



CUBE NATIONAL MEET 2022




MODEL ORGANISM: MOSQUITO

CITIZENS SCIENCE PROJECT



WHY STUDY ABOUT MOSQUITO?

- 
- Mosquito kills thousands of people all around the world, it's a dreadful vector of diseases like;
Malaria, Dengue, Chikungunya & Yellow Fever which cases are commonly reported in India.
 - Our main initiative is to **identify the mosquito found in local localities and spread awareness to people about these diseases and ways to stop their breeding.**



HYPOTHESIS

THIS SEASON OF DATA COLLECTION WE HYPOTHESIZED THAT MOSQUITOES DON'T BREED IN EXTREME TEMPERATURE.

IN APRIL SURVEY WE DID NOT FIND ANY MOSQUITOES IN THE RESIDENTIAL LOCATION

AVG. MINIMUM TEMPERATURE : 38 DEGREE

AVG. MAXIMUM TEMPERATURE: 45 DEGREE

IN MAY

AVG. MINIMUM TEMPERATURE: 32 DEGREE

AVG. MAXIMUM TEMPERATURE : 39 DEGREE

To identify Aedes/ Non-Aedes Mosquito



Aedes mosquitoes are visually distinctive because they have noticeable black and white markings on their bodies and legs.

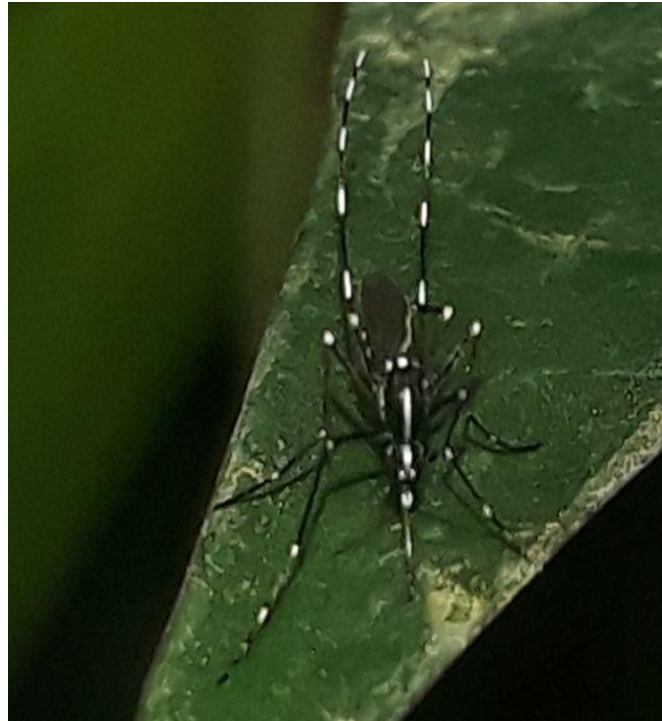


Non-Aedes mosquitoes are typically appearing gray with white, silver, yellow or brown and black..

Types of Aedes Mosquitoes found in our locality



Aedes Aegypti mosquito can be identified by the **lyre like structure** on the upper thorax region

