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ORIGINAL ARTICLE

Summer birds in suburban habitats of Uman (Central Ukraine)

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It is known that 370-380 bird species are widespread in different climatic zones of Ukraine, and about 280 species of birds are found in the territory of Central Forest-Steppe and, in particular, the Cherkasy region. A significant part of the species settles in forests, household plots, and summer habitats around the cities. An urgent problem in optimizing the urban ecological environment because of its global deterioration is facing humanity. Some issues of bird ecology of suburban habitats, particularly in the Uman area, were studied earlier in the environmental conditions of Uman city. However, since then, significant ecological and technology-related changes that have significantly affected the populations of the studied species in urban landscapes have occurred, and we tried to fill these gaps.
Keywords: bird fauna, summer habitats, Uman area, bird community, nesting, urban birds.

Introduction

Many bird species, feeding on various invertebrates, are the import
ant regulator of their number in nature and agrocenoses and eat a significant number of pests of green plantations; therefore, such birds deserve protection and attraction.
Studies of well-known Ukrainian zoologists and ornithologists show that 370-380 species of birds are now widespread in different climatic zones of Ukraine, and about 280 species of birds are found on the territory of Central Forest-Steppe and, in particular, the Cherkasy region. A significant part of the species settles in forests, household plots directly in residential buildings, natural tree plantations, public gardens, surrounding forest belts, and summer settlements around cities.
The number of nesting rooks, magpies, common ravens, and jays is directly connected to the unfavorable ecological situation in general; moreover, annual littering of urban areas in the summer habitats of the Uman area increases. While seeking food, these birds act as « sanitaries", eating various food wastes and dead animals, and they also kill small animals (amphibians, reptiles, and rodents, destroying the nests of birds), which significantly impoverish the fauna of cities and suburban areas, so they are somewhat" undesirable" residents (Lulenko, Goncharenko, 2009).
An urgent problem in the urban ecological environment is its global deterioration. One critical moment in improving the urban environment's ecological situation is expanding the tree plantation area in the suburbs and directly in the suburban settlement areas. It is worth noting that the urban environment and the planting of greenery have significant positive changes. Birds have adapted to living next to humans; they feel pretty safe near human habitation. They bring significant benefits as they kill various pests of orchards and vegetable gardens, pollinate cultivated plants, promote the spread of plant seeds, and play a significant aesthetic and recreational role for city residents. Some issues of bird ecology in suburban habitats, particularly in the Uman area, were studied earlier. However, since then, significant ecological and technology-related changes have significantly affected the populations of the studied species in urban landscapes.
Our research aimed to study the species composition, biotope timing, number, nesting features, some aspects of feeding, and the importance of birds in the typical habitats of the Uman area and some nearby habitats.

Materials and methods

The research was conducted during 2019-2021, mainly in the spring-summer period (April-July) during the breeding period of birds, when they were in the nesting area and showed the highest vital activity, to perform the complete and relevant bird survey. We studied the birds in the territory of the Uman region. We usually recorded the species composition and number of birds in the morning period – from 7.00 to 10.00 AM, when the male singing birds showed the highest activity. At the same time,

we used the route method specified by O. Mykytiuk (1997). The width of the recording area was usually 50 m (25 + 25 m). Large birds, as well as rare ones, were recorded separately (Fig.1).

