Fauna Survey Report For Spring and Autumn 2025

Tashkent New Airport Project

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1. PHYSICAL, GEOGRAPHICAL, AND LANDSCAPE DESCRIPTION OF THE PROJECT SITE

The Tashkent New International Airport site is located in the flat area between the Chirchik and Ahangaran rivers, on the left bank of the lower reaches of the Chirchik River, 7-8 km northeast of the district center of Yangiyul (**Figure 1**). The site area is approximately 1,300 hectares.

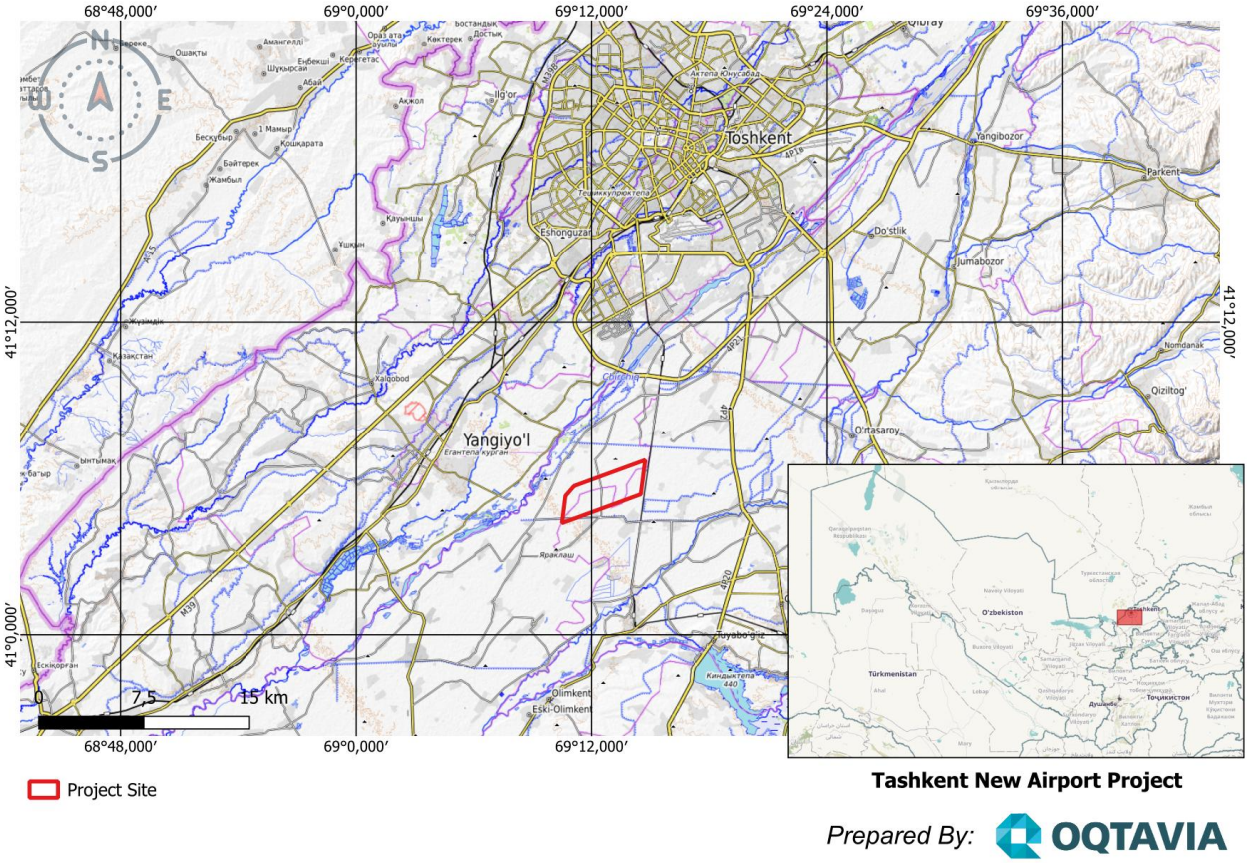

Figure 1: Geographical location of the Tashkent New International Airport project site

In terms of physical and geographical characteristics, the Project area belongs to the Chirchik-Ahangaran district of the Middle Syrdarya region of the Syrdarya province. According to the administrative-territorial division, the Project area is located on the territory of the Urtachirchik and Kuyichirchik districts of the Tashkent region. In terms of landscape, the Project area is located in the Chirchik-Akhangaran district of terraced alluvial plains with woody and shrubby riparian vegetation (tugai forests) developed for irrigated agriculture.[1].

The Project area itself and its extensive surroundings represent a typical agricultural landscape: fully developed areas for growing cotton, grain, and vegetable crops; an extensive network of irrigation and drainage canals; dense reed beds in marshy depressions and low-lying areas; small groves in old cemeteries and on hills **(Figure 2)**.

Large and small cattle graze intensively on undeveloped and fallow land, along irrigation canals, and on harvested fields. There are two villages in the immediate vicinity of the Project area. There are also individual households, almost all of which keep small numbers of large and small cattle that graze on the Project area. There are also larger livestock farms.

Figure 2: Typical habitats in the Project area

2. RESEARCH OBJECTIVES AND TASKS

The primary objective of the study was to establish a comprehensive biodiversity baseline for the Project area to through systematic field observations and data collection.

The specific tasks of the study included:

1. Assessing the diversity and distribution of vertebrate species within the Project area;
2. Determining the conservation status of recorded species using national and international reference sources;
3. Identifying species of ecological importance within the local fauna and any important/sensitive biodiversity sites.

4. FIELD SURVEY METHODS

Spring Survey

The two Vantage Points (VP) for avian species proposed by international experts were inspected and verified by national experts during their first visit to the project site on April 18, 2025, confirming that they offer optimal visibility for observations. Additionally, a total of 10 transects (walking routes) were established both within and around the Project area to collect data on vertebrate fauna including mammals, reptiles, amphibians and birds (Refer **Figure 3**, **Table 1**).

