

Diet and Foraging Behaviour of the Common Hoopoe in Malaysia

Winnie Ooi

Introduction

The Common Hoopoe *Upupa epops* has a widespread distribution and has been well studied in Europe and other regions (Mlodinow & Pyle 2024). It used to be a common resident bird in the north of the Thai-Malay peninsula but became an uncommon sight in Peninsular Malaysia after the 1930s, possibly due to human activities (Wells 1999; Wells 2007).

Since 2020, the Common Hoopoe has nested annually and this has allowed for recent breeding observations. This article describes the diet and foraging behaviour in our local context.

Observations

Nesting and Environment

Common Hoopoes have nested annually at Taiping, Perak, Malaysia since February 2020. In April to September 2021, there were two nesting events at Taiping Lake Gardens with three chicks fledged at each nesting. After this they were seen occasionally in residential areas and at other nearby sites.

Between January and early September 2026, Common Hoopoes nested on a number of occasions in Taiping, Perak, Malaysia. At one roof nesting site – four nesting events were observed in 2026; we cannot be sure if it was the same pair nesting at the site on each occasion. The nesting site used was under the eaves of a house in a residential area (Plate 1). The same nesting site was used for all four broods. The nesting occurred in the months of March, May, July and September 2026. The adults raised 13 successfully fledged juveniles – four during the first nesting, five the second time, four the third time (one of the fledged juveniles was killed by a cat) and two at the fourth nesting (one chick did not fledge). At the time of writing, five to seven birds could be observed foraging together in a residential neighbourhood.



Plate 1: Adult Common Hoopoes at nesting site feeding nestlings. Taiping, Perak, Malaysia, 2026.

Common Hoopoes also nested at another site (only known to a few) but I am uncertain of the outcome or nest type used. However, one birdwatcher observed nine birds together at one time at that site.

The site where these observations were made is a residential housing area which has many large, open gardens with fruit trees that aid the feeding of the Common Hoopoe. Fruits often fall to the ground and become infested with beetles and other insects which serve as a food source.

Food Items

Food items taken by the Common Hoopoe are not easy to identify as some are small. Most prey are insects and other invertebrates. Food items identified include cockroaches (Blattodea), beetles (Coleoptera), centipedes (Chilopoda), millipedes (Diplopoda), earthworms (Oligochaeta), larvae and winged insects (Plate 2). Food brought to nestlings appeared similar to food given to fledged juveniles. Some prey (e.g. centipede) was killed by repeatedly beating them against the ground before being eaten (link to video recording: <https://www.youtube.com/watch?v=iMrSQGDKL1M>). But some prey, like cockroaches, were fed alive. The protective forewings, wings, and legs of insects were not removed prior to feeding or offering to fledged juveniles. There were no observations of lizards, snakes, frogs or toads in the diet of the Common Hoopoes I observed.



Plate 2: Composite image of some food items taken by the Common Hoopoe. Taiping, Perak, Malaysia, 2026.

Foraging Behaviour

The Common Hoopoes were usually seen foraging on the ground. They were observed walking around rapidly, often probing grassy areas or leaf litter, looking for prey (Plate 3). Bills were often muddy or covered in dirt from ground probing. Foraging often occurred under fruiting trees and fallen, rotten fruit was explored for prey (Plate 4). The ground under fruiting rambutan (*Nephelium lappaceum*) and mangosteen (*Garcinia mangostana*) trees was often visited as they attracted insects. They were often observed foraging together in social groups of five to seven birds. Prey was often held at the tip of the bill, tossed upwards into the air and then caught in the gaping mouth and swallowed (Plate 5).

Links to video recordings:

https://www.youtube.com/watch?v=uHFEX_u8sb8

<https://www.youtube.com/watch?v=yVrRUlmgkUQ>

https://www.youtube.com/watch?v=_pm9M8CV9V4



Plate 3: Common Hoopoe foraging methods – probing ground (left) and exploring leaf litter (right) for prey. Taiping, Perak, Malaysia, 2026.