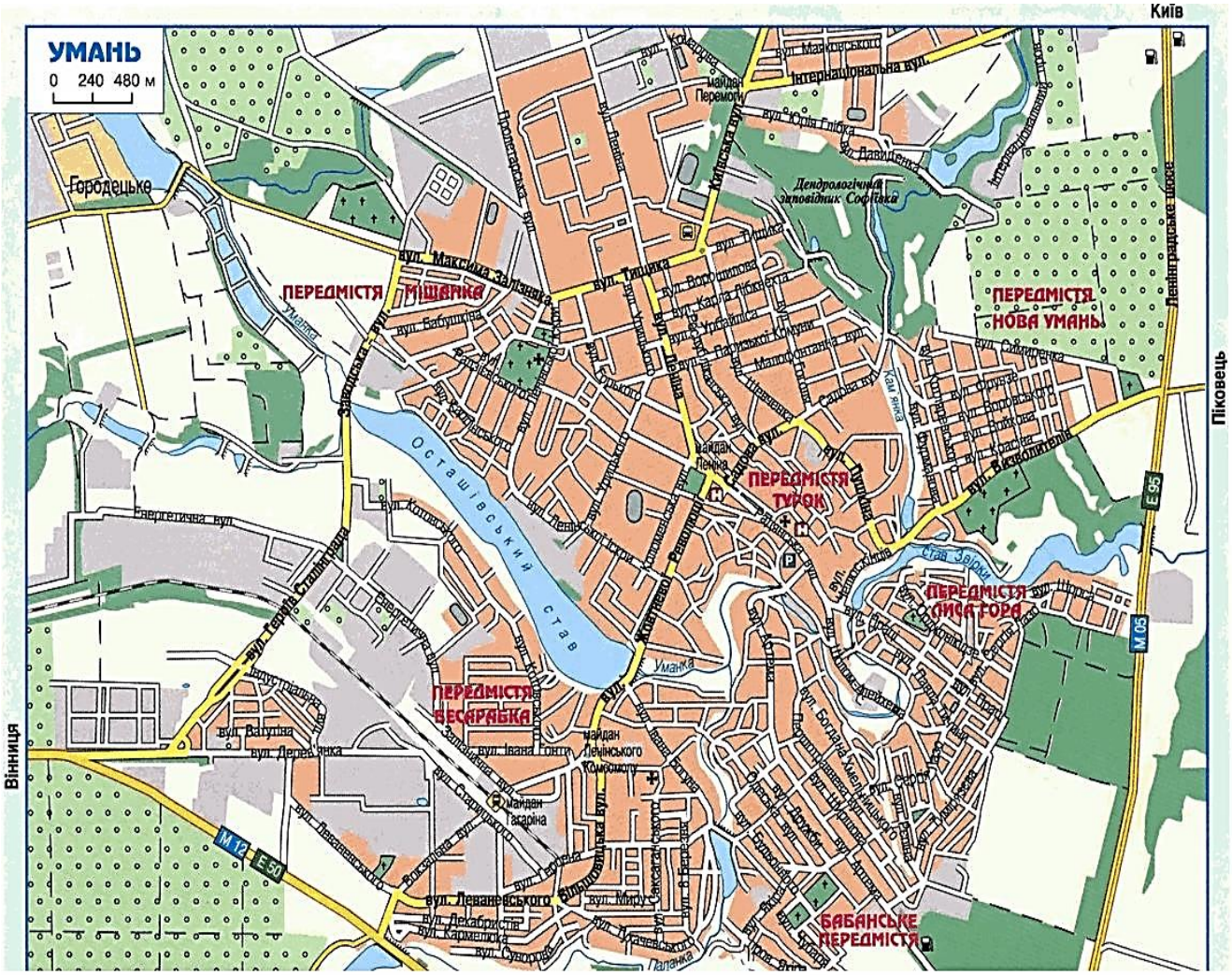

Fig.1. Map of the research area

Results

We registered 38 bird species (147 pairs) during the research period on the territory of the experimental suburban (near Uman city, Table 1).

We estimated that seven species are dominant, including Eurasian tree sparrow (15 pairs or 10.2%), common linnet (12 pairs or 8.16%), common starling (12 pairs or 8.16%), white wagtail (7 pairs or 4.8%), common whitethroat (9 pairs or 6.1%), magpie (6 pairs or 4.8%). The habitats of most species are directly associated with summer houses, garden plots, and forest belts. Hydrophilic species are also interesting. Mute swan, in particular, in recent years, generally increases its number, successfully adapting to the ever-increasing influence of anthropic factors. Therefore, we observed it in the ponds located within the habitats (Horodetske village) and their outskirts or at a considerable distance from them. In this case, the caring attitude of villagers to swans plays a role (Moroz, Grabovskaja 2017).