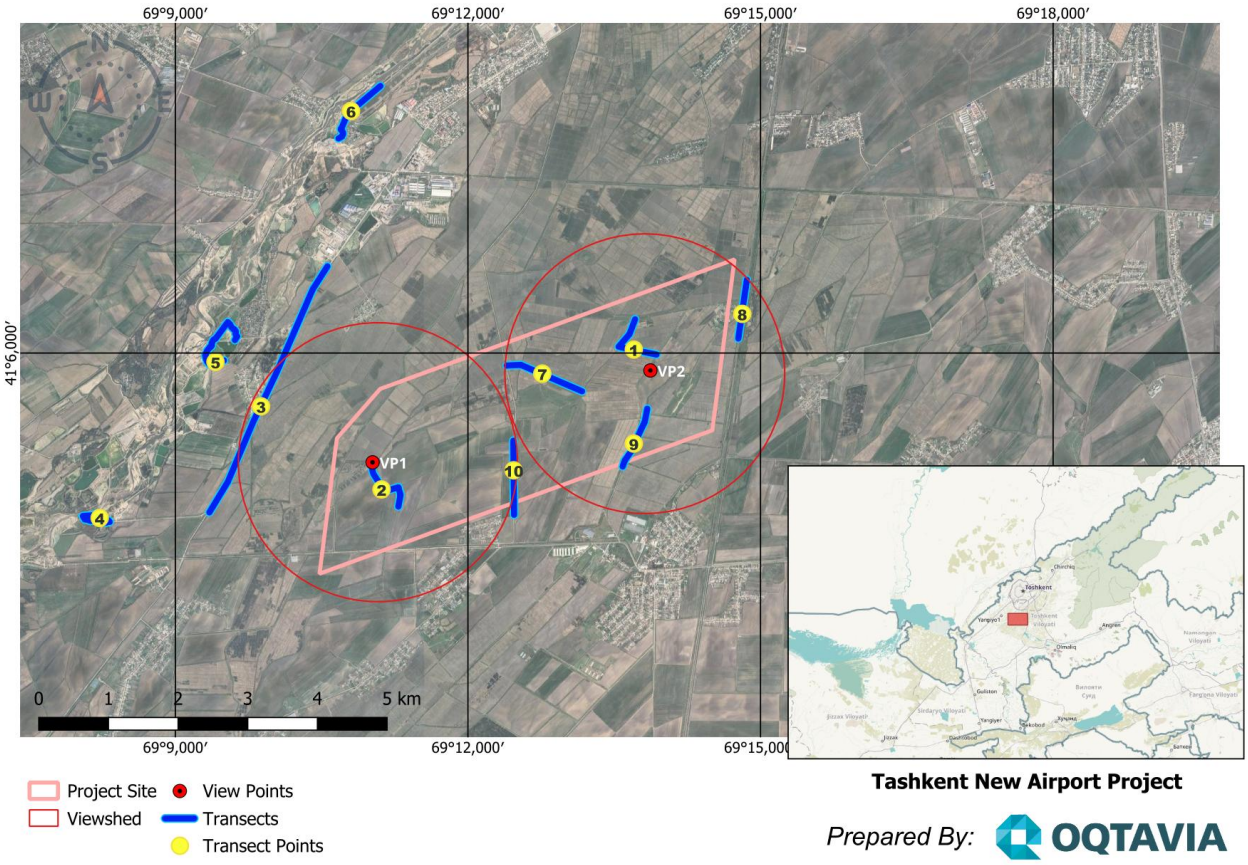

Figure 3: Sampling Locations (VPs and Transects)

Table 1: Spring Survey Details

Type and coordinates of research sites		Date / Duration	Route Length	Research objects
VP1	41.085915 69.183674	19.04.2025 / 6 hours 26.04.2025 / 6 hours 28.04.2025 / 6 hours 10.05.2025 / 6 hours 17.05.2025 / 6 hours 25.05.2025 / 6 hours Total: 36 hours	NA	Birds
VP2	41.097756 69.231150	20.04.2025 / 6 hours 27.04.2025 / 6 hours 28.04.2055 / 6 hours 10.05.2025 / 6 hours 18.05.2025 / 6 hours 24.05.2025 / 6 hours Total: 36 hours	NA	
Transect 1	41.100587 69.225820	28.04.2025	1000 m	Amphibians, reptiles, birds, mammals
Transect 2	41.083693 69.184537	17.05.2025	1000 m	
Transect 3	41.093133 69.164611	27.06.2025	3900 m	
Transect 4	41.078746 69.137043	25.05.2025	710 m	
Transect 5	41.101184 69.160383	19.04.2025	1270 m	

Transect 6	41.098972 69.201750	28.06.2025	1100 m	
Transect 7	41.097348 69.212684	20.04.2025	1100 m	
Transect 8	41.105044 69.246845	10.05.2025	1100 m	
Transect 9	41.092170 69.233026	29.06.2025	1230 m	
Transect 10	41.078371 69.219977	24.05.2025	1100 m	

Observations at the VPs were conducted on April 19, 20, 26, 27, 28, and May 10, 17, 18, 24, 25, 2025, in the morning hours, prior to the onset of daytime heat, and in the evening after the temperatures had decreased.

All recorded species were documented using standardized data sheets, including the following information:

- Species Id
- Number of individuals
- Flight altitude (for birds)
- Distance from the observer
- Flight direction
- Details of site use, where applicable
- For each observation period, weather conditions were recorded - air temperature, wind speed and direction, cloud cover.

A total of 36 hours of observations were completed at each of the 2 VPs, during April and May 2025.

To collect data on other terrestrial vertebrates, including amphibians, reptiles, mammals and to collect supplementary data on avifauna, a total of 10 walking transects were conducted. Transect surveys were carried out on April 19, 20, and 28; May 10, 17, 24, and 25; and June 27, 28, and 29, 2025.

The spatial distribution of the transects (Refer Figure 3) ensured comprehensive coverage of all major habitat types/features present within the Project area and surrounding landscape, including

- the immediate surroundings of each VP;
- the White stork colony located on the power lines in the vicinity of the village of Yelibay, around 1 km northwest of the Project site;
- the banks of the fish ponds along the Chirchik River;
- agricultural landscape: grain crops, fallow land and wasteland along irrigation canals and field boundaries, livestock grazing areas;

Bat surveys were conducted on May 10, 2025, with two survey sessions in the vicinity of VP1 and VP2 in the early morning hours and after sunset until nightfall, with a combined survey effort of five hours. No bat activity was recorded during these surveys. However, additional acoustic surveys and roost searches were conducted for bats and its methodology and findings are presented in a separate Bat Survey Report.

<u>Autumn Survey</u>

To account for autumn seasonal activity, additional avifaunal vantage point surveys were undertaken using the same vantage points (VP1 and VP2). The survey methods consistent with the spring VP survey were adopted in autumn. The details of the autumn survey and efforts have been provided in the table below.

Table 2: Autumn Survey Details

Vantage point	Coordinates	Date	Duration
VP1	41.085915	September 13, 2025	6 hours

Vantage point	Coordinates	Date	Duration
	69.183674	September 21, 2025 September 27, 2025 October 4, 2025 October 18, 2025 October 25, 2025	6 hours 6 hours 6 hours 6 hours 6 hours Total: 36 hours
VP 2	41.097756 69.231150	September 14, 2025 September 22, 2025 September 28, 2025 October 5, 2025 October 19, 2025 October 26, 2025	6 hours 6 hours 6 hours 6 hours 6 hours 6 hours Total: 36 hours

Technical Resources and Equipment

For technical support of VP and transect surveys, SWAROVSKI SLC 15X56 and Viking 10X40 binoculars, SWAROVSKI ATX 30-70x95 and Viking 30X80 spotting scopes, NIKON Coolpix p950 and Nikon D7500 cameras with Sigma 50-500 telephoto lenses, Helia RFM rangefinders, Garmin Etrex GPS navigation devices, a GPS Tracker and Maps.me navigation software were used.

Weather parameters were recorded using an SNDWAY SW-572 electronic thermometer and a BTMETR BT-100 anemometer. Precise coordinates and altitude were recorded for each observation point and route. Key observations were recorded on camera. Species identification was carried out using field guide Birds of Central Asia [4].

5. SURVEY FINDINGS

4.1. Birds

A total of 56 species of birds were recorded during spring and autumn VP surveys. During spring surveys, total 50 bird species were recorded. Three of them are included in the Red Book of the Republic of Uzbekistan [5] viz. Little Egret (IUCN LC, UzRDB VU) migratory, nesting and partially wintering species - 2(VU:D); White Stork (IUCN LC, UzRDB NT), resident, partially migratory species; Glossy Ibis (IUCN LC, UzRDB VU), vulnerable, declining, nesting species. Another species, Northern Lapwing, is listed in the Red List of the IUCN [6] with NT status.

