Food Sources of the Purple-naped Spiderhunter

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Introduction

The Purple-naped Spiderhunter *Kurochkinegramma hypogrammicum* is an atypical, large sunbird-like spiderhunter that occupies a debated taxonomic bridge between standard sunbirds (Nectariniidae) and true spiderhunters (*Arachnothera* spp.). Moyle et al. (2011) used molecular data to conclude that the species should be included in the genus *Arachnothera* with the other spiderhunters, but this was disputed by Campillo et al. (2018) who showed that it was on its own as a monospecific genus, then known as *Hypogramma*. It is treated as a spiderhunter here following AviList (2025), but some authors consider it to be a sunbird rather than a spiderhunter (Cheke 2023; Cheke & Mann 2025).

Purple-naped Spiderhunters are found in the understorey of primary and secondary lowland forests, including freshwater swamp forest and heath forest, up to at least 1,200m, in Myanmar, Laos, Vietnam, Cambodia, south-west Yunnan, the Thai-Malay Peninsula, Sumatra and Borneo (Wells 2007; Cheke & Mann 2025). The species has a large range of food items in its diet including insect prey (mosquitoes and ants), spiders, fruits, nectar and flowers (Cheke & Mann 2025). This report provides an update on the bird's diet and foraging behaviour based on a combination of personal observations and a review of photographic data variously sourced.

Material and Methods

Observations were made at various forest reserves in Perak, Malaysia, during the past 35 years (Amar-Singh HSS pers. obs.). These include the Kledang Saiong Forest Reserve, Ulu Kinta Forest Reserve, the foothills of Bukit Larut (Maxwell's Hill) and the surrounding secondary forest of these three areas. In addition, observations were made during birdwatching trips to north Borneo. Some of these observations have previously been documented in an online plant-bird relationship database (Wee-Yeow Chin 2017).

Data were supplemented by a literature review, examination of all images in the Macaulay Library (ML) (1,178 images as of 28 June 2026) and an online image search. Care was taken to avoid duplicated images in the different databases and online postings.

Feeding information from images was accepted if the bird was represented feeding directly in the image or in any description provided by the observer. Birds feeding in captivity were not included. Possible nectar sources are also described in this report. These refer to occasions when a bird was observed next to a flowering plant species repeatedly by different observers, but with no written description of feeding behaviour. While it could be argued that birds were looking for insects in these plants, one or more additional factors suggest that the bird was feeding on nectar:

1. the repeated presence at these flowers,
2. birds having pollen-stained bills,
3. the posture next to the flowers, and/or
4. the fact that these plants are a known nectar source for other birds.

Plant identifications relied on a variety of sources including Holttum & Enoch (1991), Gardner et al. (2015, 2016, 2018), and Plants of the World Online (2026). In addition, numerous other online sources were used to assist in the verification of individual plant species.

Results

Nectar and Flower Food Sources

Nectar is an important primary food source. Birds will generally perch on the plant to feed on the nectar but will occasionally hover/flutter to access it. All nectar feeding observed was by conventional feeding and not by nectar robbing. In conventional feeding, the bill is inserted into the flower. The bi-tubular tongue has a brush-like tip which aids feeding (Cheke & Mann 2025). Uniquely, birds perch on and eat the flowers of *Poikilospermum suaveolens* possibly to get to the nectar (Plate 1) (Amar-Singh HSS & Lee-Fung Chai 2023).



Plate 1: Purple-naped Spiderhunter/Sunbird eating flowers of *Poikilospermum suaveolens* possibly to obtain nectar. Forest Reserve, Ipoh, Perak, Malaysia, 08 Aug 2019.

Table 1 lists the known and new nectar and flower food sources of the Purple-naped Spiderhunter. Fifteen plants were recognised as food sources of nectar. Of the documented nectar sources, 14 are native plants and only one is an exotic species. Documented nectar sources include *Eurya acuminata*, *Dendrobium crumenatum*, *Dischidia hirsuta*, *Mezoneuron sumatranum*, unidentified mistletoes in the Loranthaceae family, *Plagiostachys* spp., *Etlingera*

elatior, *Calliandra haematocephala* (exotic), *Saraca cauliflora*, *Bauhinia* spp., *Musa* spp., *Syzygium samarangense*, *Aeschynanthus* spp., *Elaeocarpus angustifolius* and *Poikilospermum suaveolens* (flowers eaten to access the nectar) (Plate 2). Of these nine are newly identified nectar sources for this species.



