

**Songbird  
ReMix**

# *Spiderhunters*



13 Species from the Arachnothera family

**Avian Models for 3D Applications**  
Characters and Texture Mapping by Ken Gilliland

# Songbird ReMix

## *Spiderhunters of the World*

### Manual

Introduction	3
Overview and Use	3
Physical-Based Rendering and Other Rendering Tips	4
Posing & Shaping Considerations	4
One Folder to Rule Them All	5
Where to Find Your Birds & Poses	6

### Field Guide

List of Species	7
Little Spiderhunter	8
Orange-tufted Spiderhunter	11
Pale Spiderhunter	13
Thick-billed Spiderhunter	15
Long-billed Spiderhunter	17
Spectacled Spiderhunter	19
Yellow-eared Spiderhunter	21
Naked-faced Spiderhunter	23
Gray-breasted Spiderhunter	25
Streaky-breasted Spiderhunter	27
Bornean Spiderhunter	29
Streaked Spiderhunter	31
Whitehead's Spiderhunter	33
Resources, Credits and Thanks	35

Copyrighted 2023 by Ken Gilliland ([www.songbirdremix.com](http://www.songbirdremix.com))  
*Opinions expressed on this booklet are solely that of the author, Ken Gilliland, and may or may not reflect the opinions of the publisher.*

# Songbird ReMix

## *Spiderhunters of the World*

### Introduction

Spiderhunters are birds of the genus *Arachnothera*, part of the Sunbird family, *Nectariniidae*. The genus contains thirteen species found in the forests of south and southeastern Asia. They are large representatives of the Sunbird family, with drab plumage and long, strongly curved bills. They feed on both nectar and a range of small arthropods. Spiderhunters also contribute to the ecological balance of their habitats by pollinating plants. As their name suggests, they will eat spiders and are capable of extracting spiders or stealing their caught prey from the center of their webs, which is a tricky task.

There are two versions of this set for native support in Poser and DAZ Studio. Materials have been tuned to support Iray, 3Delight, Superfly and Firefly renderers.

### Overview and Use

The set is located within the **Animals : Songbird ReMix** folder. Here is where you will find a number of folders, such as **Bird Library**, **Manuals** and **Resources**. Let's look at what is contained in these folders:

- **Bird Library:** This folder holds the actual species and poses for the "premade" birds. Birds are placed into a "type" folder (such as "Birds of Prey (Order Falconiformes)" which for example would hold falcons, hawks and eagles). The birds for this set can be found in the following folder(s):
  - **Perching Birds (Order Passeriformes)**
    - **Sunbirds & their Allies**
- **Manuals:** Contains a link to the online manual for the set.
- **Props:** Contains any props that might be included in the set
- **Resources:** Items in this folder are for creating and customizing your birds
  - **Bird Base Models:** This folder has the blank, untextured model(s) used in this set. These models are primarily for users who wish to experiment with poses or customize their own species of bird. When using physical renderers such as Iray and Superfly, SubD should be turned to at least "3".

### Poser Use

Select **Figures** in the **Runtime** Folder and go to the **Animals : Songbird ReMix** folder. Select the bird from the renderer *Firefly or Superfly* folder you want and simply click it to load. Some birds in the Songbird ReMix series may load with attached parts (*Conformers*) such as tail or crest extensions. Some of these parts have specific morphs. You will need to click on the attached part to access those controls. Associated poses can be found in the same folder- **Bird Library : (Type) : Poses**.

