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WHITE STORK (*CICONIA CICONIA*) AND WHITE-TAILED EAGLE (*HALIAEETUS ALBICILLA*) IN KARAKALPAKSTAN

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ANNOTATION

The article presents the materials of ornithological research carried out in 2005-2018, in the South Aral region. For the first time in Karakalpakstan in 2017 over the past hundred years, a meeting with the white stork *Ciconia ciconia* was established. In addition, the only nest of the white-tailed eagle *Haliaeetus albicilla* with chicks in Uzbekistan has been studied and recommendations for the protection of these birds are proposed.

KEY WORDS: nest, ornithology, adyr, Chink Ustyurt, agriculture, monoculture.

Turkestan white stork *Ciconia ciconia asiatica*.
The Turkestan white stork is one of the largest and well-studied birds in Uzbekistan. Of the two subspecies, *Ciconia ciconia asiatica* Severtzov, 1972 nests in our country. Distributed in Europe, North Africa, Transcaucasia, Western and Central Asia. Breeding, partially sedentary species. European birds winter mainly in Africa, and Central Asian birds - in South Asia, mainly on the Indian subcontinent (Mitropol'skiy, 2007).

In Uzbekistan, a widespread species, nests in Andijan, Fergana, Namangan, Tashkent, Syrdarya, Jizzakh, Samarkand and Kashkadarya regions. In the past, it nested in the Khorezm and Bukhara oases. Winters in the Fergana Valley, in the Tashkent, Syrdarya and Jizzakh regions (Sagitov, 1987; Nazarov, Abdunazarov, 1987; Lanovenko et al., 1990; Tretyakov, 1990; Fotteler, 1990; Shernazarov et al., 1994; Kashkarov et al., 2016).

Previously common for most of Uzbekistan, by the beginning of the 1980s this species practically disappeared from the central and southeastern parts of the country due to the weakening of protective

measures, mainly due to a sharp expansion of the developed areas and degradation of adyrs, dominance in agriculture, cotton monoculture and modernization of the irrigation system (Mitropol'skiy, 2007).

The white stork is included in the Red Book of the Republic of Uzbekistan (2009) with the status "close to vulnerable Turkestan subspecies of migratory species - 3 (NT)".

In modern literatures there is no data on the meeting of a white stork in Karakalpakstan. None of the bird watchers have seen these birds in recent centuries, and it is also not on the list of birds of Karakalpakstan (Abdreimov, 1981; Ametov, 1981, 1998; Ametov, 2010; Zhumanov, 2017). Only A.M. Mambetzhumaev (1995) includes the white stork in the list of birds of the Southern Aral Sea region, referring to N. Zarudny (1896), without giving specific evidence. According to old literature data, at the beginning of the 20th century, non-breeding birds in spring and summer were regularly encountered on the Aral Sea island (Zarudny, 1916) and wintered throughout the Amu Darya (Zarudny, Bilkevich, 1918).



Fig. 1. White stork *Ciconia ciconia* (Photo by the authors).

Therefore, the question of meeting a white stork in Karakalpakstan has always been of interest to local ornithologists.

On April 30, 2017 at 09.40 o'clock on the shores of the Sudochinskaya system of lakes (coordinates: N43°31'17.9 "E058°21'46.5") for the first time in Karakalpakstan we met and photographed a single white stork *Ciconia ciconia* (Fig. 1).

The bird flew high in the sky and soared above the Ustyurt cliff near Lake Akushpy, which is part of the Sudochye lake system. Perhaps the bird was migratory. We think that in the near future the white stork will become a common species for Karakalpakstan, since we have all the possibilities for its habitation.

The fact that a stork appeared in our country is of great scientific importance and arouses interest not only among bird watchers and ecologists, but also among the general population, because in our country the white stork is traditionally considered a bird of peace, a symbol of goodness and well-being.

