

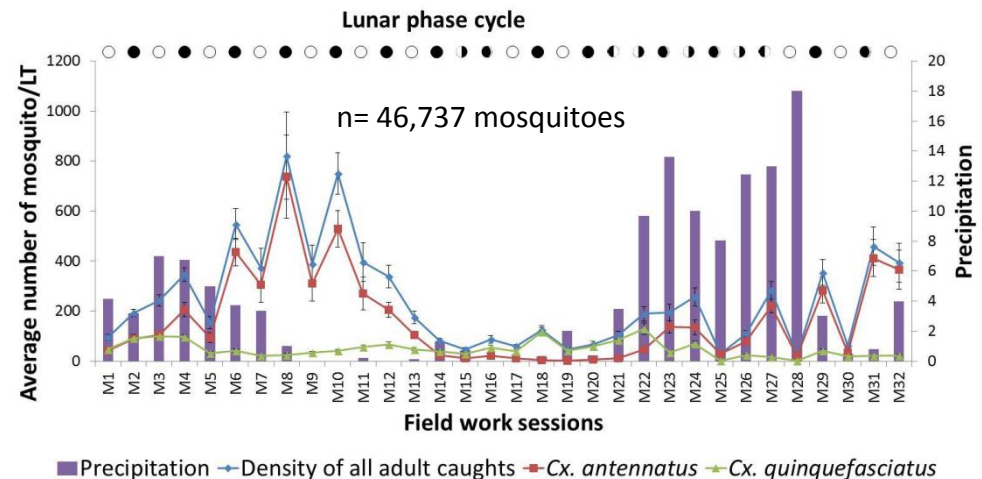
❖ Research topics : zoonotic arboviruses and their vectors

- Risk factors of West Nile virus (WNV) exposure in Humans, horses, birds
- Starting to collect data on the distribution and dynamics of mosquito vectors of Rift Valley Fever virus and WNV in Madagascar
 - Dynamics of 2 vector species in the Central Highlands

❖ Vector dynamics data set

- 16-month longitudinal study (2017-8)
- Bi-monthly catches
- 1 site
- 6 traps : close to different hosts
- + larvae collections

→ repeated count data



❖ Models

1. Statistical model of vector dynamics

Explanatory variables : environmental variables such as temperature, rainfall, humidity, sunshine, lunar phase, vegetation indices (NDVI, EVI, NDWI...) + host

2. Mathematical model of population dynamics

3. R_0 model of disease risk transmission throughout the year