Boy Boonaue 2013: Prevalence of *Fasciola* Infection in Cattle and Buffaloes around Songkhla Lake. Master of Science (Veterinary Parasitology), Major Field: Veterinary Parasitology, Department of Parasitology. Thesis Advisor: Assistant Professor Burin Nimsuphan, Ph.D. 112 pages.

Fasciolosis is one of the most important parasitic diseases in ruminant and human health caused by *Fasciola hepatica* and *F. gigantica*. The economic losses in limiting the development of beef and milk production and public health concern are caused by fasciolosis throught out the world. *F. gigantica* is identified in animals and humans in Thailand. The prevalence of bovine fasciolosis in Thailand was ranging from 0-85% depending on the areas. The referent method for diagnosis of fasciolosis is based on the fecal examination. Songkhla Lake is the largest lake in southern part of Thailand. There are cattle and buffaloes rearing nearby Songkhla Lake area. In the previous period, many cattle nearby the lake died and the post mortem found *Fasciola* in the liver. Heavy infection of *Fasciola* can be a cause of death in these cattle. There was the possibility of bovine fasciolosis distribution around the lake. The objective of this study is to determine the prevalence of *F. gigantica* infection in cattle and buffaloes nearby Songkhla Lake area by ES-Ag based on ELISA compared with the fecal examination. The results of ES-Ag-ELISA showed 29.3% (148/505) in cattle and 78.9% (75/95) in buffaloes were positive for *Fasciola* infection. Comparing with the fecal examination, 7.8% (39/500) in cattle and 30.1% (25/83) in buffaloes were found positive. The >7 years cattle had the higher infection rate than the <7 years cattle while the >7 years buffaloes had the lower positive rates than the <7 years buffaloes. Female cattle had the infection rates higher than male but the female buffaloes had the lower positive rates than male. Both of cattle and buffaloes were infected by *Fasciola* at the high level. Thus, Songkhla Lake is the natural reservoir for fasciolosis in cattle, buffaloes and humans.

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