Asian Journal of Conservation Biology, December 2015. Vol. 4 No. 2, pp. 100-108 AJCB: FP0059
ISSN 2278-7666 ©*TCRP* 2015

Herpetofaunal species richness in the tropical forests of Bangladesh

A.H.M. Ali Reza[1,*], Gad Perry[2]

[1]*Department of Biological Sciences, Delta State University, Cleveland, MS 38733, USA*
[2]*Department of Natural Resources Management, Texas Tech University, Lubbock, Texas 79409, USA*
**Corresponding Author's E-mail: areza@deltastate.edu*

(Accepted November 25, 2015)

ABSTRACT

Species richness is one of the most commonly used biodiversity metrics in ecology and conservation planning, and an important indicator for monitoring biodiversity. Between 2006 and 2009, we recorded 938 individual amphibians and reptiles representing 100 species (27 amphibians and 73 reptiles) from Bangladesh. We used EstimateS to calculate herpetofaunal species richness at each of our eight study sites, representing all major habitat types in Bangladesh. Species richness ranged from 23 -71 species and varied significantly among sites. The highest herpetofaunal species richness was found in Kaptai National Park whereas the lowest was from Comilla Tipperah Hills. Chao-Jaccard Similarity Indices ranged from 0.41 (Comilla Tipperah Hills and Sundarbans Reserve Forest) to 0.78 (Kaptai National Park and Lawachara National Park), indicating that species compositions were not generally similar among sites. Three sites (Kaptai National Park, Lawachara National Park, and Bandarban Hill District) stand out as having especially high diversity of both amphibians and reptiles, whereas Madhupur National Park supports some unique amphibians. These four sites act as major refuges for amphibian and reptile species in Bangladesh and should be given highest priority for herpetofaunal conservation efforts.

Key words: amphibian; Bangladesh; herpetofuana; reptile; species richness; and tropical forest.