

Krajana Tainchum 2009: Population Genetics of Stable Fly, *Stomoxys calcitrans* (Linnaeus) in Thailand. Master of Science (Entomology), Major Field: Entomology, Department of Entomology. Thesis Advisor: Associate Professor Pongthep Akratanakul, Ph.D. 52 pages.

Starch gel electrophoresis of isozymes was used to estimate gene flow among nine populations of *Stomoxys calcitrans* (L.) of thirteen putative loci, 10 polymorphic were detected among the ten enzyme systems examined. Limited genetic differentiation among populations was observed ( $F_{ST}=0.060$ ). The highest level of polymorphism was observed in eastern Trat and northern Chiang Mai Provinces (69.2%), whereas the lowest level of polymorphism was seen in central Saraburi Province (23.1%). Gene flow between populations varied from 3.32 to 27.53 reproductive migrants per generation with out diagnostic differences. Among the nine populations, no correlation was seen between genetic and geographical distances showing that sampled *S. calcitrans* fit closely in the same cluster taxa. The genetic and epidemiological ramifications of these findings are discussed.

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