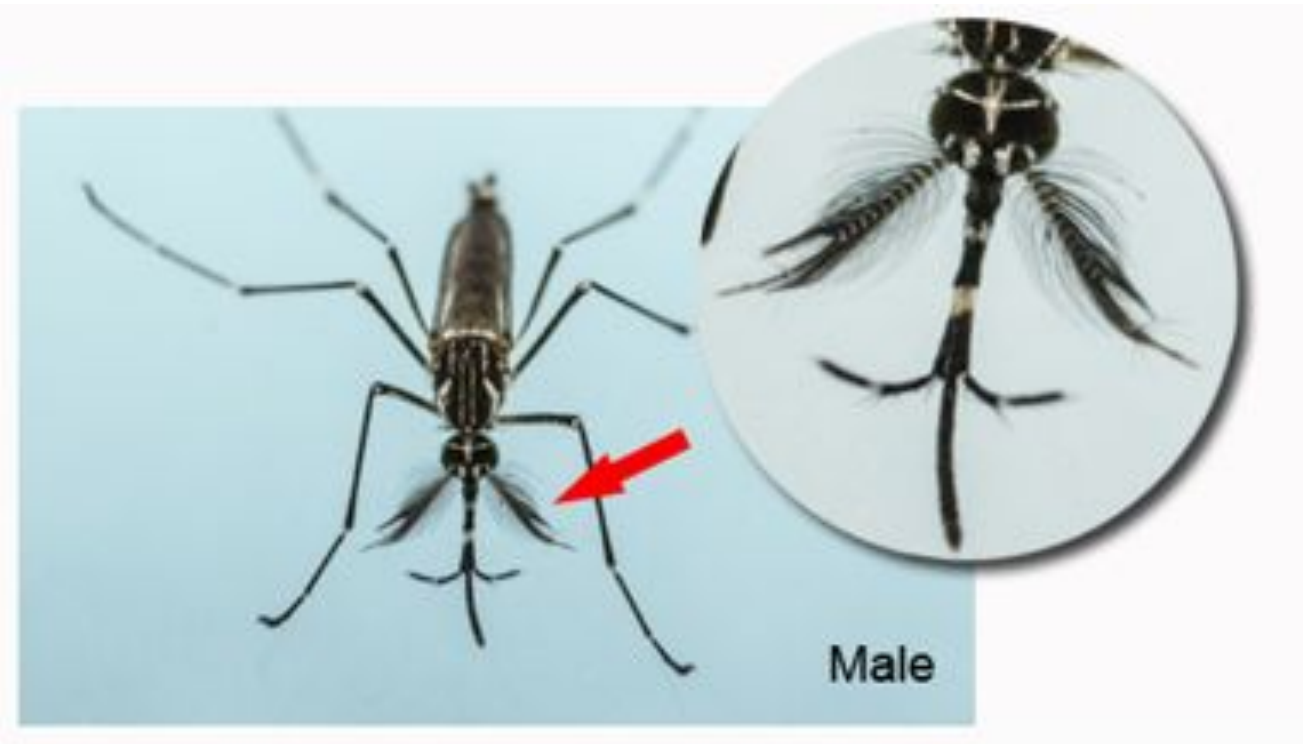


Aedes Albopictus mosquito can be identified by the **line like structure** on the upper thorax region

