

Descriptive report

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Contents

1	Introduction	1
2	Adult surveys	3
3	Larvae surveys	3
4	Swarm surveys	5

1 Introduction

Figure 1 shows the experimental setup in an isolated region next to a dam in the Nile River in the Northern State, in the Merowe area.

The region comprises 3 distinct **areas**: the East bank of the river (located to the West, due to a meander), the inner Island and the West bank. In each area, 3 **sectors** were delimited, so that they were separated by natural barriers and that contained all types of land-class-land-use (LCLU) categories.

The region was partitioned with a square grid of 1-hectare in size and 94 units were sampled approximatively in proportion to the LCLU relative surface.

3 adult traps were installed in each sampling unit.

Furthermore, whenever a breeding site was noticed during adult trap surveys, an additional survey of larvae was conducted in the site.

Finally, following some of the releases of sterile males in the test sector, a survey of swarms was performed.

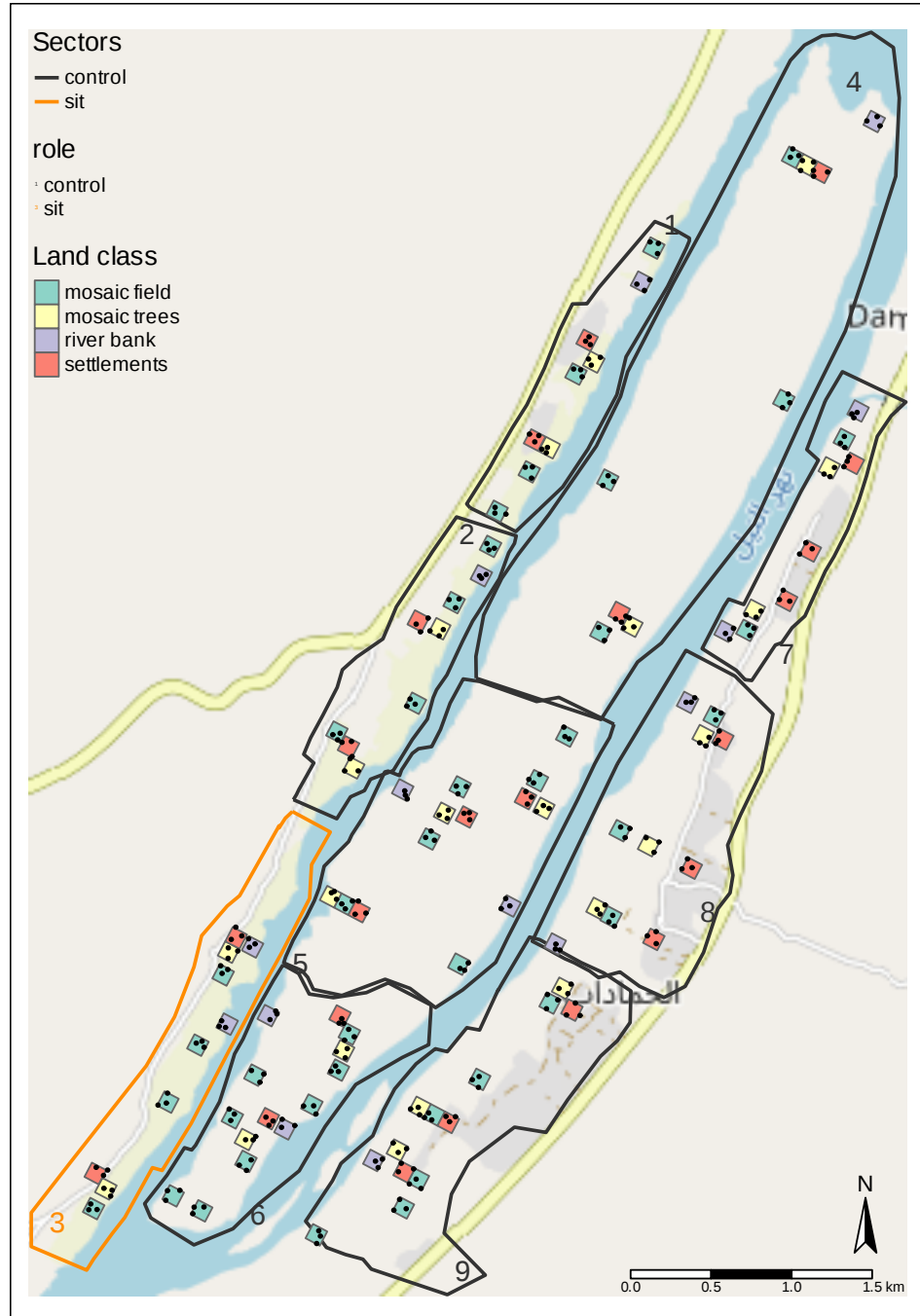


Figure 1: Experimental setup. Three traps installed in each of 98 1-hectare units sampled in each of 9 sectors in proportion to 4 land-class land-use strata. Sectors are distributed into 3 distinct areas: east and west river banks and inner island. Sterile males were released only in sector number 3.

2 Adult surveys

A total of 8669 trap surveys were recorded from 2014-05-22 to 2017-04-22.

96 % of these surveys resulted in 0 *Anopheles arabiensis* caught.

The total number of catches by sector type and area is displayed in Figure 2.

