

## LASER THERAPY- AN ALTERNATIVE METHOD IN THE THERAPY OF MICROSPORUM CANIS INFECTIONS IN CARNIVORES

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### Summary

Ring worm infections are caused by dermatophytes that affect the superficial layers of the skin and produce single or multiple lesions. The etiological agent responsible for ring worm infections in carnivores is *Microsporum canis* and the social importance of this dermatophytosis lies in its zoonotic nature. The importance of using laser therapy in the treatment of dermatophytosis lies in its ability to induce tissue biostimulation and to accelerate skin regeneration mechanisms compared to the conventional treatment based on ketoconazole, enilconazole and fluconazole. Thus, the aim of this study was to evaluate the efficacy of laser therapy in treating dermatophytosis in companion animals. In this context, five animals (three cats and two dogs) showing skin lesions characteristic for mycosis were examined. The presence of one or more circular, alopecic lesions with centrifugal pattern was observed following clinical observation. Skin scrapings and inoculation on DTM culture media was performed to establish the diagnosis. The skin scraping did not reveal the presence of mites. The result of the culture media revealed the presence of the *Microsporum canis* dermatophyte. Following the established diagnosis, treatment was performed using the *Foschi D5-810* laser for 10 consecutive days. During laser therapy, as well as after the treatment, the patients were not given any substance with antifungal action. After treatment, the clinical signs gradually improved until they disappeared. Remission of clinical signs was observed within 10 days after the treatment. Laser therapy represents a safe and painless alternative protocol, a therapeutic challenge for future studies in carnivore dermatophytosis.

**Keywords:** *Microsporum spp.*, carnivores, laser therapy, *Foschi D5-810*.

## **THE PREVALENCE OF VARROOSIS IN BEES FROM VÂLCEA COUNTY**

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### **Summary**

Varroosis, an acariosis that affects honey bees and causes severe disorders, colony weakening, and high mortality, is considered the most damaging bee disease. *Varroa destructor* is an obligate parasite of bees with a social lifestyle and which forms perennial colonies, belonging to the genus *Apis*. The presence of *V. destructor* on other insects is only accidental, as none of its developmental stages can develop on them. This study was performed in Vâlcea County and presents data on the evolution of varroosis over a period of 10 years (2014-2023), in accordance with the data recorded at the Directorate for Sanitary, Veterinary and Food Safety (DSVFS). The laboratory diagnosis was made by examining the bees in order to identify the *Varroa* mite. The *Varroa* mite was identified annually in bees from Vâlcea County. The lowest prevalence was reported in 2018 (3.72%) and the highest prevalence was in 2023 (13.52%). Due to the decrease in production associated with the loss of bee colonies, varroosis is and remains a threat to the health of bees in Vâlcea County. The implementation of a new and complex strategy of parasitological control is a recommendation in accordance with the results obtained in this study.

**Keywords:** honey bees, varroosis, Vâlcea County.

**TICK INFESTATION IN MOUFLON (*OVIS ARIES MUSIMON*)  
FROM TIMIȘ COUNTY – CASE REPORT**

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**Summary**

The mouflon (*Ovis aries musimon*) is a wild mammal, a subspecies of primitive sheep, which originates from Corsica and Sardinia, but whose population has also expanded to other regions of Europe. This animal can also be a host for ticks. Ticks are obligatory ectoparasitic arthropod vectors of terrestrial vertebrates with hematophagous feeding habits. These arthropods, with a wide range of hosts, transmit numerous diseases such as theileriosis, babesiosis, anaplasmosis, or lumpy skin disease most of them being zoonoses. The aim of this study was to identify tick species found on mouflons in Timiș County. Twelve ticks were collected at various developmental stages from a 4-year-old male from the Șarlota Hunting Complex (Timiș County). Species such as *Ixodes* and *Dermacentor* were found and identified by their morphological aspects. In conclusion, the study highlights the presence of ticks, potential disease vectors, on mouflons in Timis County, highlighting the importance of surveillance for both animal and public health. Understanding the morphological characteristics of these ticks helps to identify them in the context of developing strategies for effective control and prevention of tick-borne diseases in wildlife populations.

