

MALARIA MOSQUITO LIKES HUMANS AND APES

Most mosquitoes in areas with both humans and chimpanzees are attracted by the odour of both, according to research by PhD candidate Julian Bakker and WUR alumnus Niels Verhulst. This means those mosquitoes could play a role in the transmission of malaria from apes to humans.

‘Many human diseases originate in primates,’ explains PhD candidate Bakker of the Laboratory of Entomology. ‘If we want to eradicate malaria one day, it is important to know which mosquito species can transmit malaria between humans and apes.’ Bakker and his colleagues placed mosquito traps in a rehabilitation centre for chimpanzees in the Democratic Republic of the Congo. These traps released CO₂ and contained the odour of chimpanzees, humans or cows. Then the scientists looked at which mosquitoes they had caught. They also used DNA examinations to

see whether the mosquitoes had malaria parasites. The traps mainly contained mosquitoes of the genus *Anopheles*, which can transmit malaria parasites to humans. These mosquitoes did not have a particular preference for the odour of apes, humans or cows. ‘That means this species of mosquito could form a bridge transmitting malaria from apes to people,’ says Bakker. Only a small percentage of the *Anopheles* mosquitoes, about 0.5 per cent, actually carried malaria parasites, but not the type that makes apes or humans sick. ‘Blood tests showed that a small proportion of the apes had human malaria parasites,’ says Bakker. ‘That suggests there are mosquito species in this area that transmit malaria from humans to apes. But we can’t say on the basis of this study which mosquito species these are or how big a risk there is in practice of malaria spreading between apes and humans.’ **TL**

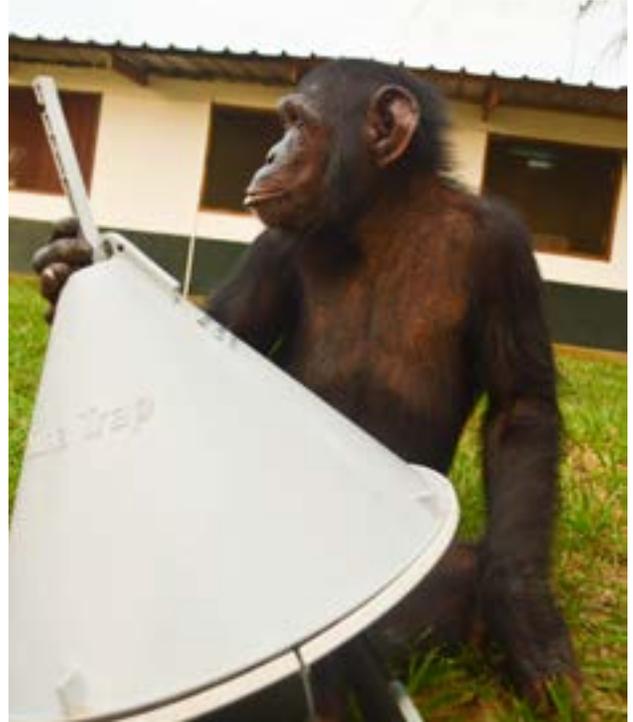


PHOTO: JULIAN BAKKER

▲ A chimpanzee investigates a mosquito trap used in PhD candidate Julian Bakker’s study.