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Mitochondrial DNA control region diversity of the bottlenose dolphin (*Tursiops truncatus*) from the Adriatic Sea

Dušica Divac Brni (1), Viktorija Herceg (1), Martina uras Gomeri (2), Tomislav Gomeri (2), Ana Galov (1)

(1) Division of Biology, Faculty of Science, University of Zagreb, Rooseveltov trg 6, 10000 Zagreb, Croatia

(2) Faculty of Veterinary Medicine, University of Zagreb, Heinzelova 55, 10000 Zagreb, Croatia

dusadivacb@gmail.com

The bottlenose dolphin (*Tursiops truncatus*), is the only resident marine mammal species of the Adriatic Sea. This species is considered endangered due to intensive eradication operations in the middle 20th century and is legally protected. Genetic variability is considered prerequisite for the long - term persistence and adaptability of populations. The aim of this study was to investigate the level of mitochondrial DNA control region diversity in the bottlenose dolphin population from the Adriatic Sea. Total genomic DNA from muscle samples of 108 bottlenose dolphins found dead during the period from October 1997 to September 2011 both on Croatian (106 individuals) and Italian (2 individuals) coast of the Adriatic Sea was extracted. 739 bp –long fragments of the mtDNA control region were amplified and sequenced with universal MTCRf primer and a newly-designed primer DUPr. Totally, 11 haplotypes with 26 polymorphic sites were identified, with a nucleotide diversity of 0.010452 ± 0.005435 and gene diversity of 0.6108 ± 0.0494 . Haplotype DD01 was the most frequent (65 individuals, 60.2%) and was shared between Croatian and Italian samples. The second Italian sample was separated into its unique haplotype. Both estimates of haplotype diversity and nucleotide diversity for Adriatic bottlenose dolphin population were lower than those found in the western Mediterranean Sea.



GALWAY, IRELAND 2012

26th EUROPEAN CETACEAN SOCIETY CONFERENCE

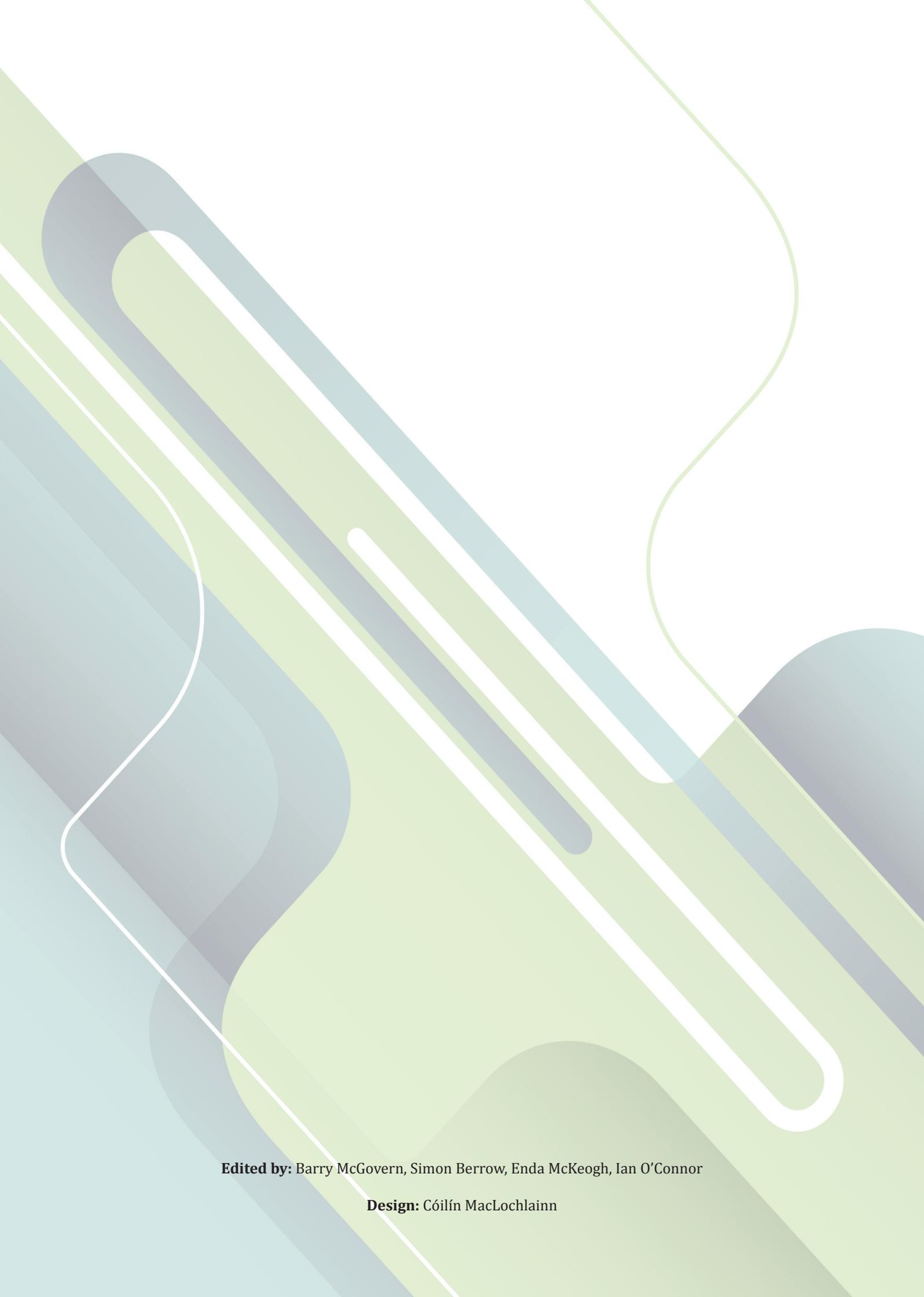
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Edited by: Barry McGovern, Simon Berrow, Enda McKeogh, Ian O'Connor

Design: Cólín MacLochlainn