold. Average January temperature, coldest month is -8. However, during coldest winters temperatures drop to -38.

Soils within the wetlands territory are characterized by the zonal type. Brown desert soils within the subzone of the north deserts are most prevalent. Characteristics and the structure of the soil cover of the explored territory is defined not only by zonal distribution, but more so by role of hydrologic factors. In the soil cover of the sea shore territory saline hydromorphic soils are widely spread. Instability of conditions, dynamics and insufficient prominence of soil forming processes extremely harden the diagnostics of the soils within the explored territory. Such processes as salination and deflation are widely spread. The class-list of the soils, identified in the wetland territory of the Ural Delta and on the Caspian shore includes 14 types.

#### **18. Hydrological values:**

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Northern part of the Caspian, which takes in approx. 90% of all river flow, is extremely shallow (maximum depths bordering Central Caspian are 25-30m). Northern Caspian with its slightly salted well-warmed during the summer period waters, and rich in food supply is the main water zone for sturgeon nursery grounds and adult fish. Especially favorable conditions on water saltiness are shaping up in the eastern part during last few years.

The sea level rise is accompanied by a fundamental alteration its hydrologic –hydrochemical conditions and the ecosystem as a whole. Its desalination takes place, the increased flow of biogenic elements, mineral and organic forms of nitrogen and phosphorous, which promotes the improvement of food reserve of main commercial fish; general production of zoobenthos has increased from 677.6 million tons in 1986-1990 to 743.3 million tons in 1991 – 1995 (Ivanov, 2000).

High productivity of the Caspian is primarily due to significant solar radiation, characteristic to its latitude, thousands of tons of biogenic salts, brought in by the stream flow and even its bigger amount taking part in the biologic element circulation at sea. Favorable conditions of the water mass mixing with their evaporation in summer and cooling in winter guarantee the climb of deep water, rich with biogenic materials (Ivanov & Sokolsky, 2001). Low degree of salinity of the Caspian, especially of its northern part, has a big significance too.

The Ural River has one well-defined flood peak period. In different years flood peak comes at different times. Average date of the flood peak is May 20. During recent years there is a clear tendency towards the shift of the flood peak for later timelines. So from the 1960's to the 1990's the flood peak had a shift of one month. The earliest time for the flood peak is May 4, latest – June 14. The duration of the flooding is 89 days on average. During the flood period, the hydraulic connection between arms of the river delta and the sea is restored. The influence of sediment trapping increases in the estuary section of the Ural, which together with the high water leads to catastrophic flooding (as it happened in May 1990). At high levels – 5-10% of frequency (-23.96 – -24.20 m BS) the river water goes into the flood-plain, flooding of oxbow lakes, dead river beds, old delta branches takes place, forming a continuous sea of water and constitute a threat of road and bridge washouts. During last 30 years, the monitoring section of Atyrau registered draining levels from 2.54 km3 in 1977 to 17 km3 in 1994. Low water years are characterized by low elevation of water during the flood period, fast drop of high water and their intensive warm-up. During high water years water levels in the river and the volume of draining is considerably higher. Flooding is prolonged, characterized by gradual increase and drop of high water, its

gradual warm-up. The increase of river flow is accompanied by an appropriate drop of mineralization in general, as well as content of its main composing ions (Drizo, Bolshov et. al, 1981).

During the rise of the water level, up to 90 % of the annual drain sediments pass together with the flooding waters, which are then deposited in the river delta passes and are carried out to seashore, forming islands and sand tongues.

## 19. Wetland Types a) presence:

Circle or underline the applicable codes for the wetland types of the Ramsar "Classification System for Wetland Type" present in the Ramsar site. Descriptions of each wetland type code are provided in Annex I of the *Explanatory Notes & Guidelines*.

Marine/coasta	ıl: <u>A</u>	•	B	•	С	•	D	•	<u>E</u>	•	F	•	<u>G</u>	•	H	•	Ι	•	<u>J_•K</u> •	Zk(a)
Inland: L	•								• Xf					-				-	-	U•
Human-made:	1	•	2	•	3	•	4	•	5	•	6	•	7	•	8	•	9	•	Zk(c)	

#### b) dominance:

List the wetland types identified in a) above in order of their dominance (by area) in the Ramsar site, starting with the wetland type with the largest area.

#### K, H, J, G, E, A, B

#### 20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Six types of vegetation communities have been identified for the wetland territory: eremic, pratal, helobious, hylile, dumetosous and immersed.

1. Eremic vegetation is dominated by annual and perennual (suffruticose) saltworts and eremic suffruticose wormwoods. The most widespread plant on the arid solonchak seashore is subshrub (*Halocnemum strobilaceum*), whose communities are tied to very salty seashores and dusty solonchaks. In this community the following animals are common: red fox (*Vulpes vulpes*), brown hare (*Lepus europaeus*), jerboas (*Alactaga*), great gerbil (*Rhombomys opimu*), little bustard (*Otis tetrax*), gray lark (*Calandrella pispoletta*) and others. Very rarely – saiga antelope (*Saiga tatarica*) and Houbara Bustard (*Chlamydotis* undulata macqueeni).

2. Pratal vegetation (moory, true, halophytic) – greenlands dominated by moisture-loving grasses, predominantly graminoids. On the seashore plains, *Aeluropus littoralis*, "shortgrowing" annual saltworts and tamarisk greenland communities are widely spread, which are numerous in species composition. Animals in this community type are represented by yellow ground squirrel (*Spermophilus fulvus*), Northern Mole Vole (*Ellobius talpinus*), small mouselike rodents, Yellow-headed Wagtail and Blackheaded Wagtail (*Motacilla feldegg, M. lutea*)

3. Helobious vegetation – grassy marshes formed on the soils of the swampy type and dominated by reeds, periodically flooded or dry patches of the "water – ground" transitional area. Animals of this community: wild boar (*Sus scrofa*), racoon dog (*Nictereutes procionoides*), musk-rat (*Ondatra zibethica*), Swamp Lynx (*Felis chaus*), golden jackal (*Canis aureus*), Eurasian Bittern (*Botaurus stellaris*), rails (*Rallidae*), some sandpipers (*Charadriiformes*) and terns (*Chlidonias*).

4. Inundable forests form in fragments on the Ural natural levees, deltoid channels and local groups of slope channels with a prevalence of common willow (Salix alba), oleaster (*Elaeagnus oxycarpa*), and sometimes, more scarecely - osier (*Salix caspica*). Typical animals of this society are wild

boar (Sus scrofa), wolf (Canis lupus), red fox (Vulpes vulpes), racoon dog (Nictereutes procionoides); birds – Black Kite (Milvus migrans), Red-footed Falcon (Falco vespertinus), Hooded Crow (Corvus cornix), nesting colonies of Great Cormorant (Phalacrocorax carbo), Grey Heron (Ardea cinerea), Great White Egret (Egretta alba) and Glossy Ibis (Plegadis falcinellus).