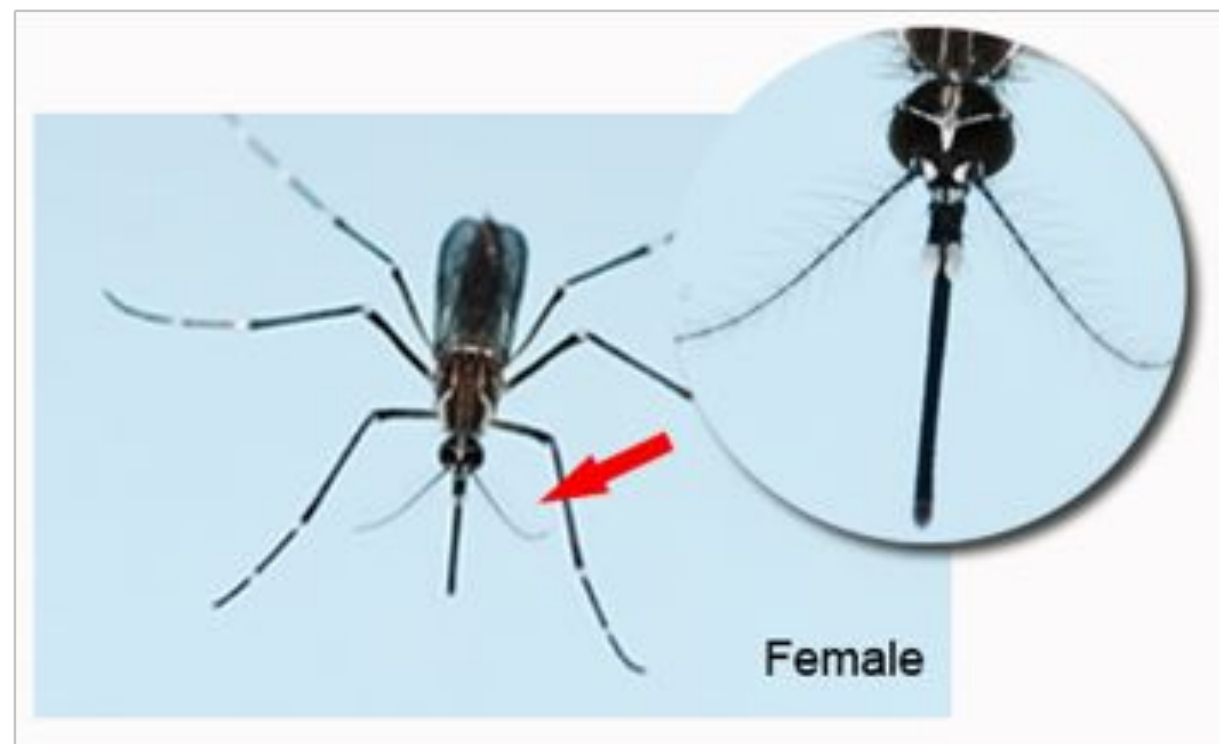


Aedes Vittatus mosquito can be identified by the **4 dots like structure** on the upper thorax region

Difference b/w Male and Female Mosquito



**Male Mosquito have thick
brushes like antennae**



**Female Mosquito have single
brush like antennae**

Pictures of Mosquito Trapped in Kanpur

Data Collector: Tuba Shakeel

Location – Indoor Home, Chamanganj

10TH- 27TH JUNE 2022
12 Non -Aedes Mosquito
Temperature:
AVG. MIN: 26 DEGREE
AVG. MAX: 39 DEGREE



How to check Mosquito Breeding in our Locality

- CHECK WATER ACCUMULATION IN AND AROUND YOUR RESIDENCE.
- KEEP YOUR SURROUNDINGS CLEAN LITTER FREE
- AVOID COLLECTING OLD CANS, TYRES, PLASTIC BOXES, WATER ACCUMULATION IN IT CAN CAUSE MOSQUITO BREEDING.
- AVOID BLOCKED DRAINS AND STILL WATER.
- DON'T OVERFLOW THE PLANT POTS



Mosquito Surveillance Check Home Lab Activities

HOW TO MAKE OVITRAPS:

An ovitrap is a plastic container preferably black/ dark colored.

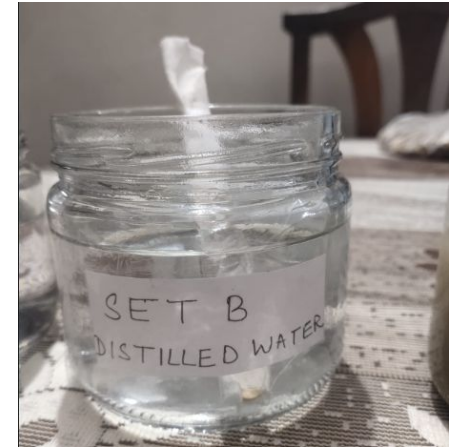
A plastic small ruler or a wooden ice-cream ,cardboard covered with white old cloth .

Fill ovitrap with water half level.

