

POPULATION OF *SPODOPTERA PECTINICORNIS* AS BIOLOGICAL INSECT CONTROL OF WATER LETTUCE WEEDS (*PISTIA STRATIOTES* L.) IN SOME DISTRICT OF SOUTH KALIMANTAN

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Abstract

Spodoptera pectinicornis is a herbivorous insect that can be used as a biological control agent of water lettuce weeds (*Pistia stratiotes*) due to its high destructive ability and host specificity. The population of *S. pectinicornis* at the field is still low. This research aimed to study the presence of *S. pectinicornis* and to calculate the abundance of individual insects of *S. pectinicornis* found in water lettuce weeds in the field. The data can be used as an information and a recommended reference for biological control of water lettuce weeds. The method used was *purposive sampling* and the site selection was based on a survey of the presence of apu weeds in the field. Weed sampling was conducted by taking 1-5 individuals of water lettuce every 5-10 steps according to its distribution in the field. The collection was carried out repeatedly until 100 individuals of water lettuce were obtained from each selected location. Individuals from water lettuce samples were then counted for the eggs, larvae, prepupa, pupae and adult stages. Observations from ten sampling locations indicated that *S. pectinicornis* was always present in habitats where water lettuce weeds were invested. The number of *S. pectinicornis* individuals fluctuated but in general, the number of larvae was relatively low with < 3-5 individuals each.

Keywords: *Spodoptera pectinicornis*, Water lettuce (*Pistia stratiotes*), Herbivorous insects, Biological agents, Aquatic weeds