5. Dumetosous (tamarisk) thickets grow universally in small patches on the sea plain and in the delta along river beds and arms. Among them ephemeral - tamarisk (*Tamarix ramosissima, Eremopyrum triticeum, Anisantha tectorum*) and gramineous- tamarisk (*Tamarix ramosissima, Vexibia alopecuroides, Sphaerophysa salsula, Alhagi pseudalhagi, Glycyrrhiza glabra, Aeluropus littoralis, Puccinellia distans*) thickets that grow on inundable pratal solonchak and semi-solonchak soils. Animals inhabiting this type: tamarisk gerbil (*Meriones tamariscinus*), brown hare (*Lepus europaeus*), long-eared hedgehog (*Erenaceus auritus*) and wild boar (*Sus scrofa*).

6. Immersed vegetation of the reservoirs can be divided into communities with dominating immersed rooted aquatics and large seaweeds; aerial - hydric communities with dominating higher plants – hygrophytes, including floating (waterlilies, water chestnut and others) and a layer of immersed plants (hornweed, parrot's-feather and others). Inhabiting animals are great-crested grebe (Podiceps cristatus), dalmation pelican (*Pelicanus crispus*), greylag goose (*Anser anser*), mute-swan (*Cygnus cygnus*), the Red-crested Pochard (*Netta rufina*) and common coot (*Fulica atra*). During molting and migration periods there are congregations of various water fowl species, primarily *Anseriformes* and *Fulica atra*.

#### 21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 14, Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS* 

Within the territory of wetlands there are 33 species out of 14 families that are of the dominant group. The majority (approx. 70%) belong to four families – goosefoot family (10 species out of 44), grain varieties (7 species out of 19), pondweeds (3 species out of 7) and composite family (3 species out of 28).

In the Ural delta 14 species of rare and unique kind are noted. Two species are listed in the national Red Data List, one of which is endemic for Kazakhstan. Kazakhstan water chestnut, caltrop (*Trapa kasachstanica*), wild tulip (*Tulipa schrenkii*).

There are four epibiotic species, including the above-mentioned water chestnut: floating watermoss (*Salvinia natans*), water shamrock (*Marsilea quadrifolia*), (*Nitraria schoberi*), Straight vallis (*Vallisneria spiralis*).

A significant amount of species that grow here may be used in various areas of human activities as plant raw material. Among them a lot of them are herbs, forage, melliferous and technical plants. The species composition of each group is to be studied within the developed programme of scientific research starting in 2009.

Medicinal group of plants includes 118 species: dooryard plantain (*Plantago major*), shepherd's purse (*Capsella bursa pastoris*), wheat-grass (*Elytrigia repens*).

Forage group – 129: perennial grain varieties and legumes, on desertificated lands – wormwoods (Lerkhov, Austrian, santony, whiteland), ephemer grain varieties (Eremopyrum triticeum (Gaertin) Nevski, Anisantha tectorum (L.) Nevski) and monocyclic goosefoot family (ebelec, types klimacoptery and petrosimoniy);

Alimental group – 49: Prickly Lettuce (*Lactuca serriola*), common dandelion, garden asparagus (*Asparagus officinalis*), Salicornia (*Salicornia europaea*) and others. Syrian bean-caper (*Zygophyllum fabago*) is used unusually – its flower buds are marinated like cucumbers or capers;

Nectareous group – 51: camel's-thorn, salt tree, sally-bloom (*Epilobium hirsutum*), rough-weed (*Stachys palustris*);

Poisonous group – 25: henbane (both species), brunet (*Pseudosophora alopecuroides*) (picture 2.2.11), *dodarzyi*, curveseed butterwort (*Ceratocephala testiculata*).

Also, a large group of plants (approx. 150 species) can be used as technical raw materials in construction and applied and decorative arts.

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g., which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.* 

Approximately 2,000 terraneous and aquatic invertebrates and more than 460 species of vertebrate animals inhabit the territory of wetlands.

The invertebrates are represented mostly by various plankton, benthos, aquatic and terrestrial insect species, among which there are 24 protected species. Brief specifications of the vertebrate representative species are presented below:

**Fish**. There are 76 species and subspecies of fish and round-mouthed fishes territory inhabitats, including specially protected species - Caspian lamprey (*Caspiomyzon wagneri*), Caspian salmon trout (*Salmo trutta caspius*), Caspian anadromous shad (*Alosa kessleri volgensis*), Beloribitsa (*Stenodus leucichthys*), Caspian White Fish (*Rutilus frisii kutum Kamensky*), as well as five species of sturgeons: Beluga sturgeon (*Huso huso*), Starry sturgeon (*Acipenser stellatus*), Russian sturgeon (*Acipenser gueldenstadtii*), Spiny sturgeon (*Acipenser nudiventris*) and Sterlet (*Acipenser rulhenus*).

*Amphibians* in the Ural Delta and the adjacent Caspian seashore are reperesented by two species: the Green Toad - (*Bufo viridis*) - "zelenaya zhaba", and the Lake Frog - (*Rano ridibunda*) – "ozernaya lyagushka".

**Reptiles** within the wetland territory are represented by 20 species: Caspian (*Tenuidactylu. caspius*) and grey (*T. russowi*) geckos, Kaspischer Even-fingered Gecko (*Alsophilax pipiens*); (*Phrynocephalus helioscopus*) and eared (*Ph. mystaceu*) toad agamas, as well as toad agama – (*Ph. guttatus*). Steppe agama (*Agama sanguinolenta*), Caspian desert lacerta (*Eremias velox*), sand boa (*Erix milliaris*) and arrow-snake (*Psammophis lineolatum*) inhabit sandy masses. More wetted coastal territories are home to sand lizard (*Lacerta agilis*), copperhead snake (*Agcistrodon halys*), dice snake (*Natrix tesselata*) and grass snake (*Natrix natrix*), as well as 3 species of wood snakes – The Steppes Ratsnake (*Elaphe dione*) and the Kazakhstan Red Book listed four-lined Snake (*Elaphe quatuorlineata*) and whip snake (*Coluber jugularis*).

