

**DETECTION OF *Trypanosoma evansi* INFECTION IN SUMATRAN
ELEPHANT (*Elephas maximus sumatranus*) FROM WAY KAMBAS
NATIONAL PARK BASED ON PARASITOLOGICAL AND
MOLECULAR METHODS**

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ABSTRACT

Sumatran elephant (*Elephas maximus sumatranus*) is known as one of the susceptible species towards surra. In Indonesia, surra has not been thoroughly investigated in elephant, despite this species is facing high risk of extinction and may spread the infection to other animals. The aim of this study was to detect infection of *Trypanosoma evansi* in Sumatran elephant from Way Kambas National Park by both parasitological and molecular method. Sixty-two blood samples of Sumatran elephants were collected and examined by thin blood smear with Giemsa staining and PCR using TBR1/2 primer. Result showed that molecular method was able to detect the infection of *T. evansi* in fifteen Sumatran elephants, while parasitological method was unable to detect the parasites due to low parasitaemia. The prevalence showed *T. evansi* was majorly infecting male elephants and the mean age of positive elephants was 24 years old, but statistical analysis showed there was no significant effect in the prevalence of both sex and age-based infections.

Keywords: *Elephas maximus sumatranus*, *Trypanosoma evansi*, Way Kambas