

## **First detection of Babesia sp. in Bornean sun bear (*Helarctos malayanus eurypilus* Horsfield) in Sabah, Malaysia**

### **ABSTRACT**

The Bornean sun bear, a subspecies of the endangered Malayan sun bear, resides only on Borneo Island and little is known about diseases or parasites that may impact their health. In 2019, blood and ticks were collected from 46 captive bears held at the Bornean Sun Bear Conservation Centre in Sabah, Malaysia during annual health examinations in response to previous blood smear analysis that revealed presumptive haemoparasites in more than half the resident bears. Polymerase chain reaction detected a unique *Babesia* sp. in one of the bears. Disease surveillance of mosquitoes trapped along the outer perimeter of the bears' outdoor enclosure did not reveal any malaria parasites. This research marks the first documented case in Bornean sun bears of both a *Babesia* sp. and the Ixodes tick *Haemaphysalis* nr *koningsbergeri*. More research on incriminating the vector and the effects of *Babesia* infection on the health of Bornean sun bears is needed. Due to the zoonotic nature of babesiosis, mitigative actions should be taken to protect any humans that work with or come into close contact with these captive bears or their enclosures.