ABSTRACT

The parasitic infections exhibit a significant factor on the population of the wildlife, and it is a critical issue in the conservation of threatened species of wildlife. In this study, we determined the potential risks of gastrointestinal parasitic prevalence and transmission between the vulnerable species of Gaur (Bos gaurus) and native breed cattle (Bos taurus indicus) in Khao Yai National Park and Khao Phang Ma Non-hunting Area, Wan Nan Kheaw District, Northeast of Thailand. We collected fresh fecal samples from both species and examined by carpological examinations. We examined a total of 149 fresh fecal samples including 130 samples from gaur and 19 samples from native breed cattle during wet and dry seasons. 3 gastrointestinal parasitic species including 2 species of nematode and one species of trematodes were found. The overall results of gastrointestinal parasitic prevalence rates of strongylus, strongyloides and paramphistomum were 44.3%, 17.5% and 1.34%, respectively, and total gastrointestinal parasitic prevalence rate was 45.64%. The average parasitic egg per gram of feces was 122.06 (range: 50-550) eggs/gram. Single gastrointestinal parasitic infection rate was 60.6% and eggs/gram rate was 93.33 (range: 50-150), and multiple gastrointestinal parasitic infection rate was 39.4% and eggs/gram rate was 158.5 (range: 50-550). The results showed that compared to native breed cattle, the prevalence rate of gastrointestinal parasitic infection was higher in gaur in the region closed to agricultural area. The results also indicated that some of the environmental factors such as elevation, distance from agricultural area, population, density and area of the host affected the prevalence rates of gastrointestinal parasitic infections in the host area. In conclusion, the results showed the need to design wildlife management improvement in the study area in order to maintain health and population of the wild gaur.

KEY WORDS: GAUR/ GASTROINTESTINAL PARASITE/ ENVIRONMENTAL FACTORS/ PRINCIPAL COMPONENT ANALYSIS