

REPORT FROM THE ARBOVIRUS LABORATORY
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The use of the mosquito Aedes aegypti to detect arboviruses.

During the years 1978 and 1979 studies were continued out at our field station in Bozo (5° 10' N, 18° 30' E) to collect more information on the life cycle of sylvatic yellow fever. A second forest-gallery situated near the village of Bouboui was prospected in 1979.

68 958 Aedes africanus s.l. collected at the station were divided into 2 398 pools and inoculated into suckling mice. All pools collected during the dry season, (december to may) which were negative by this method were inoculated to living Aedes aegypti. After 7 days the grinded mosquitoes are inoculated into suckling mice. The results of this investigation are mentioned (Table I).

Table I s Strains of virus isolated from Aedes africanus s.l. collected in Bozo and Bouboui in 1978-1979.

| Year | Inoculation into suckling-mice. | | | Intrathoracic inoculation to <u>Aedes aegypti</u> . | | | | |
|------|---------------------------------|--------------------|------------------------|---|--------------------|------------------------|--------------|---|
| | N° of mosquitoes | N° of pools tested | N° of strains isolated | N° of mosquitoes | N° of pools tested | N° of strains isolated | | |
| 1978 | 24 977 | 906 | Chikungunya | 33 | 1 445 | 85 | yellow fever | 4 |
| | | | Orungo | 8 | | | | |
| | | | Yellow fever | 8 | | | | |
| | | | West-Nile | 1 | | | | |
| 1979 | 43 981 | 1 492 | Orungo | 1 | 5 454 • 202 | | yellow fever | 1 |
| | | | West-Nile | 2 | | | | |
| | | | Zika | 19 | | | | |
| | | | ArB 7 343 (1) | 25 | | | | |

(1) : ArB 7 343 is a new arthropod-borne virus of Bunyamwera group.

The inoculations to Aedes aegypti allowed us to isolate 5 strains of yellow fever virus, 4 of them were isolated at the end of the rainy season. These late isolations show in fact that the epizootic continued over a period of three months instead of the 2 months duration of the former epizootics (1975 and 1977) detected by inoculations into suckling-mice.

The fifth strain was isolated at the beginning of the rainy season and may be the result of a transovarial transmission of yellow fever virus during the preceding dry season.

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