Meetings International SciTechnol

Expert Opin Environ Biol 2018, Volume: 7
DOI: 10.4172/2325-9655-C6-036

International Conference on

EARTH SCIENCE AND CLIMATE CHANGE

September 06-07, 2018 | Zurich, Switzerland

Availability of tree cavities in Sal forest of Chitwan National Park and community forests in Nepal

Prabin Bhusal
Institute of Forestry, Nepal

Tree cavities are important structural elements of forest ecosystem that host numerous birds, mammals and other cavity-dependent organisms. Pattern of cavity distribution in temperate and boreal forests are relatively well studied, yet little is known of cavities in tropical forests including Nepal. We investigated cavity availability and distribution in terms of tree condition (living tree and snag), tree species, DBH class between two different forest management types; Community Forest (SEM-NAT) and Chitwan National Park Forest (NAT) in tropical deciduous *Shorea robusta* (Sal) forest of Nepal. Surveys for cavities were conducted on 50 circular plots being each of 0.1 ha in size. We recorded 792 trees from all sampled plots in both forest types. Totally, we found 69 cavity trees; 29 in SEM-NAT and 40 in NAT. Most of the cavities were recorded in three tree species (i.e. *S. robusta, Dillenia pentagyna, Neolamarckia cadamba* and in *Syzygium operculatum*), dominated by the DBH range from 10 cm to 110 cm. In snags, we found 13% of all cavities in SEM-NAT and 17.5% in NAT. Number of snags, volume of dead wood, number of trees and number of natural cavities were found significantly different from NAT and SEM-NAT plots. The study shows that some tree species are more important for cavities availability and distribution. On the other hand, snags are potential substrates for cavity; we suggest certain portion of cavity bearing tree species should be maintained during Silviculture practice to help maintain the community of cavity dwellers.

pbhusal@iofpc.edu.np