

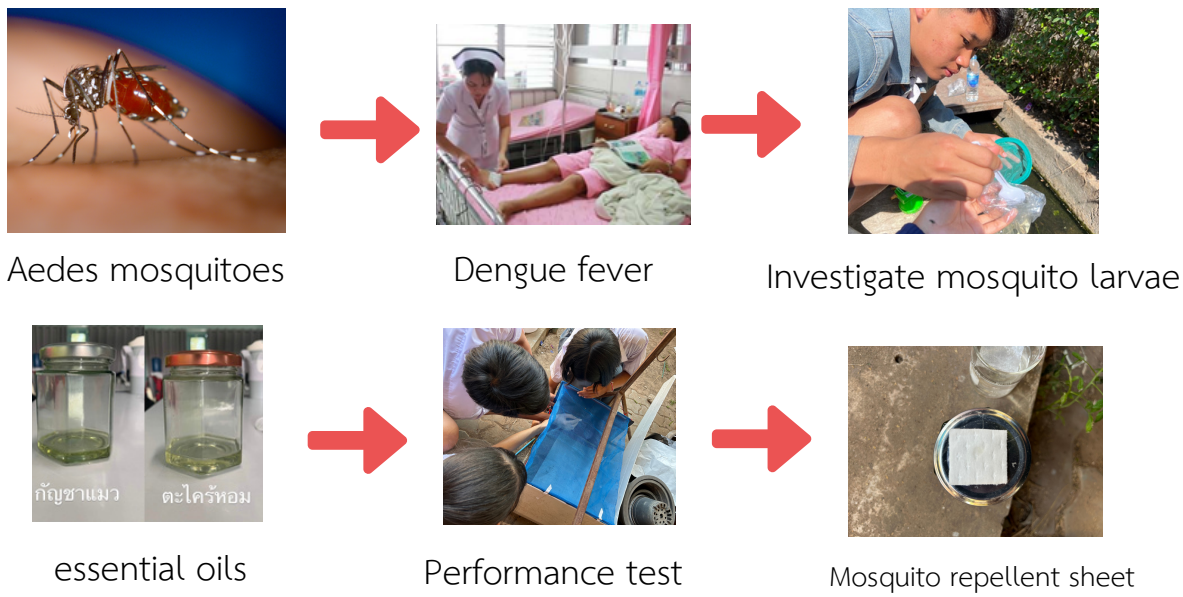
THE TEAM OF CREATORS: MISS PRIYAPORN WONGNONGWA, MR.PALATHIP THONGCHUA,
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ADVISORY TEACHERS: TEACHER CHUMPOL CHARISAEN, TEACHER SURIYA PHOPIASRI

Abstract

Currently, mosquitoes are carriers of many serious and life-threatening diseases such as malaria, slow foot disease, and encephalitis. chikunguya fever Dengue fever, etc. Female mosquitoes also Can lay up to 50-150 eggs at a time and can lay eggs throughout its life. Information from 1 January - 24 August 2023, Kalasin Provincial Public Health Office. There were 706 reported cases of dengue fever, equivalent to an illness rate of 68.33 cases per 100,000 population. As for diseases caused by outbreaks of other types of mosquitoes It has stopped spreading. The project team therefore surveyed and analyzed various index values of Kalasin Pittayasan School. It was found that the HI value of Aedes mosquitoes had an HI value of more than 10, a CI value of 0, and a BI value of less than 50. It was concluded that the Kalasin Pittaya School area The risk of spreading dengue fever is moderate. and the use of various types of mosquito repellents at present, whether it be a topical type or a spray type and the type of topical medicine used to use these types of mosquito repellent There may be synthetic chemicals that are toxic to humans if used in excessive amounts and may be dangerous to users. Mosquito repellent patches made from citronella essential oils and cat hemp are therefore products that can solve the problem of mosquito repelling without causing harm to humans. By using citronella and cat cannabis. To extract essential oils Contains volatile substances that are effective in repelling insects. From the experiment it was found that Citronella essential oil and cat hemp essential oil can repel mosquitoes. By testing by placing a patch with drops of citronella essential oil on the left side of the mosquito net used in the experiment, a volume of 3 drops in 20 minutes with a percentage of the number of mosquitoes away in the total number of mosquitoes equal to 91.67 will be able to repel mosquitoes better. The sweat patch that dripped cat cannabis essential oil in the same volume and time had a percentage of mosquitoes in the total number of mosquitoes equal to 78.33, which was measured by the number of mosquitoes on both sides of the mosquito net used in the experiment. That shows that Mosquito repellent patches made from citronella and catnip essential oils are safe and effective in repelling mosquitoes.