Of the remaining 46 species, some are typical and numerous inhabitants of agricultural landscapes, while others regularly visit this territory during the nesting and migration periods [9]. According to the observations, the territorial distribution of species across the VPs was generally uniform. Thirty-five of the 50 species were recorded at both observation points. 5 species - Common Kingfisher, Crested Lark, Spotted Flycatcher, Red-tailed Shrike, and Common Rosefinch were recorded only at VP1. 10 species - Great Cormorant, Common Kestrel, Eurasian Hobby, Shikra, Common Woodpigeon, Common Swift, Collared Sand Martin, White Wagtail, Yellow Wagtail, and Red-headed Bunting were observed only at VP2. This may be due to differences in feeding conditions between the sites.

Of the 50 species that utilized the airspace of the Project area, 22 species visit Uzbekistan only during the nesting period; 14 species are resident, i.e., they are present all year round; 7 species are found in Uzbekistan during the nesting period and partially winter here; 4 species are migratory, i.e., they stop in the country only during spring and autumn migrations; 3 species are found in Uzbekistan only in winter [9] (Refer **Table 1**).

During the autumn survey, 41 species were recorded in the Project area. 15 species were no longer present in the landscape: Great Cormorant, Purple Heron, Hobby, Stilt, Wood Pigeon, Cuckoo, Common Swift, Sand Martin, Yellow Wagtail, Spotted Flycatcher, Red-tailed Shrike, Rosy Starling, Rosefinch, And Red-Headed

Bunting. These species are highlighted in yellow in the above table. Almost all of them are migratory breeding birds and had already left the region by the time of the autumn surveys.

At the same time, six avifaunal species were newly observed in the area. It included Grey Heron, Jackdaw, Hooded Crow, and House Sparrow, species that breed, winter, and reside locally, had moved to the Project area ahead of winter. The absence of the European bee-eater and common redstart in the spring likely reflects a mismatch with the observation period rather than a true absence. As in spring, three species listed in the Red Book of the Republic of Uzbekistan [5] were recorded in the area during autumn. These include Little Egret, White Stork and Glossy Ibis.

Below is a systematic list of terrestrial vertebrates recorded during the surveys, presented with taxonomic classification at all levels and annotated with their conservation status and relevant international criteria.

Abbreviations used in tables:

- UzRDB: The species is listed in the Red Book of the Republic of Uzbekistan. [5]
- IUCN: The species is internationally endangered and is included in the Red List of the International Union for Conservation of Nature. [6]
- CITES: The species is listed in the Appendix to the Convention on International Trade in Endangered Species of Wild Fauna and Flora. [7]
- CMS: The species is included in the Appendix to the Convention on the Conservation of Migratory Species of Wild Animals. [8]
- Migratory/resident status of birds:
  1. R – resident species;
  2. BM – breeding species;
  3. BMW – breeding and wintering species;
  4. MW – wintering species;
  5. M – migratory species;

Common Pheasant	- recorded in the spring and autumn periods
Great Cormorant	- recorded in the spring and absent in the fall
Grey Heron	- recorded only in the autumn period

Table 3: Avifauna recorded on VPs in April–May and September–October 2025.

SN	Scientific name	English name	Conservation status				Location and Numbers by VP / Nature of stay	
			UzRDB	IUCN	CITES	CMS	VP1	VP2
AVES - BIRDS								
Order GALLIFORMES - CHICKEN-LIKE BIRDS								
Family PHASIANIDAE - PHEASANTS & ALLIES								
1	*Phasianus colchicus* Linnaeus, 1758	Common Pheasant		LC			95	105
							R	
Order ANSERIFORMES - GEESE & ALLIES								
Family ANATIDAE - DUCKS & ALLIES								
2	*Tadorna ferruginea* (Pallas, 1764)	Ruddy Shelduck		LC		II	36	4
							M	
3	*Anas crecca* Linnaeus, 1758	Common Teal		LC		II	37	23
							M	
4		Mallard		LC		II	63	44

SN	Scientific name	English name	Conservation status				Location and Numbers by VP	
							Nature of stay	
			UzRDB	IUCN	CITES	CMS	VP1	VP2
	Anas platyrhynchos Linnaeus, 1758						BMW	
5	*Netta rufina* (Pallas, 1773)	Red-crested Pochard		LC		II	19 BMW	24
Order PELECANIFORMES – PELICANS & ALLIES								
Family PHALACROCORACIDAE – CORMORANTS								
6	*Phalacrocorax carbo* (Linnaeus, 1758)	Great Cormorant					BMW	9
Order CICONIIFORMES - STORKS & ALLIES								
Family ARDEIDAE – HERONS								
7	*Nycticorax nycticorax* (Linnaeus, 1758)	Black-crowned Night Heron		LC			183 BM	190
8	*Egretta garzetta* (Linnaeus, 1766)	Little Egret	2(VU:D)	LC			18 BMW	21
9	*Ardea cinerea* Linnaeus, 1758	Grey Heron		LC			2 BMW	3
10	*Ardea purpurea* Linnaeus, 1766	Purple Heron		LC		II	5 BM	2
Family CICONIIDAE - STORKS								
11	*Ciconia ciconia* (Linnaeus, 1758)	White Stork	3(NT)	LC		II	876 R	800
Family THRESKIORNITHIDAE - IBISES								
12	*Plegadis falcinellus* (Linnaeus, 1766)	Glossy Ibis	2(VU:D)	LC		II	159 BM	221
Order FALCONIFORMES - DIURNAL BIRDS OF PREY								
Family FALCONIDAE - FALCONS								
13	*Falco tinnunculus* Linnaeus, 1758	Common Kestrel		LC	II	II	3 BMW	4
14	*Falco subbuteo* Linnaeus, 1758	Eurasian Hobby		LC	II	II	BM	1
Family ACCIPITRIDAE - HAWKS, EAGLES								
15	*Circus aeruginosus* (Linnaeus, 1758)	Western Marsh Harrier		LC	II	II	31 R	29
16	*Accipiter badius* (J.F. Gmelin, 1788)	Shikra		LC	II	II	BM	2
17	*Buteo rufinus* (Cretzschmar, 1829)	Long-legged Buzzard		LC	II	II	68 BMW	8
Order GRUIFORMES - CRANES, RAILS, AND RELATIVES								
Family RALLIDAE - RAILS, COOTS, AND MOORHENS								
18	*Gallinula chloropus* (Linnaeus, 1758)	Common Moorhen		LC			51 R	34
Order CHARADRIIFORMES - GULLS, TERNS, PLOVERS, AND OTHER SHOREBIRDS								
Family RECURVIROSTRIDAE - STILTS								
19	*Himantopus himantopus* (Linnaeus, 1758)	Black-winged Stilt		LC			513 BM	522
Family CHARADRIIDAE – PLOVERS								
20	*Vanellus vanellus* (Linnaeus, 1758)	Northern Lapwing		NT		II	13 MW	12
Family SCOLOPACIDAE - SANDPIPERS								