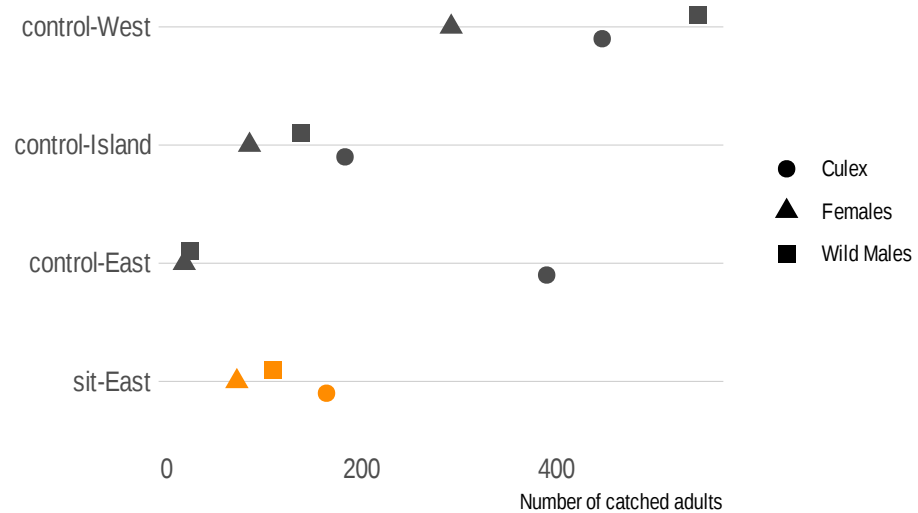


Figure 2: Total number of caught adults by sex and species in each sector type and area.

3 Larvae surveys

A total of 122 larvae surveys were recorded from 2014-05-29 to 2017-04-22. But some areas have been more surveyed than others, presumably because more breeding sites were found. Figure 3 displays the average ratio of larvae per dip in each area (sit sector apart).

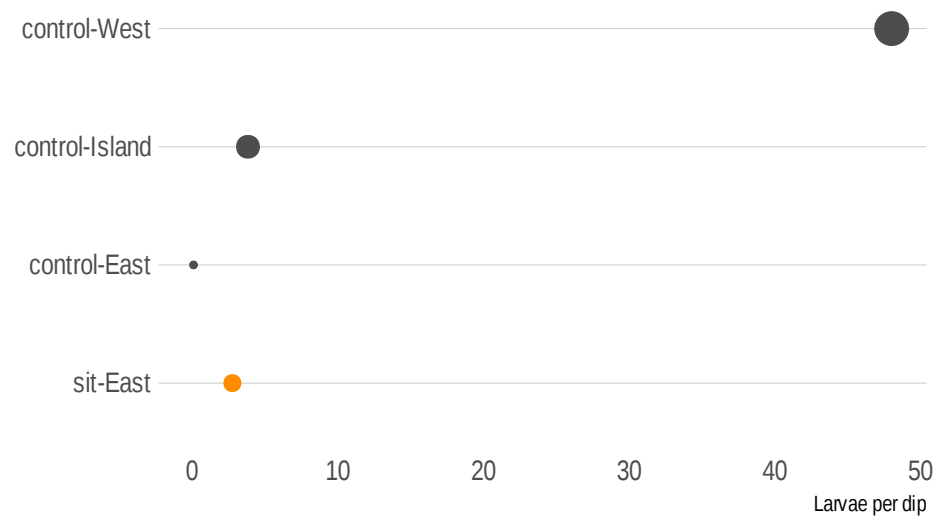


Figure 3: Number of larvae per dip by sector type and study area. Size of points proportional to the total number of surveys.

4 Swarm surveys

A total of 13 swarmings were recorded from 2015-01-16 to 2017-02-15, following some of the releases of sterile males in the sit sector.

Figure 4 shows the number of sterile and wild males caught during each of these swarming events.

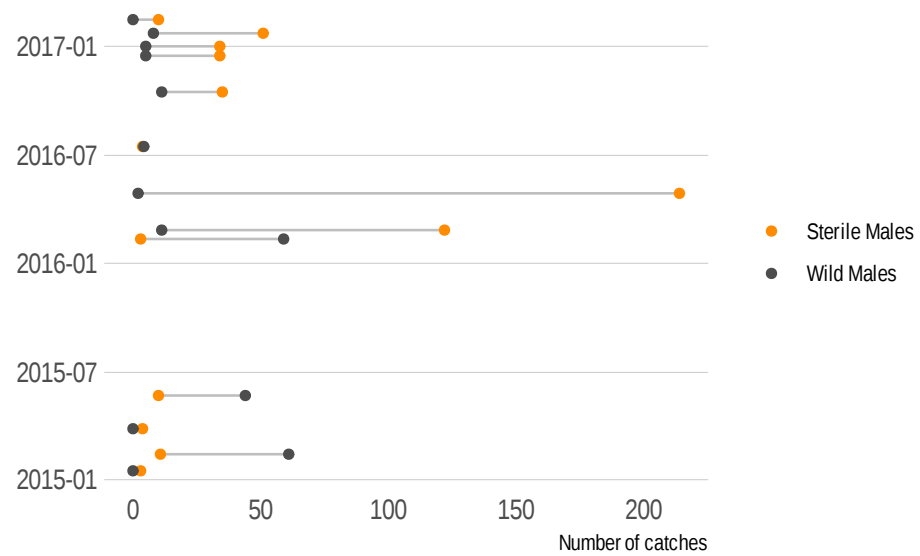


Figure 4: Number of sterile and wild males caught by swarming event.