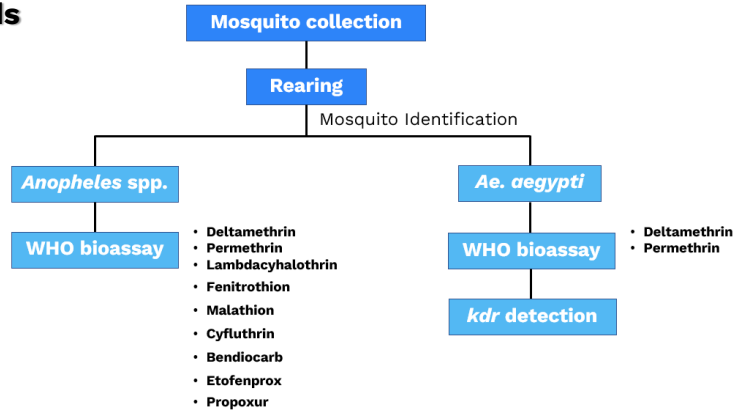
Introduction

In Thailand, the widespread of insecticide resistance has recently been reported as severe problem. Herein, we conducted the insecticide susceptibility tests in natural mosquitoes from Tha Song Yang District, a malaria hotspot area in Tak province.

Methods



Outcomes of the study

Bendiocarb resistance were found in *An. minimus* s.l. and *An. maculatus* s.l.. No pyrethroid resistance was found in this study. In *Ae. aegypti* population, we found that they developed resistant to pyrethroids associated with *kdr* alleles. This information can guideline for the modify vector control operation locally, particularly the *Aedes* resistant to pyrethroids

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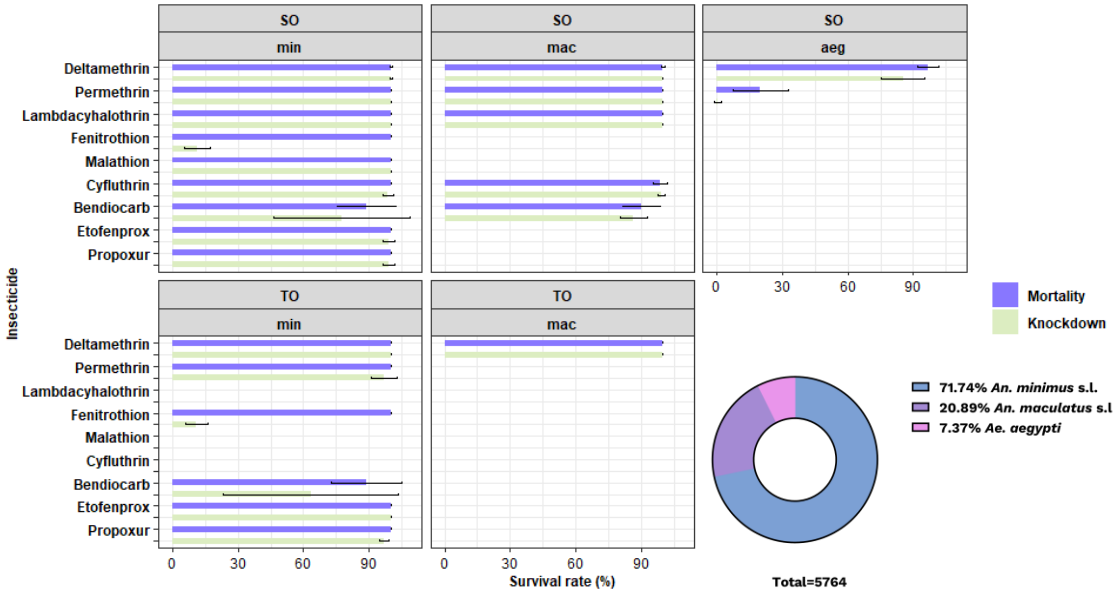
Results

Mortality and knockdown rate of *An. minimus* (min), *An. maculatus* (mac), and *Ae. aegypti* (aeg)



Genotype and allele frequencies of the V1016G, F1534C *kdr* mutations in F1 *Ae. aegypti*

Insecticide	Status	Total PCR	*kdr* genotype			G allele frequency (95% CI)	C allele frequency (95% CI)
			VV/CC	VG/FC	GG/FF		
Deltamethrin (0.05%)	Resistant	7	0	4	3	0.714 (0.454-0.883)	0.286 (0.117-0.546)
	Susceptible	30	22	6	2	0.167 (0.093-0.280)	0.833 (0.720-0.907)
Permethrin (0.75%)	Resistant	30	22	7	1	0.150 (0.081-0.261)	0.850 (0.739-0.919)
	Susceptible	30	24	6	0	0.100 (0.047-0.201)	0.900 (0.799-0.953)

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