

## MIGRATORY BIRDS OF THE BUKHARA REGION AND THEIR DIVERSITY

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## **Abstract**

The article provides information about the geographical location of the Bukhara region, territories, natural and artificial bird biotopes, species and diversity of birds, nomadic, migratory, migratory, nesting birds of the Bukhara region. Their role in the biodiversity of the animal world of the region.

**Keywords**: desert, migration, species, biotope, biocenosis, continent, region, population, nomadic, Cygnus olor, Ciconiya-ciconiya, Ciconiya-nigra, Cygnus olor, Tadorna ferruginea, Tadorna- tadorna, Pelecanus crispus, Pelecanus onocrotalus.

Bukhara region is located in the southwestern part of the Republic of Uzbekistan, the total area is 40,220 km2[1]. It borders with Turkmenistan, Khorezm, Navoi and Kashkadarya regions, as well as with the Autonomous Republic of Karakalpakstan. The territory of the region is a desert plain with separate elevations. More than 90% of the area is occupied by the sands of the Kyzylkum desert. Only in the south, in the lower reaches of Zeravshan, there are small irrigated oases - Gijduvan, Bukhara and Karakul. The climate is desert, sharply continental. Winter is very harsh, summer is hot and dry. Water resources are limited. The main rivers are the Zaravshan and Amu Darya, from which the Amu-Bukhara and Amu-Karakul machine channels are carried out to the irrigated oases.

As of August 1, 2022, the population of Bukhara region numbered 1,990,400 people - this is the ninth out of 14 regions of Uzbekistan. The population of rural areas was 62%, and cities -38%. Since the second half of the last century, the expansion of irrigated arable land in the country has led to an increase in the groundwater level and salinization around these fields. As a result, measures were taken to reduce the groundwater level by digging ditches around agricultural fields, which led to the

formation of a number of artificial evils in the country. The impact of these changes on nature is so multifaceted that each change is followed by the formation of biocenoses that were not previously characteristic of the region [5].

We know that the largest irrigation system in the country is formed by the waters of the Amu Darya and Syr Darya. The deltas formed in the lower reaches of this river, the islands between them, reeds and tugai along the shores of the Aral Sea are the favorite habitats of the species that make up the avifauna of the region.

However, in the southeastern and central regions of the country, especially in Bukhara, Navoi, Khorezm and Kashkadarya regions located at a depth from sea level, since the 1950s, Dengizkul, Zamobobo, Ayak-Ogitma, lakes Karakir, Shurkul, Kuimozor, Tudakul reservoirs have been formed. With the release of channels such as Bukhara-1, Amu Bukhara-2, Amu Karakul, Amu Karshi, around these channels Zikri, Khadija, Devkhona, Khojamsayod, Sechankul, Achchikkul, Alan Rabov, as well as dozens of fish ponds associated with education, life, aquatic environment and leading to the redistribution of waterfowl by the whole country. The results of our observations in 2000-2020 in Karakir, Zamonbobo, Dengizkul.

Lakes Zikri, Hadicha, Kumsultan, Ayak Ogitma, fish ponds Kagan and Bukhara in Bukhara region, reservoirs Tudakul and Kuimozor in Navoi region were analyzed [5]. According to the latest data, 37 species of fish, 2 species of amphibians, 26 species of reptiles, 332 species of birds, 50 species of mammals have been identified in the Bukhara region [7]. Of these, 9 species of fish, 6 species of reptiles, 44 species of birds, 10 species of mammals are listed in the "Red Book" of Uzbekistan. Also among them are 4 species of fish, 2 species of reptiles, 22 species of birds, 7 species of mammals included in the "Red List of Endangered Species" of the International Union for the Conservation of Nature and Natural Resources (IUCN) [7].

In this article we want to provide information about some migratory birds of the Bukhara region.

The territory of the Bukhara region is inhabited by migratory birds, birds that come to build nests, as well as migratory birds on the territory itself. During our scientific observations, we studied birds by these parameters.

Arriving for nesting: The Sibilant Swan, Atayka, Piebald, Marbled teal, Red-nosed dipper, White-eyed black, Savka, Black kite, Tyuvik, Kurgan and many others. Migratory: Black-necked grebe, Red-necked grebe, Gray-cheeked grebe, Pink pelican, curly pelican, etc.

Of these types, we will focus on several.

The sibilant swan is Cygnus olor, a dazzling snow-white bird, the largest representative of the swan family. The name was given because of the sounds made,

currently has the status of IUCN (LC) - causing the least concern. On the territory of the region, it occurs during the breeding season in ponds, lakes, reservoirs and fishing lakes. They build nests on the ground in the lakes Karakir, Zikri, Ayakagitma, as well as on the fishing farms of Kagan and Bukhara, in the reed thickets of Lake Tudakul, in the islets of Lake Khadija.

Atayka-**Tadorna ferruginea**. During the feeding period, it is found in lakes with sparse grass, salt water, while during the construction of the nest it chooses hills around reservoirs and pits.

Piebald- **Tadorna- tadorna**. Just like **Tadorna ferruginea** during the feeding period, it is found in lakes with rare grass, salt water, while during the construction of the nest it chooses hollow pits.

Of the migratory birds, as mentioned above, there are Black-necked grebe, Rednecked grebe, Gray-cheeked grebe, Pink pelican, curly pelican.

Curly pelican- Pelecanus crispus. It is found in large reservoirs of the region during the spring and autumn migration. In our region, in warm winters, they overwinter in small numbers when the reservoirs do not freeze.

Pink pelican-**Pelecanus onocrotalus**. Also, like curly-haired species, it is found in large reservoirs of the region during the spring and autumn migration. In our region, in warm winters, they overwinter in small numbers when the reservoirs do not freeze. Natural and artificial reservoirs of our region are rich in food, as well as reservoirs specially enriched with algae by professors of the Faculty of Agronomy and Biotechnology of Bukhara State University, headed by Professor S.B. Buriyev, creates another good conditions for migratory birds in the process of their nesting. The research work is also carried out by the associate professor of the Department of Zoology and General Biology M.M. Turayev. Thus, the water basins of the Bukhara region can be suitable biocenoses not only for sedentary birds, but also for migrating, migratory, and nesting birds.

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