

Dung Beetles:

The fauna of North East Thailand

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In common with many other countries Thailand has become concerned about loss of biodiversity. The combination of an expanding, and increasingly affluent, population with a worldwide demand for tropical hardwood timber has led to a rapid loss of natural areas, particularly of primary forest. As one response to these concerns, the government has set up a programme known as Biodiversity Research and Training (BRT) to document the extent of Thailand's biodiversity and provide training in biodiversity research. Dr Yupa Hanboonsong, a Ph.D. graduate from the Department of Entomology at Lincoln University, invited the senior author to collaborate in a bid to BRT to document the biodiversity of various groups of beetles in Thailand. We decided, in the first instance, to concentrate on scarabaeine dung beetles, because of their economic importance, their use as biodiversity indicators, and some prior knowledge (Emberson & Matthews, 1973).

One of the benefits to New Zealand of this programme is the intention that part of the training component of our bid will be met by Thai students coming to New Zealand for post graduate degrees and training.

We have initial funding for a preliminary one year survey of the dung beetles of the North East Region of Thailand, but we intend to extend the survey to cover the whole of Thailand over the next three years. The North East was originally dominated by dry deciduous forest, with evergreen forest in the damper places. The lowlands have mostly been cleared for agriculture, paddy rice, with some livestock rearing, but significant forest remains at higher altitudes. Khon Kaen is roughly in the centre of the region and is the regional capital.

In contrast to New Zealand's depauperate fauna, Thailand has a rich and diverse fauna of scarabaeine dung beetles. This is no doubt due to a mammalian fauna in Thailand that includes a wide variety of wild and domestic species, from tiny shrews, smaller than some dung beetles, to elephants. These animals produce an enormous range of dung types including the small dry pellets of rodents, the massed dryish pellets of several species of deer, the large, wetter masses of cattle and buffalo, the massive heaps of cannon ball-like fibrous material from elephants, the

