

An alternate form of seed spitting for Masked Palm Civet *Paguma larvata*

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Fauna identified by: Philip Vogrinc, Mary-Ruth Low.
Flora identified by: Fung Tze Kwan, Adrian Loo.

Location: Lentang Recreational Forest (Hutan Lipur Lentang), Bentong Province, Pahang, Peninsular Malaysia.
Elevation: 175 metres.
Habitat: Hill dipterocarp forest.
Date and time: 27 July 2015, 05:10 hrs.

Identity of subject: Masked Palm Civet, *Paguma larvata* (Mammalia: Carnivora: Viverridae)

Description of record: A Masked Palm Civet *Paguma larvata* was observed foraging on a fruiting sugar palm *Arenga westerhoutii* approximately 4 meters above the ground. The subject was observed repeatedly selecting individual palm fruits, rolling the fruit to the back of its mouth by pointing its snout upwards (Fig. 1.), crushing the fruit with its molars, and drinking the juice and pulp before dropping the used fruit (flesh and seeds) to the forest floor.



Fig. 1.

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Remarks: The subject is identified as *Paguma larvata* based on its stocky shape, the plain colour of its body fur, the pale fur between the eye and ear, and the brownish mask beneath. In contrast, the Common or Palm Civet *Paradoxurus musangus* has a much darker and more clearly defined mask, and spotted fur on its flanks, and the Small-toothed Palm Civet *Arctogalidia trivirgata* is smaller in size, less stocky, and has more pronounced and uniform black coloration of the face.

Many species of viverrid will completely consume fruit and seeds together (Mudappa et al., 2010; Zhou et al., 2008), but others may spit out seeds. Seed-spitting has been documented in primates and viverrids, where the flesh (i.e. soft pulp and skin) are consumed and seeds are spat out (Nakashima & Sukor, 2010; Corlett, 1998). The feeding behaviour described here should probably be classified as seed-spitting because only the juice appeared to be consumed but not the flesh; the intact fruit and its seeds were dropped to the ground below the palm.

Palms depend on zoochory i.e. seed dispersal by means of animals (Zona & Henderson, 1989), particularly mammals and birds. Such seed dispersal is recognized as a complex multi-step process in most instances (Roth & Vander Wall, 2005). It was clear in this case that the subject was not performing the role of a one-step, long distance dispersal agent, rather its behaviour would enable ground-dwelling animals to obtain fruit which is otherwise out of reach: i.e. the arboreal civet is acting here as a primary seed disperser.

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