



Anthropogenic edge effects in habitat selection by sun bears in a protected area

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ABSTRACT: Internet of Things has emerged as an efficient technical support for the biological researchers. Present study has been focused on the four applications used for wildlife monitoring in the location tracking, habitat, *in situ* observation, and behavioral studies. IOT based monitoring unit for wildlife studies mainly includes sensing, communication, software and relative hardware components.

Introduction

Wildlife populations in Southeast Asia are increasingly experiencing in broad array of anthropogenic threats, and mammalian carnivores particularly vulnerable. Populations of the Malayan sun bear are estimated to have declined by 60% over the last 35 years from the forest conversion to the industrial plantations and for the mortality associated with human–bear conflicts and illegal wildlife trade. However, the effects of industrial plantations on the habitat selection and the activity patterns of mammals that live at the protected area-plantation interface, including the sun bears, was not well known. We are investigating the habitat selection and the activity patterns of the sun bears in the Tabin Wildlife Reserved in Sabah, Malaysia. We were deployed 85 remote camera sites for the record of sun

bear detections during two sampling periods. We were used generalized linear models to examine relationships between the sun bear presence and site covariates representing the environmental and anthropogenic elements for the landscape. Relatively probabilities of sun bear presence were positively associated with the distance to roads elevation. Because most roads are on the reserved boundary often associated with oil palm plantations and proximity to roads like served as a surrogate measure of the human accessibility and activity in the peripheral area of the reserved. Supporting that interpretation of sun bears close to the reserved boundary is primarily active at the night; where during daytime activity is more common for bears in the interior time. Our findings indicating that sun bears after behaviours and the habitats selections likely in responding to anthropogenic activities in edges of Tabin wildlife Reserved. Because the ratio of the edge to interior increases steeply with the declining for habitat area, smaller protected areas has been bordered by the plantations are predicted to have the greater impacts on the sun bear behaviour and the potential population persistence. Effective for conservation actions may be beneficial from management to improve the security for the edge habitats for sun bears and for the other vulnerable species.

This communication was far more apart from

the case of wild animals, which reside in their normal habitats and In the order to understand their behavior of these organisms and make them survive in Originally conceived for preservation of unique ecosystem and provide refuge for threatened species, protected area across the globe are facing growing challenges for the fulfill for their principal role. Increasing the human population growth settlement and for the agricultural development but especially near to the periphery for the protected areas (2008), has been lead to the exponential increasing in the human-wildlife confliction including the crop and the livestock depredation attacks on humans by the wildlifes and their intolerance of confliction causing species. Protected areas and threatened wildlife experienced for increasing array for direct and indirect threats including in the illegal hunting and resource extraction for the persecution of species that threaten human life or property. These threats were the most intensed at the periphery for protected areas and are expected to increase for smaller reserves in the ratio of perimeter to protected area magnifies

Ethnobotanical observations on medicinal plants in Mandi District of Himachal Pradesh were based on the field study and screening of relevant literature. The information related to medicinal species.

Conclusion

We were obtained some independent detection of sun bears during night times. Sun bears were detected in more than half of the 86 combined sites. Using a univariate logistic regression, we were not able to detect the survey effect on the probability of sun bear presence. Distance to reserve boundary was strongly correlated with the distance to nearest of the road. Based on those field observations the distance to the roads better captured for anthropogenic disturbance at Tabin wildlife reserved so we retained it was covariate