The great reed warbler is the most spread species among the dominant ones. It nests in the inaccessible beds of rushes and cattails throughout the river valley. Common birds, which form the basis of the bird community, are represented by 21 species. Common moorhen (5 pairs or 3.9%) and Eurasian coot (5 pairs or 3.9%) are the most spread among them. Their nesting is connected with a dense thicket of cattails and rushes in the upper and shallow pond areas. Unfortunately, these beautiful birds have recently become an ordinary object of hunting, and their number in some places is declining.

Northern lapwing is a common species and nests on the open banks of the river and ponds. These breeding habitats promote the mass death of lapwing clutches and broods from carnivorous birds, crows, rooks, magpies, some predators (foxes, martens), stray dogs and cats, and some species of reptiles. Two years ago, Northern lapwings nested annually on the left bank of Oleksandrivka River. Now Northern lapwing has stopped nesting because of the strengthening of anthropic influence, particularly agricultural development of the slopes and banks adjacent to the river.

It should be mentioned that common species such as Eurasian bittern, white stork, mallard, which nest in places protected by thickets, and such dendrophilous species as the nightingale, song thrush, fieldfare, European turtle dove, Eurasian wryneck,

red-backed shrike, common linnet, golden oriole. Their settlement is usually connected with various woody vegetations, certain species of shrubs, and more in the valley and along its perimeter (Camacho-Cervantes et al., 2018).

Table 1. Species composition and number of summer birds at Uman suburban habitats

No.	English name	Latin name	Number of registered birds		
			Number of pairs	% from the total number	Abundance status
1.	Grey heron	*Ardeacinerea*	4	2.7	C
2.	Purple heron	*Ardeapurpurea*	1	0.7	U
3.	Eurasian bittern	*Botaurusstellaris*	20	2.3	C
4.	White stork	*Ciconiaciconia*	14	1.6	C
5.	Mute swan	*Cygnus olor*	8	5.4	D
6.	Mallard	*Anasplatyrhynchos*	4	2.7	C
7.	Common buzzard	*Buteobuteo*	1	0.7	U
8.	Northern goshawk	*Accipiter gentilis*	1	0.7	U
9.	Common kestrel	*Cerchneistinnunculus*	1	0.7	U
10.	Common quail	*Coturnixcoturnix*	3	2.0	C
11.	Grey partridge	*Perdixperdix*	1	0.7	U
12.	Corn crake	*Crexcrex*	1	0.7	U
13.	Common moorhen	*Galinulachloropus*	5	3.4	C
14.	Eurasian coot	*Fulicaatra*	5	3.4	C
15.	Northern lapwing	*Vanellusvanellus*	3	2.0	C
16.	Black tern	*Chlidoniasnigra*	6	4.1	C
17.	European turtle dove	*Streptopeliaturtur*	3	2.0	C
18.	Common cuckoo	*Cuculuscanorus*	3	2.0	C
19.	Common kingfisher	*Alcedoatthis*	1	0.7	U
20.	Eurasian wryneck	*Jynxtorguilla*	2	1.6	C
21.	Eurasian tree sparrow	*Passer montanus*	15	10.2	D
22.	House sparrow	*Passer domestica*	2	1.4	C
23.	Tree pipit	*Anthustrivialis*	2	1.4	C
24.	Red-backed shrike	*Laniuscollurio*	2	1.4	C
25.	White wagtail	*Motacilla alba*	7	4.8	D
26.	Song thrush	*Turdusphilomelos*	3	2.3	C
27.	European robin	*Eritacusrubecula*	1	0.7	U
28.	Bluethroat	*Cyanosylviasvecica*	1	0.7	U
29.	Nightingale	*Zuscinialuscinia*	2	0.17	C
30.	Common whitethroat	*Sylvia communis*	9	6.1	D
31.	Great reed warbler	*Acrocepalusarundinaceus*	2	1.6	C
32.	River warbler	*Locustellafluviatilis*	6	4.1	D
33.	Yellowhammer	*Emberizacitrinella*	3	2.3	C
34.	Common linnet	*Cannabinacannabina*	12	8.16	D
35.	Common starling	*Sturnus vulgaris*	12	8.16	D
36.	Golden oriole	*Oriolusoriolus*	3	2.3	C
37.	Magpie	*Pica pica*	6	4.8	D
38.	Hooded crow	*Corvuscornis*	1	0.7	U
Total:			147	100.	

