

## THE PREVALENCE OF UMBILICAL HERNIA IN POPULATION OF BOTTLENOSE DOLPHINS (*Tursiops truncatus*) IN CROATIA

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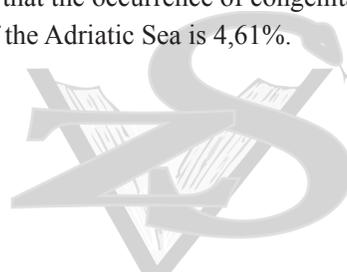
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Only one species of dolphins, bottlenose dolphin (\**Tursiops truncatus*\*), is present in Croatian part of the Adriatic Sea today. Mortality is the highest among new-borns due to the fact that the oestrous cycle of the bottlenose dolphins occurs only once per year which means that female gives birth only once in one year what is dangerous for stable population. The frequency of congenital malformations in dolphin population hasn't been researched until now. Umbilical hernia is defined like prolapse of abdominal content through abdominal wall in umbilical are, where in congenital umbilical hernia we have incomplete closure of abdominal wall in umbilical area during embryonic growth and is present when a calf is born.

The aim of this paper was to investigate the frequency of congenital umbilical hernia in bottlenose dolphins in Croatian part of the Adriatic Sea, and compare it to frequency in land mammals and humans. 60 bottlenose dolphins up to 5 years of age found in the period from October 1990 until January 2013 were investigated. All dolphins have been processed postmortem within the scientific project of Ministry of Science, Education and Sports of the Republic of Croatia „Health and biological characteristics of marine mammals populations in Adriatic Sea“ (053-0533406-3640).

After analysing the patterns and examining 60 dolphins, umbilical hernia was found in 19 animals (31,67%), and 15 of these animals were up to one year of age. Prolapse of bowels was found in most of dolphins, yet prolapse of cutaneous stomach was found in one of them. The biggest opening in abdominal wall was 17 cm, and the smallest one was 3,5 cm. Hernia was found in 30% males and 60% females. Based on this research it can be determined that the occurrence of umbilical hernia is the highest in young females, up to one year of age. By tracking numbers in dolphin population it is estimated that the occurrence of congenital umbilical hernia in bottlenose dolphins in Croatian part of the Adriatic Sea is 4,61%.



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