**Birds.** There are 292 registered species of birds within the wetland territory, including representatives of the following familes: *Gaviiformes*, *Podicipediformes*, *Pelicaniformes*, *Ciconiiformes*, *Phoenicopteriformes*, *Anseriformes*, *Falconiformes*, *Gruiformes*, *Charadriiformes*, *Columbiformes*, *Cuculiformes*, *Strigiformes*, *Caprimulgiformes*, *Apodiformes*, *Coraciiformes* and *Passeriformes*. Among them, 26 rare species have been listed by IUCN and in the Red Data List of Kazakhstan. (Annex 1: List of Ural River Delta Birds)

Noteworthy bird species include: Great White Pelican (*Pelecanus onocrotalus*) - Rozovyi pelican; Pygmy cormorant (*Phalacrocorax pygmeus*) - Malyi baklan, Little Egret (*Egretta garzetta*)- Malaya belaya tzaplya; Black Stork (*Ciconia nigra*) -Chernyi aist, Great Flamingo (*Phoenicopterus roseus*) -Flamingo, Whooper Swan (*Cygnus cygnus*) - Lebed-klikun, Bewick's Swan (*Cygnus bewickii*) - Malyi lebed, White-tailed Eagle (*Haliaeetus albicilla*)- Orlan-belochvost, Common Crane (*Grus grus*) - Seryi zhuravl, Demoislele Crane (*Anthropoides virgo*) - Zhuravl-krasavka, Black-belled Sundgrouse (*Pterocles orientalis*) - Chernobryuchiy ryabok.

*Mammals*. There are 48 species of mammals from 7 families that inhabit the Ural delta and the ajacent areas. Representatives of the rodent family are the most numerous with 21 species (43.75%), predators - 12 species (25.0%) and chiropterans - 8 species (16.8%). Representatives of other families are few: insectivores, lagomorphs and hoofed mammals - 2 species each (4.1%) and pinnipedians – 1 species, (2.1%). Within the projected territory one may encounter four protected species: the Bobrinski's Serotine *(Eptesicus bobrinskoi),* the marbled polecat (*Vormela peregusna*), the European mink (*Mustela lutreola*), and the Russian desman (*Desmana moshata*). (Annex 3: List of Ural River Delta Animals)

#### 23. 23. Social and cultural values:

**a)** Describe if the site has any general social and/or cultural values e.g., fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values:

The deltoid arms of the Ural River are the only source of drinking and technologic water supply of the local population within the wetland region. They are also important as local transport waterways, and on a scale of the whole river bed of the Ural they carry interregional and interstate significance. The coastal territory of the wetlands plays an important role for the farming activities of the local population. It is used as pastures, haylands and on a smaller scale for crop cultivation.

The Ural delta is also an important fish productive reservoir used for spawning and feeding by migratory and semimigratory fish species (especially sturgeons). It is also used as the wintering ground and migration way in the midstream and the upstream of the river and the following counterslope. The recreational role of this wetland region is significantly increasing amid the rapid development of the Atyrau city as an administrative center. Summer beach tourism is increasing. On weekends, there are up to 500 beach visits per day.

**b)** Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning?

If Yes, tick the box  $\Box$  and describe this importance under one or more of the following categories:

i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:  $\Box$  - expected in coming years.

ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:

iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

#### 24. Land tenure/ownership:

a) within the Ramsar site: State

b) in the surrounding area: Mixed – state land reserve, territories for long term leasing, given to individuals and legal bodies and private land plots.

#### 25. Current land (including water) use:

a) within the Ramsar site:

Navigation, fishing, ranging, haymaking, towns, waterworks, highway transportation facilities, communications and electricity supplies

b) in the surroundings/catchment:

Exploration and production of hydrocarbon material, ranging, haymaking, livestock farms, towns, waterworks, highway transportation facilities, communications and electricity supplies.

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Natural factors: surging by the north-eastern Caspian shore, emerging as a result of wind activity.

**Anthropogenous factors:** intensive fishing and navigation on territories ajacent to wetlands. Intense development of exploration and production of hydrocarbon materials. Recreational demands during summer time, increased intensity of water transport traffic in the areas of beach tourism.

#### 27. Conservation measures taken:

**a)** List national and/or international category and legal status of protected areas, including boundary relationships with the Ramsar site:

In particular, if the site is partly or wholly a World Heritage Site and/or a UNESCO Biosphere Reserve, please give the names of the site under these designations.

This wetland territory is currently a part of a special protected natural territory – the North Caspian nature reserve. Business activity here is limited, although the efficiency of current restraints is not fully adequate.

Presently, there is development in establishing this wetland territory as a state nature reserve with a legal body status.

**b)** If appropriate, list the IUCN (1994) protected areas category/ies which apply to the site (tick the box or boxes as appropriate):



c) Does an officially approved management plan exist; and is it being implemented?:

A management plan has been developed and its implementation is currently being planned for the territory of this wetland.

d) Describe any other current management practices:

The "Zolotenok" game husbandry is currently operating within the teritory of the wetland. It has security personnel, their accomodation and undersized waterborne transportation.

#### 28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

Scientific and techno-economic justificatons for establishing the "Akjayiq" state nature reserve on this territory have been developed.

#### 29. Current scientific research and facilities:

e.g., details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

To assess current conditions of the wetland ecosystems, complex hydrologic, botanic and zoologic research took place in 2004 -2006. Its results were the basis of the natural-scientific justification of the special protected nature territory creation in the Ural delta. A monitoring program for habitat quality of flora and fauna has been developed and is being introduced. Research groups of fishing companies hold annual evaluations of commercial fish resources and establish fishing quotas.

Within the framework of oil-exploration and oil-production, there is monitoring of the aquatic and terrestrial environment quality, their plant and animal components and the possible negative influence that exploration and production of carbohydrates has on them.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitors' centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

In 2004-2007 intensive work was done to increase the awareness level, primarily of the local population, about the significance of the wetlands. A series of posters and brochures were published with information on globally important species that inhabit this wetland territory. Along major car roadways billboards were placed carrying detailed information about the wetlands and their essential plants and animals.

A systematic course of lectures for students was developed, that included scientific facts about the importance of this territory. Special booklets for fishermen were published that contained recommendations for alleviating the negative impact of fishing on important biodiversity. Preliminary work is being done to establish a visitor's center in the Damba settlement.

#### 31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Upper part of the Ural delta is used by Atyrau residents for amateur fishery (200 visits a day), sailing and rowing (300 departures a day) and swimming – beach activities (1,000 visits a day). Summer beach tourism on the deltoid seaside is becoming of greater importance. During weekends there are up to 500 visits a day in the Ural delta front.