Note: numerous dominant (D) 7 species (18.4%), common (C) 21 species (52.3%), uncommon (U) 10 species (26.3%), migratory (M) 35 species (92.2%), nonmigratory or resident(N) 3 species (7.8%).

The group of common species also includes species found nesting in other, sometimes atypical biotopes. These are white and yellow wagtails, grey heron, common quail, common cuckoo, tree pipit, yellowhammer, and common starling. Uncommon species in research conditions are of particular interest. These are, in particular, the purple heron, common buzzard, northern goshawk, common kestrel, grey partridge, corncrake, common kingfisher, bluethroat, and others.

One pair of purple herons was observed in thickets of reeds and willows on the outskirts of Horodetske village.

A common buzzard was observed as a constantly hunting species in the river valley. Most often, we observed it hunting for Eurasian coot or common moorhen. The nest was found on top of oak in a small forest area on the slope of the forested bank

of the Oleksandrivka river, located 1 km from Horodetske village. The hunting area of the buzzard, according to our observations, is about 3 km on both nest sides.

One pair of grey partridges was noticed among weeds and thin shrubs on the right bank of the Oleksandrivka river between Horodetske village. According to the old inhabitants of the village, there were a lot of these birds here 25-30 years ago; they were an essential object of hunting.

One pair of corncrake was registered (by voice) in thick vegetation near the banks, particularly in serges, reeds, and sweet flag *Acorus calamus*. Unfortunately, we did not find the nest of this uncommon bird in the Uman area.

Common kingfisher nests near Dmytrushky village. The nesting of European robins, bluethroat and grey crows is connected with woody vegetation. The nesting bird community's formation in summer habitats depends on migratory species (92.2%) and nonmigratory (7.8%). The group of nonmigratory species includes grey partridges, magpies, and grey crows. Studied bird community according to the ecological and habitat allocation is divided into five groups: forest, shrubby, steppe, semiaquatic, synanthropic. The forest ecological and habitat group includes 12 species, which is 31.6%, and it is one of the large groups regarding the number of species. Among the species of the group, grey heron, fieldfare, song thrush are the most common; grey crow, European robin, common buzzard, northern goshawk, European turtle dove, and Eurasian wryneck, tree pipit, cuckoo are less common.

Table 2. Ecological and habitat structure of bird fauna of summer habitat of Uman area

No.	Group	Amount of species	
		absolute number	In %
1.	Forest	12	31.6
2.	Shrubby	7	18.4
3.	Steppe	5	13.2
4.	Semiaquatic	10	26.3
5.	Synanthropic	4	10.5
Total		38	100

Seven species, or 18.4%, represent the group of shrubby birds. They are common kestrel, red-backed shrike, bluethroat, nightingale, common whitethroat, common linnet, and magpie. In separate groups of willow stands or even on single bushes, these birds in the environmental conditions of summer habitats nest in the bush thicket of adjacent forest belts. They are widespread in raspberry thickets in summer habitats.