White-tailed eagle *Haliaeetus albicilla*. Wintering, migratory and extremely rarely nesting bird in Uzbekistan. One of the largest birds of prey in the world. The white-tailed eagle is included in the Red Book of Uzbekistan (2009) with the status of vulnerable, naturally rare, migratory nominative subspecies 2 (VU: R), as well as in the IUCN Red List [LR-nt].

Distributed and nests along the shores of rivers, lakes and seas in most of Europe, Northern Asia, from Greenland and Iceland to the Kuril Islands. In the south, it breeds in Asia Minor, Transcaucasia, the lower reaches of the Volga, Ili, in the south of Siberia and in eastern China. Winters in Eastern Europe, Western, Central and Southeast Asia, northern India, Korea, Japan (Mitropol'skiy, Fotteler, Tretyakov, 1987).

In Uzbekistan, migration and wintering are almost everywhere, excluding the highlands and the

Fergana Valley. The habitats are large flat and foothill reservoirs.

The white-tailed eagle has always been a rare species. On the flight there are singles, couples and groups; nesting is single and irregular; about 300-400 birds overwinter (Red Book of Uzbekistan, 2009).

The main limiting factor for sea eagles is the deterioration of their habitat due to changes in the water regime in the Aral Sea basin and poaching.

According to our observations, in recent decades (2005-2018) in winter, white-tailed eagles are relatively regularly encountered in all large and medium-sized lakes of Karakalpakstan, such as Sudochye, Zhylytyrbas, Mashankul, Dautkul and Ashchikul. So, 2 individuals of the white-tailed were noted by us on 01/07/2005 and one individual on 12/27/2006 on the lake. Ashchikul, located on the outskirts of Nukus. The birds sat on the ice in the center of the lake, where mallards, crested and red-headed ducks and coots, potential prey of sea eagles, kept (Ametov, 2009).

In the following winter (December 2007 - February 2008), white-tailed eagles were not seen on Lake Ashchikul. The winter was harsh and very cold (-20-250C), there was solid ice on the lake, and there were practically no waterfowl. An interesting encounter with white-tails in the cultural landscape took place in this harsh winter. In the shirkat farm "Khalkabad" on December 23, 2007 we found a white-tailed eagle perched on a tall elm growing among wheat fields. The fields border on the residential houses of the aul, as well as on shallow, reed-overgrown reservoirs and rice fields.

Throughout the winter, two white-tailed eagles stayed here and fed on the doves and ringed doves that flew to feed in the rice fields. According to local residents, they often attacked domestic chickens. The last time we saw these eagles was 03/11/2008. We think that because of the cold weather, when the water bodies were frozen, the

eagles were forced to winter in the agricultural landscape (Ametov, 2009).

Naturally, a larger number of white-tailed tails was noted by us on February 23-25, 2013 on the large lake Zhylytyrbas. 12 individuals of sea eagles sporadically kept on the ice of the lake (N43°35'563 "E059°51'876") and fed on dead fish that died as a result of "oxygen starvation".

Many ornithologists have been studying the issue of nesting of the white-tailed eagle in Uzbekistan for a long time. In the works of M. Bogdanov (1882), L. Molchanov (1912), N. Zarudny (1916) and N. Gladkov (1932) it is said about the nesting of the white-tailed in the Southern Aral Sea region. In the 60s of the last century, only K. Kenzhegulov (1966) wrote about the nesting of the white-tailed in the Amu Darya delta, but, like all previous authors, he does not provide specific evidence.

Only at the end of the 20th century was the nesting of the white-tailed eagle in Uzbekistan confirmed with E.A. Kreitsberg-Mukhina, E.N.

Lanovenko and S.V. Zagrebin. In 2000, on April 21, it was in the Southern Aral Sea region near Lake Sudoche that a residential nest of a white-tailed eagle was first found, in which there was a dark gray downy chick the size of a large chicken. The nest was located at the upper edge of the chink on the ledge of the Ustyurt plateau (E.A. Kreitsberg-Mukhina, E.N. Lanovenko and S.V. Zagrebin (2004, 2005). According to these authors, a pair of eagles nested here in 2002 as well.

