

Quantitative qualitative composition of juvenile fish populations at the estuary of the Neretva river in the summer – autumn period

Jadranka SULIĆ ŠPREM¹, Valter KOŽUL², Nenad ANTOLOVIĆ², Nikša GLAVIĆ²,
Vlasta BARTULOVIĆ³

¹Dubrovnik Natural History Museum, Androvićeva 1, 20000 Dubrovnik, Croatia
(e-mail: jadranka.sulic@gmail.com)

²University of Dubrovnik, Institute for Marine and Coastal Research, Kneza Damjana Jude 12, 20000 Dubrovnik, Croatia

³University of Dubrovnik, Department of Aquaculture, Ćira Carića 4, 20000 Dubrovnik, Croatia

Abstract

During August, October and December 2008. changes in composition and number of species as well as biometry of fry population were examined at estuary of the Neretva (43° 01' 08" N; 17° 26' 43" E) and Mala Neretva River (43° 00' 51" N; 17° 28' 04" E). The total of 690 individuals of which 437 at estuary of the Neretva river and 253 at estuary of the Mala Neretva river were caught by small coastal trawl. They were sorted into 14 families and 19 species. In total catch, the most numerous families were Atherinidae 40 %, Mugilidae 15.79 %, Gobiidae 15.50 % and Sparidae 13.04 %. Fulton condition index is decreased with the colder temperature arrival and varies from 192,34 in August to 0,02 in December. Margalef index is higher in areas inhabited by a large number of species and it was ranged from 1.66 in August to 4.13 in October, while the Simpson index recorded the highest diversity of 0.393 in December and the lowest 0.923 in October. The highest value of Shannon-Wiener index was 1.18 in December and the lowest 0.36 in October, because 89.74 % of the catch were two species. Pielou index, numerical description of the ichthyocenosis diversity, was ranged from 0.74 in November to 0.14 in December.

Key words: estuary of Neretva, estuary of Mala Neretva, juvenile fish

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Kvantitativno – kvalitativni sastav riblje mladi na području ušća Neretve u ljetno – jesenskom razdoblju

Jadranka SULIĆ ŠPREM¹, Valter KOŽUL², Nenad ANTOLOVIĆ², Nikša GLAVIĆ²,
Vlasta BARTULOVIĆ³

¹Prirodoslovni muzej Dubrovnik, Androvićeva 1, 20000 Dubrovnik, Hrvatska
(e-mail: jadranka.sulic@gmail.com)

²Sveučilište u Dubrovniku, Institut za more i priobalje, Kneza Damjana Jude 12, 20000 Dubrovnik, Hrvatska

³Sveučilište u Dubrovniku, Odjel za akvakulturu, Ćira Carića 4, 20000 Dubrovnik, Hrvatska

Sažetak

Tijekom kolovoza, listopada i prosinca 2008 godine na postajama uz ušće Neretve (43° 01' 08" N; 17° 26' 43" E) i ušće Male Neretve (43° 00' 51" N; 17° 28' 04" E) istraživane su promjene sastava i brojnosti vrsta, te rezultati biometrije populacija riblje mladi. Pridnenom mrežom potegačom prikupljeno je 690 jedinki od čega 437 na ušću Neretve, a 253 na ušću Male Neretve. Jednike su razvrstane u 14 porodica i 19 vrsta, a najzastupljenije vrste u ukupnom ulovu pripadaju porodicama Atherinidae 40 %, Mugilidae 15.79 %, Gobiidae 15.50 % i Sparidae 13.04 %. Fultonov indeks kondicije smanjuje se s dolaskom nižih temperatura i varira od 192,34 u kolovozu do 0,02 u prosincu. Margalefov indeks je veći na područjima u kojima obitava veći broj vrsta, a kretao se od 1,66 u kolovozu do 4,13 u listopadu, dok je Simpsonov indeks zabilježio najveću raznolikost 0,393 u prosincu, a najmanju 0,923 u listopadu. Najviša vrijednost Shannon Wienerov indeksa bila je 1,18 u prosincu dok je najniža u listopadu 0,36 jer su 89,74 % ulova predstavljale dvije vrste. Pielouov indeks, koji brojčano opisuje raznolikost ihtiocenoza, kretao se od 0,14 u listopadu do 0,74 u prosincu.

Ključne riječi: ušće Neretve, ušće Male Neretve, riblja mlad

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