

ined: shell length (SL), shell width (SW), shell height (SH) and shell mass (SM). In addition three different ratios were defined: SW/SL, SH/SL and SW/SH. Analysis of variance (ANOVA) and Duncan multiple comparison test were applied to test the differences of the ratios among the three sites and to determine which of them was significantly different from the others. The analysis showed that the ratios SW/SL and SW/SH differ significantly between all three sites ($p < 0.0001$), while the ratio SH/SL did not differ between sites. The log-transformed variables were further analysed using principal component analysis on 540 shells. ANOVA and Duncan test were applied on the resulting principal components to test for the differences in component scores among the three sites. The analysis separated the riverine and the lake populations of mussels into two morphological groupings, indicating that considerable phenotypic plasticity exists among the populations of the zebra mussel.

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KRUPNOZUBI DUPIN (*Ziphius cavirostris*) PRVI PUTA NAĐEN U HRVATSKOM JADRANU

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Godine 2001. i 2002. prvi puta je u hrvatskom Jadranu nađen krupnozubi dupin (*Ziphius cavirostris*) iz porodice Ziphiidae. Ova vrsta uobičajna je u Sredozemlju, no nikada nije nađena u Hrvatskoj, ali je nekoliko mrtvih primjeraka nađeno u Italiji. Prva životinja je boravila u ožujku i travnju godine 2001. uz mjesto Srebreno pokraj Dubrovnika, gdje je 37. dana uginula. Kako se radilo o mladoj ženskoj životinji nije se moglo sa sigurnošću utvrditi, radi li se o sjevernoj kljunastoj ulješuri (*Hyperoodon ampullatus*) ili o krupnozubom dupinu. Čak ni detaljnom obdukcijom nije bilo moguće 100%-tnom sigurnošću utvrditi vrstu. Druga životinja je izbačena u raspadajućem stanju na Korčulu veljače 2002., te je s ozirom na oblik zubiju zaključeno da je to jedna od sljedećih vrsta iz porodice Ziphiidae: krupnozubi dupin, sjeverna kljunasta ulješura, *Berardius bairdii*, *Berardius arnuxii*, *Hyperoodon planifrons*, *Mesoplodon europaeus*, *Mesoplodon mirus* ili *Mesoplodon pacificus*. U uzorcima obje životinje standardnim metodama

je izolirana ukupna genomska DNA, čiji je DNA fragment na 5' kraju kontrolne regije mtDNA dugačak 500 bp amplificiran lančanom reakcijom polimerazom i sekvenciran. Sekvence kontrolne regije mtDNA ove dvije životinje su uspoređene s referentnom bazom sekvenci koja sadrži sekvence za svu 21 vrstu porodice Ziphiidae. Sekvence uzoraka obje životinje su tvorile skupinu s referentnom sekvencom krupnozubog dupina, što je isključivalo sve ostale vrste. Prva životinja je bila ženka dužine 430 cm i mase 610 kg, a druga je bio mužjak dužine 500 cm, mase oko 1000 kg.

FIRST RECORD OF THE CUVIER'S BEAKED WHALE (*Ziphius cavirostris*) IN THE CROATIAN PART OF THE ADRIATIC SEA

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In 2001 and 2002 two Cuvier's beaked whales (*Ziphius cavirostris*) were for the first time recorded in the Croatian part of the Adriatic Sea. It is a relatively common species in the Mediterranean Sea, but has never been found before in the Croatian part of the Adriatic Sea, although a few specimens stranded on the Italian coast. The first animal was observed live during March and April 2001 in the area of Srebreno near Dubrovnik where it died on 37th day of its appearance. As it was a young female, neither external morphology nor a detailed dissection could confirm the species. In February 2002 the second animal stranded died in an advanced state of decomposition on the island of Korčula. Based on teeth shape the animal was recognized as belonging to the beaked whale family (Ziphiidae), but exact species could not be identified. Muscle samples were collected from both animals. Total genomic DNA was isolated. A 500 base pair fragment of the 5' end of the mitochondrial DNA control region was amplified via the polymerase chain reaction and sequenced. The resulting sequences were compared to the beaked whale reference database. Sequences from both specimens grouped strongly with reference sequences from Cuvier's beaked whale, to the exclusion of all other beaked whale species in the database. The first animal was a female of total body length 430 cm and body mass 610 kg, and the second was a male of total body length 500 cm and body mass ca. 1000 kg.



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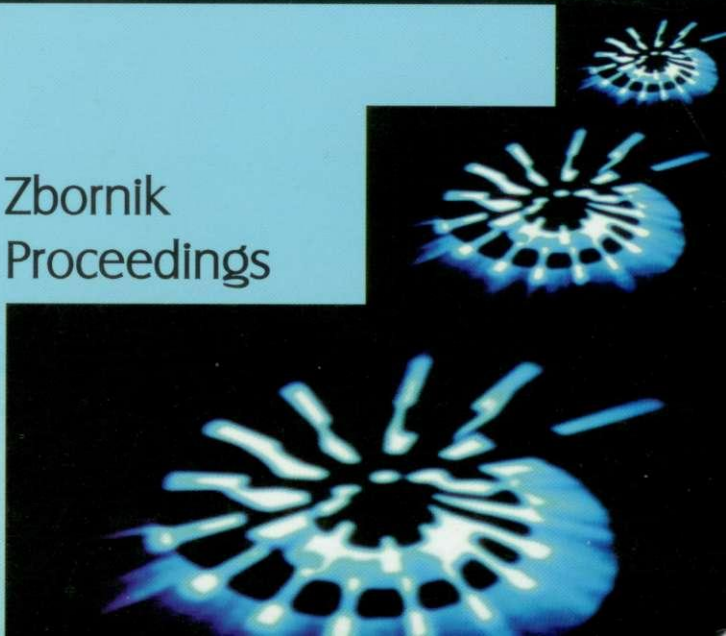
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