#### 32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept of Agriculture/Dept. of Environment, etc.

This wetland territory is under the jurisdiction of the Atyrau oblast akimat of the Republic of Kazakhstan. Functionally, this territory is under the administration of the Ural-Caspian basin authority of the Fishing Committee for the Department of Agriculture of the Republic of Kazakhstan, the Ural-Caspian basin authority of the Water Supply Committee for the Department of Agriculture of the Republic of Kazakhstan, authority of forest and game husbandry committee for the Department of Agriculture of the Republic of Kazakhstan.

#### 33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

1. The Department of Natural resources and natural management regulation for the Atyrau oblast akimat. 060001,Atyrau

77, Aiteke bi str, tel/fax: +7 (7122) 35-45-59 <u>e-mail: atr\_priroda @ mail.ru</u> Mr. Yelaman Ilyassov, Head of the Department

2. Atyrau Regional Inspection of Forestry and Hunting 060009, Atyrau
33, Leskhoznaya str. tel/fax: +7(7122) 35-45-59
e-mail: atr\_priroda @ mail.ru

Mr. Marat Abdrakhman, Head of the Inspection

#### 34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

1. F. Akiyanova ed. Evaluation of modern conditions of vegetation and ecosystmes in the Ural delta and the ajacent shore of the Caspian Sea. Final report. Almaty. 2006. 272 pages.

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Please return to: Ramsar Convention Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland Telephone: +41 22 999 0170 • Fax: +41 22 999 0169 • e-mail: ramsar@ramsar.org

The List of Birds of the Ural River Delta and adjacent Caspian coast

The List of Birds of the Ural River Delta an	d adjacent Cas	spian coast	
Class, species	Nesting	Migration	Wintering
Gaviiformes			
1. Gavia stellata – Red-throated Diver		III-IV,X***	
2. Gavia arctica – Black-throated Diver		III-IV,X	
Podicepediformes			
3. Podiceps nigricollis – Black-necked Grebe	IV-V111	IV,IX-X	
4.Podiceps auritus – Slavonian Grebe		IV,IX-X	
5.Podiceps griseigena – Red-necked Grebe		IV,IX-X	
6. Podiceps ruficollis – Little Grebe		IV,IX-X	
7.Podiceps cristatus – Great Crested Grebe	IV-V111	IV,IX-X	
Pelecaniformes			
8. Pelecanus onocrotalus* - White Pelican	IV-V111	IV,IX-X	
9. Pelecanus crispus* - Dalmatian Pelekan – CD**	IV-V111	IV,IX-X	
10.Phalacrocorax carbo – Great Cormorant	IV-V111	IV,IX-X	
11. Phalacrocorax pygmeus – Little Cormorant – NT**	1V-V11	1V, 1X	
Ciconiiformes			
12. Botaurus stellaris – Bittern	IV-V111	IV,IX	
13. Ixobrychus minutus – Little Bittern	IV-V111	IV,IX	
14. Nycticorax nycticorax – Night Heron	IV-V11	IV,IX	
15. Ardeola ralloides* - Squacco Heron	IV-V11	IV,IX	
16. Bubulcus ibis* - Buff-backed Heron	IV-V11	IV,IX	
17. Egretta alba – Large Egret	III-V111	III-IV,X	
18. Egretta garzetta* - Little Egret	IV-V111	IV,IX	
19. Ardea cinerea – Heron (Grey Heron)	IV-V111	III-IV,X	
20. Ardea purpurea – Purple Heron	IV-V111	IV,IX	
21. Platalea leucorodia* - European Spoonbill	IV-V11	IV,IX	
22. Plegadis falcinellus* - Glossy Ibis	IV-V11	IV,IX	
23. Ciconia nigra* - Black Stork		IV,IX	
Phoenicopteriformes			
24. Phoenicopterus roseus* - Flamingo	VII-VIII	IV,IX	
Anseriformes			
25. Rufibrenta ruficollis* - Red-breasted Goose – VU**		IV,IX	
26. Anser anser – Greylag-Goose	III-V111	III,X-XI	
27. Anser albifrons – White-fronted Goose		IV,IX	
28. Anser erythropus – Lesser White-fronted Goose – VU**		IV,IX	
29. Anser fabalis – Bean Goose		IV,IX	
30. Cygnus olor – Mute Swan	III-V111	Ш,Х	
31. Cygnus cygnus* - Whooper Swan		IV,X-XI	
32. Cygnus bewickii* - Bevicki Swan		IV,X	
33. <i>Tadorna ferruginea</i> – Ruddy Sheld-Duck	IV-V11	III-IV,X	
34. <i>Tadorna tadorna</i> – Sheld-Duck	IV-V11	III-IV,X	
35.Anas platyrhynchos – Mallard	III-V111	III-IV,X	
36. Anas crecca – Teal		,	
37. Anas strepera – Gadwall	IV-V111	III-IV,X	
38. Anas penelope – Wigeon		III-IV,X	
39. <i>Anas acuta</i> – Pintail		III-IV,X	
40. Anas querquedula – Garganey	IV-V11	IV,X-XI	
41. Anas clypeata – Shoveler	IV-V11	IV,X-XI	
42. Anas angustirostris* - Marbled Duck – VU**		IV,IX	
43. Netta rufina – Red-crested Pochard	IV-V11	IV,X-XI	