Plate 2: Purple-naped Spiderhunter feeding on nectar. Left: *Eurya acuminata*, 30 Jun 2013. Right: *Dischidia hirsuta*, May 2015. Forest Reserve, Ipoh, Perak, Malaysia.

Table 1: Nectar Food Sources of the Purple-naped Spiderhunter

Scientific Name	Common Name	Feeding Method* & Comments	Location	Source
Eurya acuminata	Edible Leaf Eurya	Conventional feeding technique	Peninsular Malaysia	Amar-Singh HSS (ML659368459, ML659368458)
Dendrobium crumenatum	Pigeon Orchid	Conventional feeding technique	Peninsular Malaysia	Cheke & Mann 2025, Amar-Singh HSS (ML367389621)
Dischidia hirsuta	Ant Plant	Conventional feeding technique	Peninsular Malaysia	Cheke & Mann 2025, Amar-Singh HSS (ML378489021, ML378357111, ML378944921)
Mezoneuron sumatranum	A type of leguminous creeper called the Cat's Claw Liana	Conventional feeding technique; a favourite nectar source of many spiderhunters, sunbirds, leafbirds.	Sabah, Malaysia	Nathanael Poffley (ML660006218), Roger MacKertich (ML659369096), Manuel Morales (ML654703208)
Loranthaceae family mistletoe		Conventional feeding technique	Thailand, Peninsular Malaysia	Brian Stone (ML650944777), Ching Chai Liew (ML634997455)
Plagiostachys spp. & other unidentified	Wild ginger plants	Conventional feeding technique	Peninsular Malaysia	Cheke & Mann 2025,

Scientific Name	Common Name	Feeding Method* & Comments	Location	Source
Zingiberaceae plants				
Etlingera elatior	Torch Ginger, Bunga Kantan	A favourite nectar source of many spiderhunters	Thailand, Peninsular Malaysia	Manod Taengtum (ML249324611), Manod Taengtum (ML637301230), ZhongYing Koay (personal blog on Flickr)
Calliandra haematocephala	Red Powder Puff (exotic species)	Conventional feeding technique	Sabah, Malaysia, Yunnan, China,	Allen Lyu (ML554136581), Xiwen Chen (ML610287037), Zhen Li (ML649582353)
Saraca cauliflora (*Saraca thaipingensis*)	Yellow Saraca	Conventional feeding technique	Peninsular & Bornean Malaysia	Li-May Tay (ML534753281), Tom Reynolds (ML655618402)
Bauhinia spp.			Peninsular Malaysia	Robinson 1927
Musa spp.	Wild Banana			Cheke & Mann 2025
Syzygium samarangense cultivar with pink flowers	Water Apple, Jambu Air	Conventional feeding technique	Peninsular Malaysia	Lee Cheow Lim (ML639351361)
Aeschynanthus spp.		Conventional feeding technique	Thailand	Rungsrit Kanjanavanit (ML370718701, ML370718711)
Elaeocarpus angustifolius	Blue Marble Tree	Conventional feeding technique	Peninsular Malaysia	Redzlan A. Rahman (personal blog)
Poikilospermum suaveolens		Eats tiny pink flowers on globular inflorescences to access the nectar they contain	Malaysia	Cheke & Mann 2025, Amar-Singh HSS & Chai (2023), Amar-Singh HSS (ML379625981, ML379625971) David Newell (ML644205094) Lee Cheow Lim (ML641313006)

ML = Macaulay Library
Note: There were two other plant species where an identification was not made.
*Conventional Feeding: Extracting nectar through the natural floral opening, enabling pollination as the bird contacts the flower's reproductive parts. Nectar Robbing: Bypassing pollination by piercing or probing the base of the flower to take nectar without touching the reproductive parts.

