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MONITORING OF THE ICHTHYOFAUNA SPECIES COMPOSITION IN THE SAKSAHAN RIVER, PIATYKHATKI DISTRICT, DNIPROPETROVSK REGION

Abstract. The current state of the ichthyofauna in the Saksahan River section in Piatykhlatki district of Dnipropetrovsk region was studied and the main regularities of their transformation under the conditions of complex anthropogenic influence were clarified.

Key words: ichthyofauna, the Saksahan River, young fish, indigenous species, carp, pike, catfish.

The rapid processes of urbanization all over the world and in Ukraine in particular lead to a significant increase in anthropogenic pressure on the natural complexes of urban areas [1, 3, 5].

The main factors determining the development of the fish fauna of the entire river are divided into forming and transforming. The forming influence is determined by the water balance of the river, the chemical composition of the water, and the production level of various groups of hydrobionts [2, 4, 6]. The transforming impact on all groups of organisms in the studied area of the Saksahan River is specified by the negative consequences of mining works in the river floodplain with the change of the natural water flow and the creation of artificial reservoirs, industrial and civil construction, constantly ongoing factors of water pollution with industrial and municipal wastewater, recreation, amateur and poaching fishing [2, 5, 6].

The aim of our work was to study the current state of the ichthyofauna in the Saksahan River, Piatykharki District, Dnipropetrovsk Region.

The selection of ichthyological material for the study was carried out in the period of 2020–2021. The waters of the Saksahan River in Piatykharki District were the area for the study. During the monitoring of the species composition of the ichthyofauna in the Saksahan River, 18 species of fish and their growers from 4 families were found (Table 1).

As it can be seen from the data in Table 1, the carp family was the most numerous – 13 species (bream, roach, bleak, red-eye, silver bream, silver crucian carp, tench, gudgeon, hybrid of silver carp, grass carp, common carp, asp, white bream); the perch family included 3 species (perch, zander, ruff), pike family - one species (pike), catfish family – one species (European catfish).

Table 1

Species composition of ichthyofauna in the Saksahan River

№	Name of fish family	Name of fish species	
I	Carps		13
1		Bream	+
2		Roach	+
3		Bleak	+
4		Red-eye	+
5		Silver bream	+
6		Silver crucian carp	+
7		Tench	+
8		Gudgeon	+
9		Hybrid of silver carp	+
10		Grass carp	+
11		Common carp	+
12		Asp	+
13		White bream	+
II	Perches		3
14		Perch	+
15		Zander	+
16		Ruff	+
III	Pikes		1
17		Pike	+
IV	Catfishes		1
18		European catfish	+
Total		-	18

According to the results of fishing with tuck nets and pond nets, it was established that at the time of the study, young fish and adult fish were characterized by the following sizes. Among indigenous fish species, roach had a length of 2.5–9.4 cm and a body weight of 0.3–11.8 g, a bream had a length of 3.5–10.6 cm and a body weight of 2.6–18.6 g; that means, most of the fish were small in size (Table 2).

Table 2

Morphometric parameters of ichthyofauna in the Saksahan River

№	Name of fish family	Length, cm	Body weight, g	Total number of fish, pcs
1	Bream	3,5–10,6	2,6–18,6	55
2	Roach	2,5–9,4	0,3–11,8	30
3	Bleak	3,3–10,1	1,1–12,1	110
4	Red-eye	2,3–5,4	2,1–24,0	10
5	Silver bream	4,8–11,3	3,3–29,3	10
6	Silver crucian carp	5,9–22,1	10,4–300,0	40
7	Tench	5,0–7,2	10,6–25,0	3
8	Gudgeon	4,3–12,0	7,5–16,1	10
9	Hybrid of silver carp	18,7–36,5	510–1060	10
10	European carp	31,3–57,9	560–2210	15
11	Pike-perch	11,9–25,3	51–960	10
12	Perch	4,3–12,6	3,2–20,6	40
13	Ruff	2,7–34,1	2,1–10,1	10
14	Pike	8,5–40,0	18,5–385,0	5
	Total	-	-	368

In April 2021, in terms of relative abundance in the catches of tuck net, low-value industrial small species of fish dominated – especially bleak (29.3% of the total fish catch in the river and floodplains as a whole), as well as perch - 16.6%. The specific weight of the bream in the catch was 12.9%, of silver crucian carp – 10.8%, of roach – 8.7%. Therefore, the species and numerical composition of young fish is determined by low-value commercial fish species, the specific weight of which exceeds 60%. Improvement of the situation in the river is possible by stocking the reservoir with young zander for melioration, as well as by introducing other valuable commercial fish species.

Analysis of the ichthyofauna caught in the Saksahan River shows that there are also valuable commercial fish species in the river, namely a hybrid of white and bighead bream (3 years old), silver crucian carp (3–6 years old), European carp (3–9 years old), pike-perch (5 years old). Measurements and indexes of biological indicators of fish inhabiting the waters of the Saksahan River assess the satisfactory degree of their nutrition and show the favourable conditions of their existence in the river.

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МОНІТОРИНГ ВИДОВОГО СКЛАДУ ІХТІОФАУНИ Р. САКСАГАНЬ П'ЯТИХАТСЬКОГО РАЙОНУ ДНІПРОПЕТРОВСЬКОЇ ОБЛАСТІ

Анотація. Досліджено сучасний стан іхтіофауни ділянки р. Саксагань в П'ятихатського району Дніпропетровської області та з'ясовано основні закономірності їх трансформації в умовах комплексного антропогенного впливу.

Ключові слова: іхтіофауна, р. Саксагань, молодь риб, аборигенні види, коропові, щукові, сомові.