SET A - Distilled Water, SET B – Tap Water , SET C - Soil water

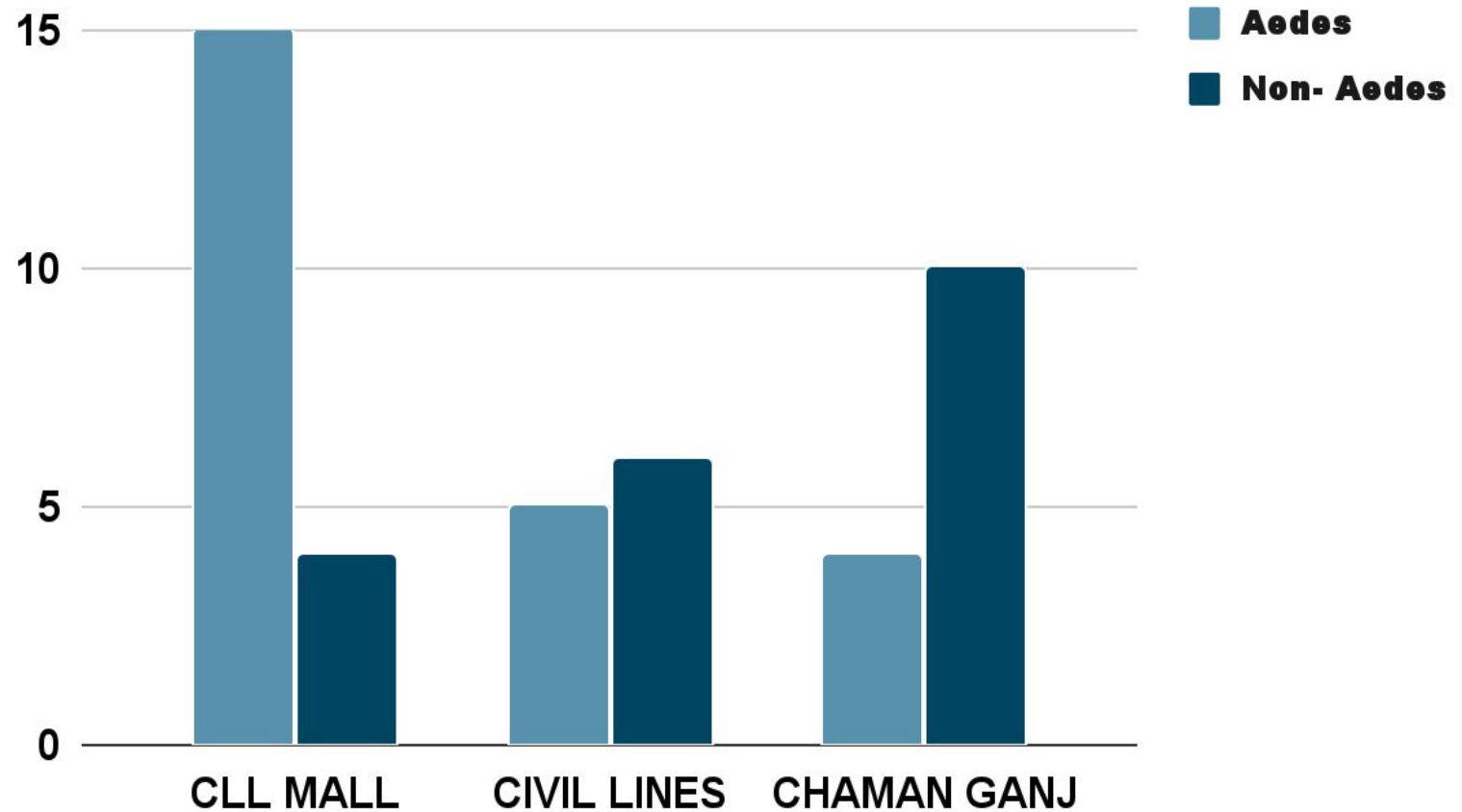
Leave it at three different places.

Check for mosquitos' eggs / larvae in strip band every day.



Comparison graph of mosquito population in three different localities of Kanpur

10th JUNE - 27th JUNE 2022



MODEL ORGANISM: DRAGONFLY





DRAGONFLIES AS A MODEL ORGANISM

Dragonflies are important to their environments both as predators (particularly of mosquitos) and as prey to birds and fish. Because these insects require stable oxygen levels and clean water, scientists consider them reliable bioindicators of the health of an ecosystem