44. <i>Aythya ferina</i> – Pochard		IV,X-XI	
45. Aythya nyroca* - Ferruginous Duck – NT**		IV,IX	
46. Aythya fuligula – Tufted Duck		IV,X-XI	
47. Aythya marila – Scaup		IV,X-XI	
48. <i>Clangula hyemalis</i> – Long-tailed Duck		IV,X	
49. Bucephala clangula – Goldeneye		IV,X IV,X	
50. <i>Melanitta fusca</i> – Velvet Scoter		IV,X-XI	
<b>51.</b> Oxyura leucocephala* - White-headed Duck – EN**	IV-V11	IV,X XI IV,X	
52. Mergus albellus – Smew	1, , , , , , , , , , , , , , , , , , ,	IV,X IV,X	
53. <i>Mergus serrator</i> – Red-breasted Merganser		IV,X-XI	
54. Mergus merganser – Goosander		IV,X-XI IV,X-XI	
Falconiformes		1,7,7,7,7,7,7,7,7,7,7,7,7,7,7,7,7,7,7,7	
55. Pandion haliaetus* - Osprey		IV,IX	
56. Pernis apivorus – Honey Buzzard		IV,IX IV,IX	
57. <i>Nilvus migrans</i> - Black Kite		IV,IX IV,IX	
58. Circus cyaneus – Hen-Harrier		IV,IX IV,IX	
59. Circus macrourus – Pale Harrier – NT**		IV,IX IV,IX	
60. <i>Circus pygargus</i> – Montagu's Harrier		IV,IX IV,IX	
61. <i>Circus aeruginosus</i> – Marsh- Harrier	III-V111	IV,IX IV,X	
62. Accipiter gentilis – Goshawk	111- V 1 1 1	IIV,X III-IV,X	
63. Accipiter nisus – Sparrow Hawk		III-IV,X IV,IX-X	
64. Accipiter brevipes – Shikra		IV,IX-X IV,IX	
65. <i>Buteo lagopus</i> – Rough-legged Buzzard		IV,IX IV,X	XI-III*
66. <i>Buteo rifunus</i> – Long- legged Buzzard	IV-V111	IV,X IV,IX	
67. <i>Buteo buteo</i> – Buzzard	10-0111	IV,IX IV,IX-X	
68. Circaetus gallicus* - Short-toed Eagle		IV,IX	
69. Hieraaetus pennatus* - Booted Eagle	IV-V111	IV,IX-X IV,IX	
70. Aquila rapax* - Steppe Eagle	10-0111	,	
71. Aquila clanga – Spotted Eagle – VU**	IV-V111	IV,X IV,IX	
72. Aquila heliaca* - Imperial Eagle – VU**	10-0111	III,X-XI	
73. Aquila chrysaetos* - Golden Eagle	III-V111	III,X-XI III,X-XI	XI-III
74. Haliaeetus albicilla* - White-tailed Eagle – NT**		ΠΙ,Λ-ΛΙ	AI-III
75. <i>Neophron percnopterus</i> * - Egyptian vulture 76. <i>Falco cherrug</i> * - Saker Falcon	IV-V11		
70. Falco cherrug* - Saker Falcon 77. Falco peregrinus* - Peregrine Falcon	1 V - V 1 1	IV,X IV,X	
78. <i>Falco subbuteo</i> – Hobby	IV-V11	IV,X IV,IX	
	1 V - V 1 1		
79. Falco columbarius – Merlin	IV-V11	IV,IX IV,IX	
80. Falco vespertinus – Red-footed Falcon	1 V - V 1 1		
81. Falco naumanni – Lasser Kestrel – VU**         82. Falco tinnunculus – Common Kestrel	IV-V11	IV,IX-X	
	1 V - V 1 1	IV,IX	
Galliformes 83. Alectoris chukar – Chukar	1-ХП		1-ХП
84. Perdix perdix – Grey Partridge	I-XII		I-XII
85. Coturnix coturnix – Quail	IV-V11	IV,IX	LVII
86. Phasianus colchicus – Pheasant	I-XII		I-XII
Gruiformes			
87. <i>Grus leucogeranus</i> * - Asiatic White Crane – CR**		IV,IX	
88. Grus grus* - Crane	<b>TX</b> 7 <b>X</b> 71 1	IV,IX-X	
89. Anthropoides virgo* - Demoiselle Crane	IV-V11	IV,IX	
90. <i>Rallus aquaticus</i> – Water Rail		IV,IX	
91. Porzana porzana – Spotted Crake	TT7 T71 1	IV,IX	
92. Crex crex – Corncrake – VU**	IV-V11	IV,IX	
93. Gallinula chloropus – Moorhen	IV-V11	IV,IX	├
94. Porphyrio porphyrio* - Purple Gallinule	IV-VII	IV,IX	
95. Fulica atra – Coot	IV-V11	IV,IX-X	

96. Otis tarda* - Great Bustard – VU**		IV,IX	
97. Otis tetrax* - Little Bustard – NT**		IV,IX	
98. Chlamydotis undulata* - Houbara Bustard – NT**	1V-V11	IV,IX IV,IX	
Charadriiformes	1, 11		
99. Burhinus oedicnemus – Stone Curlew	IV-V11	IV,IX	
100. <i>Pluvialis squatarola</i> – Grey Plover		IV-IX	
101. Charadrius hiaticula – Ringed Plover		IV,IX	
102. Charadrius dubius – Little Ringed Plover	IV-V11	IV,IX	
102. Charadrius alexandrinus – Kentish Plover	IV-V11	IV,IX	
104. <i>Charadrius asiaticus</i> – Caspias Plover	IV-V11	IV,IX	
105. Eudromias morinellus – Dotterel		IV,IX	
106. Chettusia gregaria* - Sociable Lapwing – VU**		IV,IX	
107. Vanellus vanellus – Common Plover	IV-V11	IV,IX	
108.Vanellochettusia leucura – White- tailed Plover	IV-V11	IV,IX	
109. Arenaria interpres – Turnstone		IV,IX-X	
110. <i>Himantopus himantopus</i> – Black-winged Stilt	IV-V11	IV,IX	
111. Recurvirostra avosetta – Avocet	IV-V11	IV,IX	
112. Haematopus astralegus – Oystercatcher	IV-V11	IV,IX	
113. Tringa ochropus – Green Sandpiper		IV,IX-X	
114. Tringa glareola – Wood Sandpiper		IV,IX	
115. Tringa nebularia – Greenshank		IV,IX	
116. Tringa totanus – Redshank	IV-V11	IV,IX	
117. Tringa erythropus – Spotted Redshank		IV,IX	
118. Tringa stagnatilis – Marsh Sandpiper		IV,IX	
119. <i>Tringa hypoleucos</i> – Common Sandpiper		IV,IX	
120. Xenus cinereus – Terek- Sandpiper		IV,IX	
121. Phalaropus fulicarius – Grey Phalarope		IV,IX	
122. Phalaropus lobatus – Red-necked Phalarope		IV,IX	
123. Phylomachus pugnax – Ruff		IV,IX-X	
124. Calidris minuta – Little Stint		IV,IX	
125. Calidris temminckii – Temminck's Stint		IV,IX	
126. Calidris ferruginea – Curlew Sandpiper		IV,IX	
127. Calidris alpina – Dunlin		IV,IX-X	
128. Calidris alba – Sanderling		IV,IX-X	
129. Limicola falcinellus – Broad-billed Sandpiper		IV,IX	
130. Limnocryptes minimus – Jack-Snipe		IV,IX	
131. Gallinago gallinago – Common Snipe		IV,IX-X	
132. Gallinago media – Great Snipe		IV,IX-X	
133. Scolopax rusticola – Woodcock		IV,IX-X	
134. Numenius tenuirostris* - Slender-Billed Curlew –		IV,IX	
CR**			
135. Numenius arquata – Curlew		IV,IX-X	
136. Numenius phacopus – Whimbrel		IV,IX	
137. Limosa limosa – Black-tailed Godwit		IV,IX-X	
138. Limosa lapponica – Bar-tailed Godwit		IV,IX	
139. Glareola nordmanni – Black-winged Pratincole – DD**		IV,IX	
140. Glareola pratincola – Collared Pratincole		IV,IX	
141. Stercorarius pomarinus – Skua		1V,X	
142. Stercorarius parasiticus- Arctic Skua		IX-X	
143. Larus ichthyaetus* - Great Black-headed Gull	IV-V111	IV,IX-X	
144. Larus minutus – Little Gull		IV,IX-X	
145. Larus ridibundus – Black-headed Gull	IV-V111	IV,IX-X	
146. Larus genei – Slender-billed Gull		IV,X	
147. Larus cacchinans – Herring-Gull	IV-V111	IV,IX-X	

