Abstract

Southeast Asia has the highest rate of forest loss of tropical region in the world. The major cause of habitat conversion is human demand for natural resources such as timber logging and the conversion of the vast areas of natural forest to agriculture and urban areas. Such activities increase natural habitat fragmentation as well as increase the edge effects. Edge effects influence on avian nest survival and nest success, which are key parameters that can be used to estimate and predict changes in populations. We investigated the effects of forest edge on nest success and defined nest predators at the forest edge and forest interior in the dry evergreen forest in the Sakaerat Environmental Research Station in northeastern Thailand. During the breeding season from February to August 2016 we searched for nests starting at the edge into the forest interior. To assess the nest predator species video cameras and camera traps were placed on the active nests of selected species. During the breeding of 2016 we found 200 active nests from 22 species. The overall natural nest success was 8.6% and the predation rate was quite high 87%. From video cameras and camera traps set at 116 nests from 14 species, we detected 61 predation events and recorded 8 nest predator species. Snakes were the main predator (43%) follow by Pig-tailed Macaque (*Macaca leonina*) (30%), raptors (10%) and Common Green Magpie (*Cissa chinensis*) (10%). The relative abundance index for all nest predator species combined was not significantly higher at the edge compared to the forest interior. Nest success from our study was quite low compare the other studies in tropical forests and our previous study which nest success was around 20 %. The mechanisms that effect on such low nest success and high predation rates are still unclear, however the changing in predator community and behaviors affect by edge effects and fragmentation may be significant factors.