Assessment of ichtyocenosis composition and catch per unit of effort (CPUE) by inventory sampling with static nets

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Abstract

Inventory fish sampling was conducted in 2011 at seven different localities with static and semi-static fishery waters in the Drava-Danube area. Fish were caught with gill nets with different mesh sizes (from five to 12 cm), height from three to six m, individual length from 34 to 120 m and sampling nets approved by EIFAAC regulation from 2005 and European standard EN 14757 : 2005 (E), individual length of 30 m and height of 1.5 m. The sampling with gill nets took at least 12 hours, and EIFAAC nets from three to five hours of night work. At every researched locality two fishery efforts were conducted. Total and individual fish mass was measured with "Ref-meter-octa" scale. A total of 1669 fish were caught with a total mass of 1871.2 kg. Thirty-three fish species in total were determined, which systemically belong in eight families. According to the catch, ichtyocenosis is composed of the following famores: *Ciprinidae* with 22 species or 66.7% of total catch, *Percidae* with 4 species or 12.1%, *Centrarchidae* with 2 species or 6.1% while families of *Siluridae*, *Ictaluridae*, *Esocidae, Lotidae* and *Acipenseridae* were present with only one species or 3% of total catch. Average CPUE with gill nets ranged from 0.318 to 24.864 kg $net^{-1} \cdot h^{-1}$, while with EIFAAC nets the CPUE ranged from 0.536 to 1.931 kg $net^{-1} \cdot h^{-1}$.

Key words: catch, static nets, ichtyocenosis composition, CPUE

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Procjena sastava ihtiocenoze i ulova po jedinici napora (CPUE) inventarskim uzorkovanjem mrežama stajaćicama

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Sažetak

Inventarsko uzorkovanje riba provedeno je tijekom 2011. godine na sedam različitih lokaliteta stajaćih i slabo tekućih ribolovnih voda u ribolovnom području Drava-Dunav. Ulov riba obavljen je mrežama samolovkama-meražama različite veličine oka (od 5 do 12 cm), visine mrežnog tega (od 3 do 6 m), pojedinačne dužine (od 34 do 120 m) i mrežama za uzorkovanje propisane EIFAAC propisom iz 2005. te europskim standardom EN 14757 : 2005 (E), pojedinačne dužine 30 m i visine mrežnog tega 1,5 m. Uzorkovanje mrežama samolovkama trajalo je najmanje 12 sati, a EIFAAC mrežama od 3 do 5 sati noćnog rada. Na svakom istraživanom lokalitetu obavljena su po dva ribolovna napora. Ukupna i individualna masa riba mjerena je vagom "Ref-meter-octa". Ukupno je ulovljeno 1.669 riba s ukupnom masom od 1.871,2 kg. Determinirane su ukupno 33 vrste riba koje sistematski pripadaju u 8 porodica. Sastav ihtiocenoze prema ulovu čine porodice: *Ciprinidae* s 22 vrste ili 66.7% udjela u ukupnom ulovu, *Percidae* s 4 vste ili 12.1 %, *Centrarchidae* s 2 vrste ili 6.1% dok su porodice: *Siluridae*, *Ictaluridae* , *Esocidae, Lotidae* i *Acipenseridae* zastupljene s jednom vrstom ili s 3% od ukupnog ulova. Prosječni ribolovni napor (CPUE), kod mreža samolovki kretao se od 0,318 do 24,864 kg mreža$^{-1.}$ h^{-1} dok se kod EIFAAC mreže CPUE kretao od 0,536 do 1,931 kg mreža$^{-1.}$ h^{-1}.

Ključne riječi: ulov, mreže stajaćice, sastav ihtiocenoze, CPUE

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