

# FIRST REPORT OF ISOLATION OF *VIBRIO PARAHAEMOLYTICUS* FROM *CHRYSOMYA MEGACEPHALA* (DIPTERA: CALLIPHORIDAE) IN TAK PROVINCE, THAILAND

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**Abstract.** Foodborne illness is a major public health problem caused by various pathogens, one such being *Vibrio parahaemolyticus* producing gastroenteritis. There is no previous report on whether the pathogen is transmitted by blow fly *Chrysomya megacephala*, the most predominant species of Thailand and a mechanical vector of various pathogens. Prevalence of *Vibrio* spp-carrying *C. megacephala* and genetic relationship among *Vibrio* isolates from blow flies, food and water samples were determined in three sites of Mae Sot District, Tak Province, Thailand (December 2016). Only *V. parahaemolyticus* was detected, with a prevalence of 7% in *C. megacephala* and in three seafood samples but none in water samples. All *V. parahaemolyticus* isolates ( $n = 10$ ) were resistant to ampicillin and streptomycin, and one isolate from *C. megacephala* (14%) carried *tdh*, encoding a thermostable hemolysin. Enterobacteria repetitive intergenic consensus-PCR revealed four different amplicon size profiles, with one profile present in five strains from *C. megacephala* and three from seafood samples, all obtained at the same market. This is the first report of *C. megacephala* as a mechanical vector of *V. parahaemolyticus* in Tak Province, Thailand.

**Keywords:** *Chrysomya megacephala*, *Vibrio parahaemolyticus*, ERIC-PCR, mechanical vector, Thailand

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