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The diet of 22 fish species in the Belgrade sector of the Danube River

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Fish have different habits and food needs, depending on age, physiological condition of fish, time of day or season. Herbivorous fish are feed on vascular plants (*Ctenopharyngodon idella*), phytoplankton and algae (*Aristichthys* sp., *Hypophthalmichthys* sp.). The most famous predators of Serbian waters are northern pike (*Esox lucius*), wels catfish (*Silurus glanis*), pike perch (*Sander lucioperca*), perch (*Perca fluviatilis*), burbot (*Lota lota*) and asp (*Aspius aspius*).

The catchment area of the Danube River in the Belgrade region (1171.5-1162 river km) is a part of the middle sector of the Danube River Basin, constantly subjected to heavy loading mainly organic origin.

Fish samples were collected during period 2007–2009, on two localities Zemun and Višnjica. Altogether 802 individuals of 22 fish species from Cyprinidae, Esocidae, Percidae, Centrarchidae, Gadidae and Siluridae families have been collected and examined.

Fish were caught with multimesh nets (size 32 – 50 mm) and transported to the laboratory, where the analysis of their intestines for food items was conducted. Determination of the macrozoobenthic organisms recorded in the fish intestines was conducted to the lowest taxonomic level using the appropriate identification keys.

The aim was to analyse intestine content of fish species with different diet habits and needs, and determining the composition of the macrozoobenthos community.

By examination of the 802 fish intestinal tract were identified representatives of macrozoobentos: Mollusca (Bivalvia, Gastropoda), Crustacea (Amphipoda, Gammarida), Annelida (Oligochaeta), Insecta (Trichoptera, Ephemeroptera, Coleoptera, Diptera-Chironomidae, Ceratopogonidae). Within the Bivalvia group, a species *Dreissena polymorpha* has been identified, as well as species *Corbicula* sp. i *Sphaerium* sp. Within Gastropoda species *Bythinia tentaculata*, *Lithoglyphus naticoides* and *Theodoxus fluviatilis* were determined, as well as representatives of genus Valvata and Viviparus. Representatives found within the group Ephemeroptera were *Baetis* sp. and *Ecdyonurus* sp., while group Coleoptera were presented by species *Riolus cupreus*. It also have been found the taxa of algae and phytoplankton.

The most frequent were organisms of macrozoobenthos from the group Annelida and Oligochaeta. All examined fish species, except *Esox lucius* and *Aspius aspius*, were feeding by them. The second frequent bottom fauna group was Crustacea. The fish species fed by representatives of the Amphipod, Gammarida and others, were: *Aspius aspius*, *Abramis brama*, *Abramis ballerus*, *Abramis sapa*, *Barbus barbus*, *Blicca bjoerkna*, *Leuciscus idus*, *Rutilus rutilus* and *Vimba vimba*.

The range of taken food items indicates that the most of examined freshwater fish in Belgrade sector of the Danube River are invertebrate predator, which probably takes food items according to their abundance and seasonal occurrence.