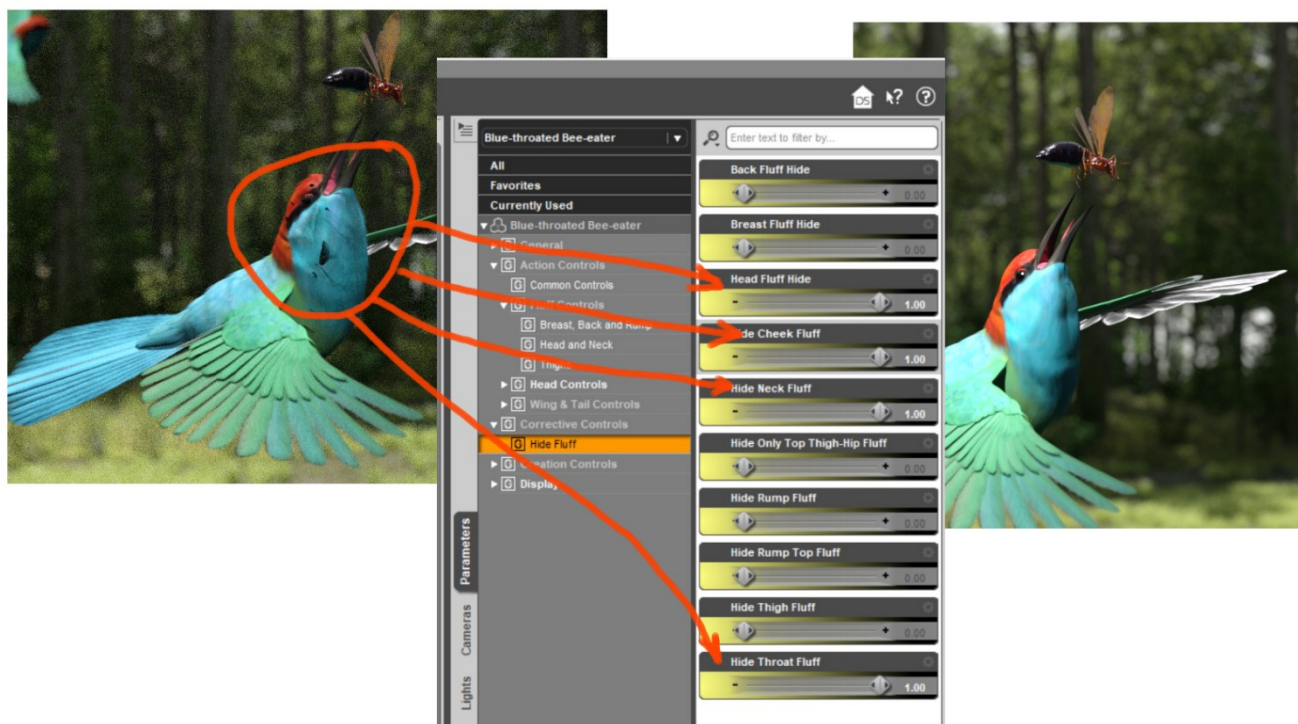
## DAZ Studio Use

Go to the **Animals : Songbird ReMix** folder. Select the bird from the renderer (*3Delight* or *Iray*) folder you want and simply click it to load. Some birds in the Songbird ReMix series may load with attached parts (*Conformers*) such as tail or crest extensions. Some of these parts have specific morphs. You will need to click on the attached part to access those controls. Associated poses can be found in the same folder- **Bird Library : (Type) : Poses**. **Note:** Using the "Apply this Character to the currently selected Figure(s)" option **will not** properly apply the correct scaling to the bird selected. It is better to delete the existing character first and load the one you want to use.

## Physical-based Rendering

**Iray** and **Superfly** requires more CPU and memory horsepower than the legacy renderers because of ray-trace bounces and higher resolution meshes needed for displacement. Poser's **Superfly** renderer will require that the "Min Transparent Bounces" be set to **at least 16** and that the "Max Transparent Bounces" be set to **at least 32** in render settings. Superfly renders may show artifacts in the head area. The higher the bounce settings, less chance those will be apparent. This is a known Poser issue and may be addressed in the future. Increasing the SubD may minimize this issue.

A good work around solution for Iray or Superfly artifacts is to **HIDE Fluff areas (Correction Controls)**.



## Posing & Shaping Considerations

This volume has various species, so when using generic poses not every pose will work perfectly with every bird. You may find that some minor alteration on the stock poses may be warranted.

Here are some of the most common alterations you may need to make:

- Birds will not be flat on the zero plane due to leg size and overall scale.
- Because of the numerous beak shapes, closing the beak may range from 0.5 to 1. Usually 0.8 is about right.
- **Raise Upper Beak (in Action Controls):** This morph is a “one size fits all” control. Because of the variety of beak shapes. It may not work with all birds.
- **Tongue poke-through** (especially when the beak is open). This can be easily solved by using the **Throat-Fuller1 & 2** morphs (*found in Creation Control/Head Shapes*).

