



Mycologic Forum

Mycoses are emerging in reptiles

Emergen las micosis en reptiles

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In 1968, the Dutch mycologist de Vries isolated for the first time a fungus that affected the skin and lungs of a lizard (*Ameiva* sp.). This strain displayed both the sexual (teleomorph) and the asexual form (anamorph) of the species, which received the name *Nannizziopsis vriesii* (Apinis) Currah in honour of the discoverer. In recent scientific literature, there are numerous cases of mycoses in different species of reptiles in which the etiological agent is called CANV. This acronym is incorrectly used to abbreviate the species *Chrysosporium* anamorph of *Nannizziopsis vriesii*, now obsolete. This species is characterized for presenting exclusively an asexual form with mainly pyriform conidia that can be confused with the microconidia some species of *Trichophyton* have.



Fig. 1. Cutaneous hyalohyphomycosis in a pet green iguana caused by *Nannizziopsis guarroi*.

Photo courtesy of Jaume Martorell.



Fig. 2. The species name *Nannizziopsis guarroi* honours the Catalan mycologist Josep Guarro.

Some years ago, in our laboratory, we were lucky enough to isolate and describe the fungus that was producing dermatitis in pet iguanas (Fig. 1). We named this species *Chrysosporium guarroi*, in honour of Professor Josep Guarro for his contributions in the field of Mycology and in particular in the case of this genus (Fig. 2). This species, currently called *Nannizziopsis guarroi*, also had no sexual form, but presented clear morphological and molecular differences with *Chrysosporium* anamorph of *N. vriesii*. Today we know that the fungi included in the latter species belong to the genera *Nannizziopsis*, *Paranannizziopsis* and *Ophidiomyces*. These species are difficult to distinguish by their morphology and require DNA sequencing to be identified.¹

Well, after this mess of names, it should be noted that currently *N. guarroi* and *Ophidiomyces ophiodiicola* are considered the most frequent and important fungal pathogens in reptiles.² The first species, besides affecting iguanas and other reptiles, is the main

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causal agent of Yellow Fungus disease in captive inland bearded dragons (*Pogona vitticeps*). In the onset of the infection with *N. guarroi* in these animals, patchy yellowing on the skin appears, which becomes necrotic and turns dark. Subsequently, the infection may progress to granulomatous dermatitis, spread to other body areas and cause the death of the animal.

On the other hand, *O. ophioidiicola* is the main cause of mycosis in snakes in captivity. This species can also produce granulomatous dermatitis, often at the facial level, which is usually fatal in these animals. It is also the main cause of Snake Fungal disease, which affects wild snakes, some of them in danger of extinction. Although most cases have been detected primarily in certain areas of the eastern USA, this disease is considered an emerging global threat of currently unknown magnitude.

These Mycology Forum articles can be consulted in Spanish on the Animal Mycology section on the website of the Spanish Mycology Association (<https://aemicol.com/micologia-animal/>).

Conflict of interest

Author has no conflict of interest.

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