AMPHIBIAN RISK ASSESSMENT IN MONTANA

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The fungus, Batrachochytrium dendrobatidis, has been found to negatively impact amphibian populations around the world. This fungus can have multiple effects on frogs and salamander physiology, including changes in osmotic regulation that may lead to death. B. dendrobatidis has been shown to be the driving force for many amphibian population crashes and extinctions around the world. The purpose of this project was to build a predictive model of B. dendrobatidis infection, one that would be used to assess population susceptibility in order to identify populations of amphibians at risk of infection. This was accomplished by statistical analyses of several components that contribute to infection vulnerability, including amphibian antimicrobial peptide production, cutaneous bacterial colony structure, infection status for each frog and water nutrient composition. This project collected baseline data that will allow us to establish meaningful relationships between susceptibility factors and disease which will permit the identification of populations at risk. Although certifications may not provide a comprehensive solution to the challenges facing women in Costa Rica's coffee industry, the majority of women feel empowered through involvement in local organizations and women's groups. This research adds new perspectives to the growing body of literature regarding the efficacy of coffee certification schemes and has implications for certification agencies and local-level organizations in Costa Rica and other coffee producing countries.