SN	Scientific name	English name	Conservation status				Location and Numbers by VP	
							Nature of stay	
			UzRDB	IUCN	CITES	CMS	VP1	VP2
21	*Actitis hypoleucos* (Linnaeus, 1758)	Common Sandpiper		LC		II	97	28
							BM	
Order COLUMBIFORMES - PIGEONS, DOVES, AND DODOS								
Family *COLUMBIDAE* - PIGEONS AND DOVES								
22	*Columba livia* J.F. Gmelin, 1789	Rock Pigeon		LC			9527	7927
							R	
23	*Columba palumbus* Linnaeus, 1758	Common Wood-pigeon		LC				4
							BMW	
24	*Streptopelia orientalis* (Latham, 1790)	Oriental Turtle-dove		LC			9	4
							BM	
25	*Streptopelia decaocto* (Frivaldszky, 1838)	Eurasian Collared Dove		LC			96	39
							R	
26	*Streptopelia senegalensis* (Linnaeus, 1766)	Laughing Dove		LC			55	104
							R	
Order CUCULIFORMES - CUCKOOS, ANIS, AND ROADRUNNERS								
Family *CUCULIDAE* - CUCKOOS								
27	*Cuculus canorus* Linnaeus, 1758	Common Cuckoo		LC			2	2
							BM	
Order STRIGIFORMES - OWLS								
Family STRIGIDAE - OWLS								
28	*Asio otus* (Linnaeus, 1758)	Northern Long-eared Owl		LC		II	24	4
							MW	
Order APODIFORMES - SWIFTS AND HUMMINGBIRDS								
Family *APODIDAE* - SWIFTS								
29	*Apus apus* (Linnaeus, 1758)	Common Swift		LC				29
							BM	
Order CORACIIFORMES - KINGFISHERS AND RELATIVES								
Family CORACIIDAE - ROLLERS								
30	*Coracias garrulus* Linnaeus, 1758	European Roller		LC		II	20	8
							BM	
Family ALCEDINIDAE - KINGFISHERS								
31	*Alcedo atthis* (Linnaeus, 1758)	Common Kingfisher		LC			14	3
							R	
Family MEROPIDAE - BEE-EATERS								
32	*Merops persicus* Pallas, 1773	Blue-cheeked Bee-eater		LC			71	13
							BM	
33	*Merops apiaster* Linnaeus, 1758	European Bee-eater		LC			50	6
							BM	
Order BUCEROTIFORMES - HORNBILLS, HOOPOES								
Family UPUPIDAE - HOOPOES								
34	*Upupa epops* Linnaeus, 1758	Common Hoopoe		LC			83	2
							BM	
Order PASSERIFORMES - PERCHING BIRDS								
Family ALAUDIDAE - LARKS								
35	*Galerida cristata* (Linnaeus, 1758)	Crested Lark		LC			14	10
							R	
	Family HIRUNDINIDAE - SWALLOWS, MARTIN							
36		Barn Swallow		LC			721	1067

SN	Scientific name	English name	Conservation status				Location and Numbers by VP	
							Nature of stay	
			UzRDB	IUCN	CITES	CMS	VP1	VP2
	Hirundo rustica Linnaeus, 1758						BM	
37	*Riparia riparia* (Linnaeus, 1758)	Collared Sand Martin		LC				18
							BM	
Family MOTACILLIDAE – PIPITS, WAGTAILS								
38	*Motacilla alba* Linnaeus, 1758	White Wagtail		LC			159	34
							MW	
39	*Motacilla flava* Linnaeus, 1758	Yellow Wagtail		LC				140
							M	
Family TURDIDAE – THRUSHES AND CHATS								
40	*Turdus merula* Linnaeus, 1758	Eurasian Blackbird		LC			39	34
							R	
41	*Phoenicurus phoenicurus* (Linnaeus, 1758)	Common Redstart		LC			1	
							BM	
42	*Saxicola maurus* (Pallas, 1773)	Siberian Stonechat		LC			88	27
							BM	
Family MUSCICAPIDAE –FLYCATCHERS								
43	*Muscicapa striata* (Pallas, 1764)	Spotted Flycatcher		LC			2	
							BM	
Family LANIIDAE– SHRIKES								
44	*Lanius isabellinus* Hemprich et Ehrenberg, 1833	Isabelline Shrike		LC			73	9
							BM	
45	*Lanius collurio* Linnaeus,1758	Red-tailed Shrike		LC			1	
							M	
Family CORVIDAE – CROWS								
46	*Pica pica* (Linnaeus, 1758)	Common Magpie		LC			709	472
							R	
47	*Corvus monedula* Linnaeus, 1758	Eurasian Jackdaw		LC			3000	530
							R	
48	*Corvus orientalis* Eversmann, 1841	Oriental Carrion Crow		LC			433	453
							R	
49	*Corvus cornix* Linnaeus, 1758	Hooded Crow		LC			142	60
							MW	
Family STURNIDAE - MYNAS AND STARLINGS								
50	*Acridotheres tristis* (Linnaeus, 1766)	Common Myna		LC			1149	792
							R	
51	*Pastor roseus* (Linnaeus, 1758)	Rosy Starling		LC			1000	470
							BM	
	Family PASSERIDAE – SPARROWS							
52	*Passer montanus* (Linnaeus, 1758)	Eurasian Tree Sparrow		LC			1910	1161
							R	
53	*Passer domesticus* (Linnaeus, 1758)	House Sparrow		LC			347	505
							R	
54	*Passer indicus* Jardine et Selby, 1831	Indian Sparrow		LC			1165	1317
							BM	
	Family FRINGILLIDAE – FINCHES							
55	*Carpodacus erythrinus* (Pallas, 1770)	Common Rosefinch		LC			5	
							BM	

SN	Scientific name	English name	Conservation status				Location and Numbers by VP	
							Nature of stay	
			UzRDB	IUCN	CITES	CMS	VP1	VP2
	Family EMBERIZIDAE – BUNTINGS							
56	*Granativora bruniceps* (J.F. Brandt, 1841)	Red-headed Bunting		LC				2
							BM	

Transect observations additionally identified six bird species in the vicinity of the Project area (Refer **Table 4**). These species were not observed during the VP observations.

Two of them are included in the Red Book of Uzbekistan [5]. The Pygmy Cormorant is a Near-threatened (UzRDB NT), migratory nesting species, and Cinereous Vulture (UzRDB NT), a sedentary, mosaic-distributed species, also included in the IUCN Red List with NT status.

Five of the species listed – Pygmy Cormorant, Grey Heron, Common Coot, Black-headed Gull and Caspian Gull – belong to the group of waterfowl and their primary habitats are located in the Chirchik River valley and on fishponds. These species are not directly associated with the Project area. The Cinereous Vulture is a sedentary inhabitant of mountainous landscapes that feeds on carrion. Individual birds can occasionally be found in the river floodplains, near water bodies and fish farms during spring migrations.

