Press release

Four-decade-old mystery in biology solved: climate change, not fungus, explains amphibian declines and extinctions in Brazil

Researchers from USP, UNESP, UFAM, UFBA, NASA and INPA have clarified a mystery that has persisted for more than 40 years in conservation biology. The decline and extinction of frogs in Brazil, previously attributed to the fungus *Batrachochytrium dendrobatidis* (Bd), were instead driven by climate change and El Niño anomalies.

The study, published in the scientific journal *Conservation Biology*, reveals that the Bd fungus, previously considered lethal and the main cause of extinctions, acts as an opportunistic organism, growing after population declines but not being the agent responsible for these losses. Furthermore, its influence varies globally, which suggests a specific evolutionary relationship between Brazilian amphibians and the pathogen.

The study's coordinator, Dr. Lucas Ferrante, emphasizes that the results corroborate the initial hypothesis proposed by Hayer in the 1980s and reinforce the urgency of actions to mitigate climate impacts. "We need to act immediately to contain the climate crisis. Brazil is the fourth largest global emitter when considering both fossil fuels and deforestation, and we have a crucial role to play in this scenario. It is essential to review policies on oil extraction and the opening of roads in the Amazon, such as BR-319." The study challenges an established paradigm in conservation biology, reformulating the understanding of the factors that threaten amphibian biodiversity in Brazil.