148 Larus fusca Lassor Plack backed Cull			
148. <i>Larus fusca</i> – Lasser Black-backed Gull 149. <i>Larus canus</i> – Common Gull		IV,IX-X	
150. <i>Chlidonias niger</i> – Black Tern	IV-V11	IV,IX-X IV,IX	
150. Childonias higer – Black Telli 151. Chlidonias leucopterus – White-winged Black Tern	IV-V11 IV-V11	IV,IX IV,IX	
151. Childonias leucopierus – White-whiged Black Tern 152. Chlidonias hybrida – Whiskered Tern	IV-V11 IV-V11	IV,IX IV,IX	
152. Childonias hybrida – Whiskered Tern 153. Chlidonias sandvicensis – Sandwich Tern	IV-V11 IV-V11	IV,IX IV,IX	
153. <i>Childonids sandvicensis</i> – Sandwich Tern 154. <i>Gelochelidon nilotica</i> – Gull-billed Tern	IV-V11 IV-V11	IV,IX IV,IX	
	1 V - V 1 1		
155. <i>Hydroprogne caspia</i> – Caspian Tern	IV V11	IV,X	
156. Sterna hirundo – Common Tern	IV-V11	IV,IX	
157. Sterna albifrons – Little Tern	IV-V11	IV,IX	
Columbiformes 158. Pterooles orientalis* - Black-bellied Sandgrouse	IV V11		
	IV-V11	IV,IX	
159. Pterooles alchata – Pin-Tailed Sandgrouse	IV-V11	IV,IX	
160. Syrrhaptes paradoxus* - Pallas's Sandgrouse	IV-V11	IV,IX	
161. Columba palumbus – Wood Pigeon		IV,IX	
162.Columba oenas – Stock Dove	T X/II	IV,IX-X	I XII
163. Columba livia – Rock Dove	I-XII		I-XII
164. <i>Streptopelia decaocto</i> – Collared Turtle-Dove	I-XII		I-XII
165. <i>Streptopelia turtur</i> – Turtle Dove		IV,IX	
166. <i>Streptopelia orientalis</i> – Eastern Rufous Turtle Dove		IV,IX	
Cuculiformes	<b>TX 7 X 7 1 1</b>	<b>T</b> 7 <b>T</b> 7	
167. <i>Cuculus canorus</i> – Cuckoo	IV-V11	IV,IX	
Strigiformes		X/I II	3/1 11
168. Nyctea scandiaca – Snowy Owl	1 3/11	XI-II	XI-II
169. Bubo bubo* - Eagle Owl	I-XII	** / ** /	XI-III
170. Asio otus – Long-eared Owl		IV,IX	
171. Asio flammea – Short-eared Owl		IV,IX	
172. Otus scops – Scope Owl			
173. Aegolius funereus – Little Owl Tengmalm's			
174. Athene noctua – Little Owl	I-XII		XI-III
175. Surnia ulula – Hawk Owl		IV,IX	
176. <i>Strix aluco</i> – Tawny Owl		IV,X	
177. Strix uralensis – Ural Owl		IV,X	
Caprimulgiformes		** * ** *	
178. Caprimulgus europaeus – Nightjar	IV-VIII	IV,IX	
Apodiformes			
179. Apus apus – Swift		IV,IX-X	
Coraciiformes			
180. Coracias garrulus – Roller	IV-VIII	IV,IX	
181. Alcedo atthis – Kingfisher	IV-V111	IV,IX	
182. Золотистая щурка - Merops apiaster – European Bee-	IV-V11	IV,IX	
eater			
183. Зеленая щурка - Merops superciliosus – Blue-cheeked	IV-V11	IV,IX	
Bee-eater			
184. Удод – <i>Upupa epops</i> – Hoopoe	IV-V111	IV,IX	
Piciformes			
185. Вертишейка – <i>Jynx torquila</i> – Wryneck		IV,IX	
186. <i>Dendrocopos major</i> – Great Spotted Woodpecker			XI-III
187. Dendrocopus minor, Lesser Spoted Woodpecker			XI-III
Passeriformes			
188. Riparia riparia – Sand Martin	IV-V11	IV,IX	
189. Hirundo rustica – Swallow	IV-V111	IV,IX	
190. Delichon urbica – House Martin		IV,IX	
191. Galerida cristata – Crested Lark	I-XII		XI-III
192. Calandrella cinerea – Short-toed Lark	IV-V111	IV,IX	