16 years have passed since then, but there is no data in the literature on the nesting of the white-tailed eagle in Karakalpakstan and in other regions of Uzbekistan.

In order to study the nesting of the white-tailed eagle, we have repeatedly visited the lake. Sudochie. And finally, on April 20, 2017, on a cliff of Ustyurt, located near the Sudochinskaya system of lakes (Lake Tayly), during ornithological studies, we found a residential nest of the white-tailed eagle *Haliaeetus albicilla* (Fig. 2).



Fig. 2. Residential nest of the white-tailed eagle (Photo by the authors).

The nest was located on the highest ledge at the edge of the Ustyurt cliff, 132 m above sea level (coordinates: N43°34'217 "E058°29'737")

The shape of the nest is cup-shaped, the diameter of the nest is 80-125 cm, the height is 40-50 cm, the depth is 20-25 cm. It is built with large branches of *Haloxylon persicum saxaul*, *Halostachys caspica salt grate* and *Tamarix hispida comb*, and inside the nest is lined with small branches and twigs

of *Karelinia Caspian Karelinia caspia*, *fine-feathery aristida* *Aristida plumosa*, *Ephedra distachya ephedra*, and *Tamarix hispida*.

Two 5- or 6-day-old chicks and 1 egg were found in the nest, and the remains of rodents were found near the chicks - a yellow ground squirrel *Spermophilus fulvus* and a great gerbil *Rhombomys opimus*. At this time, their parents soared in the sky above us.



Fig. 3. White-tailed eagle chicks (Photo by the authors).

To study the subsequent life of these chicks, we re-organized an expedition on May 7 to the Sudochinskaya system of lakes. When we approached the nesting area, a female white-tailed eagle flew out of the nest. Quite grown 20-24-day-

old chicks with black-brown plumage lay in the nest (Fig. 3). This means that another chick has hatched from the egg.

During the research, we studied the nutrition of these chicks (Table 1).

Table 1
Feeding 3 white-tailed eagle chicks in Karakalpakstan
(May 7-10, 2017)

№	Name food object	number, %
1	Fish (crucian carp, carp)	2 (7,4%)
2	Steppe turtle <i>Agrionemus (Testudo) horsfieldi</i>	1 (3,7%)
3	Mallard <i>Anas platyrhynchos</i>	3 (11,1%)
4	Red-crested pochard <i>Netta rufina</i>	5 (18,5%)
5	Ferruginous duck <i>Aythya nyroca</i>	1 (3,7%)
6	Common Tern <i>Sterna hirundo</i>	3 (11,1%)
7	Coot <i>Fulica atra</i>	4 (14,8%)
8	Black-winged stilt <i>Himantopus himantopus</i>	2 (7,4%)
9	Tolai hare <i>Lepus tolai</i>	1 (3,7%)
10	Yellow ground squirrel <i>Spermophilus fulvus</i>	2 (7,4%)
11	Long-clawed ground squirrel <i>Spermophilopsis leptodactylus</i>	1 (3,7%)
12	Great gerbil <i>Rhombomys opimus</i>	1 (3,7%)
13	Midday gerbil <i>Meriones meridianus</i>	1 (3,7%)
	Bcero	27 (100%)

Analyzing the food of the white-tailed eagle chicks, we came to the conclusion that they feed mainly on waterfowl, since in their nest they accounted for 66.6%. The diet is dominated by red-nosed ducklings, coots, mallards and river terns. Mammals make up 22.2% of the diet. These are the yellow ground squirrel, tolai hare, fine-toed ground squirrel, large and midday gerbils (Table 1). 11.1%

of the diet consisted of fish (7.4%) and steppe turtle (3.7%).

The life of the white-tailed eagle is closely related to water, and the prospect of nesting depends on the hydrological regime of the lake and the presence of a disturbance factor. Therefore, our main task is to create optimal conditions for nesting of



these birds, respect, and strictly guard their nesting sites.

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