The steppe species (5 or 13.2%) include common quail, grey partridge, white wagtail, yellowhammer, and tree pipit. Nesting of these species is always connected to open habitats - fields, meadows near the banks, or forest glades everywhere near the cottages and in the surrounding fields, vegetable gardens, pastures, and more.

Semiaquatic ecological, habitat groups and a forest group are among the most numerous and represented by 12 species, 31.6%. This group includes species that essentially form the hydrophilic nucleus of the studied bird community. They are purple heron, mute swan, mallard, corncrake, common moorhen, Eurasian coot, northern lapwing, black tern, common kingfisher, great reed warbler, river warbler.

Each of the abovementioned species is differently interconnected with a water body. Mute swan, mallard, Eurasian coot, black tern, and common moorhen are characterized by the highest degree of connection with the water body. For these birds, the water body is among the primary inhabitable environments and the environment where they get their food by eating soft underwater parts of rhizomes and shoots of hydrophilic plants, seeds, leaves, and aquatic invertebrates, and even small vertebrates (baby fish, tadpoles). Dense thickets of cattail, reeds, sedges and willow bushes serve as shelters for them from bad weather and predators. Some species also visit summer habitats in search of food.

Four species represent the synanthropic ecological and habitat group. They include, in particular white stork, Eurasian tree sparrow and house sparrow, and the common starling. These are species that permanently settle next to humans.

Under the environmental conditions of the Oleksandrivka river valley, one stork's nest near a human's household was observed near Horodetske village and one in Kochubiivka village. However, other storks nesting in these villages are connected with the presence of a nearby river valley. Storks also visit summer habitats in search of food.

According to our observations, when choosing a nesting site, the white stork primarily associates it with the presence of rivers, ponds, lakes, moors, or just wet meadows, where it can get food throughout the spring and summer period for itself and the chicks during their feeding. The main food of storks is amphibians, their tadpoles, small reptiles, large insects, mollusks, and cute rodents, most concentrated just in river valleys.

Starlings in summer habitats find a rich fodder base for themselves primarily. They nest alone in the hollows of old fruit trees. A significant number of starlings searching for food during the nesting period in the tree belt areas near the banks can be observed. In addition to the usual variety of insects, they choose the shells of small mollusks. It is known that they thereby enrich their bodies with calcium, which is essential for the egg-laying process. The same is pursued by birds even while feeding chicks - calcium is spent on the growth and development of their skeleton (Koval', 1981)

Summing up the abovesaid, we can conclude that two groups of birds - forest and semiaquatic are forming the basis of the summer urban bird community in the study region regarding its ecological and habitat characteristics. The number of species in these groups is 63.2% (24 species out of 38). The latter indicates the possibility of a significant increase in the number of birds in river valleys adjacent to the suburban summer habitats of these ecological and habitat groups through the introduction of

special environmental measures. The synanthropic group is quite common in terms of individuals: Eurasian tree and house sparrows and starlings.

The birds of the bird community are grouped into five ecological groups according to the nature of nesting: crown nests, hollow nests, terrestrial nests, hole nests, nests connected with buildings (Table 3).

Table 3. Ecological structure of breeding bird communities of the Oleksandrivka River valley

No.	Group	Number of species	
		absolute number	%
1.	Crown-nesting	17	44.7
2.	Hollow-nesting	4	10.5
3.	Land-nesting	13	34.2
4.	Hole-nesting	1	2.6
5.	Building-related nesting	3	7.9
Total:		38	100

The group of crown-nesting birds by the number of species is the most numerous. It includes 18 species, which is 47.4%. Grey heron, European turtle dove, fieldfare, song thrush, common whitethroat, great reed warbler, golden oriole, magpie, and others are significantly different or dominant crown-nesting birds. Common buzzard, northern goshawk, common kestrel, common cuckoo, grey crow, and bluethroat, rarer, although typical. Some species of this group, as a rule, settle directly in the thickets of hydrophilic vegetation (Great reed warbler, purple heron, river warbler). Typically, these birds build nests in inaccessible places low above the water. Other species use available individual trees and shrubs within the valley, especially directly above the bed of the Oleksandrivka river for nesting, and forest belts and individual groups of shrubs near the river banks (common whitethroat, common linnet, nightingale). The population of cuckoos nesting within the valley deserves special attention. Cuckoo, according to the method of nesting, belongs to a group of crown-nesting birds. This species is considered in the publicly available (popular) literature as a bird-nesting parasite. After all, it is known that the common cuckoo never builds its nest and lays its eggs in the nests of other birds.