**Keywords:** Ticks, *Anaplasma* spp., *Babesia* spp., *Ehrlichia* spp., mouflon.

**STUDY REGARDING THE MORPHOLOGICAL IDENTIFICATION  
OF *DEMODEX* MITE SPP. IN WOLF (*CANIS LUPUS*) FROM A  
HUNTING GROUND, ROMANIA**

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**Summary**

The wolf (*Canis lupus*) is the most widespread species of large carnivores in Romania. It can be parasitized with endoparasites, but also with ectoparasites. Demodicosis is an ectoparasitosis caused by the mites *Demodex* spp. This study describes the identification of possible ectoparasites present in skin lesions, following the post-mortem examination of four *C. lupus* collected from a hunting ground from Romania, based on legal provisions. The study was carried out at the Discipline of Parasitology and Parasitic Diseases within the Faculty of Veterinary Medicine from Timișoara/ University of Life Sciences "King Mihai I" from Timișoara. Following the clinical examination, skin lesions characterized by alopecia, desquamation and lichenification were identified located on the head, limbs and tail. Corroborating the results of the clinical examination with the microscopic analysis of the skin scrapings, the diagnosis of demodicosis was established. This study describes the first morphological identification of *Demodex* spp. mites in wolves.

**Keywords:** *Canis lupus*, *Demodex* spp., morfological identification.

## **THERAPEUTIC APPROACHES IN CARDIOVASCULAR DIROFILARIOSIS IN DOG - CASES SERIES**

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### **Summary**

Dirofilariosis, a non-contagious nematodosis, is common to humans and domestic and wild animals, is spread by several species of mosquitoes, the intermediate host-key vector in the epidemiology of this parasitosis, and is localized in the pulmonary arteries and right heart. The aim of the present study was to demonstrate the negativity of rapid tests in three dogs following the application of „slow-kill” or „moxi-doxy” therapy. Blood samples were taken from each animal to examine and confirm or deny the presence of microfilariae in the blood (fresh blood smear) and antigens from adult females (CHW Ag Test Kit 2.0 – Bionote, Inc.). Examination forms were completed for all animals (owner identification data, animal identification data, epidemiological situation, anamnesis, medical history, skin, hair, apparent mucous membranes, etc.). This protocol is a life-saving procedure for animals, and its effectiveness has been demonstrated over several months, eliminating controversy about this therapeutic approach and providing rapid diagnostic test negativity and clinical cure of animals.

**Keywords:** dogs, *Dirofilaria immitis*, rapid test kit, "slow-kill" „moxi-doxy”.

## THE IDENTIFICATION OF INTESTINAL PARASITES IN WILDCAT (*FELIS SILVESTRIS*) FROM THE HUNTING GROUNDS OF TIMIS COUNTY

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### Summary

The wildcat (*Felis silvestris*) lives in the forest and rocky cliffs where it can easily hide, but also in swamps of wild rush beds, hardly reachable. In Romania, the species is found in alpine areas but also the Danube Floodplain. *Felis silvestris* populations are declining due to anthropogenic and phenological unfavorable conditions, and parasites may have an additional negative impact. In the present study, the occurrence of endoparasites in *F. silvestris* in Romania and the potential threats posed to *F. silvestris*, domestic animals, and humans in the study areas has been investigated. For a period of two years, 15 *F. silvestris* from two hunting grounds in Timis County have been necropsied at the Department of Parasitology, Faculty of Veterinary Medicine/University of Life Sciences "King Mihai I" from Timișoara. The coprological examination by the flotation method revealed parasitological infestation in all the examined *F. silvestris*. Adult parasites such as nematodes and cestodes have been identified by necropsy, with the most prevalent being 14/15 adult cestodes (93.33%). Continued monitoring and research are needed to better understand the health effects of *F. silvestris* and the potential risks of transmission to domestic carnivores and humans, respectively.

**Keywords:** *F. silvestris*, endoparasites, Timis County.

**DEMODEX MANGE AND MALASSEZIA FUNGI INVOLVED IN  
CUTANEOUS LESIONS OF DOG - CASE REPORT**

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**Summary**

Demodicosis and malasseziosis are skin diseases caused by external parasitological agents. A dog with itching, scales, crusts, lichenification, hyperpigmentation, and alopecia on the abdomen, forelegs, and hind legs as well as on the ears and face were examined. The deep skin scrapping method has been performed but the results were negative. The skin biopsy has been processed for standard histological paraffin embedding and showed the presence of fragments of *Demodex sp* mites. Colonies of *Malassezia sp.* have been identified on microscopic examination of the tape smear. Based on these results, the dog was diagnosed with demodicosis and malasseziosis. Among the types of mixed skin infections that occur in dogs, the combination of demodicosis and malasseziosis infection is rare. Direct parasite detection in histological skin biopsies is a good tool for an undoubted diagnosis.