Table 2 lists another 10 possible nectar food sources of the Purple-naped Spiderhunter, of which three are exotic plants.

Table 2: Possible Nectar Food Sources of the Purple-naped Spiderhunter

Scientific Name	Common Name	Comments	Location	Source
Callistemon sp.	Bottlebrush (exotic species)	A common food item for the Streaked Spiderhunter *Arachnothera magna* & sunbirds	Uncertain	Image by Wen-Hua Chen on DiBird.com
Spathodea campanulata	African Tulip Tree (exotic species)	A common food item for many Spiderhunters	Thailand	Ayuwat Jearwattanakanok (ML613024509)

Scientific Name	Common Name	Comments	Location	Source
Scurrula ferruginea	Rusty-leaf Mistletoe	There is a possibility the bird was feeding on the fruit. A nectar source for the Plain Sunbird *Anthreptes simplex*	Peninsular Malaysia	Nyuk Hua Chin (ML608602656, ML608602655)
Cocos nucifera	Coconut tree	A common food item for sunbirds	Vietnam	Tomasz Rygiel (ML649445434, ML649445433, ML649445432)
Syzygium pycnanthum	Kelat Jambu, Wild Rose Apple	Known to feed on other *Syzygium* spp.	Sumatera, Indonesia	Robert Maxfield (ML187165571)
Prunus campanulata	Taiwan Cherry	Although the plant is native to southern China, Taiwan, and Vietnam, the Houaphan region in Laos is adjacent to Vietnam	Houaphan, Laos	Jan de Groot (ML309033981, ML309033971)
Prunus cerasoides	Wild Himalayan Cherry		Yunnan, China	Craig Brelsford (ML56633041)
Unidentified *Costus* sp. (possibly *Costus woodsonii*)	Exotic species		Vietnam	Ngoc Sam Thuong Dang (ML321246351, ML321246341)
Woodfordia fruticosa	Fire Flame Bush	A food item for some sunbirds	Yunnan, China	ZF Liu (ML633321041, ML633321037)

ML = Macaulay Library
Note: There were five other plant species where an identification was not made.

Fruits are an important primary food source. Generally, the birds perch on plants to feed on the fruit but will often hover/flutter to access it (Plate 3). All of the fruits seen to be taken were small (mostly 6-11mm in size, but some up to 15mm) and swallowed whole.



Plate 3: Purple-naped Spiderhunter eating fruit. Left: Fluttering to reach *Macaranga bancana* fruit, 11 July 2024. Right: Reaching for *Eurya acuminata* fruit, 27 Dec 2021. Forest Reserve, Ipoh, Perak, Malaysia.

Table 3 lists 10 fruit and seed sources of the Purple-naped Spiderhunter, of which all are plants native to the site of observation. Of these, two are newly identified fruit sources.

Table 3: Fruit and Seed Food Sources of the Purple-naped Spiderhunter

Scientific Name	Common Name	Notes on Feeding	Location	Source
Eurya acuminata	Edible Leaf Eurya		Peninsular Malaysia	Amar-Singh HSS (ML402200531 ML379645071 ML379334681)
Macaranga bancana	Common Mahang	Will often flutter to gain access to the fruit; will feed fruits to fledged juveniles; very common food item for spiderhunters and sunbirds.	Peninsular Malaysia	Amar-Singh HSS (2013), Cheke & Mann 2025, Amar-Singh HSS (ML648981375, ML627677472, ML62136725, ML436434341, ML379399681, ML379203131)
Macaranga heynei	Blue Mahang	Have to flutter to reach the fruit.	Peninsular Malaysia	Cheke & Mann 2025, Amar-Singh HSS (ML659371547)
Macaranga gigantea	Giant Mahang	Common food item for spiderhunters	Peninsular Malaysia	Cheke & Mann 2025, Amar-Singh HSS (ML379399681) Charmain Ang (ML424321041)
Macaranga triloba			Thailand, Sabah, Malaysia	Cheke & Mann 2025, Nattapong Banhomglin (ML568198781), 独行虾 (ML568260021), Mark Smiles (ML491406331)
Alocasia spp.		A very common food item in Sabah, Malaysia	Bornean Malaysia	Cheke & Mann 2025, Gustino Lanese (ML504036371) Philip O. M. Steinhoff (ML117053051)
Callicarpa longifolia	Long-Leaved Beautyberry		Bornean Malaysia	Wells 2007, Cheke & Mann 2025, Butch Carter (ML174410371, ML174410301)
Cheilocostus speciosus (syn. *Costus speciosus*)	Crepe Ginger	Eat the fruit & help to disperse seeds	Bornean & Peninsular Malaysia	Andrew William (ML586220381, ML586220351), Joshua Stacy (ML638568277), Liew WK (ML630925341), Phillip Edwards (ML633591997)
Dillenia excelsa	Simpoh Ungu	Feeds on seeds	Bornean Malaysia	Wells 2007, Cheke & Mann 2025
Bambusoideae	Bamboo seeds	Possibly feeds on bamboo seeds	Peninsular Malaysia	Cheke & Mann 2025, Amar-Singh HSS (pers. obs.)

