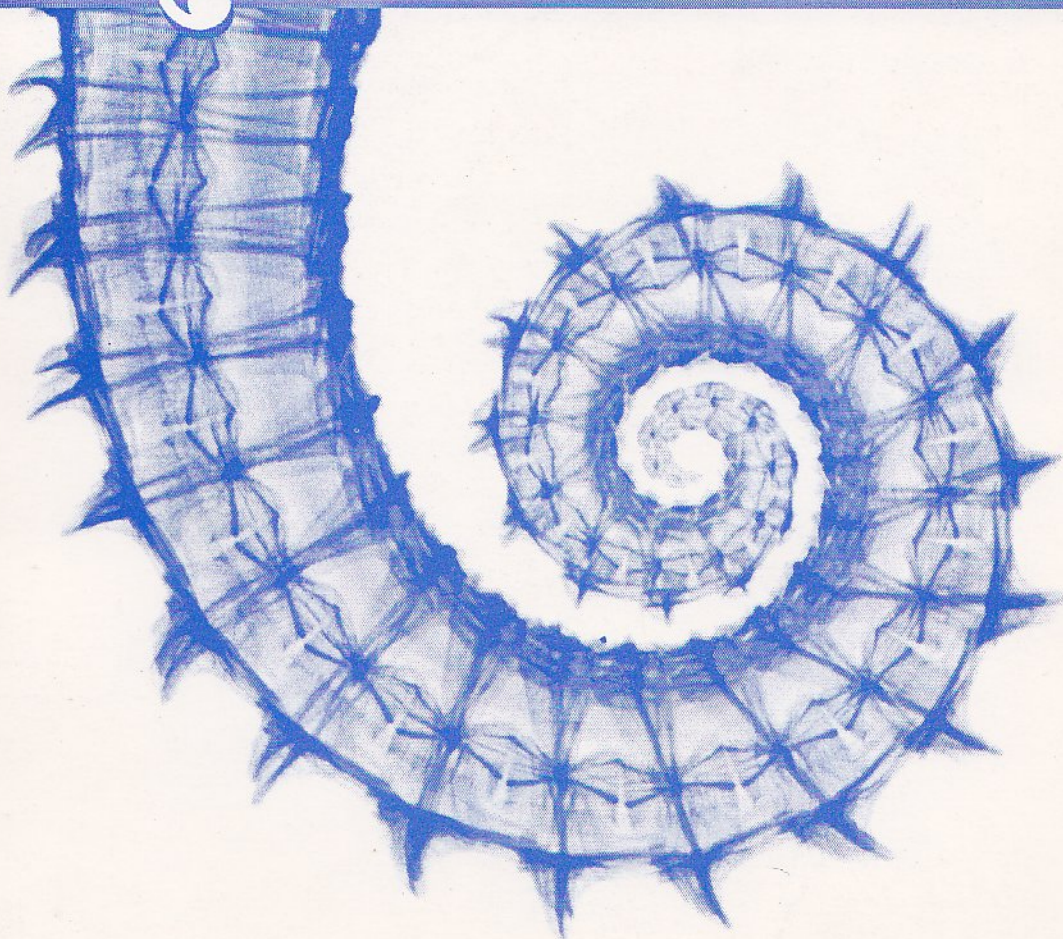


ZBORNIK PROCEEDINGS

7

Hrvatski biološki kongres

HVAR • 24.09-29.09.2000



probability, i.e. in the studied sample all wolves were grouped separately of dogs (ellipse of 95%).

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Varijabilnost 12 mikrosatelitskih lokusa u konja pasmine hrvatski posavac