**Keywords:** Dog, diagnosis, *Demodex sp.*, *Malassezia sp.*

## EVALUATION OF ENDOPARASITISM IN FALLOW DEER (*DAMA DAMA L.*) FROM OLT COUNTY (ROMANIA) HUNTING GROUNDS

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### Summary

The fallow deer (*Dama dama* L.) is a species of solenodon (ruminant) of the Cervidae family in the Romanian fauna, particularly of the genus *Dama*. This species does not live alone, in the habitat together with other species between which various relationships or interactions are established. This interaction between two or more species takes various forms: competition, commensalism, mutualism, predation, or parasitism. From this point of view, the *D. dama* is no exception. In this context, the purpose of the study was to identify the possible presence of endoparasites in *D. Dama* from two hunting grounds in Olt County, using classical coproparasitological methods, macroscopic and microscopic examination of gastrointestinal mass and organs from hunted animals. Of the 14 samples of *D. dama*, gastrointestinal nematodes (14.28%), and *Gongylonema* spp. (28.57%) were identified. In conclusion, the presence of endoparasites is associated with their impact on the health of the *D. dama*, but also with the possible risk of infection of the environment and, implicitly, of other cervids and domestic ruminants.

**Keywords:** Endoparasitism, *D. dama*, Olt County.



## **TRICHOPHYTON VERRUCOSUM INFECTION IN A CATTLE FARM FROM TIMISOARA**

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### **Summary**

*Microsporum*, *Trichophyton* and *Epidermophyton*. In bovine trichophytosis, the aetiological agent responsible for the appearance of clinical signs is *Trichophyton verrucosum*. This disease is a zoonosis with serious economic and sanitary consequences for animal and human health. Trichophytosis is transmitted through direct contact with carrier animals, but also through the contaminated environment. The purpose of this study was to identify the nature of the aetiological agents and to establish the epidemiological situation of the cattle in a farm from the North of Timisoara. The studied animals were divided into age categories (0-2, 2-4, 4-6 and 6-12 months old). We evaluated the cattle clinically and through laboratory methods. To establish the diagnosis we identified specific lesions characterized by: alopecia, white scabs and trichophytic plaques. We performed skin scrapes from the lesions and we inoculated one dermatophyte test medium (DTM) which was subsequently incubated. The skin scrapings were negative, thus we excluded the presence of mites, and the color of the culture medium turned red following the incubation period, demonstrating the presence of dermatophytes. Of the 39 examined cattle, 14 (35.9%) showed clinical signs. The age category with the highest percentage in expressing clinical signs was 4-6 months (85.7%), and the category with the lowest percentage was 0-2 months, in which none of the calves showed clinical signs. The transmissibility, the impairment of the technological flow, the serious economic and health consequences involved in this pathology may pose a danger to animals and humans. Rigorous farm hygiene, treatment of animals and early diagnosis are the methods by which proper parasitological control can be achieved in cattle trichophytosis.

**Keywords:** Dermatophytoses, *Trichophyton verrucosum*, bovine.

## **PREVALENCE OF GASTROINTESTINAL PARASITES IDENTIFIED IN GERMAN GIANT RABBITS ON A FARM IN TIMIȘ COUNTY**

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### **Summary**

Parasitic infections are one of the main causes of mortality in rabbit breeding. The aim of this study was to determine the prevalence of gastrointestinal parasites in rabbits of the German Uriah breed from a farm in Făget, Timiș county. During the study 288 faecal samples were collected and divided into four age categories  $\leq 2$  months, 2 - 4 months, 4 - 6 months and  $> 12$  months. The samples were examined using the flotation method. Statistical analysis was performed using the Fisher - GraphPad QuickCalcs test (2024). The results of this study showed an overall prevalence of gastrointestinal parasites of 68.1%. The identified parasite species belong to two classes: *Protozoa* (*Eimeria* spp. 66.8%) and *Nematoda* (*Passalurus ambiguus*, 33.2%). Rabbits aged  $\leq 2$  months ( $P < 0.0001$ ), but also those aged 2 to 4 months ( $P < 0.0001$ ) were the most affected by gastrointestinal parasites, compared to the other two age categories, 4 - 6 months and  $> 12$  months, respectively. The results of this study reveal that young rabbits are more susceptible to parasitic infections with *Eimeria* spp. and *Passalurus ambiguus* than adult rabbits.

**Keywords:** rabbits, breeding, prevalence, gastrointestinal parasites, Timis county