Origin and importance of the product



objective

- To study the risk of an outbreak in the Kalasin Pittayasan School area.
- To make mosquito repellent patches, essential oils from citronella and cat hemp.

Research question

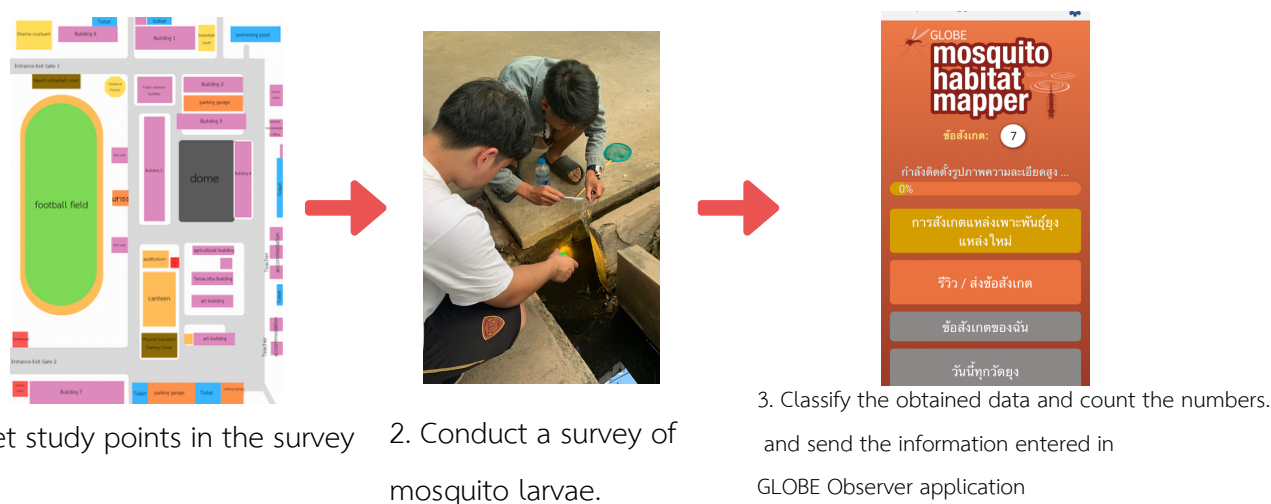
- Area of Kalasin Pittayasan School Is there a risk of dengue fever outbreak? How?
- Can mosquito repellent patches made from essential oils from citronella and catnip repel mosquitoes? How?

Research hypothesis

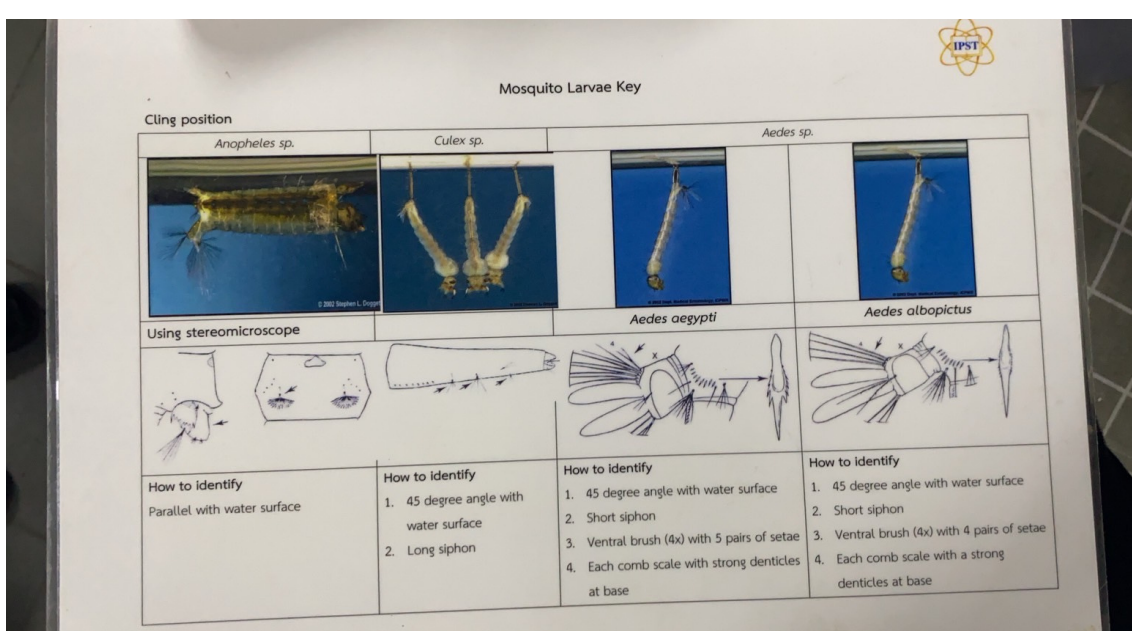
- Area of Kalasin Pittayasan School There is a risk of dengue fever outbreak.
- Mosquito repellent patches made from essential oils of citronella and catnip can repel mosquitoes efficiently