Plate 4: Common Hoopoe exploring fallen rotten fruit for prey (left mango, right jackfruit), Taiping, Perak, Malaysia, 2026.



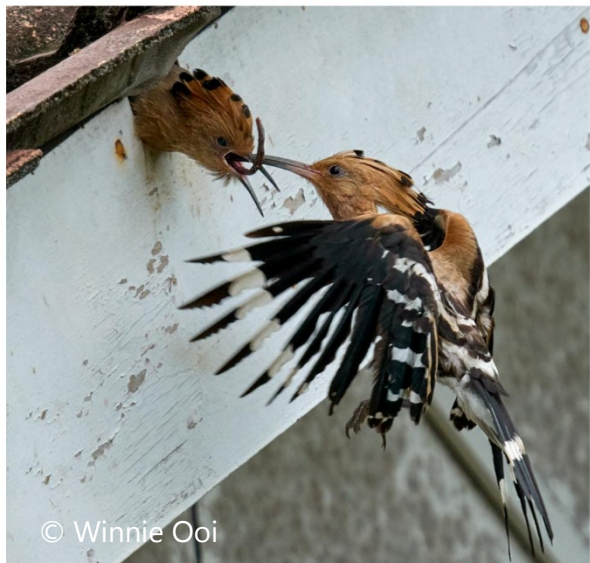
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Plate 5: Common Hoopoe displaying classical feeding style. Taiping, Perak, Malaysia, 2026.

The mother continues to brood and protect the chicks in the nest for at least 9 days. Both parents bring food to the growing chicks after the brooding phase (Plate 6). Parents bring prey to the nest on the tip of their bill and stuff it deep down a chick's throat. The presumed adult female would also enter the nest. Young birds leave the nest (fledge) within 25 to 32 days after hatching.



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Plate 6: Adult Common Hoopoe pair feeding nestlings. Image on the right shows an earthworm prey. Taiping, Perak, Malaysia, 2026.

It was difficult to differentiate the adult sexes by plumage (Plate 7) and this judgement is made by watching the behaviour. The adult male has been observed bringing food to the female who was waiting on the roof, who then takes it to feed the nestlings.



Plate 7: Adult Common Hoopoe pair. First image male left, female right. Second image: Male right passing food to female left. Taiping, Perak, Malaysia, 2026. Courtship feeding was also observed. In literature (Mlodinow & Pyle 2024) sexual dimorphism is noted as limited but females on average have duller crest feathers, head, and breast.

Both adults continued to feed juveniles after they fledged until they were independent (Plate 8); usually two to three weeks after fledging.

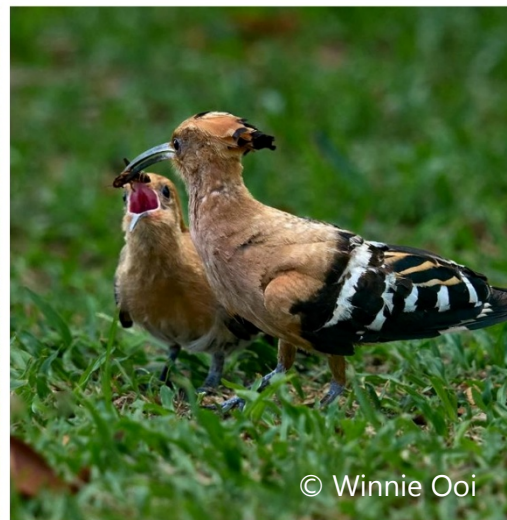


Plate 8: Adult Common Hoopoe feeding fledged juvenile. Taiping, Perak, Malaysia, 2026.

Food is held at the tip of the beak and delivered directly into the gape of the juvenile (Plate 9). At times the food is transferred from adult bill tip to juvenile bill tip, although this is more often seen in courtship feeding. Fledged juveniles are usually fed on the ground but occasionally on a tree.

