

Vertebrate Diversity Assessment of Rukhi Hill Forest of Nayagarh, Odisha

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Abstract—Faunal Diversity plays an important role for human wellbeing like food, commercial and medicinal purposes. The assessment of faunal diversity is essential for better management of an ecosystem. The faunal diversity is slowly decreasing in Rukhi Hill Forest due to anthropogenic pressure. The main causes are deforestation, climatic change, forest fire, grazing, collection of firewood, poaching, illegal expansion of urban areas etc. The Rukhi Hill Forest of Nayagarh measuring about 674 Acres is placed in southern side of Nayagarh Town. The main forest of this hill is tropical moist deciduous forest. This alarming condition of loss of faunal diversity drags us to assess the hill forest. Assessment is the main parameter for conservation and sustainable development. The study conducted different pockets of Rukhi Hill Forest from June 2018 to January 2019. Standard methodologies were applied for collection or identification of vertebrates. The study observed 12 species of amphibians (mainly from Family Dicoglossidae, Bufonidae, Microhylidae and Rhacophoridae), 22 species of reptiles out of which 14 species are snakes (mainly from Family Colubridae, Elapidae and Boidae), 46 species of aves (20 species are from Order Passeriformes) and 22 species of mammals (comes under Order Carnivora, Rodentia, Chiroptera, Lagomorphha and Artiodactyla). All animals have been marked according to the IUCN Redlist category. The species diversity index, richness and evenness of each phylum were recorded. The above result reveals that there should be need of conservation and public awareness about protection and moderate use of natural resources.

Keywords: Vertebrate diversity, Assessment, Hill forest, Conservation, Awareness.