

Wildlife Diseases and Molecular Diagnostics: Post-invasion dynamics of herpetofaunal mycoses in the New World

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Abstract

Emerging infectious mycoses, which are diseases caused by fungal pathogens, are having increasing negative impacts on humans, plants, and animals globally. However, wildlife can also suffer from infectious mycoses, which can lead to the collapse of tightly linked ecosystems and the subsequent loss of ecosystem services. No other fungal pathogens have been more destructive to wildlife than the amphibian chytrids (*Batrachochytrium* spp.), which were introduced into the New World from Asia. Similarly, the filamentous fungus *Ophidiomyces ophidiicola*, which causes disfiguring lesions and mortality in snakes (i.e., snake fungal disease) was likely introduced into North America from Europe. I discuss our ongoing research on the post-invasion dynamics of these two pathogens in Texas and Ecuador informed by using molecular genetics to assist in conservation of threatened species.