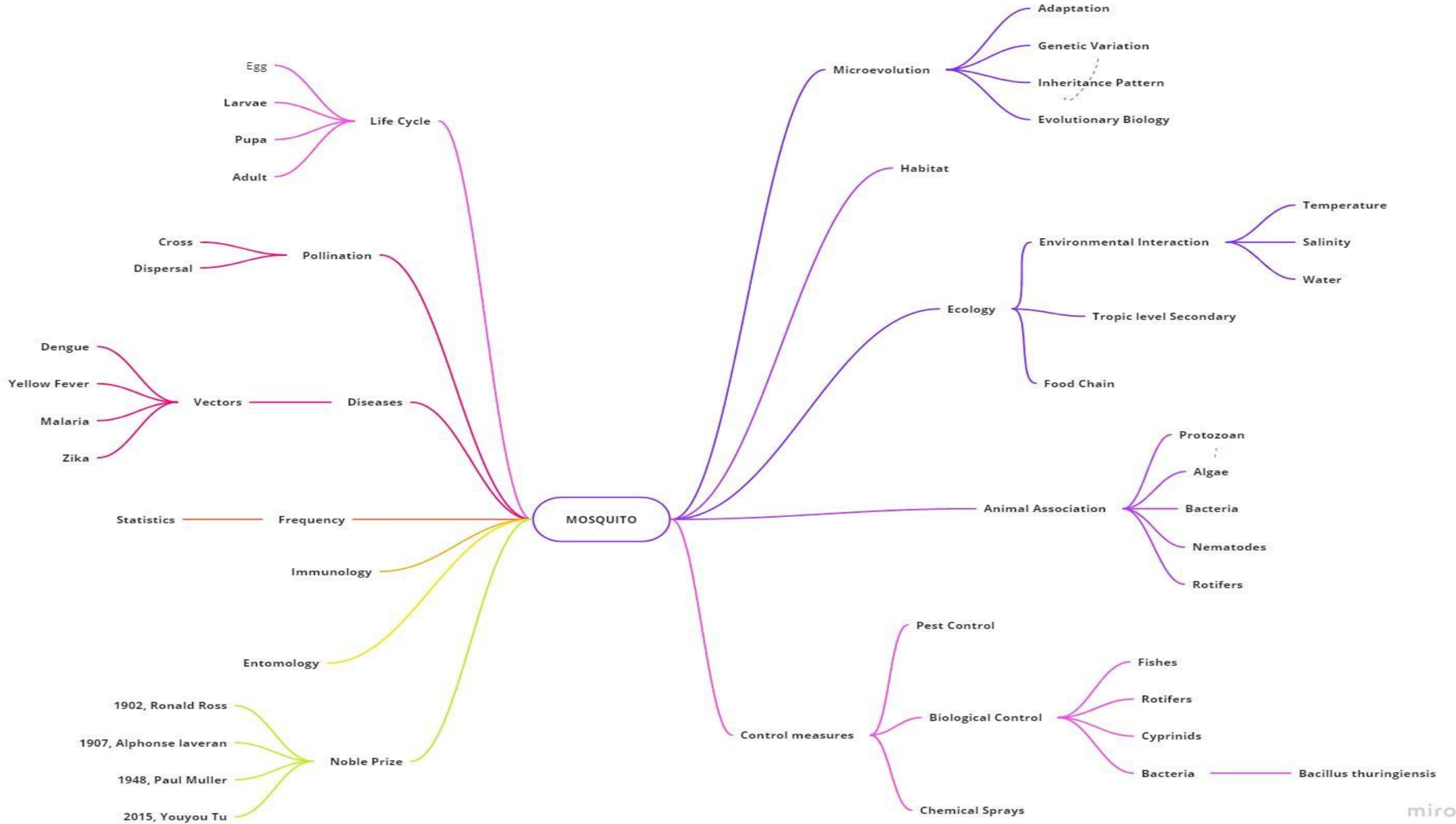


Dragonflies connection with mosquitoes

They feed on mosquitoes and reduce their number in outdoor areas. The dragonflies are scary biters, but they are dangerous to mosquitos. Worldwide results showed that dragonflies are able to control Aedes, Culex and Anopheles mosquito species