Mikrosatelitski lokusi sastoje se od jednostavnih motiva DNA velikih do šest parova baza koji se ponavljaju uglavnom do 70 puta. S obzirom da su kodominantni i vrlo polimorfni nalaze primjenu u istraživanjima genetičke raznolikosti, populacijskoj genetici, određivanju roditeljstva, srodnosti i identifikaciji jedinki. Mi smo utvrdili varijabilnost 12 mikrosatelitskih lokusa (VHL20, HMS3, ASB2, HTG4, HMS2, HMS6, AHT4, HTG7, HTG6, HMS7, HTG10, AHT5) u populaciji konja pasmine hrvatski posavac, kao dio istraživanja genetičke raznolikosti ove pasmine. Hrvatski posavac je hrvatska autohtona pasmina konja čije se uzgojno područje nalazi u poplavnim predjelima uz rijeku Savu i njezine pritoke Odru, Lonju, Sunju i Strug. Koristio se kao radni konj, a uvođenjem mehanizacije izmijenilo se i stanje u konjogojstvu čime se i broj konja na području Posavine smanjio s preko 12000 grla 1970. godine na oko današnje 3000. Istraživanja genetičke raznolikosti hrvatskog posavca provode se u cilju njegovog očuvanja, kao dio očuvanja bioraznolikosti pasmina domaćih životinja i cjelokupne biološke raznolikosti. Sakupili smo uzorke krvi 47 konja pasmine hrvatski posavac, DNA izolirali iz pune krvi, umnožili mikrosatelitske lokuse lančanom reakcijom polimerazom (PCR) koristeći jedinstveni par klica za svaki mikrosatelitski lokus. Svaka "uzvodna" klica bila je obilježena fluorescentnom bojom. PCR fragmente razdvojili smo elektroforezom na ABI PRISM, 377 DNA Sequencer, te ih analizirali pomoću programa "Genotyper". Dobivene genotipove analizirali smo pomoću programa "Genetix". Svi lokusi su polimorfni. Prosječni broj alela po lokusu iznosi 6,75 (SE=0,446). Prosječna očekivana heterozigotnost po lokusu iznosi 0,695 (SE=0,054).

Variability of 12 microsatellite loci in Croatian posavac

Microsatellite loci consist of tandem repeats of simple units generally less than six base pairs in length, which are repeated up to 70 times. Due to codominancy and great polymorphism, they are used for elucidating genetic diversity, parentage and relatedness testing and identification of individuals. We investigated the variability of

12 microsatellite loci (VHL20, HMS3, ASB2, HTG4, HMS2, HMS6, AHT4, HTG7, HTG6, HMS7, HTG10, AHT5) in a population of Croatian Posavac as part of research of genetic diversity of this horse breed. Croatian Posavac is indigenous of Croatia and its breeding area is mainly characterized by flood areas, i.e. wetlands along the Sava river and its tributaries Lonja, Odra, Strug and Sunja. Croatian Posavac had been used as a working horse, but after introduction of mechanisation, the number of individuals declined from 12,000 in 1970 to around 3,000 present today. Research of genetic diversity of Croatian Posavac is done with the aim of preservation of this horse breed, which will contribute to the conservation of biodiversity of domestic animal breeds as well as global biodiversity. We collected blood samples from 47 Croatian Posavac, extracted DNA from whole blood, amplified 12 microsatellite loci by polymerase chain reaction (PCR) using a distinct pair of primers for each locus. Each forward primer was labelled with fluorescent dye. PCR fragments were run on the ABI PRISM, 377 DNA Sequencer and analysed using "Genotyper". We used "Genetix" software for analysing obtained genotypes. All the loci are polymorphic. The mean number of alleles per locus was 6.75 (SE=0.446) and mean expected heterozygosity was 0.695 (SE=0.054).

(279)

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Taxonomical research of the ornithofauna on the Bistra Mountain

The results from three-years research of the ornithofauna of some biotopes from the Bistra mountain are presented in this project. In the course of the researching, the following methods were used: observing, watching with binoculars and telescopes, qualifying birds according to their characteristic voice, and use of nets for catching birds. The biotops such as high-mountain rocks, cliffs, rocky places, high-mountain pastures with rocky places, high-mountain pastures and mountain cultivated regions have been researched in this way. Twenty-seven (27) species of birds have been registered in high-mountain rocks, cliffs and rocky places, twenty-four (24) species in high-mountain pastures with rocky places, twenty-seven (27) in high-mountain pastures, and fifty-eight (58) species of birds at the mountain cultivated regions. Eighty-six (86) species of birds have been registered in the researched biotops. Upon the comparison of the Bistra Mountain ornithofauna to the biotops of the Mountains of Osogovo, Shar Planina, Pelister, as well as to those of the mountains in Serbia, it has been found that the birds from the Bistra Mountain do not differ from the species in the above mentioned regions by their arrangement according to the height of their living place and the structure of species, but they do differ in the number in which certain species of birds can be found.