

CAXIUANA LICHEN BIODIVERSITY: DISCOVERING A NEW CRYPTIC SPECIES?

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Abstract: A resurgence in increasing Amazonian deforestation rates emphasizes the need to understand ecological impacts of habitat loss and conversion of primary forest. Lichens can be used as habitat disturbance bioindicators, but only if their ecological functions and diversity are understood. Tropical lichens in the family *Ramalinaceae* remain poorly studied. Lichen diversity within *Ramalinaceae* is explored in Caxiuanã National Forest, Para, Brazil. The phylogeny of the crustose lichen *Crocynia gossypina*, is revisited using thin layer chromatography and DNA sequencing to determine if it is actually two different cryptic species. ITS primer's Maximum-Likelihood showed low support (61%) for *C. gossypina* to have two genetically distinct species, while mtSSU primer showed 100% support for two two distinct species. The mtSSU results further support previous studies which indicate *C. gossypina* is actually two species, though only one species is present in Caxiuanã. Further genetic studies should be completed with larger sample sizes to determine if the *Ramalinaceae* phylogenetic tree should be updated.

Keywords: *Caxiuanã National Forest; Crocynia gossypina; Lichens, Ramalinaceae, Tropical rainforests*