

Gompertz-ova jednadžba ( $c = 0.080 \text{ mm dan}^{-1}$ ;  $R^2 = 0.962$ ) je najpogodnija za opis rasta nedorasle *L. mormyrus*. Gompertz-ov i von Bertalanffy-ev model, korišteni za analizu rasta *L. mormyrus*, dobro opisuju podatke u prvih pet mjeseci života, kada je ujedno zamjećen i najintenzivniji rast, dok nakon tog razdoblja, Gompertz-ov model precjenjuje rast u usporedbi sa stvarnim rastom dok von Bertalanffy-ev model potcjenjuje rast. Modeli korišteni za procjenu smrtnosti su rezultirali s različitim vrijednostima ukazujući još jednom na probleme takvih analiza kod nedoraslih riba.

#### BIOLOGY OF JUVENILE STRIPED SEABREAM, *Lithognathus mormyrus* (LINAEUS, 1758) (TELEOSTEI, SPARIDAE) IN THE EASTERN PART OF THE ADRIATIC SEA

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Biology of juvenile striped seabream, *Lithognathus mormyrus* from the Duće Glava, eastern Adriatic Sea, was analyzed. A total of 2133 juveniles, ranging in total length from 0.8 to 10.3 cm, were caught by small beach seine. Most individuals (99.53%) belonged to the 0<sup>+</sup> cohort. Analysis of *L. mormyrus* day-night catches didn't show any particular diel pattern. The first settlers, aged 1.5-2.0 months, were recorded at the end of August. Recruitment occurred 12 months after settlement in this area. Relationship between total length and weight indicates positive allometric growth ( $b = 3.141$ ). The condition factor, as a consequence of length-weight relationship, was  $CF = 1.245$ . The Gompertz equation ( $c = 0.080 \text{ mm day}^{-1}$ ;  $R^2 = 0.962$ ) seems to be the most appropriate for the description of young *L. mormyrus* growth. The Gompertz and von Bertalanffy models, used for juvenile *L. mormyrus*, fit its data very well in first five months when the most intensive growth were recorded, while after that period, Gompertz model overestimated growth in comparison with the real growth slope and the von Bertalanffy model underestimated growth. Models used for mortality estimations resulted with different values of natural mortality pointed once again the problems with such analysis at juvenile fishes.

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#### GENETIČKA RAZNOLIKOST DOBROG DUPINA (*Tursiops truncatus*) IZ HRVATSKOG DIJELA JADRANSKOG MORA MJERENA ANALIZOM MIKROSATELITSKIH LOKUSA

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Dobri dupin (*Tursiops truncatus*) jedina je vrsta morskih sisavaca koja stalno nastanjuje hrvatski dio Jadranskog mora, a brojnost na tom području joj se procjenjuje na 220 do 250 jedinki. U Hrvatskoj je dobar dupin ugrožena i zakonom zaštićena vrsta. Premda je za zaštitu ugroženih vrsta od velikog značaja održanje genetičke varijacije unutar populacija, do sada nisu provedena nikakva istraživanja genetičke raznolikosti u populaciji dobrih dupina u Hrvatskoj. Genetička varijabilnost se smatra nužnim čimbenikom za mogućnost adaptacije i dugoročno preživljenje populacija. Mikrosateliti su genetički markeri velike varijabilnosti te se koriste za istraživanja genetičke raznolikosti. Mi smo analizirali mikrosatelitske lokuse u 30 jedinki koje su nađene mrtve u periodu od 1994 do 2003 godine. DNA smo izolirali iz tkiva lešina, te smo proveli multiple lančane reakcije polimerazom u kojima je amplificirano 12 polimorfni mikrosatelitskih lokusa dinukleotidnih ponavljanja (EV1, EV14, EV37, EV94, TexVet3, TexVet5, TexVet7, D08, D14, D18, D22, D28). PCR proizvode smo analizirali na ABI PRISM 310 Genetic Analyzer korištenjem programa GeneScan i Genotyper. Analizu genetičke varijacije proveli smo korištenjem programa Genetix 4.05. Izmjeren je broj alela po lokusu od tri do 15, sa srednjom vrijednošću 7.17, dok je očekivana heterozigotnost iznosila od 0.34 do 0.89, sa srednjom vrijednošću od 0.69. Rezultati pokazuju relativno visoku genetičku raznolikost u populaciji dobrih dupina u Hrvatskoj.

#### GENETIC DIVERSITY OF BOTTLENOSE DOLPHIN (*Tursiops truncatus*) FROM CROATIAN PART OF THE ADRIATIC SEA REVEALED BY MICROSATELLITE ANALYSIS

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The bottlenose dolphin (*Tursiops truncatus*) is the only resident marine mammal species in Croatian part of the Adriatic Sea, with number estimated at 220 to 250 individuals. It is endangered and legally protected species in Croatia. Although a general concern for the conservation of endangered species is the maintenance of genetic variation within populations, no research has been done on genetic variation of bottlenose dolphin in Croatia, up to now. Genetic variability is thought to be essential to the long-term persistence and adaptability of populations. Microsatellites are genetic markers that show a high level of variation and are useful tools for examining genetic diversity. We analysed microsatellite loci in 30 individuals found dead from 1994 until 2003. DNA was extracted from tissues of carcasses. Multiplex polymerase chain reactions were performed in which 12 polymorphic dinucleotide repeat cetacean microsatellite loci (EV1, EV14, EV37, EV94, TexVet3, TexVet5, TexVet7, D08, D14, D18, D22, D28) were amplified. PCR products were analysed on ABI PRISM 310 Genetic Analyzer using GeneScan and Genotyper softwares. Genetic variation analysis was performed using the Genetix 4.05 program. The mean allelic diversity per microsatellite locus was 7.17, ranging from three to 15 alleles and the mean expected heterozygosity was 0.69, ranging from 0.34 to 0.89. The results reveal relatively high genetic variability in population of bottlenose dolphins in Croatia.

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MRIJEST SIPE (*Sepia officinalis*, Linnaeus, 1758) I IZVALJIVANJE JAJAŠACA U LABORATORIJSKIM UVJETIMA

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