

UDC 574.52.21-24

**BIOLOGICAL AND ECOLOGICAL FEATURES COMMON CARP
(CYPRINUS CARPIO L.) IN AQUATIC ECOSYSTEMS AND
AQUACULTURE**

*T. Bahday, N. Panas, N. Kachmar
Lviv National Agrarian University*

Formulation of the problem. Common carp (*Cyprinus carpio* L.) – a widely representative of the carp family (Cyprinidae) – largest family of freshwater bony fishes. With the spread of aquatic ecosystems is bentopelahichnyy species belonging to potamodromiv [10]. *C. carpio* usually described as alien species originating from Asia. Type introduced in almost all parts of the world (excluding the Middle East and poles), naturalized in European waters. [9] However, the form of domesticated common carp, which are bred in fishery ponds is one of the most common food fish fishery in temperate regions [10].

Analysis of recent research and publications. The structure type *C. carpio* subspecies are: *Cyprinus carpio carpio* (mirror carp or European) common in water most of Europe (particularly in the basins of the Danube and Volga) and *Cyprinus carpio haematopterus* (Amur carp) – native to Asia [9].

Both subspecies *C. carpio* – European and Asian – has long been domesticated. As a result of domestication and crossbreeding with other related species (eg, *Carassius auratus*), which took place in Europe, China and Japan, there are many species of carp, including a large number of decorative forms [9].

Species pond carp are distinguished by the presence and shape of flake cover: flake (fully covered with scales), mirror (with large mirror scales that run along the back and side lines, bred in Germany), naked or leathery (almost without scales, except for sections near the dorsal fin, tail and gills).

Ukraine has taken out two breeds: Ukrainian and Ukrainian scaly carp ramchatyy and 3 types within species: Ukrainian nyvkivskyy scaly, scaly Lyubinskiy Ukrainian and Ukrainian ramchatyy Lyubinskiy [4; 5; 7].

Interbreed type Ukrainian scaly carp species – Ukrainian scaly Lyubinskiy was created during the years 1963–1998 reproduced by crossing genotypes of geographically and genetically distant to each other (improved breeding herds and Gorodotsky nsevitskoho flake arrays and ropshynskoho carp) in research farm "Big Lubin" Lviv branch Institute for Fisheries UAAS [6].

Setting objectives. The aim of our study was to analyze the biological and ecological features of natural populations of *C. carpio* and their differences from the domesticated carp.

Conclusions. Common carp (*Cyprinus carpio* L.) – widespread species of freshwater fish that inhabits eutrophic water bodies and waterways of Europe and Asia. He is considered one of the indicator species in aquatic ecosystems. However, this type of domesticated long ago and is an important object of aquaculture in the fisheries temperate. Individuals *C. carpio*, who inhabit natural reservoirs are characterized by biological and ecological features compared to the domesticated carp. Natural populations of *C. carpio* have a high capacity to adapt to changes in the conditions of the water environment, but are vulnerable to various types of human impacts on aquatic ecosystems.

Bibliographic list

1. Antonyak G. L. Metals in aquatic ecosystems and their influence on hydrobionts / G. L. Antonyak, T. Bahday, O. I. Pershin, O. E. Bubis, N. E. Panas, N. P. Oleksyuk // *Biology of animals*. 2015. T. 17, No. 2. P. 9–24.
2. Bahday T. V. Hematologic indices and processes of lipid peroxidation oxidation and antioxidant metabolism in blood cells of carp / T. Bahday, V. V. Snitinsky, G. L. Antonyak // *Visnyk of L'viv National Agrarian University: Agronomy*. 2013. No. 17(2). P. 80–87.
3. Bahday T. V. Influence of Cadmium and Chromium (VI) on the state of the antioxidant system in carp blood cages (*Cyprinus carpio* L.) / T. Bahday, V. V. Snitinsky, G. L. Antonyak, N. P. Oleksyuk // *Biology of animals*. 2015. Vol. 17, No. 1. P. 9–15.
4. Gritsyak I. I. Priority directions of scientific support of the fish industry of Ukraine / I. I. Gritsyak., O. M. Tretyak // *Fishery science of Ukraine*. 2007. No. 1. P. 5–20.
5. Carps of Ukrainian rocks // Electronic resource. Access mode: http://esu.com.ua/search_articles.php?id=5153.
6. Lyubinskiy flaky – intracoronary type of Ukrainian flaky breed of carp // <http://agroua.net/animals/catalog/ag-27/a-0/ab-146/>.
7. Faley V. G. Growing of Lyubin and Nivk carps in the conditions of southern Ukraine / V. G. Faley, L. S. Voliansky, O. O. Alekseyenko, M. A. Sidorov // *Fishery science of Ukraine*. 2009. No. 1. P. 55–59.
8. Khudiy O. I. The current state of the ichthyocoenoses of transboundary watercourses of the Chernivtsi region / O. I. Khudy // *Ukraine-Romania: transborder cooperation. Collection of scientific works*. Chernivtsi: Ruta, 2007. P. 209–220.
9. De Kock S., Gomelski B. Japanese Ornamental Koi Carp: Origin, Variation and Genetics / In: *Carp Biology and Ecology of Carp*. Pietsch C., Hirsch P. (Eds.). CRC Press, 2015. P. 27–53.
10. Fishbase: *Cyprinus carpio carpio* Linnaeus, 1758 // <http://www.fishbase.org/summary/SpeciesSummary.php?id=1450>.