

# Conservation of avifaunal diversity through community participation: A case study in proposed Kotuattawala Nature Reserve, Sri Lanka

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Kotuathhawala reservoir is located at the margin of the Kandededara gramaniadari division at Nikaweratiya. This area is home to a diverse avifaunal community which consists both native and migratory birds. Even though this reservoir consists with high biodiversity, it is not declared as a protected area yet. The aim of the study was to conserve the biodiversity of this reservoir and its surroundings by giving special preference to avifauna and identified residents' attitudes towards management of the reservoir as a nature tourism centre. A structured questionnaire was used for villagers to assess knowledge, attitude, beliefs and practices residents living close to this site towards establish this valuable biological site as a nature reserve and their suggestions regarding conservation and develop nature tourism. Mainly used point counts, line transect and opportunistic observations for the avifauna. Vegetation analysis was done by using plot sampling techniques.

One hundred and seventeen species of birds including 77 breeding residents, 07 winter visitors 05 endemic species (Sri Lanka grey hornbill, Sri Lanka jungle fowl Sri Lanka hanging parrot, Common wood shrike and Crimson-fronted barbet), twenty fish species and fifteen species of butterflies were encountered in this study site. Deforestation of surrounding area for Chena cultivation is the major threat. Change of quality of the water due to unlimited fertilizer usage, hunting birds and juveniles for flesh, illegal egg collection and less awareness of people also influence biological diversity in this site.

Majority of villagers (66.5%) directly use this reservoir for the agricultural activities. Also both local and foreign tourists use this site as a recreation site. The results revealed that 50% of local residents understand the intrinsic, aesthetic and material values of this important resource and recognize that conservation of it can provide opportunities for promoting economic activities in their communities while 22% villagers dissatisfied to establish nature tourism center due to fear on interference of their culture and peaceful life style. Local community can be encouraged to start their traditional industries which can be used as their main income generation activities after establishment of this site as a nature tourism center. For such practices, illegal activities can be minimized and nature loving villagers can be encouraged to work as guides in this area. And also the awareness of the local community as well as school children should be enhanced regarding use of birds as useful indicator species of the health of an ecosystem.