ABSTRACT

**MOLECULAR-BASED DETECTION ON CORONAVIRUS IN BATS OF
THE UNIVERSITY OF LAMPUNG CAMPUS**

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The presence of bats in urban environments can have both a positive impact, such as seed dispersal and a negative impact due to its the potential for zoonosis that can be transmitted from animals to humans. The acute respiratory disease pandemic occurred in December 2019 caused by a coronavirus associated with a virus in bats. In Myanmar, coronavirus was found in insect-eating bats and in Indonesia, coronavirus has been found in bats in Gorontalo. Research on the detection of coronavirus in bats in Indonesia has never been conducted on the island of Sumatra. This study aims to identify bat species and detect the presence of coronavirus in bat oral swab samples using the predict protocols method, in the Department of Mathematics area, University of Lampung. Bat life trapping and oral swab sampling of bats were carried out in the back site area of the Mathematics Department, Faculty of Mathematics and Natural Sciences, University of Lampung as part of the urban area. Detection using the predict protocol method has been conducted at the Biotechnology Laboratory, Lampung Disease Investigation Center including the stages of RNA extraction, cDNA synthesis, predict protocol, coronavirus amplification, and electrophoresis. Of six individual bats, two fruit bat species were found, five are Cynopterus *brachyotis* and one *Cynopterus sphinx.* All bat oral swab samples obtained were *predictively negative,* indicating that the six individual bats caught were not infected with coronavirus.

Keywords: Bats, Coronavirus, Predict protocol, University of Lampung, Zoonosis