193. Calandrella rufescens – Lesser Short-toed Lark	IV-V11	IV,IX	
194. Melanocoripha calandra – Calandra Lark	IV-V111	IV,IX	
195. M.bimaculata – Eastern Calandra Lark	IV-V111	IV,IX	
196. M.leucoptera – White-winged Lark		III,X	XI-III
197. Melanocoripha jeltoniensis – Black Lark -		III,X	Х1-Ш
198. Eremophila alpestris – Shore Lark		III,X	XI-III
199. Alauda arvensis – Skylark	IV-V11	IV,IX	
200. Anthus trivialis – Tree-Pipit		IV,IX	
201. Anthus pratensis, Meadow Pipit		IV-IX	
202. Anthus campestris, Tawny Pipit		IV-IX	
203. Anthus cervinus, Red-throated Pipit		IV-IX	
204. Motacilla flava – Yellow Wagtail	IV-V111	IV,IX	
205. Motacilla lutea – Yellow-backed Wagtail		IV,IX	
206. Motacilla citreola – Citrine Wagtail		IV,IX	
207. Motacilla feldegg – Yellow Wagtail	IV-V111	IV,IX	
208. Motacilla alba – White Wagtail	IV-V11	IV,IX	
209. Lanius collurio – Red-backed Shrike		IV,IX	
210. Lanius minor – Lesser Grey Shrike		IV,IX	
211. Lanius exubitor – Great Grey Shrike	IV-V111	IV,X	
212. Oriolus oriolus – Golden Oriole		IV,IX	
213. Sturnus vulgarus – Starling		IV,IX-X	
214. Pastor roseus – Rose-coloured Starling		IV,IX	
215. Pica pica – Magpie	I-XII		I-XII
216. Garrulus glandarius – Jay		Х	
217. Corvus monedula – Jackdaw	IV-V11	IV,IX-X	
218. Corvus frugilegus – Rook	IV-V11	IV,IX-X	XI-III
219. Corvus cornis – Hooded Crow	IV-V11	IV,IX-X	XI-III
220. Bombycilla garrulus – Waxwing		III,X	XI-III
221. Prunella modularis – Dunnock		IV,IX	
222. Cettia cetti – Cetti's Wabler	IV-V11	IV,IX	
223. Locustella luscinioides –Savi's Warbler	IV-V11	IV,IX	
224. Locustella fluviatilis – River Warbler		IV,IX	
225. Locustella naevia – Grasshopper Warbler		IV,IX	
226. Acrocephalus schoenobaenus – Sedge Warbler		IV,IX	
227. A. Agricola – Paddy-Field Warbler		IV,IX	
228. A. Dumetorum – Blyth's Reed Warbler	IV-V11	IV,IX	
229. A. Palustris – Marsh Warbler		IV,IX	
230. A.scirpaceus – Reed Warbler	IV-V11	IV,IX	
231. A.arundineceus – Great Reed Warbler	IV-V11	IV,IX	
232.Hippolais caligata – Booted Warbler	IV-V11	IV,IX	
233. Sylvia nisoria – Barred Warbler		IV,IX	
234. Sylvia atricapilla – Blackcap		IV,IX	
235. Sylvia borin – Garden Warbler		IV,IX	
236. Sylvia communis – Whitethroat		IV,IX	
237. Sylvia curruca – Lesser Whitethroat	IV-V11	IV,IX	
238. Sylvia nana – Desert Warbler	IV-V11	IV,IX	
239. Phylloscopus trochilus – Willow Warbler		IV,IX	
240. <i>P.collybita</i> – Chiffhaff		IV,IX-X	
241. <i>P.sibilatrix</i> – Wood Warbler		IV,IX	
242. P.trochiloides – Greenish Warbler		IV,IX	
243. Ficedula hypoleuca – Pied Flycatcher		IV,IX	
244. Ficedula parva – Red-breasted Flycatcher		IV,IX	
245. Muscicapa striata – Spotted Flycatcher		IV,IX	
246. Saxicola rubetra – Whinchat		IV,IX	
247. Saxicola torquata – Stonechat		IV,IX	

248. <i>Oenanthe oenanthe</i> – Wheatear		IV,IX	
249. <i>Oenanthe pleschanka</i> – Pied Wheatear		IV,IX-X	
250. <i>Oenanthe deserti</i> – Desert Wheatear	IV-V111	IV,IX IV,IX	
251. <i>Oenanthe isabellina</i> – Isabelline Wheatear	IV-V111 IV-V111	IV,IX IV,IX	
252 Oenanthe picata, Eastern Pied Wheatear	Зал.	1 V ,12X	
253 Monticola saxatilis, Blue Rock Trush	Ja.1.	IV, X	
254. <i>Phoenicorus phoenicorus</i> – Redstart	IV-V11	IV, X IV,IX	
255. Erithacus rubecula – Robin	1 V - V 11	IV,IX IV,X	
		IV,X IV,IX	
256. <i>Luscinia luscinia</i> – Thrush Nightingale 257. <i>Luscinia svecica</i> – Bluethroat	IV-V11	IV,IX IV,IX	
	1 V - V 1 1		
258. <i>Turdus pilaris</i> – Fieldfare		III,X	
259. <i>Turdus merula</i> – Blackbird		IV,X	
260. <i>Turdus iliacus</i> – Redwing		IV,X	
261. <i>Turdus philomelos</i> – Song Thrush		IV,X	
262. <i>Turdus viscivorus</i> – Mistle Thrush		IV,X-XI	
263. <i>Turdus atrogularis</i> – Black-throated Thrush		1V,1X-X	*** ***
264. <i>Panurus biarmicus</i> – Bearded Titmouse			XI-III
265. <i>Remiz pendulinus</i> – Penduline Tit		IV,IX	
266. <i>Remiz macronyx</i> – Black-headed Penduline Tit		III-X	
267. Parus ater – Coal Titmouse			X-III
268. Parus caeruleus – Blue Titmouse			X-III
269. Parus major – Great Titmouse			X-III
270. <i>Sitta europaea</i> – Nuthatch			XI-III
271. Certhia familiaris – Tree Creeper			XI-III
272. Passer domesticus – House Sparrow	I-XII		I-XII
273. Passer montanus – Tree Sparrow	I-XII		I-XII
274. Petronia petronia – Rock Sparrow		IV,X	
275. Fringilla coelebs – Chaffinch		IV,X	XI-III
276. Fringilla montifringilla – Brambling		IV,X	XI-III
277. Chloris chloris – Greenfinch		IV,X	
278. Spinus spinus – Siskin		IV,X	XI-III
279. Carduelis carduelis – Goldfinch		IV,X	XI-III
280. Acanthis cannabina – Linnet		IV,X	
281. Acanthis flavirostris – Twite		IV,X	
282 Loxia curvirostra - Crossbill		IV-X	
283. Pyrrhula pyrrhula – Bullfinch		IV,X	XI-III
284. Coccothraustes coccothraustes – Hawfinch		IV,X	
285. <i>Carpodacus erythinus</i> – Scarlet Grosbeak		IV,IX	
286. <i>Emberiza citrinella</i> – Yellow Hammer		IV,X	
287. <i>Emberiza schoeniclus</i> – Reed-Bunting	I-XII	.,-	I-XII
288. <i>Emberiza rustica</i> – Rustic Bunting		IV,IX-X	
289. <i>Emberiza hortulana</i> – Ortolan Bunting		IV,IX	
290. <i>Emberiza bruniceps</i> – Red-headed Bunting	V-V11	IV,IX	
291. <i>Calcarius lapponicus</i> – Lapland Bunting		III,X	XI-III
292. <i>Plectrophenax nivalis</i> – Snow- Bunting		IV,X	XI-III XI-III
272.1 icenophenax nivans Show- Dunting		1,21	731 111

Comments:

\* - Species included to the Red Book of Kazakhstan

\*\* - Rare birds: Endangered status: CR – "critical" EN – "endangered", VU – "vulnerable", CD – "conservation dependent", DD – "data deficient", NT – "near threatened"

III-IV, $X^{***}$ - Roman numerals indicate time periods of some biological cycles of birds – months, characteristic for each species of the table for nesting, migration and wintering.