Table 4: Additional avifauna species recorded during transects in April and May 2025

SN	Scientific name	English name	Environmental status				Nature of stay
			UzRDB	IUCN	CITES	CMS	
AVES - BIRDS							
Order PELECANIFORMES - PELICANS & ALLIES							
Family PHALACROCORACIDAE - CORMORANTS							
1	*Phalacrocorax pygmeus* (Pallas, 1773)	Pygmy Cormorant	3(NT)	LC			BMW
Order CICONIIFORMES - STORKS & ALLIES							
Family ARDEIDAE - HERONS							
2	*Ardea cinerea* Linnaeus, 1758	Grey Heron		LC			BM
Order FALCONIFORMES – СОКОЛООБРАЗНЫЕ - DIURNAL BIRDS OF PREY							
Family ACCIPITRIDAE - HAWKS, EAGLES							
3	*Aegypius monachus* (Linnaeus, 1766)	Cinereous Vulture	3(NT)	NT	II	II	R
Order *GRUIFORMES* - CRANES, RAILS, AND RELATIVES							
Family RALLIDAE - RAILS, COOTS, AND MOORHENS							
4	*Fulica atra* Linnaeus, 1758	Common Coot		LC			BMW
Order CHARADRIIFORMES - GULLS, TERNS, PLOVERS, AND OTHER SHOREBIRDS							
Family *LARIDAE* - GULLS AND TERNS							
5	*Larus cachinnans* Pallas, 1811	Caspian Gull		LC			BMW
6	*Larus ridibundus* Linnaeus, 1766 /	Black-headed Gull		LC			BMW

The results presented in **Table 7** provide insights on the most significant resident and nesting birds and assess their quantitative characteristics.

- Common Pheasant: a resident species, found throughout the project and adjacent areas. According to our estimates, the average density of the species here is 3.25 individuals per 100 hectares.
- Mallard: nests and feeds exclusively on fishponds.
- Collared dove: a typical synanthropic species that nests in settlements and individual private households. Not very common
- Eastern Black Crow: a resident species that nests in trees throughout the Chirchik River floodplain and in all remaining groups of trees among agricultural land within the Project area. It does not form large colonies but is found everywhere.
- Common Starling: a sedentary synanthropic species with fairly numerous flocks that actively move around in search of food and roosting sites throughout the Project area.
- Little Cormorant: a typical fish-eating bird that nests on small ponds and canals. It moves around the entire Project area in small flocks in search of food.
- Tree Sparrow: a sedentary grain-eating bird and a major pest of rice and wheat crops. It nests throughout the landscape in a variety of places, including residential buildings, trees and shrubs, and clay cliffs.

White Stork Nesting Colonies

White Stork is the most abundant resident and colonial nesting species in the vicinity of the Project area. The largest nesting colony of around 50 nests is located on power lines approximately 1.1 km northwest of the Project site boundary in the vicinity of the village of Yelibay. The nests are located on high-voltage transmission line towers along the highway. Surveys have shown that there are at least 41 nesting pairs in the colony. Additionally, another nesting colony, consisting of around 30 nests, is located on transmission line towers along the railway track. It stretches around 3 km from north to south, with the nearest nest located approximately 2 km from the south-eastern border of the Project site. The third small colony, consisting of around 12 nests, is located 4 km north of the Project site near the Chirchik River. One nest with a pair of adult birds and chicks was observed on an electricity pole at the southwestern corner of the Project site, southwest of VP1. Two more single nests with chicks are located 1-1.5 km south of VP2 outside the Project site (Refer Figure 5). The results of the IIX International White Stork Census in June-August 2024 (IWSC 24) showed that the average number of chicks per breeding pair for the Tashkent region was 2.63. Thus, the total number of birds in approximately 86 nests found in the vicinity of the Project site was estimated to be around 400 individuals.

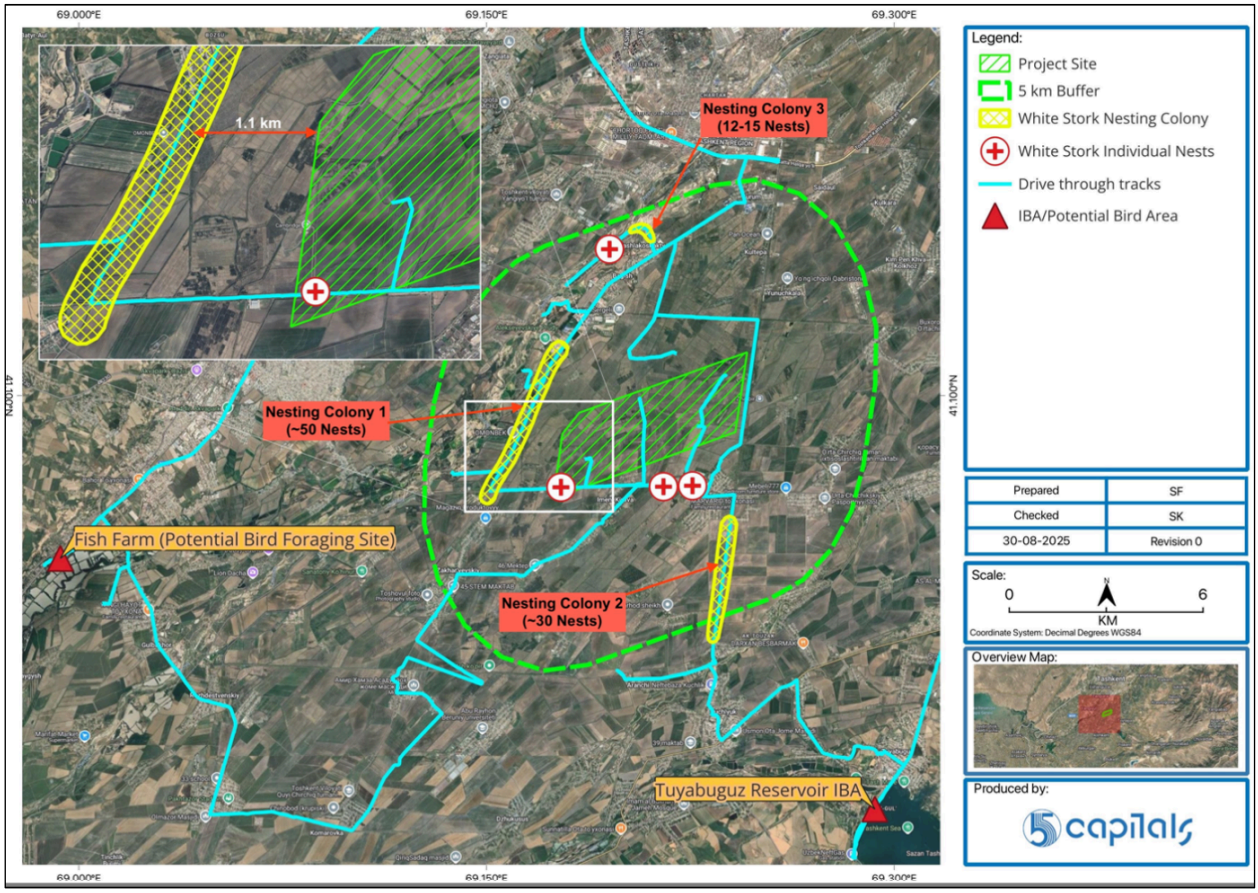

Figure 4: White stork nesting sites around the Project area

4.2. Amphibians and reptiles

During the surveys, two species of amphibians and four species of reptiles were recorded (Refer **Table 5**). Of these, one reptile species, the Central Asian Tortoise, is listed in the IUCN Red List with the status Vulnerable (VU) and in the Red Book of the Republic of Uzbekistan with the status Vulnerable 2(VU) [5]. One specimen of this species was observed in the old cemetery in the vicinity of VP1 on 19.04.2025 (coordinates: 41.085915N 69.183674E), and one individual was also spotted in the old cemetery at the end point of transect 1 on 28.04.2025 (coordinates: 41.103558N 69.228465E). It is most likely that the individuals encountered were previously kept in captivity by local residents were either released or escaped. Although these small cemetery areas are not used for agriculture, feature rich vegetation and may provide suitable conditions for burrowing, they do not represent the species' natural habitat.