**IK Concerns...** Some poses may go askew when IK is turned on. By default, Poser’s IK feature is turned off when loading a bird. To turn it on, select the “Figure” category from the main tool bar and “Use Inverse Kinematics” from the submenu.

By default, DAZ Studio’s IK feature is turned on when loading a bird. This will cause the thigh and shin rotations change when the character is moved. The **CTRL K** keypress will turn IK on and off in DAZ Studio. I usually just remove IK when working in DAZ Studio by selecting the character in the **Scene tab** and simply deleting the two IK body parts.

If you want to use IK in DAZ Studio, here’s how it works...

1. First, go to the Scene Tab, and select the **“IK-...: Left (or Right) Leg”**.
2. On the “Parameters” Tab, select “Inverse Kinematics”.
3. Turn off “Pin Translation” and “Pin Rotation” to pose the feet to a perch and then “ON” when posing the rest of the bird.

The **“Spiderhunter Classic1b”** pose (for the Spider) is not going to be a perfect fit every time. This is because each of the 13 species of spiderhunters are slightly different in size and shape and so are the spiders. The spiders pose settings should get you relatively close to the Spiderhunters beak. I suggest moving the Spider by the Thorax part via the Y and Z Trans dial. Once the Spider is positioned correctly **parent** the Thorax to the birds Head part.

## One Folder to Rule Them All

When I reworked the entire Songbird ReMix library starting in 2018, I decided to abandon the way the birds were sorted (by product name) and choose an Ornithological approach. All birds are found in the Bird Library folder and are arranged by type of bird. This approach is hopefully easier for most to find what bird they are looking for. Admittedly, it will take some getting use to for some longtime users, but I’ve always approached the Songbird ReMix series as a learning tool as well as a graphics tool, so hopefully some knowledge will rub off by seeing how birds are grouped.

Probably the most deceiving subfolder in the **Bird Library** is **“Perching Birds (Order Passeriformes)”**. This is folder you probably will end up “favoriting” because this one folder (Passeriformes) **holds more than 50% of all birds**. Perching birds range from cardinals and jays to chickadees, crow and swallows.



Finding the bird you want within the **“Perching Birds (Order Passeriformes)”** folder can be daunting, even for an experienced birder (such as myself), so I’ve included an online reference tool within this folder that helps to make your search easier. Click the **“Perching Birds Finder”** icon and when loaded, look at the first column and search for the type of bird you want. For example, I want a “manakin” (a bird common to Central and South America). Scroll down the first column alphabetically and stop on “manakin”. Looking across to the second column, you will now know that manakins can be found in the “Tyrant Flycatchers & their Allies” subfolder.

## Where to find your birds

Type Folder	Bird Species
<b>Perching Birds (Order Passeriformes)</b> Sunbirds & their Allies	Little Spiderhunter Orange-tufted Spiderhunter Pale Spiderhunter Thick-billed Spiderhunter Long-billed Spiderhunter Spectacled Spiderhunter Yellow-eared Spiderhunter Naked-faced Spiderhunter Gray-breasted Spiderhunter Streaky-breasted Spiderhunter Bornean Spiderhunter Streaked Spiderhunter Whitehead's Spiderhunter

## Where to find your poses

Type Folder	For what species?
<b>Perching Birds (Order Passeriformes)</b> Sunbirds & their Allies	All Spiderhunters

