Researchers from icipe have identified skin odours known as aldehydes, which allow mosquito vectors that transmit the Rift Valley fever (RVF) virus to find and obtain blood meal from preferred animals.

The study, which has been published in the *PLOS Neglected Tropical Diseases* journal, shows that aldehydes are common in many animals, including sheep, goats, cows and donkeys.

The findings by the *icipe* researchers contribute significantly towards resolving two key challenges in the control of RVF. The first challenge is the critical need for more effective tools for monitoring mosquito vectors distribution, through developing more efficient trapping systems
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The second is the need to enhance the ability of national programmes to predict the likelihood of an outbreak of the disease, which would enable them to respond in a timely manner.

Until now, RVF vectors have been monitored using Centres for Disease Control (CDC) light traps that are baited with carbon dioxide. However, such traps generally target a wide spectrum of mosquito species and also trap a wide range of non-target insect species, for instance beetles and moths.

Additionally, because of their low sensitivity, the CDC light traps are not effective during the low vector density and during RVF inter-epidemic periods. As such, viral activity among mosquito species during such periods often remains undetected.

The *icipe* researchers found that combining a blend of aldehydes with CDC carbon dioxide-baited traps without the light bulb can increase the number of mosquito vectors that are captured by almost three-fold.

Therefore, the traps can also be used for the surveillance of mosquitoes during the inter-epidemic period when mosquito populations, as well as the transmission of the virus is low.

As a result, the trapping system developed by *icipe* would provide adequate numbers of mosquitoes for virus detection. When combined with climate data, this tool can improve prediction of potential outbreaks.