

PPT18

Ductus arteriosus and foramen ovale in the bottlenose dolphin (*Tursiops truncatus*)

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Ductus arteriosus and foramen ovale are anatomical structures present in the fetal heart which close after birth to ensure the proper function of the cardiovascular system. The aim of our study was to define the time of closure of these fetal structures in bottlenose dolphins (*Tursiops truncatus*). For this purpose we dissected 49 hearts which originated from bottlenose dolphins found dead from October 1990 till April 2011 in the Croatian part of the Adriatic Sea. Right atrium and aorta were opened with the help of anatomical tweezers and scalpel and were inspected macroscopically. Status of ductus arteriosus and foramen ovale was noted. A female of 220 cm body length and estimated age between 4 and 5 years was the largest bottlenose dolphin with an open ductus arteriosus. The oldest dolphin with an open foramen ovale was a male, 3 years old, and with a body length of 210 cm. Our study showed that both structures are open in bottlenose dolphins at time of birth, stay open for months in yearlings, and close during the first years of life. In humans, these structures close during first months of life and cause serious circulatory disorders if present later. We presume that evolutionary pressure concerning open fetal structures is lower in marine versus land mammals.

27th Conference of the European Cetacean Society

Setúbal, Portugal 2013



ABSTRACT BOOK

27th CONFERENCE OF THE EUROPEAN CETACEAN SOCIETY

INTERDISCIPLINARY APPROACHES IN THE STUDY OF MARINE
MAMMALS

8th-10th APRIL, SETÚBAL, PORTUGAL



European Cetacean Society

Abstract book: 27th Annual Conference of the European Cetacean Society

Cover photo: Erica Sá

Page 4 photo: Francisco Martinho

Edited by: Escola de Mar, www.escolademar.pt, info@escolademar.pt

prospects. The 27th ECS conference will promote informed insights and perceptions about how to shape a better future for marine mammals, and by extension, a better future for us all.

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