It is also known that in Europe, there are 59 nesting breeds of cuckoos. Commonly, each subsequent generation of a cuckoo lays eggs in a bird's nest that brings it up. In the environmental conditions of the Oleksandrivka river valley, on the example of cuckoo populations living in swamp biotopes of former overgrown ponds within the university agrobiostation, we observed their systematic parasitism in the nests of the great reed warbler, which is a representative of the crown nesting group.

In general, crown-nesting birds in research conditions do not have entirely satisfactory conditions for their settlement. However, not all species build nests directly in the tree crowns. Such "obligate" crown-nesting birds, based on these positions, should be considered as such species as grey heron (nests in the crown of trees near water bodies), common buzzard, northern goshawk (in the depths of the forest and forest belts), common kestrel (in the crown of trees and tall shrubs, likes to occupy magpie nests), European turtle dove (in sparse forest and single trees), fieldfare and song thrush (in the crown of trees in forest belts, old gardens, and forest areas), golden oriole and grey crow. However, crown-nesting birds include species that usually nest at low height (sometimes up to 1 m) in shrubs on single bushes. These, in particular, are red-backed shrike, bluethroat, common whitethroat, great reed warbler, river warbler. Nesting of Great reed warbler is of great interest among the latter, which hangs its nest between the reed stalks at the height of 40-50cm from the water surface.

The hollow-nesting birds include four species: Eurasian wryneck, white wagtail, great tit, and starling. In the conditions of the studied biotopes, Eurasian wryneck and starlings nest, as usual, in the hollows of old fruit trees and less often - in birdhouses. White wagtail, although in normal conditions is a hollow-nesting or semi-hollow-nesting bird, it nests, as a rule, in various cracks of country buildings in the environmental conditions of summer habitats. The presence of a pond provides them with a rich forage base, particularly many insects, which they feed on themselves and feed their offspring.

The group of land-nesting birds includes 13 species. These birds nest on the ground; in such a case, some form complicated perfect nests in sheltered places, and others build primitive nests from dry vegetation. The group includes such species as Eurasian bittern (nests in thickets of cattails and reeds), mute swan, mallard (in high areas of shallow water and mounds), quail and grey partridge (especially in abandoned areas), corncrake (in thickets of sedge), common moorhen and Eurasian coot (thickets of reed), northern lapwing and black tern (open hollows near the riverbanks), yellow wagtail (lowered areas of meadows near the river-banks), tree pipit and yellowhammer (forest belts, uncultivated country areas, thin thickets of shrubs), European robin, nightingale (shrubs). Various predators and bad weather are the most endangered birds of the land-nesting species because their nests, clutches, destruction of their eggs, and broods are caused by stray domestic animals (cats and dogs) and are caused by haymaking, destruction by predatory birds, animals, and reptiles. All this has a detrimental effect on the population of land-nesting birds and significantly reduces nesting success (Koval',1982). *The group of hole-nesting birds* includes one species we noted –the common kingfisher. We observed it in the summer of 2006 at the pond head in Horodetske village. However, we did not find a direct nesting place, unfortunately. The group of birds whose nesting is connected to buildings is represented by one species - white stork. One nest was found on a water tower 200 m from the Oleksandrivka river on a telegraph pole (Horodetske village). By the feeding preference, the bird fauna of the Oleksandrivka river valley is united into seven ecological groups: phytophages, entomophages, zoophages, phytozoophages, phytoentomophages, predators, and pantophages (Table 4).

