A Study on Diving Behaviors of Macaca mulatta in Hong Kong: Implications of Climate Change

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The diving behavior of the Macaca mulatta is a rare phenomenon that only a few scientific researchers have studied on. Previous studies have only regarded the diving behavior of the Macaca mulatta as a form of play. However, the high frequency of Macaca Mulatta's diving behavior (up to 169 times/hour) occurring at Kam Shan Country Park Hong Kong cannot be explained using the previous theory. This study reveals that the diving behavior is correlated with air temperature ($p=0.005$, Welch Two Sample t-test). To collect such data, thermometers and hygrometers were used to record temperature and humidity on site. Additionally, data from the Hong Kong Observatory were also collected. (Data from the nearest monitor station Sha Tin was considered). We discovered that high frequency dives mainly occur in summer when temperatures reach 30-31?. As high frequency dives and the temperature in which these dives occur has never been documented in Hong Kong, it is most likely that climate change is the main reason behind Macaca Mulatta's high frequency diving behavior.

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