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ENTOMOLOGICAL INOCULATION RATE (EIR) VALUE OF MALARIA TRANSMISSION IN MAMUJU DISTRICT (SULAWESI) AND SINTANG DISTRICT (KALIMANTAN), INDONESIA

INTRODUCTION

Malaria is transmitted by the *Anopheles* mosquito vector of various species in Indonesia. Transmission of malaria in Indonesia occurs continuously.

To determine the level of transmission intensity, the direct measurement of the calculation Entomological Inoculation Rate (EIR) is needed in terms of its vector.

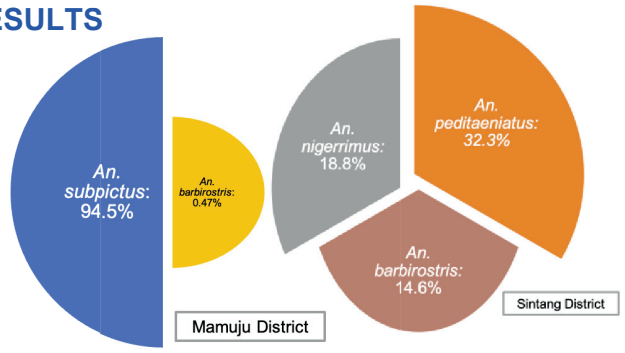
OBJECTIVES

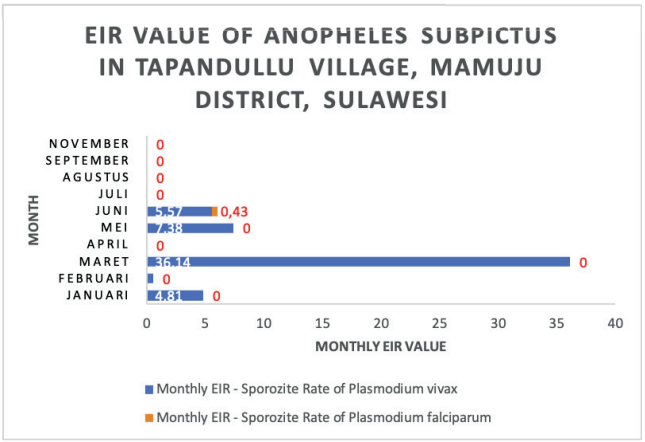
This study examined the intensity of malaria transmission using the EIR parameter and the characteristics of the malaria vector populations in endemic areas in Mamuju district (Sulawesi) dan Sintang district (Kalimantan), Indonesia.

METHODS

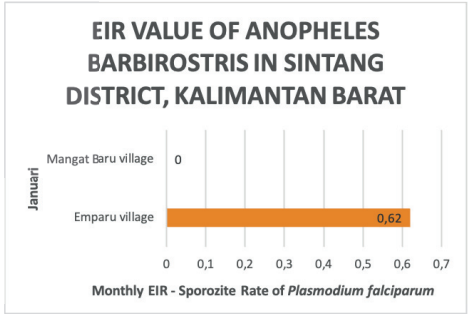
Adult female *Anopheles* → Human-Landing Collection method from randomly selected houses → Species identified → Sporozoite examination using ELISA → Calculation of Entomological Inoculation Rate (EIR) → Character determination of the mosquito population → Results analyzation

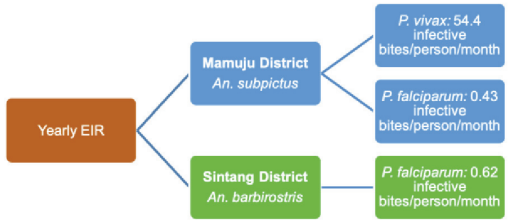
RESULTS





In the sporozoite rate (SR) from these mosquitoes, *Plasmodium vivax* and *P. falciparum* were found *An. subpictus* as the first dominant mosquito in Mamuju district. However, *P. falciparum* only found on *An. barbirostris* as the third dominant mosquito in Sintang district.





CONCLUSION

+ Yearly Entomological Inoculation Rate (EIR) for *P. vivax* infections in Mamuju ranged from 0 to 54.44 infective bites per person per month. Meanwhile, yearly EIR for *P. falciparum* infection was 0.43 infective bites per person per months. Entomological Inoculation Rate (EIR) value for *P. falciparum* infections in Sintang is 0.62 infective bites per person per month.
+ Malaria transmission that calculated by EIR in Mamuju was higher than EIR in Sintang (in 2011). These endemic areas predominantly with parous mosquitoes.

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