ANURAN COMMUNITIES AS INDICATORS OF HABITAT TYPES OF A WEST AFRICAN RAINFOREST

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ABSTRACT

Ecological indicators are that are affected by, and indicate effects of, anthropogenic environmental stress or disturbance on ecosystems. Some anuran species constitute valuable biological indicators of certain types of habitat disruptions. This study aims to evaluate the level of disturbance or conservation of Banco National Park (BNP), a West African rain forest, using anuran assemblage. The standardized transects technique, based on acoustic and visual surveys, was used. We identified 28 species, 13 genera and 8 families in BNP. Typology based on environmental variables and anuran assemblage permit to identify four habitats groups according to disturbance and wetland gradients. IndVal index allowed isolation of 15 indicator species from the 28 species identified. Taxa indicators conserved closed canopy habitats types were, in order of relative importance, *Phrynobatrachus liberiensis*, *P. ghanensis*, *P. phyllophilus*, *Morerella cyanophthalma* and *Aubria subsigillata*. Disturbed open habitats were characterized by *Ptychadena mascareniensis*, *P. pumilio*, *Hyperolius guttulatus*, *Afrixalus dorsalis*, *Hoplobatrachus occipitalis*, *Phrynobatrachus latifrons*, *Amietophrynus maculatus*, *Hyperolius fusciventris*, *Amietophrynus regularis*, *Hylarana albolabris* in order of relative importance. These results showed that BNP was well preserved so far, except for the central clearing and the forest edges which were altered by human activities.

Keywords: Amphibians, Conservation, Indicator value, Rain forest, Upper Guinea.