## Songbird ReMix

### *Spiderhunters of the World*

# FIELD GUIDE

Little Spiderhunter

Orange-tufted Spiderhunter

Pale Spiderhunter

Thick-billed Spiderhunter

Long-billed Spiderhunter

Spectacled Spiderhunter

Yellow-eared Spiderhunter

Naked-faced Spiderhunter

Gray-breasted Spiderhunter

Streaky-breasted Spiderhunter

Bornean Spiderhunter

Streaked Spiderhunter

Whitehead's Spiderhunter

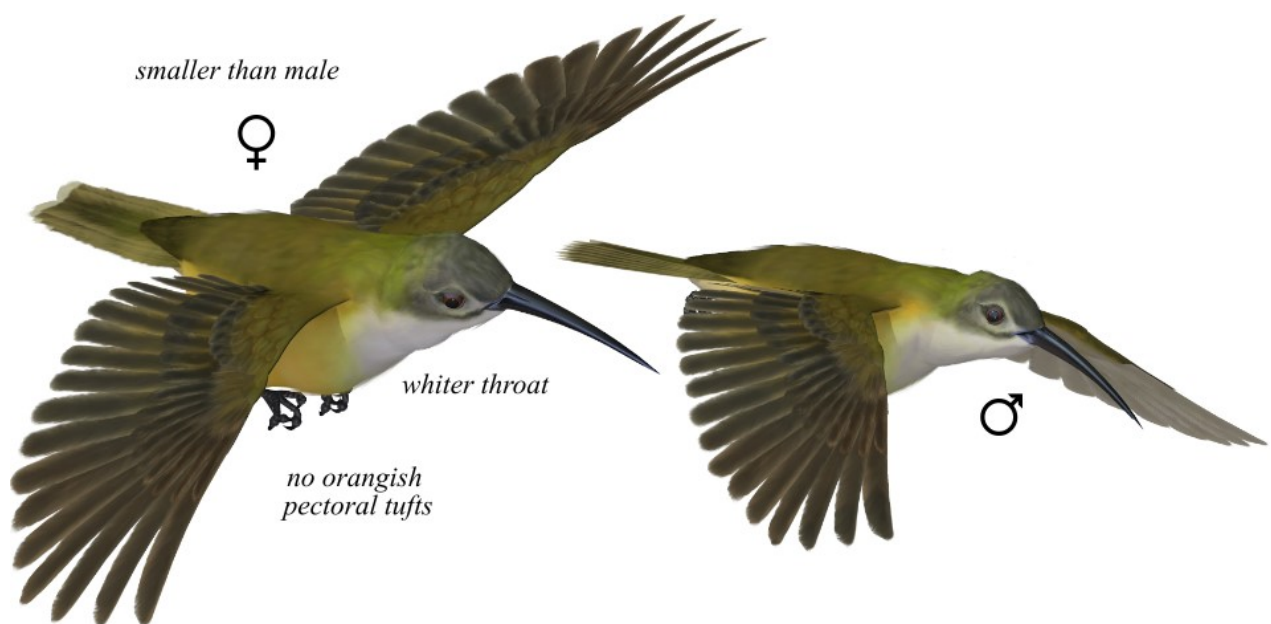
**Common Name:** Little Spiderhunter  
**Scientific Name:** *Arachnothera longirostra*

**Size:** 5.2-6.3 inches (13.3-16 cm)

**Habitat:** Asia; endemic to Bangladesh, Bhutan, Brunei, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Thailand, and Vietnam.

It frequents the under-storey of various types of forest, including mangroves, regenerating secondary forest, disturbed and heavily logged forests, forest edges and kerangas. It can also be seen in coastal vegetation, secondary growth, plantations, gardens and cultivation (particularly around plantains and ginger). It is usually found below 600 m elevations.

**Status:** Least Concern. **Global population:** 12,200,000 mature individuals with a stable population trend. It is locally common in India (in Western Ghats and the northeast), but very scarce and local in southeastern Nepal. It is considered uncommon in Bhutan, but locally common in Bangladesh. It is also common in Tenasserim, but rare everywhere in Myanmar. It is generally common in Thailand except in the east, locally common in southern Laos, and common in Peninsular Malaysia. In Sumatra, where densities of up to 165 birds/km<sup>2</sup> in Harapan Rainforest Ecosystem Restoration Concession, it is not considered uncommon. It is common on Borneo. It occurs in numerous protected areas, such as Nonggang National Nature Reserve, in southeastern China, Kaeng Krachan National Park and Khao Pra Bang Wildlife Sanctuary, in Thailand, Cat Tien National Park, in Vietnam, Way Kambas National Park, on Sumatra, Gunung Gede-Pangrango National Park, on Java and Bali, and Danum Valley Conservation Area and Tanjung Puting National Park, on Borneo.





**Diet:** Nectar, insects, and spiders. Known food plants include Canna, Erythrina, mistletoes, Melastoma, Musa, Spathodea and Zingiberaceae.

It forages singly, and in pairs, mostly in lower levels of vegetation. It takes insects from spider webs, and from pools of water in vegetation. Nectar-robbing has been recorded.

