

Kanokorn Konlek 2009: Reptile Diversity in Limestone Forest and Religious Territory, Khaowong Subdistrict, Phraphutthabat District, Saraburi Province. Master of Science (Zoology) Major Field: Zoology. Department of Zoology. Thesis Advisor: Associate Professor Virayuth Lauhachinda, Ph.D. 160 pages.

The study of reptile species diversity residing in limestone mountains and in religious territories was conducted during December, 2007 to November, 2008. The purpose of this study was to collect reptile species diversity and information on area utilization of each reptile species, ecological characteristics of each religious territory, and threatened factors to reptiles in earning their living. The surveys of the study area were made 3-4 day monthly by using direct searching during daytime and night-time and by using supplementary evidences like tracks and signs of known animal. Information on exact reptile species, size, sex, time of seeing or capturing, location of seeing or capturing, and number of individual of each reptile species were recorded. Analysis of reptile species collected from each religious territory was evaluated in terms of percent of occurrence, diversity index, evenness index, and similarity index. A total of 53 reptile species classifying to 38 genera, 12 families, and 2 orders was collected. Of the 53 reptile species found in the study area, they were obtained from each religious territory as the following : 37 species in Wat Tumnarai area, 18 species in Wat Lublae area, 15 species in Wat Supchaom area, 32 species in Wat Pukhambunpot area, and 25 species in Wat Tumsrivilai area. The majority of reptile species found was colubrid snakes in family Colubridae consisting of 19 species and geckos in family Gekkonidae ranked the second consisting of 9 species in which 3 species are endemic species. This study also found limestone gecko which is predicted to be the new gecko species of the world. Analysis of reptile species diversity showed that Wat Tumsrivilai had the highest value whereas Wat Lublae had the highest value of evenness index. Similarity index of reptile found in five religious territory areas revealed that Wat Lublae and Wat Supchaom had the highest value with 72.7 percent and Wat Pukhambunpot and Wat Tumsrivilai ranked the second with 70.1 percent whereas Wat Lublae and Wat Tumsrivilai had the lowest value with 47.2 percent. Threatened factors to reptile species in earning their living gathered from this study were alteration in the vicinity of cave area and inside the cave for religious ceremony and recreation, burning up dead leaves and dry grasses, and overexploitation of limestone mountain for the industrial purposes.

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Student's signature

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Thesis Advisor's signature