

Preliminary study of bandicoot rat population in paddy field, Kedah

ABSTRACT

Kedah known as the National Granary (Jelapang Padi Negara) as it is the largest rice cultivation and producing state in Malaysia. In terms of rat pest, the rice field rat (*Rattus argentiventer*) is commonly present in the state and elsewhere. As recent as from five years ago, the greater bandicoot rat (*Bandicota indica*) is more prominent as attested by local farmers. The greater bandicoot rat (*Bandicota indica*) is an extant population of rat introduced in northern peninsular Malaysia from Central Asia. They were found to be vicious and resulted in serious pest damage in multi-agriculture lands such as paddy field, wheat fields, and even vegetable farms. However, there is a lack of information and research them in Malaysia. Therefore, a removal sampling technique was used and evaluated according to its assumptions for estimating the absolute densities of greater bandicoot rat (*Bandicota indica*) in paddy fields in Kedah. The study was conducted during the land preparation stage of the rice field during the dry season. Removal sampling is a method of absolute density estimation based on the decline in successive catch numbers as individuals are abstracted from a population. A linear regression method was used to calculate the density estimate using the removal sampling data.

Keyword: Bandicoot rat; Paddy field; Rodent pest; Population