**Breeding:** The nominate male has very long, stout, gently decurved bill with olive plumage above, dark-centered crown feathers, gray sides of its head, white lores white and a short blackish submoustachial streak, Its upper wing-coverts are olive, with the remiges a dusky brown with olive edges. The tail is dark brown, fringed with olive and narrowly tipped with white. The throat and breast are a grayish white, while the breast is yellow-tinged. The rest of the under parts are a bright yellow, usually whiter on the under tail-coverts. The pectoral tufts are orange. The iris brown to dark brown and the bill is a horn-brown, which is grayer on gonys (ventral ridge of the lower mandible) and at the base of the mandible (some are black above and pale gray below). The legs are black, dark gray or bluish gray. The nominate female is similar to male but smaller, has a whiter throat, a paler base to mandible, and lacks the pectoral orange tufts. The juvenile is similar to the female but is browner, with bright olive-fringed wing feathers, and a paler bill and feet.

Egg laying in India occurs from January to May in the southwest and from May through August in Assam. The nesting season occurs from March through September in Nepal and in January in Thailand.

The nest is a compact cup about 10 cm deep, with semi-circular entrance hole on one side (some nests have two entrances), which is constructed from leaf skeletons, soft grass and vegetable down neatly felted together. It is lined with fine grass, and attached by the rim to the underside of a banana leaf by cobwebs or vegetable cotton passed through leaf and knotted on upper surface. A clutch of two-to-three eggs are laid. They are dull white or creamy with a zone of heavy red-brown or purple-brown spotting, or with very few spots, or unglazed pinkish white to salmon-pink with sparse reddish speckles all over and sharply defined ring of red-brown spots around broad end.

**Cool Facts:** It is an important pollinator for Durian fruit trees, wild banana/giant white bird of paradise plants and Banana/plantain plants.

There are 9 subspecies:

- *A. l. longirostra*. The nominate subspecies is endemic to southwestern, eastern-central and northeastern India (Western Ghats from Goa region south to western Tamil Nadu and Kerala; eastern Odisha and northern Eastern Ghats; Darjeeling; Arunachal Pradesh south to Meghalaya and Manipur), eastern Nepal, Bhutan, Bangladesh, Myanmar east to southern China (western Yunnan) and western Thailand (southward to Isthmus of Kra).
- *A. l. sordida*. It is found in extreme southern China (southern and southeastern Yunnan, extreme northwestern Guangxi), northeastern

Thailand and northern Indochina. It is similar to the nominate, but has dull whitish-gray lores and has a much shorter bill

- *A. I. pallida*. It is found in southeastern Thailand and central and southern Indochina. It has a much shorter bill than the nominate; the olive-green of the upper parts is paler and grayer, very white throat, and the under parts are a very pale yellow.
- *A. I. cinereicollis*. Endemic to the Malay Peninsula (south of Isthmus of Kra) southward to Sumatra and most satellite islands (except the Banyak Islands and Nias Island). It is very long-billed, with a bluish tinge to gray on the sides of the head, neck and throat. There is black at the corner of the mouth. The upper wing and tail are a greenish-brown, while the breast to vent area is yellow. It has white under tail-coverts.
- *A. I. niasensis*. It is endemic to Nias Island (off western Sumatra). It has a longer bill and wings, and very pale yellow under parts.
- *A. I. prillwitzii*. It is found in Java (including Madura Island) and Bali. It has brighter yellow under parts than the nominate, and more orange in the pectoral tufts.
- *A. I. buettikoferi*. Endemic to Borneo. It is browner and less olive than the nominate, and has paler pectoral tufts.
- *A. I. atita*. Endemic to the southern Natuna Islands. It differs from Race *rothschildi* in having a longer bill, and the yellow of the under parts is deeper, brighter and more golden.
- *A. I. rothschildi*. Endemic to the northern Natuna Islands. It is yellow below (like Race *cinereicollis*), but the bill, and often the wings, are shorter.

