

**Three Taxa in One: Cryptic Diversity in the Black Fly *Simulium nobile* (Diptera: Simuliidae) in Southeast Asia**

**ABSTRACT**

We assess the molecular diversity of the black fly *Simulium nobile* De Mejiere, using the universal cytochrome c oxidase subunit I (COI) barcoding gene, across its distributional range in Southeast Asia. Our phylogenetic analyses recovered three well-supported mitochondrial lineages of *S. nobile*, suggesting the presence of cryptic species. Lineage A is composed of a population from Sabah, East Malaysia (Borneo); lineage B represents the type population from Java, Indonesia; and lineage C includes populations from the mainland of Southeast Asia (Peninsular Malaysia and Thailand). The genetic variation of lineage C on the mainland is greater than that of lineages A and B on the islands of Borneo and Java. Our study highlights the value of a molecular approach in assessing species status of simuliids in geographically distinct regions.