WAVES

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DYSMORPHOLOGY IN WILDLIFE AND THE ROLE OF REHABILITATION CENTERS

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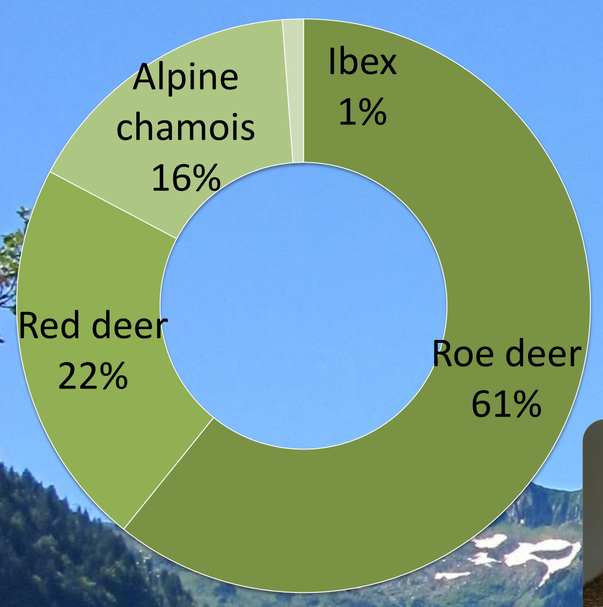
Introductions

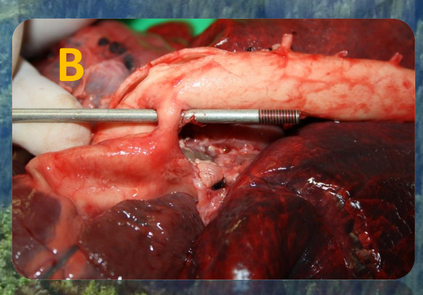
Dysmorphism is the generic name for abnormalities of the form and structure of an animal's body, being used especially for congenital abnormalities, thus constituting an inborn error of development it is not only synonymous with either "genetic" or "hereditary"(1). The frequency of major dysmorphisms in humans is estimated at 3% of live births (4). In domestic animals, these numbers must be similar (4,7 %), in wildlife is unknown. The relief of dysmorphological diseases, which are rarely adaptive due to their nature, is especially complex in free-living animals. Wildlife rescue centers represent determining factor in collecting case studies. They provide an essential service for the environmental surveillance creating the basis of a network of passive monitoring of wild populations health. In particular, they provide important elements on demography and allow passive monitoring of infectious malformation and dysmorphogenic diseases. The Istituto Zooprofilattico of Lombardia ed Emilia-Romagna (IZSLER) collaborate with the private and public rehabilitation facilities in order to provide a diagnostic service and advice.

Material

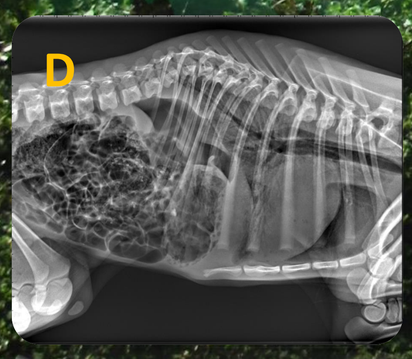
255 case examined in diagnostic activities on alpine ungulates in the last two and a half years. 108 case founded dead from unknown causes and 147 cases recovered alive and then died at the Sondrio CRAS. They were examined to define the etiology by pathological, histological, bacteriological, parasitological and virological analysis.

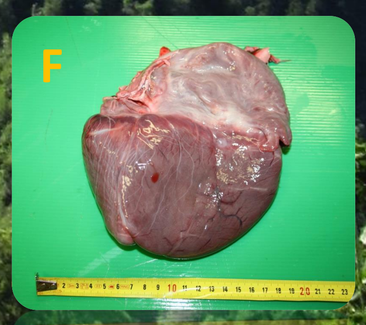


Results



Year	Dysmorphology profile	Species	Sex	Age
2013 2014 2015	Bilateral microphthalmia Microphthalmia with bilateral absence of the lens (A) . In two cases patent ductus arteriosus (B)	Red deer	M F F M	11 months 5 months 5 months 1 months
2014	Lethal Short spine (C)	Alpine chamois	F	3days
2014	Multiple vertbral anomalies (D) Clef palate (E)	Red deer	M	3days
2015	Dysplasia of the tricuspid (F)	Red deer	M	8 months





Discussion

All individuals presenting dysmorphogenic lesions delivered still alive at the provincial and CRAS were euthanized and / or come to death in the same structure. In all cases the diseases encountered were not compatible with the free life. The bacteriological, virological, parasitological and histological analysis have not determined any infective cause of dysmorphogeny. The high frequency of ocular abnormalities in red deer and the association of these defects of the arterial trunks, depose for a multifactorial cause. The relief of dysmorphisms in wildlife is difficult to implement, the creation of a network of local monitoring associated with wildlife rescue centers could collect useful epidemiological data.

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* This study is a part of a Regione Lombardia plane of monitoring wildlife

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