

members like Jackal, Fox, Dog and others big and small carnivorous animals and predatory birds like Hawks and Eagles (Kirk and Racey, 1992). They are also recognized vertebrate pests of many forestry, agricultural and plantations crops (Hussain *et al.*, 1991; Joyson, 1999).

MATERIAL AND METHODS

The regular survey of Indian hare on its activities were conducted in forest nurseries, plantations sites, experimental and agricultural fields in and around the TFRI, campus throughout years in 2011 and 2012 by pair of Binoculars 10X50. The observations were taken, whenever sighted hare in the field on their different activities like feeding habits, damage potential to seedlings/saplings, breeding areas and behavior during the presence of predators and hunters were also made in day and night. Each record in the field was photographed by Nikon. Coolpix L 100 (Wide 15 x Optical Zoom).

OBSERVATION AND DISCUSSION

The Indian hare are one of most common small mammal's species of the TFRI campus after Squirrel, *Funambulus pennanti* and Mongoose *Herpestes edwardsii* (Paunekar 2010). It was observed that they are mostly active at forest nurseries as compared to experimental fields and plantations site due to sowing, germinated seeds, small seedling plants and grasses, where they easily reached and feed. It was observed that they are mostly feeds on the germinated seeds and soft leaves of seedlings of different forest trees species like, Bamboo sp., *Dalbergia latifolia*, *Dalbergia sissoo*, *Delonix regia*, *Moringa oliefera* *Cassia* spp., *Albizia* spp., *Terminalia* spp., etc and medicinal plants like *Asparagus recemosus*, *Annona squamosa*, *Emblica officinalis* *Withania somnifera*, *Gloriosa superba*, *Andrographis paniculata*, *Ranwolfia serpentine*. They caused extensive damage to sowing and germinated seeds, forest tree species, medicinal plants and green vegetations. They were also found surrounding

agricultural fields and near Gour River and mostly feeds on agricultural crops, vegetables and other waste materials of the fields. They cut the seedlings/saplings from the root by their longer incisor and ultimately the plant die. Due to their cutting habitat caused heavy damage to planting stocks of the nursery.

There are several hiding places like slopes, holes near walls and big trees and dense vegetation in and around TFRI campus. These places are used by Indian hare for the breeding purpose and breeds throughout year in the areas. Wherever, the Hare is coming out from their hiding places to search the food in and around the campus. They were always beware after coming out the open areas to their predators. They carefully watched surrounding areas if and no one found, they go for feeding.

In the campus there are several natural enemies of the hare. Their main predators and hunters are Indian Jackal (*Canis aureus indicus*), Jungle cat (*Felis chaus*) and local dogs (*Canis lupis familiaris*). When their hunters and predators and human (*Homo sapiens*) passing through their hiding places or sightings anywhere in and around campus, they suddenly running very fast towards the dense vegetations to took shelter and escaped from hunters and predators. They took shelter in the dense and dried vegetation of the campus, once they entered in the dense vegetations; they were not easily spotted due to their body colour matches with surrounding grasses and vegetations. It was also observed several times, if the dense vegetations were not found by Hispid Hare to nearby areas, they took shelters dried grasses or under trees and remained in standing position in their strong hind. During the period they shiver due to presence of their hunters and predators and they relaxed after their enemies going away from those places on legs (Figs. 1 & 2).

Recent years, it was observed that the population of Indian Hare is declining in and around TFRI campus due to overhunting by their predators,



Fig. 1. The Indian Hare shivering due to presence of predator nearby area.



Fig. 2. The Indian Hare relaxed position after predators moves on other side.

rapid urbanization, destruction of habitat, dense forest areas and grassland ultimately reducing their feeding and breeding ground in the areas. It is needed to save the species by taking all possible control measures.

SUMMARY

The Indian hare, *Lepus nigricollis* is one of the most common species of Indian subcontinents. They are most important member of food chain as a prey of number of carnivorous animals. The detailed activities Indian hare were observed in and around Tropical Forest Research Institute, campus, Jabalpur during 2011 and 2012. They are found in forest nurseries, plantation sites, experimental and agricultural fields. They caused extensive damage to nursery stock, other forest tree species and medical plants. Their feeding habits, damage potential to seedlings/saplings, breeding areas and behavior during the presence of predators and hunters were also observed in and around TFRI, Campus, Jabalpur.

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