#### Annex 2.

Birds							
1	Pelecanus crispus	Kudryavyi pelican	VU	App 1	App1	EN	
2.	Phalacrocorax pygmaeus	Malyi baklan	-	-	App2	VU	
3.	Egretta garzeta	Malaya belaya tzaplya	-	_	-	NT	
4.	Bubulcus ibis	Egipetskaya tzaplya	-	-	-	VU	
5.	Plegadis falcinellus	Karavaika	-	-	App2	VU	
6.	Cygnus cygnus – breeding	Lebed-klikun	-	-	-	EN	
	kazakhstanian population						
7.	Cygnus bewickii	Malyi lebed		-	-	NT	
8.	Larus ichthyaetus	Chenogolovyi chochotun			App2	VU	
9.	Haliaeetus albicilla	Orlan belohvost	-	-	-	VU	
10	Aquila rapax	Stepnoy orel	-	-	-	VU	
11	Anthropoides virgo	Zhuravl-krasavka	-	-	-	VU	
12	Chlamydotis undulata	Drofa-krasotka	VU	-	App2	EN	
13	Otis tetrax	Strepet	NT	App 2	-	EN	
14.	Pelecanus onocrotalus	Rozovyi pelican	-	-	-	VU	
15	Ardeola ralloides	Zheltaya tzaplya	-	-	-	EN	
16	Platalea leucorodia	Kolpitza	-	App 2	App2	VU	
17	Phoenicopterus roseus	Flamingo	-	-	-	VU	
18	Ciconia nigra	Chernyi aist	-	App 2	App2	VU	
19	Rufibrenta ruficollis	Krasnozobaya kazarka	EN		App1	EN	
20	Anser erythropus	Piskulka	EN		App1	EN	
21	Anas angustirostris	Mramornyi chirok	VU	-	-	EN	
22	Aythya nyroca	Beloglazaya chernet	NT	-	App1	EN	
23	Oxyura leucocephala	Savka	EN	-	-	EN	
24	Pandion haliaetus	Skopa		-	-	EN	
25	Circus macrourus	Stepnoi lun	NT	-	-	-	
26	Circaetus gallicus	Zmeyeyad	-	-	-	VU	
27	Hieraaetus pennatus	Orel-karlik	-	-	-	DD	
28	Aquila heliaca	Mogilnik	VU	App1	-	EN	
29	Aquila chrysaetos	Berkut	-	-	-	VU	
30	Neophron percnopterus	Stervyatnik	EN	-	-	EN	
31	Grus leucogeranus	Sterkh	CR	App1	App1	CR	
32	Grus grus	Seryi zhuravl		App2	-	VU	
33	Otis tarda	Drofa	VU	App2	App2	EN	
34	Vanellus gregarius	Krechetka	CR	-	App1	EN	
35	Bubo bubo	Filin	-	App2	_	VU	
36	Porphyrio porphyrio	Sultanka	-	-	-	VU	
37	Numenius tenuirostris	Tonkoklyuvyi kronshnep	CR	-	App1	EX?	
38	Pterocles orientalis	Chernobruchiy ryabok	-	-	-	EN	
39	Pterocles alchata	Belobryuhiy ryabok	-	-	-	EN	
40	Syrrhaptes paradoxus	Sadzha	-	-	-	EN	
41	Crex crex	Korostel	NT	-	App2	-	
42	Aquila clanga	Bolshoi podorlik	VU	-	-	EN	

Comments:

EX - extinet

CR - critical

EN-endangered

VU – vulnerable DD – data deficient NT – near threatened

Annex 3.

N⁰	Mammals taxons	Status	Mode	Importan
			of life	ce
1	2	3	4	5
1	I. Insectivora Erinaceus auritus	0	C	TT
1 2.	Crocidura suaveolens	0	S S	H H
Ζ.		0	2	Н
2	II. Chiroptera	D	М	CE.
3	Pipistrellus nathusii	R	M	SE
4 5	Pipistrellus khuli	R O	M	SE H
5	Nyctalus noctula	R	M M	H SE
0 7	Vespertilio murinus	0 <u> </u>		-
	Eptesicus serotinus		M	H
8 9	Eptesicus bobrinskoi*	R O	M M	SE H
	Myotis mystacinus	-		
10	Myotis dasycneme III. Rodentia	R	M	SE
11		0	C	DD. E
11	Spermophilus fulvus	0	S	PP; E
12	Spermophilus pygimaeus	0	S S	PP; E
13	Allactaga elater	<u> </u>		E
14	Allacraga major	R	S	E
15	Allactaga sibirica	R	S	E
16	Pygerethmus pumilio	0	S	PP; E
17	Pegerethmus platiurus	R	S	-
18	Sicista subtilis	R	S	SE
19	Cricetulus migratorius	R	S	SE
20	Allocricetulus eversmanni	R	S	SE
21	Ondatra zibethicus	0	S	H
22	Arvicola terrestris	0	S	E
23	Microtus arvalis	0	S	E
24	Meriones meridianus	R	S	E
25	Meriones lybicus	R	S	E
26	Meriones tamariscinus	0	S	E
27	Rhombomys opimus	R	S	E
28	Ellobius talpinus	R	S	E
29	Rattus norvegicus	0	S	E
30	Rattus rattus	R	S	E
31	Mus musculus	0	S	E
	IV. Lagomorpha			
32	Lepus tolai	0	LWS	Н
33	Lepus europaeus	0	LWS	Н
	V. Carnivota			
34	Nyctereutes procyonoides	0	S	H; E

### The List of the Mammals of the Ural River Delta and adjacent Caspian coast

N⁰	Mammals taxons	Status	Mode	Importan
		Status	of life	ce
35	Canus lupus	0	W	H; E
36	Vulpes corsac	R	W	H; E
37	Vulpes vulpes	0	W	H; E
38	Canis aureus L.	R	W	PP; E
39	Mustela nivalis	R	W	SE
40	Mustela erminea	R	W	SE
41	Mustela eversmanni	0	W	H; E
42	Meles meles	0	W	H; E
43	Vormela peregusna	+	W	SE
44	Felis chaus	R	W	SE
45	Felis libica	R	W	SE
	VI. Artiodactyla			
46	Sus scrofa L.	0	W	SE
47	Saiga tatrica L.	R	М	SE
	VII. Pinnipedia			
48	Phoca caspica	0	W	SE

Comments: R – Rare; O – Odinary; S – Settled; M – Migratory; LWS – Local Wandering Species;W – Wanderer; PP – Pasture Pests; E – Species of Epidemiologic Importance; H – Hunting Species; SE – Species of Scientific and Ecological Importance; \* - Species included to the Red Book of Kazakhstan