

Suphat Prasopsin 2012 : Some Ecological Aspects and Distribution of Gaur (*Bos gaurus* H. Smith, 1827) at Khlong Pla Kang Area in Khao Yai National Park, Nakhon Ratchasima Province. Master of Science (Forest Resource and Environmental Administration), Major Field: Forest Resource and Environmental Administration, Faculty of Forestry. Thesis Advisor: Associate Professor Naris Bhumpakphan, Ph.D. 89 pages.

The objectives of the research were to study gaur foraging according to the season and food preference and to study the distribution and habitat utilization during the dry season and the wet season from April 2009 – March 2010. Four line – transects were placed parallel (2.5 km in length each, 400 m about) with total distance of 8 km. Sample plots of 1 m x 2 m were located along the transects at 50 m interval of 97 plots totally. Food foraging in the plots were recorded from the ground and upto 2 m height at the level that gaur could forage.

The study found that gaur utilized 23 families 38 genera and 43 species. They were composed of 17 species of trees, 8 species of shrubs, 4 species of climbers, 6 species of herbs and 8 species of grasses. During the rainy season, herbs were grazed at most (4,861.3 g), on the other side grasses were grazed at most during dry the season (518.2 g). During the rainy season, the most preferred species was *Mallotus philippensis* Mull. Arg.(2.0). During the dry season the most preferred species was *Cinnamomum iners* Reinw. ex Blume and *Dioscorea glabra* Roxb.(2.0) The only natural predatore of gaur was wild dog. The distribution area of gaur population was 650.3 sq.km. during the wet season and 808.7 sq.km. during the dry season.

Data obtained from direct observation indicated that gaur invaded in agricultural areas for crop raid such as *Zea mays* L. and *Manihot esculenta* (L.) Crantz. They grazed leave, shoot, underground storage stem and seedling. Prevention techniques of gaur invasion are as follows: building electric fences, burning types and firing explosive balls. The last technique is considered to be the best one. However, for the long – term solutions, it is advisable to create artificial saltlicks and dams. The knowledge gains from this study are helpful for the future research, conservation and mitigation of crop raid from gaur.

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Thesis Advisor's signature