The Green Toad, Eurasian Marsh Frog, and Dice Snake are common, widespread, and in some places numerous inhabitants of wet habitats, irrigation and drainage canals. Sheltopusik and Desert Lidless Skink are also widespread species, inhabiting overgrown grassy fallow fields and along irrigation canals.

Table 5: List of amphibians and reptiles recorded on transects within the Project area and adjacent landscape in April and May 2025.

SN	Scientific name	English name	Environmental status			
			UzRDB	IUCN	CITES	CMS
AMPHIBIA– AMPHIBIANS						
Order ANURA – ANURANS						
Family BUFONIDAE– TRUE TOADS						
1.	*Bufo viridis* Laurenti, 1768	Green toad		LC		

SN	Scientific name	English name	Environmental status			
			UzRDB	IUCN	CITES	CMS
Family RANIDAE– TRUE FROGS						
2.	*Pelophylax ridibundus* (Pallas, 1771)	Eurasian marsh frog		LC		
REPTILIA – REPTILIA						
Order TESTUDINES – TURTLES						
Family TESTUDINIDAE – TURTLES						
3.	*Testudo horsfieldii* (Gray, 1844)	Central Asian tortoise	2(VU)	VU	II	
Order SQUAMATA – SQUAMATA						
Order SAURIA – SAURIA						
Family ANGUIDAE – ANGUIDAE						
4.	*Pseudopus apodus* (Pallas, 1775)	Sheltopusik		LC		
Family SCINCIDAE– SKINKS						
5.	*Ablepharus deserti* Strauch, 1876	Desert Lidless Skink		LC		
Order SERPENTES– SNAKES						
Family COLUBRIDAE– TYPICAL SNAKES						
6.	*Natrix tessellata* (Laurenti, 1768)	Dice Snake		LC		

4.3. Mammals

During the surveys, total 10 species of mammals were recorded (**Table 6**). None of these species are listed in the Red Book of the Republic of Uzbekistan or the IUCN Redlist. [9].

House Mouse - a synanthropic species that inhabits human dwellings, storage facilities, and, during the warm season, widely populates agricultural land. With a good food supply, it can reach high numbers both in buildings and in open areas. Its presence in the ladnscape had been previously documented [9].

Foxes and jackals are ecologically flexible species, which allows them to adapt well to agricultural landscapes and form stable populations there. In agricultural landscapes with a good food supply, jackal populations can reach high numbers. A fox and its burrows were observed in the vicinity of VP1 on May 10, 2025. Jackal tracks were observed on transect No.1.

The Zaisan Mole Vole is a widespread rodent that inhabits all types of landscapes. It leads an underground lifestyle. In agricultural landscapes, it forms permanent colonial settlements on the edges of fields, in inconvenient places, and in gardens. In years with high numbers, it is a pest, gnawing on the roots of seedlings, fodder crops, etc. Characteristic traces of presence – numerous earth emissions in colonies, noted on all transects.

The large souslik inhabits wastelands, fallow land, field margins, road embankments, and the banks of irrigation canals. In some places, it can be numerous, were observed at transects No. 2 and No. 6.

Muskrats and coypus are inhabitants of wetlands. They are found in the Project area along irrigation canals and visit rice fields. They are few in number. Muskrats were observed on irrigation canals on transects No. 2 and 6; rodent burrows were noted on transect No.1 coypus tracks were noted on wet clay on the bank of the irrigation canal on transect No. 2.

The long-eared hedgehog lives in shrubbery, feeding on insects and reptiles. Its presence within the study area had been previously documented [9].

The Tolai hare is occasionally found in wheat fields, was observed on May 10, 2025, on transect No. 2. The weasel is found near livestock farms and settlements, where it hunts house mice. Its presence within the study area had been previously documented [9], and also confirmed by reports from local residents.

Table 6 Mammals recorded during the transect surveys

SN	Scientific name	English name	Environmental status			
			UzRDB	IUCN	CITES	CMS
MAMMALIA - MAMMALS						
Order INSECTIVORA - INSECTIVORES						
Family ERINACEIDAE - HEDGEHOGS						
1.	*Hemiechinus auritus* Gmelin, 1770	Long-eared Hedgehog		LC		
Order LAGOMORPHA - LAGOMORPHS						
Family LEPORIDAE –HARES						
2.	*Lepus tolai* Pallas, 1778	Tolai Hare		LC		
Order RODENTIA - RODENTS						
Family SCIURIDAE - SQUIRRELS						
3.	*Spermophilus fulvus* Lichtenstein, 1823	Large Souslik		LC		
Family CRICETIDAE - HAMSTERS						
4.	*Ellobius tancrei* Blasius, 1884	Zaisan Mole Vole		LC		
5.	*Ondatra zibethicus* Linnaeus, 1766	Muskrat		LC		
Family *MYOCASTORIDAE* - COYPUS						
6.	*Myocastor coypus* Molina, 1782	Coypu		LC		
Family MURIDAE– MOUSE						
7.	*Mus musculus* Linnaeus, 1758	House Mouse		LC		
Order CARNIVORA - CARNIVORES						
Family CANIDAE - CANIDS						
8.	*Vulpes vulpes* Linnaeus, 1758	Fox		LC		
9.	*Canis aureus* Linnaeus, 1758	Golden Jackal		LC		
Family MUSTELIDAE - MUSTELIDS						
10.	*Mustela nivalis* Linnaeus, 1766	Weasel		LC		

The spatial distribution and abundance of the vertebrate species recorded during transect surveys have been provided in **Table 7** below.

Table 7: Spatial and quantitative distribution of vertebrate species recorded during transect surveys in April and May 2025.

Species	Transects									Total
	1	2	3	4	5	6	7	8	9	
Amphibians and reptiles										
Green toad	1	1								2
Eurasian marsh frog	3	2								5
Central Asian Tortoise	1									1
Sheltopusik	1						1		1	3
Desert Lidless Skink	2	1	1	3	1	2	1		1	12
Dice Snake				1	1					2
Total species	5	3	1	2	2	1	2		2	
Birds										
Common Pheasant		2								2
Common quail	1									1
Mallard				6	3	31				40
Great Cormorant					9					9
Pygmy Cormorant				70						70
Little Egret					1					1
Grey Heron	1			1		1	2		1	6

Species	Transects									Total
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	
White stork	2	23	225	2		4	15	6	5	282
Glossy Ibis	1									1
Western Marsh Garrier		3		1	1	1			3	9
Cimereous Vulture				1						1
Common Moorhen		3		1					1	5
Common Coot						6				6
Caspian Gull				12	56	4				72
Black-headed Gull				70	43					113
Rock Pigeon	30	19		267	120	350	32	250	105	1173
Eurasian Collared Dove					5	2				7
Common Kingfisher						1	1	1	1	4
Blue-cheeked Bee-eater	3									3
Common Hoopoe							1			1
Crested Lark							7	4	9	20
White Wagtail	5						2	3		10
Common magpie	2	2		2	3	3	2	1	1	16
Oriental Carrion Crow	3	2				4				9
Common Myna				6	1	22	10	57	5	101
Eurasian Tree Sparrow		16		30		35		15	13	109
Total species	9	8	1	13	10	13	9	8	10	
Mammals										
Long-eared Hedgehog		1								1
Tolai Hare		1								1
Large Souslik		3				2				5
Zaisan Mole Vole	+	+	+	+	+	+		+	+	
Muskrat	1	1				1				3
Coypu		1								1
Fox		1								1
Jackal	1	1								2
Weasel		1								1
Total species	3	9	1	1	1	3		1	1	

