Synantropic Birds of Bukhara Region: Distribution, Number and Importance

Barotov Avazbek Hamzaevich
Master of Bukhara State University

Abstract

As a result of the study, synanthropic bird species specific to Bukhara region were identified. Preliminary materials collected to determine the seasonal dynamics of the distribution, number and number of synanthropic bird species in the region and their practical significance in human economy were analyzed.

Keywords: *sinanthropus, biocenosis, seasonal dynamics, unsanitary conditions, nesting colony*

INTRODUCTION

The distribution, number and importance of birds also vary according to the diversity of ecological conditions in different parts of the world. To date, the species composition and practical significance of human-coexisting, numerous, and sometimes problematic synanthropic birds in human agriculture have been virtually unexplored. The situation is similar in Bukhara region. Given the fact that the majority of the ornithofauna of Uzbekistan is migratory species, they fly from regions with different epidemiological situations, the urgency of the epidemiological significance of the species in the settlements becomes even more obvious.

Materials and methods. In order to study the distribution, number and importance of synanthropic bird species in the settlements of Bukhara region, field research was conducted in 2020-2021. The research used devices such as a GPS navigator, a Viking 10x50 binoculars, and a Canon (100x400) camera. The surveyed area was surveyed a total of 48 times on land using stationary and route counting methods [2; 3; 6; 7; 8; 10]. The results of counting the number of synanthropic bird species were extrapolated to an area of 10 hectares and the density of the animal community was determined according to the following formula

$$D = \frac{n}{2 \cdot L \cdot W};$$

where D is the density; n is the number of birds encountered; L is the route length; W is the width of the route, or the distance from the route axis to the boundary of the calculated corridor. Multiplication 2 was used in the formula to account for the birds to the left and right of the route axis.

RESULTS AND THEIR DISCUSSION

In determining the synatropic species, first of all, their degree of urbanization was taken into account. It has been determined to include in the list of synanthropic species the species that are widespread, whose life is inextricably linked with the human economy and its habitat, where nesting sites and feeding stations are adjacent to humans, where they cannot live. According to our initial observations, the following species can be found in Bukhara region: Columba livia, Streptopeliasenegalensis, Corvusfrugilegus, Acridotherestristis. These species are common in all urban landscapes and has a high number of figures. [13; 12; 9; 10; 11].

In addition to being synatropic species, these species are also considered urbofil species. They are fully adapted to living in civilized landscapes and are considered to be species whose evolution of adaptation is still ongoing and ecologically resilient.

Average number of sinantrop birds in Bukhara region and their annual dynamics (2020–2021years)

Species	Monthly amount(in each 10 hectares)												Average
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	
Columba livia	86	74	59	33	30	27	24	34	42	49	61	70	49,1
Streptopelia senegalensis	13	12	6	5	6	7	7	8	9	11	11	12	8,3
Corvus frugilegus	36	34	24	36	41	24	27	34	36	25	20	28	30,4
Acridotheres tristis	20	30	24	36	52	48	55	68	60	49	38	30	42, 5

The table shows that the number of these species varies throughout the year, but in the general bird community they are found in large numbers. According to the analysis of preliminary materials, these species are in direct topical, trophic and other contact with humans and their habitats. Such relationships increase the likelihood of the spread of some transmissible diseases associated with birds.

It should be noted that ectoparasites of birds in Uzbekistan have not been studied epidemiologically [1; 4; 5]. In order to determine the epidemiological significance of blue pigeon-Columba livia, studies of their ectoparasites were conducted. Examination of birds nesting in the attics of various buildings and their chicks revealed the presence of different canals in some of them. These canals have been observed to cause the death of chicks and sometimes egg-laying birds.

CONCLUSION

Depending on the ecological characteristics of Bukhara region, the sedentary species are blue pigeon-Columba livia, musicha-Streptopeliasenegalensis, manure-crow Corvusfrugilegus and maca-Acridotherestristis. Synanthropic species are more numerous than other species due to their adaptability to habitats and their environmental flexibility. It is noted that there are problematic situations related to unsanitary conditions in the nesting and sleeping areas of these species. These situations require an in-depth epidemiological study of synanthropic species and the development of appropriate preventive measures on this basis.

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