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The Expansion of Range and Population of the Barn Owl (*Tyto alba javanica*) in Peninsular Malaysia and in Sumatra and Adjacent Islands - A Review and Update on the Current Situation

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*Expansion in numbers and habitats of barn owl (*Tyto alba javanica*) has occurred in Peninsular Malaysia and in Sumatra and adjacent islands as a natural feature as a consequence of expansion of oil palm (*Elaeis guineensis*) plantations with year round fruiting and build up of large populations of rats. The barn owl found itself filling an ecological niche as a predator of the rats.*

Initial barn owl populations in both Peninsular Malaysia and Sumatra were low due to paucity of suitable nest sites but greatly expanded when plantation managements put up nest-boxes and owl populations grew to a level where total rat control without use of poison-baits was achieved and has been now sustained for one-and-a-half decades.

In Sumatra, the barn owl was initially a vagrant originating from Java which built up a small resident but rare population and from which the Peninsular Malaysian barn owls derived again as vagrant migrants from Sumatra.

Stages in development of the nest box design and density and the refinements that came about from commercial application arising from the initial research work in both countries are discussed.

Peninsular Malaysia and Sumatra have both seen the status of barn owls change from "Rare" to "Common" over a period of 20 years due to work with nest boxes in oil palm areas providing a commercial value to the estates. Where this full biological control is achieved, it has completely removed the dangers to non-target species that existed with all forms of baiting and in particular from "second generation" baits.

Keywords: *Barn owl, predation, rats, nest boxes, poison baits, non-target species, population increase.*