

## MOLECULAR DETECTION OF *Batrachochytrium dendrobatidis* IN AMPHIBIANS FROM BOTUCATU, SÃO PAULO STATE

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The decline and the extinction of many amphibians species have been also attributed to the infection of *Batrachochytrium dendrobatidis* (*Bd*), a chytridiomycete fungus that lives in water environments. The fungus, causative agent of chytridiomycosis, is keratinophilic and infect the bucal apparatus of tadpoles (pre metamorphic phase) and in adults (post metamorphic) it causes severe skin lesions that lead to difficult in osmoregulation and breathing, leading to death. The decline of the amphibians has been reported in different countries and in Brazil it has been found mainly in Atlantic forest of south and southeast regions. Since Brazil reports the greatest diversity of amphibian species in the world, the knowledge of the epidemiology of *Bd* in Brazil is very important. In this sense, we aimed to evaluate the infection in the Botucatu region, São Paulo State, for the first time, by molecular methods. It was evaluated 137 animals, 106 from nature and 31 from farmed trade. The samples consisted of skin swabs, which were submitted to DNA extraction using commercial Kit (GFX™ Genomic and Blood DNA Purification Kit, GE Healthcare). The wild animals species were *Physalaemus cuvieri* (n= 5), *P. olfersii* (n=1), *Dendropsophus nanus* (n=18), *D. minutus* (n=18), *D. sanborni* (n=5), *Aplastodiscus pervirides* (n=7), *Scinax hiemalis* (n=13), *S. fuscovarius* (n=8), *S. fuscomarginatus* (n=1), *Proceratophrys boiei* (n=3), *Bokermannohyla izecksohni* (n=3), *Hypsiboas albopunctatus* (n=8), *H. prasinus* (n=5), *H. caingua* (n=1), *Rhinella schneideri* (n=3), *Leptodactylus podicipinus* (n=3), *L. fuscus* (n=2), *L. latrans* (n=2), *Crossodactylus caramaschii* (n=1) and *Lithobates catesbeianus* was in captivity (n=30). It was used for molecular detection the nested-PCR method with the panfungal primers ITS4/ITS5 (outer primers) and Bd1a/Bd2a (inner primers). The positivity was 18,98% (n=26), and the positive species were *P. cuvieri* (3/5), *B. izecksohni* (1/3), *P. boiei* (1/3), *C. caramaschii* (1/1), *D. minutus* (1/18), *H. albopunctatus* (1/8). The species *L. catesbeianus* has the highest rates of infection, (60%, 18/30) and this finding corroborates with literature that mention the importance of this species in the introduction of *Bd* in Brazil. In farmed trade, it is important to control the infection and also avoid the escape of these animals, since this species is exotic in Brazil and resistant to fungal infection, being considered an important reservoir of *Bd*, leading to serious problems to native fauna.

**Palavras-chave:** *Batrachochytrium dendrobatidis*, amphibians, molecular biology, decline, chytridiomycosis

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