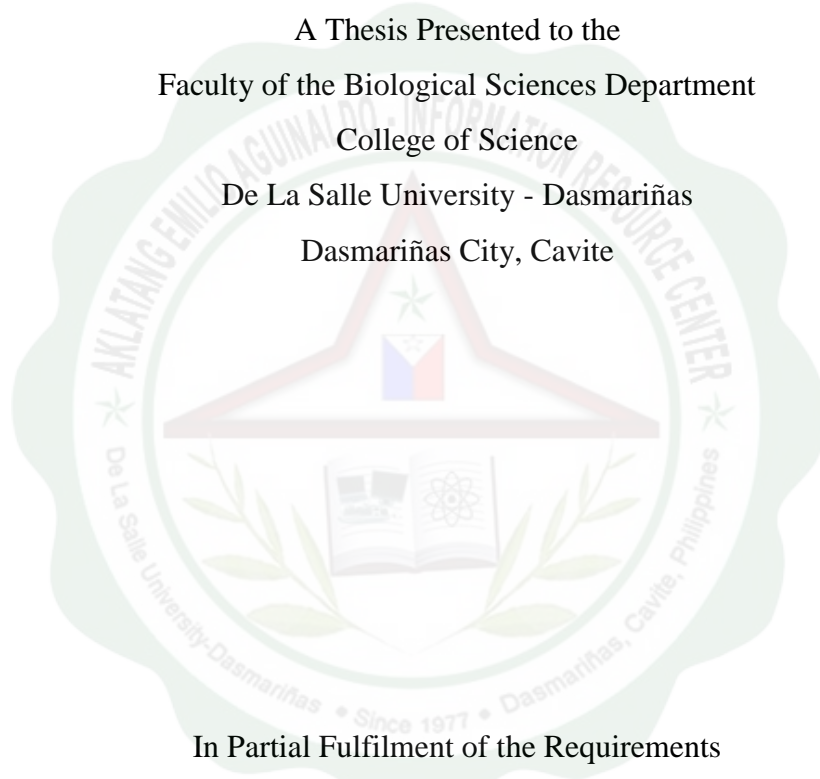




**DETECTION OF *SARCOCYSTIS SPP.* CYSTS IN MUSCLES OF
BACKYARD-REARED FARM ANIMALS**

A Thesis Presented to the
Faculty of the Biological Sciences Department
College of Science
De La Salle University - Dasmariñas
Dasmariñas City, Cavite



In Partial Fulfilment of the Requirements
for the Degree of Bachelor of Science Major in Human Biology

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March 2011



ABSTRACT

The study was conducted to detect and compare the percentage frequency occurrence of microcyst count of *Sarcocystis* species in muscles of farm animals. The tongue, diaphragm, esophagus and heart were collected from freshly slaughtered backyard-reared cattle, goat and pig. The muscle samples were subjected to acid digestion technique using trypsin for microcyst counting. The highest percent frequency occurrence of microcyst count among animals were observed in goats and cattle with 16.93% each, followed by pigs (16.88%). Statistically, there was no significant difference ($p>0.05$) among the microcyst count in animals. In terms of organ samples, the highest percent frequency of occurrence of microcyst count was found in the diaphragm (17.03%), followed by tongue (16.92%), esophagus (16.90%) and heart (16.79%). Statistically, there was no significant difference ($p>0.05$) among the microcyst count among organs. Potential variation of *Sarcocystis* species is suggestive based on the cyst size and its cyst wall. For goat, the potential *Sarcocystis* species is *S. hircicanis* in which the observed cyst size ranges from 80–450 x 40–250 μm and the cyst wall size ranges from 5–35 μm . For pig, the potential *Sarcocystis* species can either be *S. meischeriana* or *S. suihominis* in which the observed cyst size ranges from 65–650 μm and the cyst wall size ranges from 3.75–12.5 μm . For cattle, the potential *Sarcocystis* species can either be *S. hominis* or *S. levinei* in which the observed cyst size ranges from 150-400 x 145-150 μm and the cyst wall size ranges from 10-11.25 μm . In conclusion, *Sarcocystis spp.* was detected in all animals studied. However, the distribution pattern of microcysts in different animals and different organs varies. All cysts detected were in proliferative phase. The proliferating *Sarcocystis* cysts found in the muscle samples were identified as potentially *Sarcocystis* species: *S. hircicanis* for goat, *S. meischeriana* and *S. suihominis* for pig, and *S. hominis* and *S. levinei* for cattle.



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