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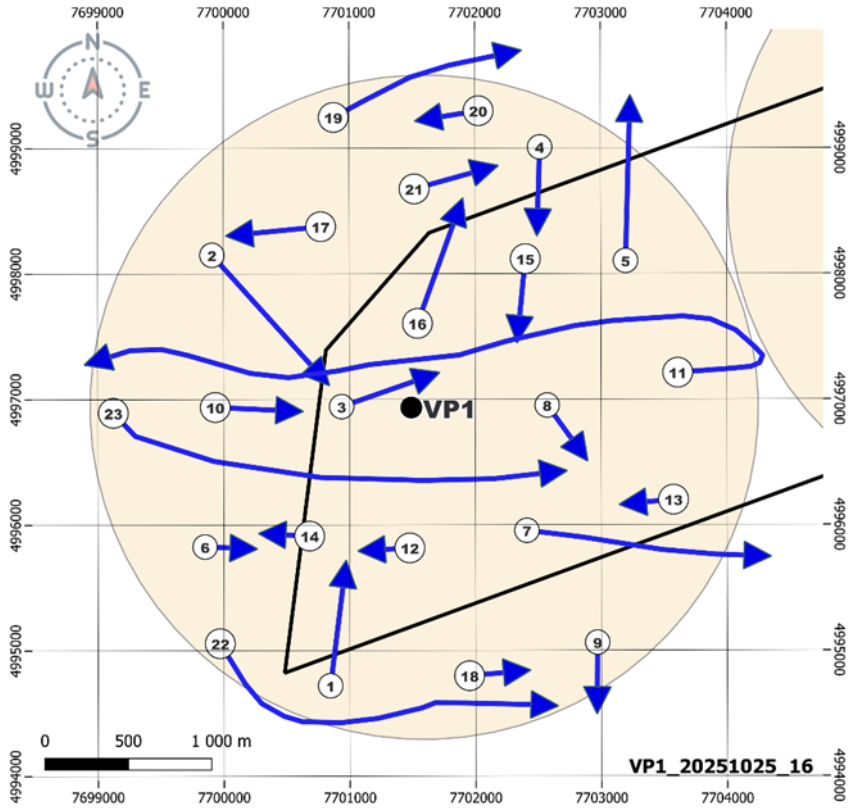
Appendix 1. Species with the highest number of encounters and abundance recorded at VP1 and 2 of the Tashkent New International Airport site during the research period in April and May 2025

Species	Total number of observations	Total number of birds	VP1			VP2		
			Number of observations	Number of birds		Number of observations	Number of birds	
				min-max	Total		min-max	Total
Rock Pigeon	73	8123	23	1-500	3425	50	1-500	4698
Indian Sparrow	51	1846	21	2-100	785	30	9-110	1061
Barn Swallow	50	1454	20	1-110	562	30	1-100	892
Oriental Carrion Crow	48	544	21	1-30	208	27	1-31	336
White Stork	43	971	18	1-71	487	25	1-50	484
Common Myna	41	857	23	1-100	489	18	1-60	368
Black-crowned Night Heron	39	253	16	1-31	134	23	1-13	119
Common Magpie	38	720	15	1-90	383	23	1-74	337
Glossy Ibis	35	293	9	3-24	89	26	1-26	204
Black-winged Stilt	23	620	8	3-35	189	15	1-50	431
Eurasian Tree Sparrow	22	1080	8	15-200	480	14	6-100	600
Western Marsh Harrier	19	31	9	1-2	14	10	1-3	17
Rosy Starling	4	1470	2	200-800	1000	2	70-400	470

Appendix 2. Species with the highest number of encounters and abundance recorded at VP1 and VP2 of the Tashkent New International Airport project site during the research period in September and October 2025

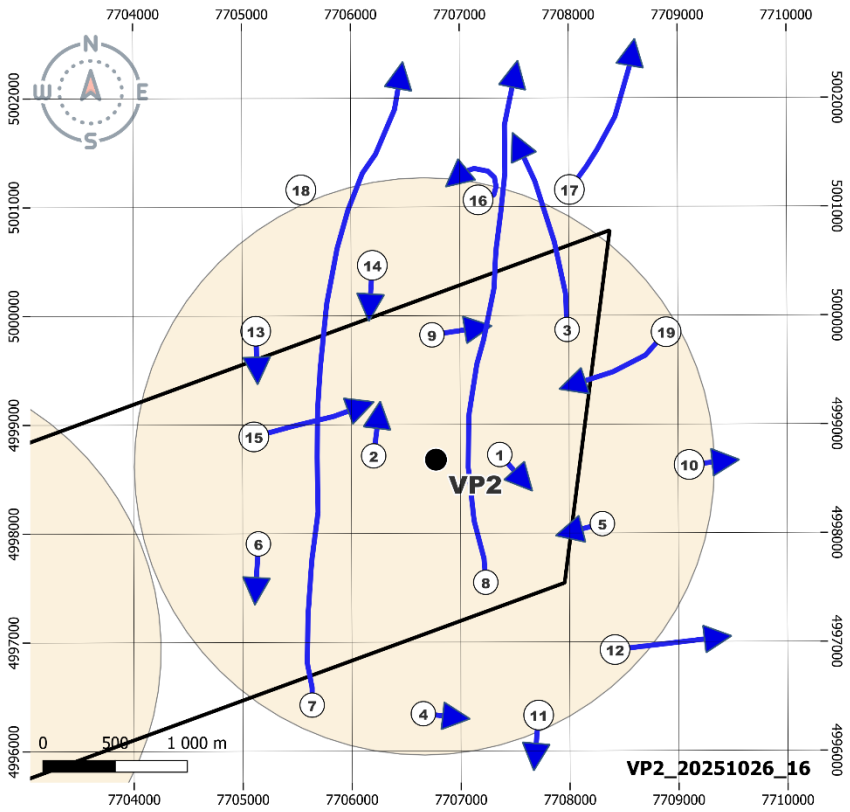
Species	Total number of observations on VP	Total number of birds	VP1			VP2		
			Number of observations	Number of birds		Number of observations	Number of birds	
				min-max	Total		min-max	Total
Rock Dove	56	9331	31	9-2000	6102	25	7-500	3229
Eurasian Jackdaw	4	3530	2	1000-2000	3000	2	180-350	530
Eurasian Tree Sparrow	22	1991	13	20-500	1430	9	3-200	561
Common Myna	52	1084	30	1-100	660	22	3-60	424
House Sparrow	21	852	13	4-60	347	8	4-160	505
White Stork	60	705	36	1-50	389	24	2-62	316
Indian Sparrow	21	636	14	5-50	380	7	5-150	256
Common Magpie	38	461	24	1-74	326	14	1-37	135
Black-winged Stilt	14	415	10	5-50	324	4	2-50	91
Carrion Crow	27	342	17	4-27	225	10	2-22	117
Barn Swallow	17	334	8	2-60	159	9	2-60	175
Black-crowned Night Heron	17	241	12	1-31	170	5	1-31	71
Hooded Crow	4	202	2	71	142	2	7-53	60
Glossy Ibis	8	87	5	7-19	70	3	3-7	17
White Wagtail	22	82	14	1-30	65	8	1-4	17
Common Sandpiper	13	81	8	1-18	61	5	1-9	20
Common Pheasant	17	63	8	1-9	32	9	1-5	31
European Bee-eater	3	56	2	10-40	50	1	6	6
Laughing Dove	13	56	6	2-6	23	7	2-7	33
Mallard	12	52	7	1-9	31	5	2-6	21
Common Moorhen	17	41	10	1-4	23	7	1-6	18
Eurasian Collared Dove	16	38	9	1-6	24	7	1-3	14
Common Teal	7	32	4	5	20	3	2-5	12
Western Marsh Harrier	18	29	10	1-2	17	8	1-2	12
Red-crested Pochard	8	24	4	2-3	11	4	2-4	13
Siberian Stonechat	7	23	4	3-4	13	3	3-4	10
Crested Lark	3	21	2	5-6	11	1	10	10
Eurasian Hoopoe	10	21	5	2-3	11	5	1-5	10
Blue-cheeked Bee-eater	2	20	2	10	20	-	-	-
Little Egret	10	20	5	1-2	7	5	1-4	13
Long-legged Buzzard	13	18	9	1-3	13	4	1-2	5
Northern Lapwing	8	14	6	1-3	10	2	2	4
Eurasian Blackbird	4	12	2	3-5	8	2	2	4
Isabelline Shrike	12	12	7	1	7	5	1	5
Long-eared Owl	1	12	1	12	12	-	-	-
Ruddy Shelduck	1	12	1	12	12	-	-	-
Common Kingfisher	6	9	4	1-2	6	2	1-2	3
European Roller	2	7	2	1-6	7	-	-	-
Common Kestrel	4	5	3	1	3	2	1	2
Grey Heron	2	5	1	2	2	1	3	3
Saxicola maurus	1	5	1	5	5			
Common Redstart	1	1	1	1	1	-	-	-

