CHEMISTRY AND ACTIVITY OF *ACRONYCHIA PEDUNCULATA* FRUITS

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ABSTRACT

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Chemical investigation on the hexane and dichloromethane extracts of the fruits of *Acronychia pedunculata* (L.Miq.) has resulted in the isolation of six compounds including two novel compounds, 7-acetyl-4,6-dihydroxy-5-(methyl-2-butenyl)-2-(1-methyl-ethyl)benzofuran and a new benzopyran derivative. They were isolated along with three known acetophenone derivatives, acrovestone, demethylacrovestone and demethylacronylin and the sesquiterpene, clovan-2,9-diol. While demethylacrovestone has been previously isolated from *Acronychia pedunculata* fruits, acrovestone is isolated from *Acronychia pedunculata* fruits for the first time although it has been isolated from its bark and demethylacronylin has been reported to be present in *Acronychia laurifolia.* Clovan-2,9-diol is being reported from *Acronychia* species for the first time. Biological activities of these compounds were evaluated against the second instar larvae of *Aedes aegypti.* Acrovestone and the new benzofuran derivative showed moderate activity with LC_{50} of 3.6 ppm and 2.5 ppm while the new benzopyran and demethylacrovestone showed weak activity with LC_{50} of 10 ppm and 12.5 ppm respectively.