

Microhabitat selection by endemic endangered frog, *Fejervarya greenii* (Family: Dicroglossidae) in and around lentic water bodies in a tropical montane cloud forest of Sri Lanka

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The microhabitat selection of endemic endangered frog species, *Fejervarya greenii* was studied in randomly placed plots in and around five lentic water bodies of the Horton Plains National park (HPNP), situated in the highland plateau of the Nuwara Eliya District from January 2016 to December 2016. Sampling was conducted once a month using plot sampling technique. Two plots (10 m x 2 m) each having 20 quadrats (1 m x 1 m) were placed to record habitat variables and to determine the microhabitat selection of *F. greenii*. The quadrat was considered as occupied if at least one *F. greenii* was found within it. Recorded habitat variables were dissolved oxygen, temperature, conductivity and water depth and pH in water, substrate types (submerged plant cover, bare water cover, short plants and shrubs cover, grass cover, decaying plant matter and leaf litter, sand, mud, gravel, rocks), availability of substrates, soil pH, substrate relative moisture, relative humidity, ambient temperature, substrate temperature and body surface temperature. Individual microhabitat variables between occupied and non-occupied quadrates were compared using non-parametric Mann-Whitney U test ($p < 0.05$) since data were not normally distributed. Results revealed that water depth, water temperature, submerged plant cover, decaying plant matter and leaf litter, sand, substrate temperature, relative humidity and substrate relative moisture were the microhabitat variables that influenced microhabitat selection of *F. greenii* ($p < 0.05$). The current study indicates that the conservation and management practices concerning *F. greenii* should include the montane cloud forest habitats of HPNP which provides the optimum conditions for the survival and reproduction of this species in its finest habitat scale.

Keywords: *Fejervarya greenii*, Horton Plains National Park, microhabitat Selection

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