ML = Macaulay Library

Insect prey (mosquitoes and ants) and spiders are recognised in the diet of the Purple-naped Spiderhunter (Cheke & Mann 2025) but such records are often based on adult birds seen with the items in their bills (Table 4; Plate 4), thus whether such adults feed on the prey or are collecting prey to feed nestlings or juveniles is uncertain.

Table 4: Animal Food Sources of the Purple-naped Spiderhunter

Scientific Name	Common Name	Notes on Feeding	Location	Source
Unknown	Spider	Carrying a spider possibly to feed juveniles	Peninsular Malaysia	Amar-Singh HSS (ML635918868)
Unknown	Insect, possibly spider		Sabah, Malaysia	Dubi Shapiro (ML618553958)
Unknown	Spider / Insect	Taking insect prey or spider from a web	Sabah, Malaysia	Liew WK (ML640410490)

ML = Macaulay Library



Plate 4: Purple-naped Spiderhunter with spider prey, possibly for a juvenile. Forest Reserve, Ipoh, Perak, Malaysia, 15 May 2025.

Foraging Behaviour

Purple-naped Spiderhunters are not uncommon participants of lowland mixed foraging parties (Wells 2007). They generally forage low down, below 5 m, but sometimes higher. Usually, they forage singly or occasionally as a pair, with exceptions for family groups with fledged juveniles. They will not uncommonly hover/flutter to access fruit and also nectar and will raid spiders' webs for spiders and trapped prey. Adults regurgitate fruits of *Macaranga*

bancana for juveniles (Plate 5). Feeding is often accompanied by loud calls (Amar-Singh HSS, pers. obs.). They are known to cast pellets (Plate 5) (Amar-Singh HSS 2025; Cheke & Mann 2025).



Plate 5: Left: Purple-naped Spiderhunter feeding juvenile with *Macaranga bancana* fruit, 31 Mar 2022. Right: Juvenile casting a pellet. 25 Jun 2024. Forest Reserve, Ipoh, Perak, Malaysia.

Discussion

This review has identified nine new nectar and two fruit sources with a potential additional 10 more nectar sources. It highlights the value of citizen science and image databases like the Macaulay Library. Fruit and nectar are the primary food sources with insects/animal prey possible for juveniles. Of these, personal observations over more than three decades suggest that fruits are the commonest food source in Peninsular Malaysia (Amar-Singh HSS pers. obs.).

The vast majority of nectar sources for Purple-naped Spiderhunters are native plants, but this is probably more a feature of the habitat rather than a choice as the birds are not habitually entering gardens, preferring forested environments. The high frequency of conventional feeding techniques exhibited by Purple-naped Spiderhunters and the rarity of nectar robbing by them suggests that the species is an important pollinator of native, mostly jungle, plants. In comparison, 33 of 51 (65%) nectar sources of Streaked Spiderhunters *Arachnothera magna* are exotic species, because these birds often visit highland gardens (Amar-Singh HSS 2020).

More work is required on the prey given to juveniles, which may have a greater animal component.

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