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## QUESITI A

1) **Normativa sulla sicurezza nei luoghi di lavoro Decreto Legislativo 9 aprile 2008, n. 81:**
   - DEFINIZIONE E TIPOLOGIE DI DISPOSITIVI DI PROTEZIONE INDIVIDUALE.

2) **Statuto di Ateneo:**
   - QUALI SONO GLI ORGANI DI GOVERNO DELL'ATENEO?

3) **Regolamento del Dipartimento di Medicina Veterinaria:**
   - QUALI SONO LE FUNZIONI E I PRINCIPI DEL DIPARTIMENTO?

4) **Conoscenza dei più diffusi software di Office Automation:**
   - RAPPRESENTAZIONE GRAFICA DEI DATI CON EXCEL

5) **Conoscenza della lingua inglese:**
   - TESTO DA LEGGERE E TRADURRE IN ALLEGATO.

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# Superficial veterinary mycoses

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**Abstract** Dermatophytes are significant pathogens in animal health due to their zoonotic potential, the economic consequences of infection in farm animal and fur production systems, and the distressing lesions they cause in small domestic pets. *Malassezia* spp are normal commensal and occasional pathogens of the skin of many veterinary species. *Malassezia pachydermatis* is a very common cause of otitis and pruritic dermatitis in dogs but is of less importance in other veterinary species.

Dermatophytosis, and *Malassezia* otitis and dermatitis, represent the superficial mycoses of greatest significance in companion and farm animal health. Although the dermatophytes and *Malassezia* spp both exist in the stratum corneum of mammalian skin, there are important differences in the epidemiology, pathogenesis, and clinical consequences of infection. Dermatophytes are significant due to their zoonotic potential, the economic consequences of infection in farm animal and fur production systems, and the concern for owners of pets with inflammatory skin disease that is sometimes severe. *Malassezia* spp are normal commensals and occasional pathogens of the skin for many veterinary species, and *M pachydermatis* is a very common cause of otitis and pruritic dermatitis in dogs.

This chapter will focus on the epidemiologic, clinical, diagnostic, and therapeutic aspects of dermatophytosis and *Malassezia* dermatitis in veterinary species. There are generally only sporadic reports of other superficial mycoses, such as candidiasis, piedra, and *Rhodotorula* dermatitis in veterinary medicine, and these are not included here.


## Dermatophytosis in veterinary species

The dermatophytes consist of a group of fungi that are adapted to digest keratinous debris; when pathogenic, they are normally located in the epidermal stratum corneum, hair shaft, or claw. The species that are adapted to animal hosts are termed "zoophilic," but these occasionally spread to in-contact humans or to other animal species. The soil-adapted geophilic dermatophytes sometimes affect animals where there is outdoor husbandry or activity. *Microsporum* spp and *Trichophyton* spp account most of the animal disease, and the human-adapted anthropophilic species, such as *Epidermophyton floccosum* and *T tonsurans*, only rarely transfer from humans to animals.[1,2]

## Etiology

Although approximately 30 species cause skin infections in various mammals and birds, relatively few species are routinely isolated. There are important differences in the species of relative importance among different animal hosts. There are also important geographic differences in the dermatophytes encountered and the prevalence of the disease.

*Microsporum canis* is a zoophilic dermatophyte probably best adapted to the cat. It was the most frequent cause of feline dermatophytosis in surveys from the United Kingdom (UK),[3]

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**QUESITI B**

1) **Normativa sulla sicurezza nei luoghi di lavoro Decreto Legislativo 9 aprile 2008, n. 81:**
   - SORVEGLIANZA SANITARIA OBBLIGATORIA.

2) **Statuto di Ateneo:**
   - QUALI SONO GLI ORGANI DEI DIPARTIMENTI?

3) **Regolamento del Dipartimento di Medicina Veterinaria:**
   - COM'E' LA COMPOSIZIONE DEL CONSIGLIO DI DIPARTIMENTO?

4) **Conoscenza dei più diffusi software di Office Automation:**
   - FORMATTAZIONE E CREAZIONE DI UNA TABELLA.

5) **Conoscenza della lingua inglese:**
   - TESTO DA LEGGERE E TRADURRE IN ALLEGATO.

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# Main mites associated with dermatopathies present in dogs and other members of the Canidae family

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**Abstract**
Dermatological diseases of parasitic origin are one of the most frequent in the clinical practice of dogs and cats. Mites such as *Sarcoptes scabiei, Otodectes cynotis, Demodex canis*, and *Cheyletiella* spp., commonly affect domestic dogs. However, the impact generated by these mites on populations of wildlife animals and the mechanisms involved in their epidemiological dynamics are still not clear. In recent decades, the migration of populations and their interaction with domestic environments and vice versa have generated a worrying threat due to the transmission of some of these ectoparasites. Some reports have suggested that sarcoptic mange represents an emerging threat to wildlife. Given the outbreaks of greater magnitude and geographical extension. The objective of this review is to contribute to the state of the art of the main mites that cause dermatopathies in members of the *Canis lupus familiaris* family and other members of the Canidae family. For this, a systematic search was carried out in the Embase and PubMed databases. Infections caused by mites, mainly scabies, continue to be diseases with a worldwide distribution, affecting mammals and humans. Although they are long-standing diseases, the effects that are generated in wild canids are still unknown. A comprehensive evaluation is required to generate guidelines in favor of the conservation of some species of foxes and wolves present in different regions of the world.
**Keywords:** Sarcoptic mange, Otoacariasis, Demodicosis, Cheyletiellosis, Canids.

## Introduction

Mites are distributed throughout the world and have an affinity for a varied group of mammalian hosts, including man. They belong to the phylum *Arthropoda*, class *Arachnida*, and subclass *Acari*. Unlike ticks, they are smaller and do not have a leathery covering, and some species have spiracles on the cephalothorax (Pulido *et al.*, 2016). With more than 30,000 species described, the main mites that cause dermatopathies detected in the Canidae family are: *Sarcoptes scabiei*, *Otodectes cynotis Demodex canis*, and *Cheyletiella* spp. (Rodríguez *et al.*, 2003; Souza *et al.*, 2008; Craig, 2016).

Dermatopathies of parasitic origin in small animals are the most common, presenting with a high casuistry in veterinary consultation (Beugnet *et al.*, 2014). Since the skin is the most exposed organ, the clinical manifestation of these attacks can be mild or marked and be associated with clinical signs such as: inflammation, erythema, intense itching, and presentation of scabs, among others (Birchard and Sherding, 2005; Pulido *et al.*, 2016). Except for *Demodex*, transmission after birth occurs by direct contact from a carrier or infested animal, or less frequently by indirect contact through the environment or fomites (Campbell, 2007).

Today, constant updating in dermatology is essential, both for the clinic of small animals and for the conservation of wild species. It is essential to have sensitive and specific diagnostic methods to be able to investigate this type of mites.

To achieve a better understanding of the dynamics of diseases that affect the skin in areas where a great variety of species converge, it is necessary to know the factors that can favor the transmission of parasitic agents, as well as the implications that these can have in wildlife conservation (Escobar *et al.*, 2022). Due to their prevalence, importance, and distribution, we will describe the state of the art of *S. scabei, O. cynotis D. canis*, and *Cheyletiella* spp. in *Canis lupus familiaris* and other members of the Canidae family.

### *Sarcoptes scabiei*

The mite *S. scabiei* var *canis* is the etiological agent of sarcoptic mange or scabies, a transmissible, very pruritic, and non-seasonal skin infestation (Miller *et al.*, 2012), which affects humans and animals. The parasite

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