

THESIS

**Identification Prevalence of Endoparasite in Canines
Bayan Lepas, Penang**



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ENDORSEMENT FORM

**Identification Prevalence of Endoparasite
in Canines Bayan Lepas, Penang**

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DECLARATION

Hereby, I declare that in this thesis entitled:

Identification Prevalence of Endoparasite in Canines Bayan Lepas, Penang

There is no other work ever published to obtain a college degree in a certain college and according to my knowledge, there is also no work or opinion ever written or published by others, except those in writing referred to this paper and mentioned in the reference.

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SUMMARY

Rekasni Adallin A/P Morgan. Research on Identification Prevalence of Endoparasite in Canines Bayan Lepas, Penang under the supervision of the first supervisor Prof. Dr. Setiawan Koesdarto, drh. M.Sc. and Dr. Maslichah Mafruchati, drh. M.Si. as the co-supervisor.

In Bayan Lepas, Penang dogs are common pets in many households. The Veterinary Research Institute (VRI) is committed to monitor baseline incidences of diseases which are important such as those harboured by the canine population, both pets as well as strays. Some of these diseases are zoonotic such as mange by *Demodex canis*, visceral larval migrants by *Ascaris* sp. and diarrhoea by *Giardia* sp. (Erwanas *et al.*, 2014). Humans and their pets have a close physical relationship, and it is known to be beneficial with regards to socialisation, mental health and even physical wellbeing. Parasites can be divided into two groups based on their habitat, such as ectoparasites and endoparasites. Canine endoparasites consist of heartworms, tapeworms, hookworms, whipworms, roundworms, coccidia, *giardia* and flukes. The developmental stages of the endoparasites (cysts, oocysts, eggs and larvae) can survive in the environment for a long time and represent a risk factor for animals and also for the human population. Endoparasites are parasites that live in internal organs such as the liver, spleen, brain, digestive system, blood circulation, abdominal cavity, muscle, flesh and other body tissues.

This research was conducted from November 2020 to January 2021 by taking 100 samples of dog feces in Sungai Ara, Relau and Batu Maung. Samples

were examined identified at the Goon International College by using the native method, sedimentation, and floating method. Number prevalence was obtained using the prevalence formula, and data analysis to determine the effect of gender and age on the prevalence of using *Chi Square Test* analysis.

The results showed that the type of parasites was found in the gastrointestinal tract of dogs are *Trichuris* sp., *Dipylidium* sp., *Ancylostoma* sp., *Toxocara* sp., *Strongyloides* sp., *Isospora* sp., and *Giardia* sp. Prevalence of digestive tract parasites on Canines in Bayan Lepas, Penang is 28%. The results of the *Chi Square Test* analysis showed that gender and age has no effect on the prevalence of gastrointestinal parasites on Canines at Bayan Lepas, Penang.

Based on the research results, the following suggestions can be made is there is a need for an counseling program to educate the community of Bayan Lepas to maintenance management such as housing, giving feed, and drink as well as sanitation so that infection with intestinal parasites digestion can be prevented and to control for parasitic disease control, therefore in future studies, research should be carried out on the types and doses of drugs to treat cases in canines that were infected with parasite infestations.

**IDENTIFICATION PREVALENCE OF ENDOPARASITE IN CANINES
BAYAN LEPAS, PENANG**

Rekasni Adallin A/P Morgan

ABSTRACT

This study aims to determine the type, prevalence and influence of sex and age on the prevalence of gastrointestinal parasites on dogs in Bayan Lepas, Penang. A total of 100 samples of dog feces were collected from three Districts. Feces examination was performed by direct smear, sedimentation, and floatation methods. The kind of helminth was *Trichuris* sp. 2% (2/100), *Dipylidium* sp. 2% (2/100), *Ancylostoma* sp. 1% (1/100), *Toxocara* sp. 2% (2/100), *Strongyloides* sp. 2% (2/100) and protozoa *Isospora* sp. 18% (18/100), *Giardia* sp. 1% (1/100) samples were positively infected by helminth and protozoa. According to the statistics analysis, could be concluded that sex and age do not affect the prevalence of gastrointestinal parasite.

Keywords: Dog, Gastrointestinal, Helminth and Protozoa, Prevalence, Bayan Lepas, Penang.

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I could realize that there are still many shortcomings and mistakes so constructive suggestions and criticism are needed for the perfection of further writing. Hopefully, this thesis can be used as a reference and increase knowledge for those who use it. Amen.

Surabaya, 1 April 2022

Author

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ABBREVIATION AND SYMBOLS

CDC : Centers for Disease Control and Prevention

VRI : Veterinary Research Institute