**Common Name:** Orange-tufted Spiderhunter  
**Scientific Name:** *Arachnothera flammifera*

**Size:** 5.2 inches (13.3 cm)

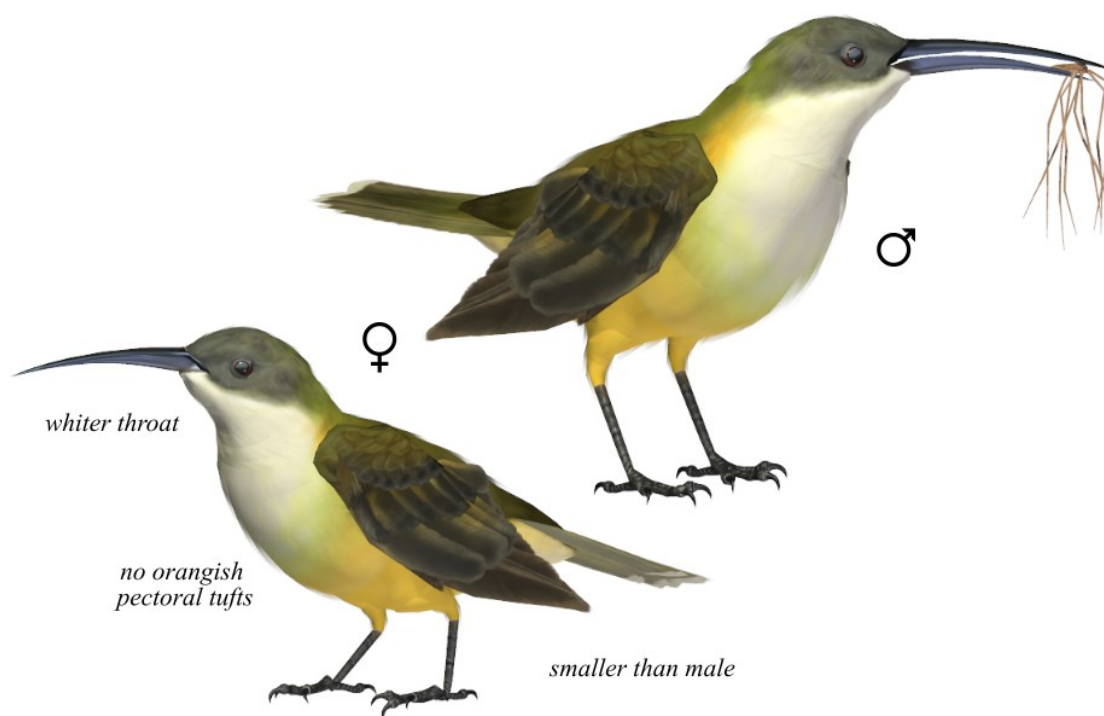
**Habitat:** Asia; endemic to the Philippines.

It is mostly found in the under-storey of forests, forest edges, second growths and cultivated areas (especially banana farms).

**Status:** Least Concern. **Global population:** 267,000 mature individuals with a stable population trend. This is a restricted-range species in that it is confined to the Mindanao and the Eastern Visayas. It is considered generally uncommon, and rare on Bohol, Dinagat, Leyte and Samar.

**Diet:** Nectar, insects, and spiders.

It forages singly, and in pairs, mostly in lower levels of vegetation.



**Breeding:** This spiderhunter has a very long, stout, gently decurved bill. The nominate adult male has washed olive-green plumage above, crown feathers with dark-centers, the sides of the head are gray, its lores are white and it has a short blackish submoustachial streak. The upper wing-coverts are olive, the remiges are a dusky brown with olive edges, and the tail is dark brown, fringed olive and narrowly tipped with white. Its throat and upper breast are a grayish white, while the lower breast is tinged with yellow. The rest of the under parts are yellow. It has large pectoral tufts that are bright orange. The iris is a reddish brown and the bill is black above and pale gray below with a black tip. The legs are a bluish gray. The female is similar to the male but

smaller, has a whiter throat, a paler base to mandible, and lacks pectoral tufts. The juvenile is similar to the female but browner, with bright olive-fringed wing feathers, and a paler bill and feet.

Not much is known about breeding other than breeding season appears to be April through May. It is presumed that they nest similar to other spiderhunters, laying two to three eggs in a cup-shared nest.

**Cool Facts:** It was originally considered a subspecies of the little spiderhunter. There are two subspecies:

- *A. f. flammifera*. The nominate subspecies is endemic to the eastern and southern Philippines (Samar, Biliran, Leyte, Bohol, Dinagat, Mindanao).
- *A. f. randi*. It is found on Basilan (off W Mindanao). It is similar to the nominate race, but its bill is much longer. Partially sympatric *A. clarae* is much larger with a conspicuous featherless patch on face.