Link to video recording: <https://www.youtube.com/watch?v=9rc1MK6Rpfk>.



Plate 9: Feeding technique for fledged juvenile – left: delivered directly into the gape of the juvenile; right: food transferred from bill tip to bill tip. Taiping, Perak, Malaysia, 2026.

Post-fledging, once the juveniles were old enough, the adults would chase them away if they were not feeding them. Some of these young birds would stay in the residential area as a social group, feeding together. I am uncertain if any left the area or moved north.

Additional Observations from the Ongoing Fourth Nesting

Amar-Singh HSS (pers. comm.) had the opportunity to watch the fourth nesting episode on 14 September 2026. The nesting site was observed continuously from 0710 to 0935 hrs. The first feed was at 0733 hrs. There were 16 feeding episodes between 0733 and 0935 hrs; 10 of these occurred in the first hour of feeding. The mean interval was 7.7 minutes (SD 6.9, range 1–27 minutes). Both adults were observed feeding at least three nestlings. I joined him for the observation at 0845 hrs. On one occasion, we both saw what appeared to be a different, younger-looking adult female feeding the nestlings, suggesting possible cooperative breeding. Feeding frequency decreased on the day the juveniles fledged. Two chicks fledged on 16 September 2026 at 1009 and 1015 hrs, while the third did not fledge.

Acknowledgements

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References

1. Mlodinow SG & Pyle P. (2024). Common Hoopoe *Upupa epops*, version 2.1. In Birds of the World (S. M. Billerman and G. M. Kirwan, Editors). *Cornell Lab of Ornithology*, Ithaca, NY, USA. <https://doi.org/10.2173/bow.hoopoe.02.1>
2. Wells DR. (1999). *The birds of the Thai-Malay Peninsula: Vol. 1. Non-passerines*. London: Academic Press.
3. Wells DR. (2007). *The Birds of the Thai-Malay Peninsula: Vol. 2. Passerines*. London: Christopher Helm.

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Commentary on the Observation

Amar-Singh HSS

This fascinating account offers the first description of diet and foraging behaviour of the Common Hoopoe in Malaysia. Table 1 below compares the diet and foraging observations of the Common Hoopoe reported in this local field account by Winnie Ooi with the global synthesis on the subject by Mlodinow & Pyle 2024 in Birds of the World (reference above). It is important to note that the Taiping, Perak, Malaysia account is based on a short-term, single-population observation of a nesting and foraging group, while the Birds of the World account draws on many published studies across the species' wide global range, including quantitative stomach-content data.

	Mlodinow & Pyle 2024	Winnie Ooi 2026
Foraging microhabitat	Bare or sparsely vegetated ground, favouring soft/sandy soil, lawns, mowed meadows and sandy tracks; low vegetation (mean height ~7.4 cm in one study).	Grassy areas and leaf litter in residential gardens; ground beneath fruiting trees, including fallen, rotting fruit.
Foraging method	Walks and probes soil with the bill, using rapid open-close 'gaping' motion once the bill is inserted; may run 1–2 m then probe repeatedly at one spot.	Walks rapidly, probing grassy areas and leaf litter; bills often muddy from ground probing. 'Gaping' probing action not specifically described.
Fruit-associated foraging	Not described - diet includes only trace plant material (elderberry fruit, cinquefoil, grass) and this is not linked to foraging microhabitat.	Notable feature of this account: birds forage under rambutan and mangosteen and other fruit trees, exploring fallen, insect-infested rotten fruit as a food source.
Social/group foraging	Usually forages alone or in pairs.	Frequently observed foraging in social groups of five to seven birds (up to nine reported at one site) - contrasts with the largely solitary/pair pattern in the global literature.
Hammering & excavating ground	At times hammers the ground like a woodpecker, excavating a 'large' hole; also flips stones, leaves and cow-pats aside with a sideways/upward bill flick rather than lifting and tossing them.	Not observed.
Aerial prey capture	Occasionally catches slow-flying insects (termites, adult cockchafers) in the air; rarely pries bark or forages in lichen.	Not observed.
Subduing large or tough prey	Larger prey hammered into submission or beaten against a hard surface (rock or log); reptiles killed by repeated blows to the head.	Centipede prey observed being killed by repeated beating against the ground. But some prey, like cockroaches, were fed alive.
Prey preparation before feeding	Elytra, wings and legs of insects are typically removed before consumption.	Protective forewings, wings and legs were not removed prior to feeding nestlings or fledged juveniles - a clear difference from the literature.



