

head. Disorders of this structure regard both humans and animals and usually run with severe pain symptoms. Some of them begin during the prenatal life. In the course of these diseases changes in chemical coding of TG pericarya were observed. Available literature contains only single reports on immunohistochemical features of TG neurons in the dog, but there is no data on this topic in prenatal animals. Therefore we decided to study the chemical coding of the canine TG neurons during prenatal life.

**Materials and Methods:** The bilateral TG were harvested from five euthanized dog fetuses of both sexes obtained during abortive ovariectomy in the ninth week of pregnancy performed due to clinical reasons. The ganglia collected were fixed with 4% buffered paraformaldehyde and cut into 12  $\mu\text{m}$ -thick cryostat sections which were processed for double immunohistochemistry using antibodies against: substance P (SP), calcitonin gene-related peptide (CGRP), met-enkephalin (Met-Enk) and pituitary adenylate cyclase-activating peptide (PACAP).

**Results:** TG perikarya were round or oval in shape with the nucleus located in the center. Three main populations of small (approx.  $12 \times 8 \mu\text{m}$ ), medium ( $19 \times 16 \mu\text{m}$ ) and large ( $30 \times 18 \mu\text{m}$ ) neurons were distinguished. Immunohistochemistry revealed that over 43% of TG nerve cells were SP-positive. A similar population (40%) of TG neurons stained for CGRP, while smaller populations of neurons contained immunoreactivity to Met-Enk or PACAP (22% or 13%, respectively).

**Conclusion:** The present study revealed immunohistochemical features of the TG pericarya in the 9 weeks old canine fetuses which slightly differ from those observed in other species. This investigation is a part of larger project which allows us to describe ontogeny of TG neurones, and thus will be useful in further studies dealing with changes in their properties in course of different diseases.

## 041 | Preserving dolphins through learning and teaching

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**Introduction:** Dolphins are protected in Croatia by law and there is an official protocol for stranded, injured and dead specimen. A veterinarian under contract participates in the protocol and must examine the specimen. If there is a dead specimen, the dissection should be performed by a veterinarian knowledgeable in dolphin anatomy. In order to meet these demands an elective course entitled "Basic anatomy of the bottlenose dolphin" was established at the University of Zagreb.

**Materials and Methods:** The course includes 12 lectures and 18 practicals. Teaching material has been prepared from carcasses accessed through the official protocol on stranded dolphins. Fresh carcasses were used for the preparation of different anatomical

specimen. Carcasses in advanced stage of decomposition were used for the preparation of osteological material. The lectures start with the legal side of dolphin protection. Evolutionary and biological dolphin characteristics are presented. External morphology of dolphins is described, sexual dimorphism explained. The basic anatomy and histology of organic systems is studied. The practicals start with the study of standard external measurements on two formalin fixed not dissected bottlenose dolphins. Disjointed dolphin skeletons are used for bone identification and comparison with domestic animals. For this purpose, there are around 250 dolphin skeletons. Dolphin organs are studied on formalin fixed samples. Topographic anatomy is studied on transversal and sagittal sections. Frozen carcasses are dissected.

**Results:** The number of enrolled students has increased from ten in 2009 to 50 in 2017. A digital atlas was compiled from photographs of transversal sections. The demand for available carcasses and anatomical specimen is very high.

**Conclusion:** Student interest in dolphin anatomy has increased as the dolphin anatomy course enables them to participate in wildlife management. The available anatomical specimen could be enhanced with the use of durable, e.g. plastinated or 3D models.

## 042 | Clinical anatomy of the skull of the Ducati's black goat in Albania

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**Introduction:** Ducati's black goat is a native breed that is found in the Western part of Albania, between Adriatic and Ionian Sea. Currently, this animal's population counts <10 thousand heads, with a tendency to be reduced constantly. So far in the literature there are no investigations focusing on morphometric parameters of this goat's skull. The aim of this study was to identify all morphometric parameters of the Ducati's black goat, in particular those of clinical relevance.

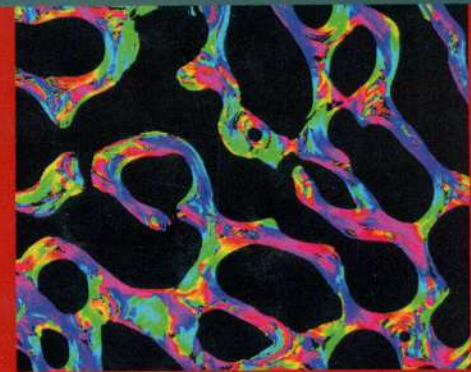
**Materials and Methods:** Sixteen heads of Dukati goats (10 females and six males aged over 2 years), coming from slaughtered animals, were measured and evaluated between September and December 2017. The skulls were prepared in the Animal Anatomy Laboratory by using the boiling maceration techniques. Measurements were made by electronic calibre, goniometer and thread fibre. The results were evaluated with Stratigraphic XVI and presented as sample means constructing confidence intervals for  $\alpha = 0.05$ .

**Results:** The skull's length, height, width and mandible's length were 230.25 mm ( $\pm 5.26$ ), 106.00 mm ( $\pm 5.33$ ), 107.01 mm ( $\pm 2.94$ ) and 178.94 mm ( $\pm 4.77$ ), respectively. Diastema was 42.78 mm ( $\pm 2.45$ ). The distance from Facial tuberosity to the Infra-orbital canal and from the latter to the root of the alveolar tooth directly ventral to

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