Appendix 3. Some of the fly pathways



Explanatory table of bird species codes for the map

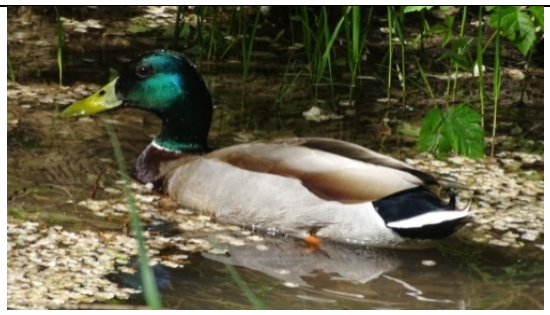
Species codes	Species
1	Little Egret
2	Common Moorhen
3	Red-crested Pochard
4	White Wagtail
5	Black-crowned Night Heron
6	House Sparrow
7	Isabelline Shrike
8	Rock Dove
9	White Stork
10	Long-legged Buzzard
11	Siberian Stonechat
12	Common Teal
13	Eurasian Tree Sparrow
14	Common Sandpiper
15	Black-winged Stilt
16	Black-crowned Night Heron
17	Indian Sparrow
18	House Sparrow
19	Western Marsh Harrier
20	Glossy Ibis
21	Eurasian Collared Dove
22	Laughing Dove
23	Barn Swallow

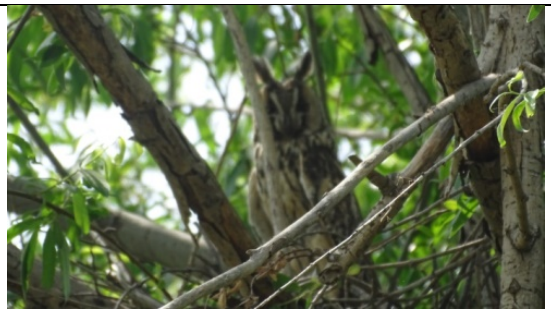


Explanatory table of bird species codes for the map

Species codes	Species
1	Rock Dove
2	Indian Sparrow
3	Common Myna
4	Barn Swallow
5	Common Pheasant
6	White Wagtail
7	Carrion Crow
8	Eurasian Tree Sparrow
9	Rock Dove
10	Hooded Crow
11	Common Moorhen
12	Long-legged Buzzard
13	Northern Lapwing
14	Rock Dove
15	House Sparrow
16	Common Magpie
17	Isabelline Shrike
18	Eurasian Jackdaw
19	White Stork
20	Common Myna

Appendix 4. Photos

 Eurasian Blackbird *Turdus merula (Linnaeus, 1758)*	 Mallard *Anas platyrhynchos (Linnaeus, 1758)*
 Long-legged Buzzard *Buteo rufinus (Cretzschmar, 1829)*	 Siberian Stonechat *Saxicola maurus (Pallas, 1773)*
 Carrion Crow *Corvus corone (Linnaeus, 1758)*	 Siberian Stonechat *Saxicola maurus (Pallas, 1773)*
 Common Magpie *Pica pica (Linnaeus, 1758)*	 Isabelline Shrike *Lanius isabellinus (Hemprich et Ehrenberg, 1833)*

 Rock Dove *Columba livia (Gmelin, JF, 1789)*	 White Stork *Ciconia ciconia (Linnaeus, 1758)*
 Little Egret *Egretta garzetta (Linnaeus, 1766)*	 Common Moorhen *Gallinula chloropus (Linnaeus, 1758)*
 Red-crested Pochard *Netta rufina (Pallas, 1773)*	 Common Teal *Anas crecca (Linnaeus, 1758)*
 Eurasian Tree Sparrow *Passer montanus (Linnaeus, 1758)*	 European Roller *Coracias garrulus (Linnaeus, 1758)*
 Long-eared Owl	 Common Myna

Asio otus (Linnaeus, 1758)	*Acridotheres tristis (Linnaeus, 1766)*
 Common Sandpiper *Actitis hypoleucos (Linnaeus, 1758)*	 Black-winged Stilt *Himantopus himantopus (Linnaeus, 1758)*
 Black-crowned Night Heron *Nycticorax nycticorax (Linnaeus, 1766)*	 Indian Sparrow *Passer domesticus indicus (Jardine et Selby, 1931)*
 House Sparrow *Passer domesticus (Linnaeus, 1758)*	 Ruddy Shelduck *Tadorna ferruginea (Pallas, 1764)*
 Marsh Harrier *Circus aeruginosus (Linnaeus, 1758)*	 Purple Heron *Ardea purpurea (Linnaeus, 1766)*

 Eurasian Hoopoe *Upupa epops (Linnaeus, 1758)*	 Glossy Ibis *Plegadis falcinellus (Linnaeus, 1766)*
 Eurasian Collared Dove *Streptopelia decaocto (Frivaldszky, 1838)*	 Laughing Dove *Streptopelia senegalensis (Linnaeus, 1766)*
 Barn Swallow *Hirundo rustica Linnaeus, 1758*	 Common Pheasant *Phasianus colchicus (Linnaeus, 1758)*
 Muskrat *Ondatra zibethicus Linnaeus, 1766*	 Large Souslik *Spermophilus fulvus* Lichtenstein, 1823

 Sheltopousik *Pseudopus apodus* (Pallas, 1775)	 Desert Lidless Skink *Ablepharus deserti* Strauch, 1876