Experimental method

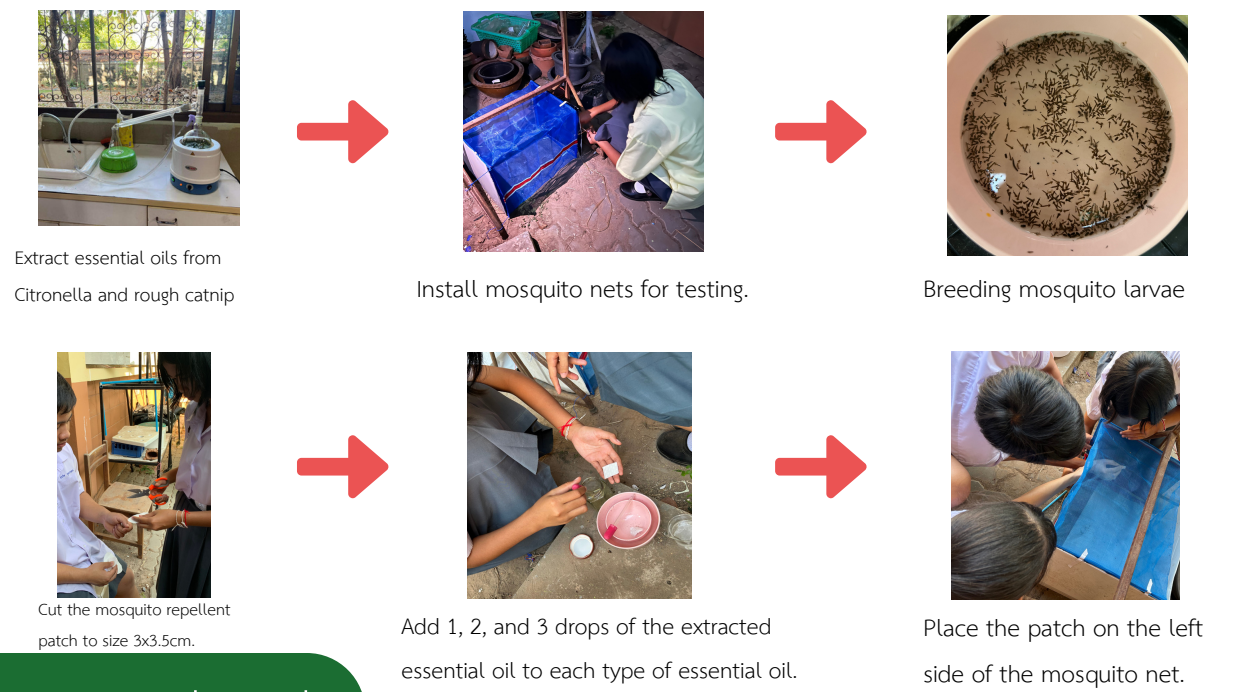
Part 1: Determine the point you want to study



How to observe larvae

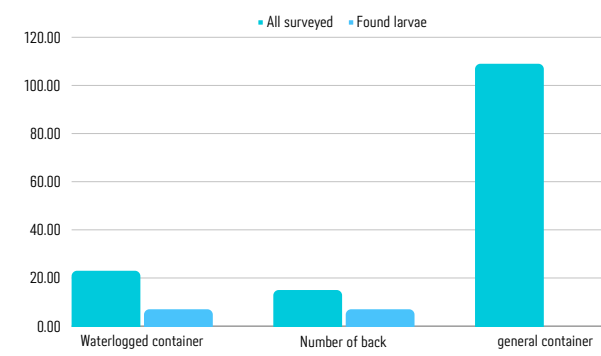


Part 2: Method of extraction, making patches, and creating mosquito nets.

