

**ENDOPARASITES INFECTION OF THE CAPTIVE SUN
BEAR (*Helarctos malayanus*) IN LOK KAWI WILDLIFE
PARK, KOTA KINABALU, SABAH**

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ABSTRACT

ENDOPARASITES INFECTION OF THE CAPTIVE SUN BEAR (*Helarctos malayanus*) IN LOK KAWI WILDLIFE PARK, KOTA KINABALU, SABAH

Sun bear is one of the vulnerable species in Sabah and *Helarctos malayanus* species is the smallest one. The aim of the study is to identify the type of endoparasites in Sun bear via faecal sample and to determine the prevalence rate of endoparasites in Sun bear. Twenty-one faecal samples were collected from the Lok Kawi Wildlife Park and examined by direct smear, faecal floatation and McMaster method. The detected endoparasites were *Taenia saginata* (57.14%), *Pentorchis arkteios* (42.86%), *Baylisascaris transfuga* (85.71%), *Baylisascaris multipapillata* (85.71%), *Ancylostoma caninum* (71.43%), *Arthrocephalus lotoris* (57.14%), *Molineus barbatus* (71.43%), and *Ermeria albertensis* (28.57%). Risk factors for infection with endoparasites in sun bears were identified to be faecal oral transmission and also contagious diseases. Thus, male and adult sun bears showed highest mean eggs per gram where *B. transfuga* and *B. multipapillata* were most prevalent. In conclusion, the captive sun bear in Lok Kawi Wildlife Park was infected with potential zoonotic parasites which is *B. transfuga* and *B. multipapillata*.

1.0 INTRODUCTION

1.1 Background of Study

Sun bear is one of the vulnerable species in Sabah which also known as 'honey bear' who loves to consume on honeycombs and honey. The name sun bear itself means "sun rise" which represents their white patch on the chest. Only eight extant species of bears found worldwide and *Helarctos malayanus* is the smallest one (Wong *et al.*, 2004). They have black, sleek and short fur that very useful to avoid themselves from overheating in the tropical weather but coarse and thick to give protection from branches, twigs and rain. They are nocturnal animals with unique physical adaptations for their feeding behaviour such as long tongue for extract honey from the bee nests and also an extremely long claws to rip open trees and termite nests. They are living in the tropical evergreen or dense lowland forests of Southeast Asia (Nazeri *et al.*, 2012). Females with offspring tends to be solitary animals that meeting their partner only to mate (Fredriksson *et al.*, 2008). This species might have tendency to be infected by endoparasites through their faecal by ingestion of food and environment. This is because endoparasites might be presence in the food either before being given to the sun bear or after, by placing the food in the sun bear's habitat. There are