They are different: molecular approach on Tirathaba pest infesting on oil palm and coconut tree

ABSTRACT

There are some confusion among agriculturists on the species of Tirathba beetles that are infesting on oil palm and coconut trees. Many thought they are the same species.nIn this study, the mitochondrial DNA Cytochrome oxidase subunit I (COI) of Tirathaba pest infested oil palm and coconut tree were compared. The mitochondrial DNAnCytochrome oxidase subunit I (COI) gene of the targeted Tirathaba sp. infesting onnoil palm and coconut tree were sequenced. The sequences were trimmed to remove gaps and produce a final aligned fragment of 603 bp for oil palm Tirathaba samplenand 602 bp for coconut pest sample. The DNA sequences were analyzed with other Tirathaba sp. sequences available in Gene bank using phylogenetic tree constructed with Neighbor-Joining (NJ) and genetic distance analysis algorithms. The result of this study indicates they were two different species. This knowledge will provide important data elements in the development of pest management strategy.