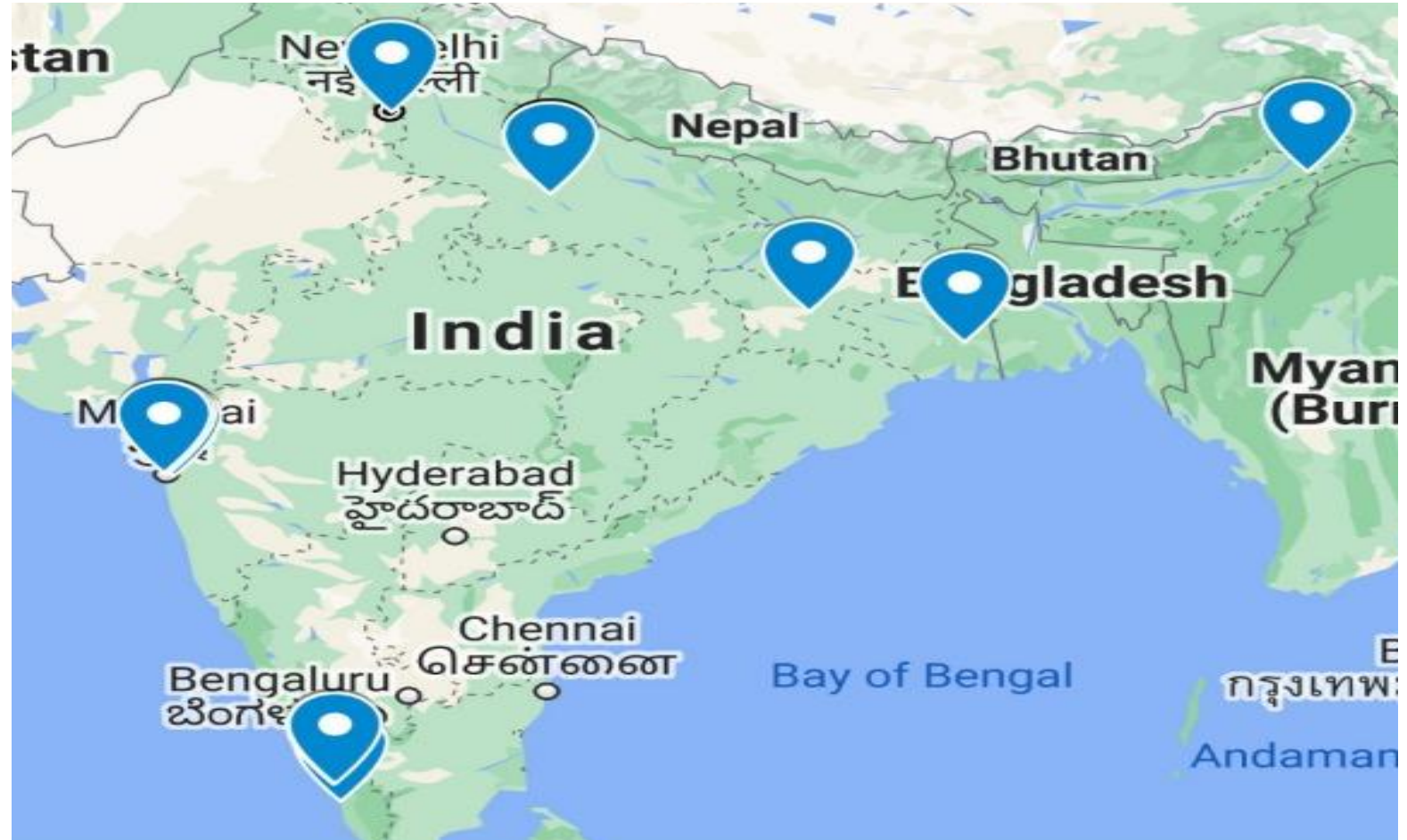
“An individual dragonfly can eat hundreds of mosquitoes each day.”





MOSQUITO COLLABORATORS

- Kanpur
- Ranchi
- Mumbai
- Delhi
- Kochi
- Goa
- Assam
- Kolkata





**THANK YOU
WE ARE OPEN FOR
DISCUSSION**