

TITLE

STUDY OF BIODIVERSITY IN A SACRED GROVE NAI-KA-NATH

ABSTRACT

The present study were carried out in the Nai-Ka-Nath sacred grove, Bassi Jaipur, Rajasthan during the period of 2013 to 2015. Nai-Ka-Nath is the finest example of in-situ conservation of biodiversity and having a significant religious connotation with Meena and Jogi communities. A historical temple of Lord Shiva is situated in this grove. Hunting, logging and illegal human interferences are prohibited in the area. The topography of the grove includes mountains, hillocks, deep gorges, forest regions, rocky terrain, drained rocky plains and rolling sand dunes, barren tracts, nala, rugged and ravines etc. There are 11 villages included in Nai-Ka-Nath grove. The total area of the grove is 1515.51 Hectare. In the year of 1968, the place was registered in Rajasthan Devasthan Department.

The main objectives of present research is to study the biodiversity of the region and present methods of conservation to find out the causes and effects of biodiversity degradation. The floral and faunal species are listed according to their conservational status as per wildlife act schedules. Floral species are also listed according to their characteristics like medicinal, religious, food, fodder, timber etc. Utilization of various plant species by the fauna of the area for feeding, perching, nesting, camouflage etc. are also described. Anthropogenic significance of floral and faunal species is also studied. During the study, samples of plant species, rocks, soil, water, and relics of faunal species were not be collected, because of local socio-religious traditions as it is objected to by the locals for the fear of the present deity, believing that those who harm or taken anything from the grove may be harmed by the presiding deity.

Intensive exploration tours were conducted to study the floral and faunal species, causes and effects of biodiversity degradation, and current conservation status of the area. The entire region was divided into 4 zones, on the basis of road map and villages. Jhar, Khori, Nimora and Chitodi are in West and North-East zone, Banskho and Nai-Ka-Mahadev in middle zone, Charangarh, Tekchandpura and Kishanpura in South and South-East zone and Charanwas, and Gudhameena in West zone. The data was collected through the simple and interesting questionnaire in their local language. Total of 118 field trips were conducted to collect the valuable information about

the area and present species. The identification is mainly based on morphological observations and close up high-resolution photographs (using Sony cyber shot dsc-hx400v). Appropriate data were also prepared from these interviews and meetings with local people and forest officers, meeting and discussion with old persons (both men and women), vairs, priests, hakims, sage, and folk healers around the grove.

In the study a total 180 floral sp. and 155 faunal sp. were identified. In the floral species 44 tree sp., 28 shrub sp., 83 herb sp., 18 climber sp., 5 tuber sp., and 2 parasitic plant sp., and in faunal species 31 arthropod sp., 2 amphibian sp., 14 reptile sp., 82 bird sp., and 26 mammal sp. were identified.. The ecosystems of the grove are well managed. A total of 14 floral and 110 faunal species of the area are listed in the IUCN Red List of Threatened Species, in these 3 tree, 7 herbs, 1 climber, 3 tuber, 1 arthropod sp., 2 amphibian sp., 6 reptile sp., 80 bird sp., and 19 mammal sp. are Least Concern. The grove is a great shelter for wildlife; it provides suitable habitats for birds, reptiles, mammals and other fauna of the area. The study also highlighte the plant species and their traditional medicinal uses. Through this study we have prepared a proposal for Government, highlighting all the features of this invaluable area and have suggested that the area has a lot of potential for wildlife protection, and deserves the status of a protected area by the Government.