Table 4. Trophic structure of bird fauna in the Uman suburban summer habitats

No.	Group	Species number	
		absolute number	%
1.	Phytophagans	3	7.9
2.	Entomophages	13	34.2
3.	Zoophages	7	18.4
4.	Phyto-zoophages	5	13.2
5.	Phyto-entomophages	5	13.2
6.	Predators	3	7.9
7.	Pantophages	2	5.2
Total:		38	100

We can say the same about insectivorous birds as common whitethroat, chaffinch, great tit, and starling. Exceptions may be certain species, such as swifts, barn, house swallows (catch insects in the air), orioles, cuckoos, and nightingales (arrive later and fly away earlier than all birds there are insects in the nesting area).

Table 5. Ecological groups of Uman suburban birds in summer habitats

No.	Name of species	Ecological group
1.	Grey heron	Zoophage
2.	Purple heron	Zoophage
3.	Eurasian bittern	Zoophage
4.	White stork	Zoophage
5.	Mute swan	Phyto-zoophage
6.	Mallard	Phyto-zoophage
7.	Common buzzard	Prey
8.	Northern goshawk	Prey
9.	Common kestrel	Prey
10.	Common quail	Phytophage
11.	Grey partridge	Phytophage
12.	Corncrake	Phyto-zoophage
13.	Common moorhen	Phyto-zoophage
14.	Eurasian coot	Phyto-zoophage
15.	Northern lapwing	Zoophage
16.	Black tern	Zoophage
17.	European turtle dove	Phytophage
18.	Common cuckoo	Entomophage
19.	Common kingfisher	Zoophage
20.	Eurasian wryneck	Entomophage
21.	Eurasian tree sparrow	Phyto-entomophage
22.	House sparrow	Phyto-entomophage
23.	Tree pipit	Entomophage
24.	Red-backed shrike	Entomophage
25.	Fieldfare	Phyto-entomophage
26.	Song thrush	Phyto-entomophage
27.	European robin	Entomophage
28.	Bluethroat	Entomophage
29.	Nightingale	Entomophage
30.	Common whitethroat	Entomophage
31.	Great reed warbler	Entomophage
32.	River warbler	Entomophage
33.	Yellowhammer	Phyto-entomophage
34.	Common linnet	Phyto-entomophage
35.	Common starling	Phyto-entomophage
36.	Golden oriole	Entomophage
37.	Magpie	Pantophage
38.	Hooded crow	Pantophage

In general, there is no one or another species of bird in nature, which would be characterized by one hundred percent relation to a particular trophic group. For example, the well-known forest doctor - woodpecker is perfectly adapted to catching insects and other invertebrates in the bark of trees; during the warm period of the year, it is almost wholly fed on the food of animal origin. Simultaneously, it successfully eats the seeds of coniferous trees, crushing cones and weed seeds in winter.

However, ornithologists, taking into account the nature of feeding, try to refer certain birds to the appropriate trophic groups. In this case, we did the same in this work.

The phytophages (herbivorous) include three species: common quail, grey partridge, European turtle dove, among the 38 species of birds we studied. These birds feed on young shoots of wild and cultivated plants, seeds, weeds, seeds, and berries, although they eat many earthworms, beetles, caterpillars, butterflies, and more while feeding their chicks.

The true herbivorous among these three species is most characteristic of the grey partridge, which is especially evident in winter when it eats almost exclusively weed seeds.

The group of entomophages by the number of species is the most numerous and dominant, including 13 species or 34.2%. These are, in particular, the common cuckoo (eats almost exclusively caterpillars, which it gathers in tree crowns), Eurasian wryneck, yellow wagtail, white wagtail (they find many insect pests in fields and gardens near the valleys), tree pipit, red-backed shrike, European robin, bluethroat, nightingale, common whitethroat, great reed warbler, river warbler (they gather insects in thickets of reed, cattail, shrubs near the river-banks), and oriole (it feeds like a cuckoo mainly on caterpillars, which it finds in the tree crown in the nesting area).

