

ABSTRACT

Rd. Makhrunisa Cempaka Wangi. 2017. A Study of Fruit Fly *Bactrocera dorsalis* Complex Population on Sindangkerta Beach, Cipatujuh District, Tasikmalaya Regency. Advised by Dra. Lilis Suhaerah, M.Kes. and Drs. Suhara, M.Pd.

The research titled “A Study of Fruit Fly *Bactrocera dorsalis* Complex Population on Sindangkerta Beach, Cipatujuh District” was conducted in May 2017. This research aimed to obtain information on the abundance, ratio between the number of male and female flies, and parasitoid identification from the results of rearing of pupae in tropical-almond. The research method used was descriptive method, with belt transect research design and trap with ME (Methyl eugenol) used as attractant. The sampling was conducted within terrestrial zones at six stations with three quadrates each. The data taken were the data of *Bactrocera dorsalis* Complex and supporting data on the environment (air temperature, humidity, wind speed, and light intensity). The analysis of the data included the effect of abundance on environmental factors, determined based on regression linier multiple coefficient through data processing application SPSS. The results of the research show that the abundance of fruit fly *Bactrocera dorsalis* Complex was rather high, with around 135 flies, and three different species were obtained from six stations, namely *Bactrocera papayae*, *Bactrocera carambolae*, and *Bactrocera neocognata*. Environmental factors, particularly air temperature, had an effect on the abundance. According to the results of rearing of pupae, the number of male flies was lower than the number of female flies with a ratio of 38%:62%. According to the result of rearing of pupae, there was no parasitoid found due to various reasons. It is suggested that in future research, the rearing should be carried out on a number of kinds of fruit rather than one.

Keywords: *Bactrocera dorsalis* Complex, Fruit Fly, Parasitoid, Population Study, Ratio, Sindangkerta Beach.