	Mlodinow & Pyle 2024	Winnie Ooi 2026
		Adults in images were also seen eating insects whole.
Prey-handling & swallowing technique	Prey held at the bill tip, tossed into the air with an upward flick, and caught in the gaping mouth before swallowing.	Same technique described and illustrated.
Feeding of nestlings & fledglings	Prey is carried to the nest at the parent's bill tip and stuffed deep into a begging chick's throat; usually one prey item per feeding, occasionally two or three. Youngest chicks are fed only once larger siblings are satiated. Only the male feeds the female and chicks for the first ~7 days; both parents feed the young thereafter until fledging (~day 28). Males provide roughly 50% more food by mass than females in one Swiss study. After fledging, the female leaves the family while the male alone continues feeding the young until independence (Switzerland); in South Africa, by contrast, both parents feed the chicks until independence.	Both adults were observed feeding nestlings and fledged juveniles - matching the South African (both-parents) pattern rather than the Swiss (male-only post-fledging) pattern described in the literature. Food brought to nestlings appeared similar to food given to fledged juveniles; delivered directly bill-tip-to-gape. Some prey was transferred bill-tip-to-bill-tip to older fledglings (the latter more typical of courtship feeding). Post-fledging provisioning by both adults continues for about 2–3 weeks, after which adults chase away young that are not being fed; some juveniles remain in the residential area as a social group.
Invertebrate prey groups	Orthoptera (mole crickets, field crickets, locusts), Coleoptera (esp. cockchafers/Scarabaeidae), and Lepidoptera larvae/pupae dominate across most regions; there are regional speciality prey. Also flies, dragonflies/damselflies, cockroaches, shield bugs, cicadas, antlion larvae, earwigs, ants, crane flies, blow flies, hoverflies, spiders, woodlice, centipedes/millipedes, earthworms, snails/slugs, mussels.	Cockroaches, beetles, centipedes, millipedes, earthworms, insect larvae, and winged insects. Orthoptera (crickets/grasshoppers), the dominant prey group in the world literature, not specifically recorded but noted in Wells 1999 account. Other groups, like spiders, cicadas, ants, not specifically identified.
Vertebrate prey	Lizards, snakes, frogs and toads recorded (up to 15 cm long); sand lizard predation described in detail; bird eggs also recorded.	No lizards, snakes, frogs or toads were observed in the diet during this study. This may reflect local prey availability or limited sample size rather than a true absence.
Plant material	Rarely, fruit (elderberry) and parts of cinquefoil/grass.	Fruit is used indirectly, as a substrate that attracts insect prey, rather than being eaten itself.
Cooperative breeding	Cooperative breeding has been noted at least once in South Africa, with the helper being a male.	There was one observation suggesting possible cooperative breeding; with the helper being a female.



The account by Winnie generally agrees with international data. The Malaysian account adds two features not covered: (a) routine social or group foraging (5–9 birds) and (b) foraging under fruiting trees on insect-infested fallen fruit; both of which may reflect the suburban Malaysian setting. The account also differs in how insects are handled. The narrower range of diet (no vertebrate prey or fruit) in the local observations may reflect genuine local variation in prey availability and behaviour or the limited observations. This account serves as a starting point to better document the diet and foraging behaviour of the Common Hoopoe in Malaysia.