Introduction

Mosquitoes are very important insects in public health problem. The mosquitoes are small insects that can be found all over the world, found mainly in tropical and warm regions (Usawadee Thavora et al, 2016). Mosquitoes are a type of blood-sucking insects. In addition to causing itchy wounds when it sucks blood, it can also be a carrier of many diseases to humans. Some diseases cause death Examples of mosquito-borne diseases such as Malaria, Dengue, Encephalitis, Zika Fever, Chikungunya, Lymphatic Filariasis (Boonterm Sangit, 2017). At present, there are about 4,000 species of mosquitoes around the world, while in Thailand, there are about 430 species of mosquitoes, divided into 3 major groups: Toxorhynchites spp., Anopheles and Culicidae (Usawadee Thavora et al, 2016). But the mosquitoes that are medically important and common in Thailand are Aedes mosquitoes, anophyl mosquitoes, tiger mosquitoes and Anopheles mosquitoes (Barron & J. Zahn, 2017), which mosquitoes have a rapid reproduction rate. It is expected that the morbidity rate from Aedes mosquito-borne dengue fever in the country may increase (Department of Disease Control, 2021). And at present, there is no drug or vaccine that can be directly used to treat it (Bangkok Hospital Trat, 2019). The south is in the tropics. It is a good breeding ground for mosquitoes, so there is a risk of dengue fever. Therefore, the research authors are interested in studying and comparing mosquito breeding in different areas, namely mosquito larvae in the community area of Na Yong and Palian district to compare the water quality of mosquito breeding sites, type and number of mosquitoes in each source.

Methods

1. Survey mosquito larva breeding sites in Na Yong and Palian districts.
2. Take a picture of the container/water source, measure water quality in all containers, both found and without mosquito larvae.
3. Study types and number of mosquito larva samples obtained by washing with clean water.
4. Count the number of mosquito larva collected in each water source using a dropper and taking notes.
5. Soak the mosquito larva in 70% ethanol for further study and to maintain the condition of mosquito larva.
6. Import mosquito larvae data into the GLOBE observer program.
7. Take notes.

Data and discussion

From the study of mosquito larva breeding sites, it was found that there are 7 sources in Na Yong District, such as coconut shells, rubber trays, broken plastic containers, frogs, water tanks, water pipes (mortar) and waste bins. In Palian District, there are 8 sources, namely water tanks, large water tanks, shells and tires. (1)Whether the mosquito larvae of each species found in Na Yong and Palian districts. From the study, it was found that the most common Aedes albopictus larvae were found in the area of Na Yong District, followed by Culex larvae. Aedes aegypti and Toxorhynchites spp. are in Palian district while Anopheles albimanus and Anopheles albimanus larvae were found most in Palian district.

(2)Water quality of breeding sites where each species of mosquito larvae were found: pH values and habitats of larvae in Na Yong and Palian districts. From the study, it was found that the pH of various habitats of mosquito larvae in Na Yong and Palian districts were not significantly different from each other. (3)Surface water temperature in various habitats of mosquito larvae in Na Yong and Palian districts. From the study, it was found that the surface water temperature habitat of the Aedes aegypti larvae, Aedes albopictus, Culex spp. and Toxorhynchites spp. in the area Na Yong and Palian District were not significantly different from each other. (4)Average surface water temperature of various habitats of mosquito larvae in Na Yong and Palian districts. From the study, it was found that the average surface water temperature of mosquito larvae habitats in Na Yong and Palian districts were not significantly different from each other. (5)From the results, it was found that the mosquito larvae habitats in Na Yong and Palian districts were not significantly different from each other.

Conclusions

From the study, it was found that in the area of Na Yong District, 4 types of mosquito larvae were found, namely Aedes albopictus, followed by Culex larvae, Aedes aegypti and Toxorhynchites spp., respectively. In Palian district, 2 types of mosquito larvae were found, namely the most common Aedes aegypti larvae, followed by the Aedes albopictus larvae, the mosquito larvae breeding sites for mosquito larvae were found in Na Yong District, there are 7 sources, namely, coconut shells, rubber trays, broken plastic containers, frogs, water tanks, water pipes (mortar) and waste bins. In Palian District, there are 4 breeding sites for mosquito larvae, namely water buckets, water tanks, coconut shells and tires. The pH water quality values according to various sources of mosquito larvae in Na Yong compared to Palian District, the pH values in Na Yong and Palian District have no significant differences. The average surface water temperature of mosquito larvae habitat in Palian was higher than in Na Yong District and water temperature of mosquito larvae habitats in Na Yong District was higher than that in Palian District.

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