Entomophagous birds under the environmental conditions of summer habitats are beneficial; they eat many insects and other invertebrates harmful to green plants during the warm season.

Seven species (18.4%) of birds of the studied bird communities belong to zoophages. They are fed by eating a variety of animal organisms, including fish, amphibians, reptiles, rodents, insects, and more. The group of zoophages includes grey heron, purple heron, Eurasian bittern, white stork, northern lapwing, black tern, and common kingfisher. The diet of the first six species includes different groups of both vertebrates and invertebrates; the common kingfisher feeds exclusively on small fish, which are hunted in ponds. Therefore, its nesting is always associated with bodies of water, which is large in area (Moroz, 2017).

In general, the practical significance of birds of this group is disputable because they eat many valuable animals together with pests. However, given their uniqueness, rarity, and great aesthetic value, we can confidently consider them exclusively desirable, valuable species that deserve special protection (Seress, Liker, 2015).

The group of phytozoophages includes five species or 13.2% of the bird community. These are species that eat about the same amount of food of plant and animal origin. In most cases, they find their prey in water or near water bodies. They are a mute swan, mallard, corncrake, common moorhen, and Eurasian coot.

The birds of this group, except for corncrake, belong to the hunting and industrial species, although under the environmental conditions of the Uman region, it is more reasonable to consider them as birds that adorn our depleted natural lands and play a tremendous aesthetic role. The number of corncrakes has been declining everywhere in recent decades; it has been the case in many European countries. Therefore, it is necessary to take care of the protection of this species, which can be provided to protect the breeding habitats.

Five species of birds belong to *the group of phytoentomophages*. These are the species of Passeriformes order quite common for the conditions of the urbanized valley: fieldfare, song thrush, yellowhammer, common linnet, and common starling. Feed rations of these birds depend on the season, location, and weather conditions. In spring and autumn, they feed on more weed seeds, beetles, mollusks; and eat almost exclusively insects and other invertebrates in summer, especially while feeding them. In these circumstances, they kill many pests of green plants and directly in the area of summer habitats.

Diurnal birds of prey (predators) are a small group by both the number of species and the total amount. They include three species or 7.9%. They are common buzzard, northern goshawk, and common kestrel. These birds feed exclusively on other animals. Their prey under the environmental conditions of the studied summer habitats is amphibians (both adults and tadpoles), reptiles (especially sand lizards), rodents, chicks of different species, and their clutches, adult birds, large insects, and other invertebrates, and various carrion. There is a clear division of the controlled area between the observed species common buzzard hunting directly within the river valley, carefully inspecting it from 4 to 10 times a day; northern goshawk - among the woody vegetation in the area near the river banks; common kestrel - in the open areas adjacent to forest belts, suburban habitats, bushes and directly on the plots of summer habitats.

Birds of prey in the river valley cause significant damage to hunting bird fauna, but in general, in suburban garden habitats – they are precious, interesting birds subject to protection.

The group of pantophages (omnivorous birds) includes two species. They are magpies and hooded crows, in particular. Both magpies and hooded crows feed on the food of plant and animal origin, preferring the latter. Therefore, they play a diverse role in nature: entomophages and phytophages, and zoophages, and bird cleaners. Under the environmental conditions of suburban garden plots, they cause specific damage to suburban bird fauna (especially hooded crows), ruining their clutches and eating their broods (Koshelev et al., 2021)

In our opinion, there is no need to develop measures for the protection of these two species. Instead, it is necessary to think about regulating their numbers within reasonable limits.

Conclusions

We analyzed some ecological features of the bird fauna structure in the suburban habitats of the Uman area. We registered 38 bird species, which were the most common in this area. We analyzed the current state of the bird fauna in this area under intensive human influence.

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