



Mycologic Forum

Chytridiomycosis in amphibians

Quitridiomycosis en anfibios

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This is a new section of the Mycology Forum of our journal for all those interested in Mycology and animals. In this space we will be informing about aspects that I believe are relevant on this topic. These articles can be consulted in Spanish on the Animal Mycology section on the website of the Spanish Mycology Association (<https://aemicol.com/micologia-animal/>).

To begin with, it is a pleasure to make a small review of the round table of Veterinary Mycology included in the XIV National Congress of Mycology held in Tarragona. We had the opportunity to enjoy presentations by Jaime Bosch ("Recent advances in the knowledge and mitigation of chytridiomycosis of amphibians"), Gemma Castellá ("Otitis and dermatitis in dogs and cats") and José Luis Blanco ("Aspergillosis in birds: a recurrent problem") that dealt with fungi as different as chytridiomycetes (*Batrachochytrium dendrobatidis*), ascomycetes (*Aspergillus fumigatus*) or basidiomycetes (*Malassezia pachydermatis*), in a varied group of animal species.

In recent years, one of the mycosis that has attracted the most attention, both scientifically and in the media, affects wildlife and threatens the extinction of certain animal species. Chytridiomycosis, caused by *Batrachochytrium* spp., is devastating the population of certain amphibians living in different parts of the world (Fig. 1). One of the main current concerns in the control of the disease is related to the trade and import of animals, mainly frogs and salamanders from affected areas, that are going to be used as exotic pets, for experimentation, or as food; these situations may spread this threatening epidemic to new habitats.

In relation to the presentation on *B. dendrobatidis* given by Jaime Bosch in the XIV National Congress of Mycology, I recommend



Fig. 1. Specimen of *Alytes obstetricans* killed by chytridiomycosis. Photo courtesy of Jaime Bosch.

reading two articles in which this author participates. The first is a genomic study that uses more than 200 strains of *B. dendrobatidis*, in which the Asian origin of the strains that are causing the decline of these animals is stated.² This species produces severe alterations in the ionic balance of amphibians that lead to heart failure. Besides, *B. dendrobatidis* produces many other disorders in these animals such as skin thickening, generalized failures in homeostatic balance and cellular metabolism, as well as depression of the immune system (Fig. 2). The second paper evaluates the possible efficacy of itraconazole, an antifungal commonly used in the treatment of various fungal infections in animals and humans, to combat this devastating amphibian disease.¹

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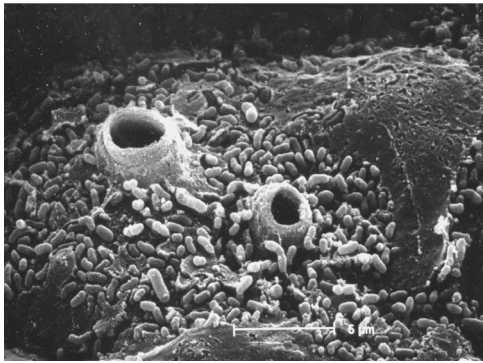


Fig. 2. Epidermis of a toad killed by chytridiomycosis in which the discharge tubes of the sporangia of *B. dendrobatidis* are observed. Scanning electron microscope. Photo courtesy of Jaime Bosch.

Conflict of interest

Author has no conflict of interest.

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