## Ecological interactions between parasites and endangered frogs in Costa Rica

Hector Zumbado-Ulate Searle Lab, Purdue University

## 1- Is drought increasing disease susceptibility on the lowland robber frog?

The tropical dry forest of Costa Rica protects the last extant population of the lowland robber frog. Through long-term monitoring we are assessing if environmental factors are affecting its population dynamics and increasing disease susceptibility





## 2- Does Golfito's robber frog population occur in an environmental refuge from disease?

The Golfito's robber frog was recently rediscovered in a dry ecosystem in southern, Costa Rica, outside its historical distribution



We are describing the population dynamics and investigating coexistence among this frog and the fungal parasite that causes chytridiomycosis



3- Are parasites mediating competition among reservoir hosts and susceptible species ?



Reservoir hosts exhibit high tolerance and sustain parasites in the environment; they can amplify the transmission of disease through sharing parasites with susceptible species



We are assessing ecological displacement in amphibian communities by mapping historical distributions across time