

Kongsang Puwinsaksakul 2014: Ecology of Rehabilitated Eld Deer (*Cervus eldi*) and Hog Deer (*Axis porcinus*) in Wiang Lor Wildlife Sanctuary, Phayao Province. Master of Science (Forest Biological Science), Major Field: Forest Biological Science, Department of Forest Biology. Thesis Advisor: Assistant Professor Ronglarp Sukmasuang, Ph.D. 127 pages.

The ecological study of released Eld deer and hog deer in Wiang Lor Wildlife Sactuary, Prayao Province was procedured between September 2012 and August 2013. The objectives were to investigate the animal's population characteristics, habitat use, forage species, relationship of the released deer with wildlife species in the area. Active time duration of the two species were also studied. Fecal pellet group count method, camara trap techniques and direct observation were used. The result showed that the average of the Eld's deer population density was 0.12 individuals/ha whereas those of the hog deer was 0.30 individuals/ha. The ratio of adult male: adult female: juvenile: fawn of Eld's deer, showed the population structure, was 11.35: 54.04: 32.32: 1.88. The sex ratio was 1:1.38 and adult male: fawn ratio was 1:0.01. The recruiment rate was 1.91. The most frequency that the Eld's deer was seen, 80.48%, staid in group with the average herd size was 3.50 individuals/group in the dry season. The hog deer population structure was 44.95: 38.41: 13.53: 2.86 for adult male, adult female, juvenile and fawn respectively. The sex ratio was 1:0.93 and the ratio of adult female: fawn was 1:0.01. The recruitment rate of the hog deer population was 2.94%. The most frequency that the hog deer was seen, 62.50%, stay in group with the average herd size was 2.10 individuals/group in the dry season. Twenty eight percent of the Eld's deer were seen in grassland habitat, 25% in the ranger activities site, 16% in the mixed deciduous forest and 7% were seen in the dry dipterocarp forest. Whereas 49% of the observed hog deer were seen in the ranger activities site, 33% in the grassland habitat 25% in the mixed deciduous forest and 24% in the dry dipterocarp forest. One hundreded and twenty six forage species of the Eld's deer were identified. There was fourty one of trees, 25 shrubs, 31 herbs, 7 grasses, 20 climber, 1 ferns and 1 bamboo. The Eld's deer consumed atleast 107 forage species during the dry season whereas 88 species were fed during the wet season. One hundreded and thirty forage species of the hog deer were identified. There were 44 trees, 23 shrubs, 31 herbs, 6 grasses, 23 climbers, 2 ferns and 1 bamboo that were found. The hog deer consumed atleast 102 foreage species during the dry season and 98 species during the wet season. The study also found that Eld's deer and hog deer fed on same 99 forages species with the similarity index of 78.12%. The Eld's deer and the hog deer had 23.90% possitively present correlation gained from camera trap significantly. Whereas the hog deer had possitively present correlation gained from camera trap significantly with civet in the area. The Eld'd deer had the highest peak of active time during 16.00 pm and agained during 03.00 – 06.00 am. The active time had graduatedly reduced to the lowest peak that occurred during 09.00 am -13.00 pm. The hog deer had 2 peak of active duration. There were between 17.00 – 18.00 pm and between 05.00 – 06.00 am respectively. The causes of dead came from poching by local hunters and domestic dogs that occasionally came into the released site. Recommendations for further studies and management plans for the species rehabilitation were proposed in this study.

---

Student's signature

---

Thesis Advisor's signature