

2008

March

Beneficial Biodiversity: A Review on Potentially Beneficial Reptile, Bird and Mammal Species in Oil Palm Plantations*

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*In Malaysia and Indonesia, integrated pest management practices have been successfully implemented as an environmentally-friendly and cost-effective means of controlling pest populations e.g., the use of beneficial plants for the control of leaf-eating pests like bagworms; the use of *Metarhizium* fungus as a biocontrol agent for the rhinoceros beetle, *Oryctes rhinoceros*; and the use of the Barn owl, *Tyto alba*, for rats. Besides the Barn owl, there are other species present in oil palm plantations that could provide similar pest control services. This paper provides some examples of reptile, bird and mammal species – recorded from biodiversity studies conducted in Selangor, Sabah and North Sumatra – that could potentially be providing beneficial pest control services for oil palm agriculture. For example, the Banded Rat Snake (*Pythas mucosus*), the Leopard Cat (*Prionailurus bengalensis*) and the Black-shouldered kite (*Elanus caeruleus*) could be important for the control of rats (like *Rattus argentiventer*); while the Common Palm Civet (*Paradoxurus hemaphroditus*) and various insectivorous birds including the Greater Coucal (*Centropus sinensis*) are potentially beneficial for the control of insect pests (e.g. *Sethosea asigna*). Evidence for the role of insectivorous birds in controlling insect pests in oil palm plantations is reaffirmed in a predator exclusion experiment. This review paper shows that biodiversity could potentially be economically important for oil palm agriculture. This is in line with Criteria 5.2 biodiversity-friendly management practices in oil palm agriculture as outlined under Principle 5 of the Roundtable on Sustainable Palm Oil Principles and Criteria (RSPO P&C) on environmental responsibility and conservation of natural resources and biodiversity.*

Keywords: Oil palm, biodiversity, integrated pest management, RSPO P&C.