***Dolichoderus thoracicus* Nest on Seasonal Fruits in the Society Plantations of Sirah Pulau Padang Sub-district**

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Abstract

Dolichoderus thoracicus is an ant species which is common found. The presence of *D. thoracicus* on a plants can minimize the potential threat from insect, especially fruit destructive insects. The society plantations in Sirah Pulau Padang Sub-district are planted with seasonal plants which certainly have the potential threat from fruit destructive insects. It is necessary to observation of *D. thoracicus* nest on seasonal fruits in society plantations of Sirah Pulau Padang Sub-district to estimate the potential threat from fruit destructive insects. This observation was conduct on January 2019 by observing seasonal fruits found in the society plantations. The results of observation made, found of *D. thoracicus* nest on mangoesteen and rambutan fruit. Also found the *D. thoracicus* coloni on duku and raman fruit. The presence of nest and coloni of *D. thoracicus* on mangoesteen, rambutan, duku, and raman can be estimated the potential threat from fruit destructive insects which less compared to other seasonal fruits in society plantations of Sirah Pulau Padang Sub-district.

Keywords: *Dolichoderus thoracicus*, Seasonal fruits, Sirah Pulau Padang Sub-district, Society plantations

1. Introduction

Dolichoderus thoracicus is an ant species which is common found, this is because the *D. thoracicus* is widely spread. According to Wiryadiputra (2007), Anshary and Flora (2008), and Murnawati *et al.* (2018), *D. thoracicus* can be a biological control agent which is efficient enough to overcome from pests on plants and predators for *Conopomorpha cramerella*, *Helopeltis* spp., and other pests.

The society plantations in Sirah Pulau Padang Sub-district to many planted with seasonal plants namely *Durio zibethinus*, *Lansium domesticum*, *Garcinia mangostana*, *Nephelium lappaceum*, *Baccaurea motleyana*, and *Bouea macrophylla* (Sugiarto, 2019). The presence of *D. thoracicus* on seasonal fruits in the society plantations can be helpful to minimaze the potential threat from fruit destructive insect, therefore it is necessary to observation of *D. thoracicus* nest on seasonal fruits in the society plantations of Sirah Pulau Padang Sub-district. The result of this observation can be helpful to

estimated the potential threat from fruit destructive pests to seasonal fruit in the society plantations.

2. Research Methods

This observation was conducted on January 2019, located in Sirah Pulau Padang Sub-district, Ogan Komering Ilir District, South Sumatra. The Observation conducted by observed of seasonal fruits which found in the society plantations is found the nest and colony of *D. thoracicus*. Other than that, also observed parts of the fruit which found the nest and colony of *D. thoracicus*. According to Sugiarto (2018), harvest season in the society plantations of Sirah Pulau Padang Sub-district starting from October until March. The date of observation result are presented in the form of descriptive paragraphs.

3. Results and Discussion

Based on the results of observation was conducted in society plantations of Sirah Pulau Padang Sub-district, found the

D. thoracicus nest on mangoesteen (*Garcinia mangostana*) and rambutan fruit (*Nephelium lappaceum*). Found too the *D. thoracicus* colony on duku (*Lansium domesticum*) and raman fruit (*Bouea macrophylla*). Not found the nest and colony of *D. thoracicus* on durian (*Durio zibethinus*) dan rambai fruit (*Baccaurea motleyana*).

Figure 1. *Dolichoderus thoracicus* nest on fruit a. mangoesteen, b. rambutan.

D. thoracicus nest which found on mangoesteen fruit (Figure 1) are below the fruit petals. while on rambutan fruit (Figure 1) are found on the surface of the outer skin with many hairs. There are quite striking differences *D. thoracicus* nest on mangosteen and rambutan. *D. thoracicus* nests in mangosteen fruit have little material used to make nests, while the material used to make nests on rambutan fruit is more. *D. thoracicus* nest material on mangosteen fruit while on slightly estimated is only used to attach the petals to the skin of the fruit, while the nest material with more fruit is estimated because on rambutan fruit does not have fruit petals so *D. thoracicus* requires more material to make nests. *D. thoracicus* nest material on rambutan fruit is attached to the hairs found on the skin of the fruit, so there is space which can be occupied by *D. thoracicus*. According to Anshary and Flora (2008), *D. Thoracicus* tends to be attracted to a dark place.

Figure 2. *Dolichoderus thoracicus* colony on fruit a. duku, b. raman

D. thoracicus colony which found on duku and raman fruit (Figure 2) are in the space between the fruit and the fruit stalk. According to Anshary and Flora (2008), the behavior of *D. thoracicus* which tends to live colonizes because *D. thoracicus* tends to live clustered in a dark place or low light intensity. According to Attygalle (1998), *D. thoracicus* communicates with pheromones produced by the pavan glands.

D. thoracicus nest or colonies are not found thoroughly on each mangosteen, rambutan, duku, and raman fruit. *D. thoracicus* nest tend to be easier to find on mangosteen fruit compared to rambutan fruit. *D. thoracicus* nest on rambutan fruit are more likely to be found on rambutan fruits which are in the shade and on rambutan fruit varieties which has long hair and large fruit sizes. *D. thoracicus* colony on duku and raman fruit tend to be found on fruits that are under shade and the number of fruits is large in one stalk.

Multiply the *D. thoracicus* colony in plants can be done by making artificial nests, namely wiht using bamboo, coconut leaves, and brown sugar as a source of food (Murnawati, 2018). Besides brown sugar, *Dolichoderus* sp. also interested in coconut oil (Sugiarto, 2018). The presence of *D. thoracicus* on a plant can help overcome plant pests, especially in fruit (Murnawati, 2018), namely by covering the surface of the fruit (Wiryadiputra, 2007).

4. Conclusion

The presence of nest and colony of *D. thoracicus* on mangosteen, rambutan,

duku, and raman fruit can be estimated the potential threat from fruit destructive insects which smaller compared to durian and rambai fruit in society plantations in Sirah Pulau Padang Sub-district.

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