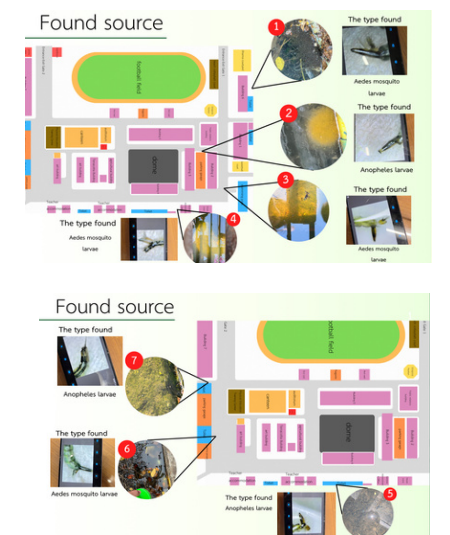


Experimental results

Part 1: Exploring the larvae



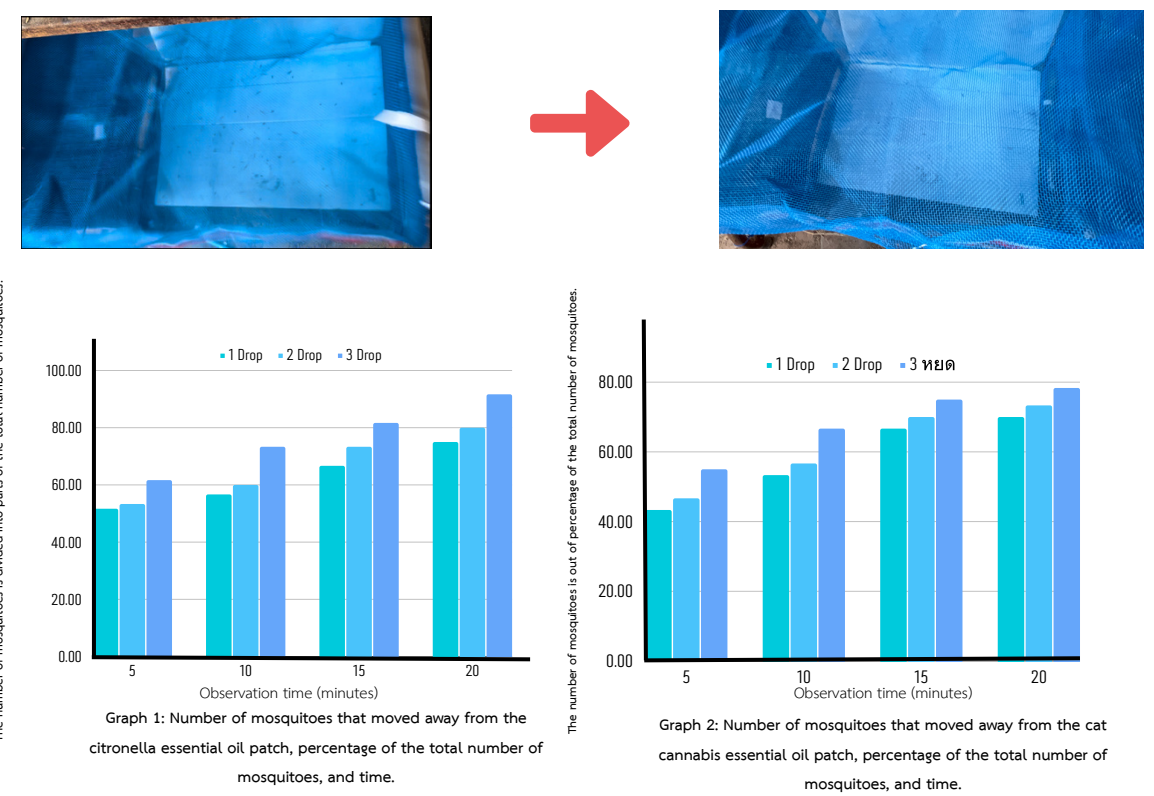
The chart shows the areas where all mosquito larvae were found



Analysis of mosquito larva index

Surveying schools	HI	CI	BI
Kalasinpittayasan	46.67	0	30.43

Part 2: Test the effectiveness of the patch



Summary of experimental results

From a study of the risk conditions for the outbreak of dengue fever in Kalasin Pittayasan School, it was found that Survey and analysis of various index values of Kalasin Pittayasan School found that the HI value of Aedes mosquitoes had an HI value of more than 10, a CI value of 0 and a BI value of less than 50. It can be concluded that the Kalasin Pittaya School area The risk of spreading dengue fever is moderate. Citronella essential oil and oil Cat cannabis essential oil can repel mosquitoes. It can be used by dropping essential oils into a patch for easy use. The patch that drops 3 drops of citronella essential oil in 20 minutes can repel mosquitoes better than the patch. Cat cannabis essential oil dropper in the same volume and duration The cat cannabis essential oil patch had a percentage of mosquitoes that stayed away from the total mosquito population, equal to 78.33 percent. The sweat patch that was dripped with citronella essential oil had the number of mosquitoes that stayed away from the patch. The percentage of the total number of mosquitoes is 91.67 percent, which is the best percentage from the experiment. It shows that Mosquito repellent patches made from citronella essential oil can repel mosquitoes better than essential oils. vaporize cat cannabis It is also safe and effective in repelling mosquitoes.

refer

Online search resources

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