**Common Name:** Pale Spiderhunter  
**Scientific Name:** *Arachnothera diluitor*

**Size:** 6 inches (15.2 cm)

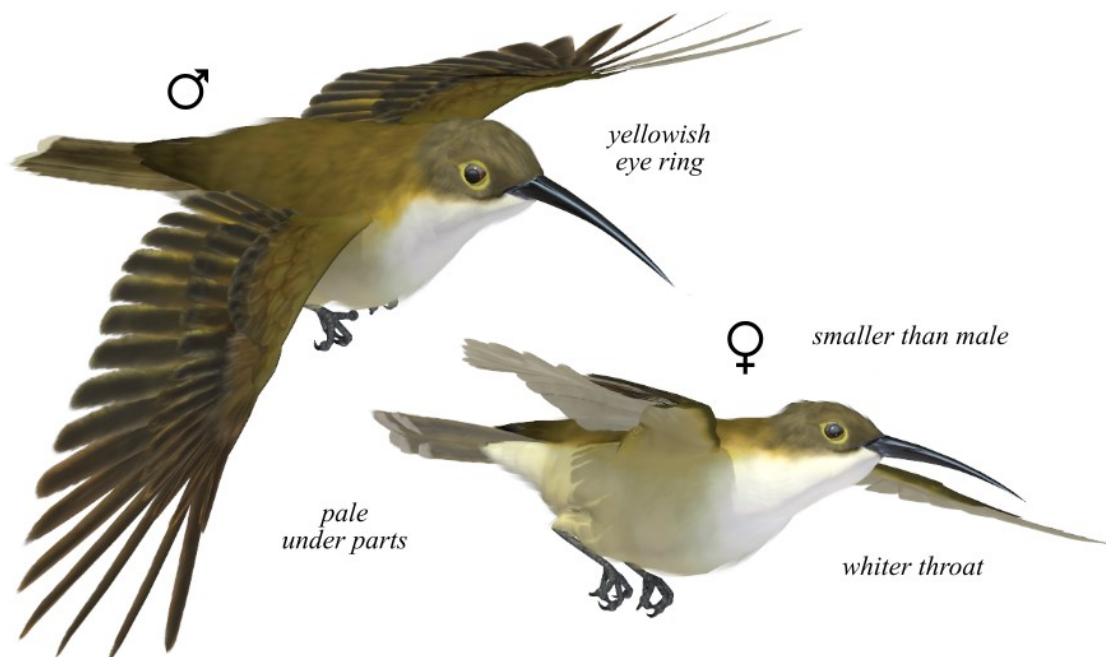
**Habitat:** Asia; endemic to Palawan (in the west Philippines).

It is mostly found in the under-storey of forests, forest edges, second growths and cultivated areas (especially banana farms).

**Status:** Least Concern. **Global population:** 32,600 mature individuals with a stable population trend. This is a restricted-range species that is confined to the Palawan EBA. It is fairly conspicuous and common and occurs in St. Paul Subterranean River National Park.

**Diet:** Nectar, insects, and spiders.

It forages singly, and in pairs, mostly in lower levels of vegetation.



**Breeding:** The male has a very long, stout, gently decurved bill. It has an olive-brown crown, the sides of the head are grayish-brown, the lores are brown and it has a short black submoustachial streak. Its upper parts are an olive green with the upper wing-coverts being olive and the remiges a dusky brown with yellow edges. The tail is dark brown, fringed with olive and narrowly tipped white. Its throat and breast are a gray-white, while most of the under parts are an ashy white with the flanks washed a sulphur-yellow. It goes have pectoral tufts that are a dull orange. Its iris is a reddish brown with a dull yellow eyering. Its bill is black above and pale gray below with a black tip. Its legs are a bluish gray. The female is similar to the male but smaller and has a whiter throat, a paler base to the mandible, and lacks the pectoral tufts.

The juvenile is similar to female but browner, with bright olive-fringed wing feathers, and a paler bill and feet.

Not much is known about breeding other than it is presumed that they nest similar to other spiderhunters, laying two to three eggs in a cup-shaped nest.

**Cool Facts:** It is the only spiderhunter on Palawan, and is larger with a longer bill than any sympatric sunbird. It is also known as the Palawan Spiderhunter. It was also originally considered a subspecies of the little spiderhunter along with the orange-tufted spiderhunter.

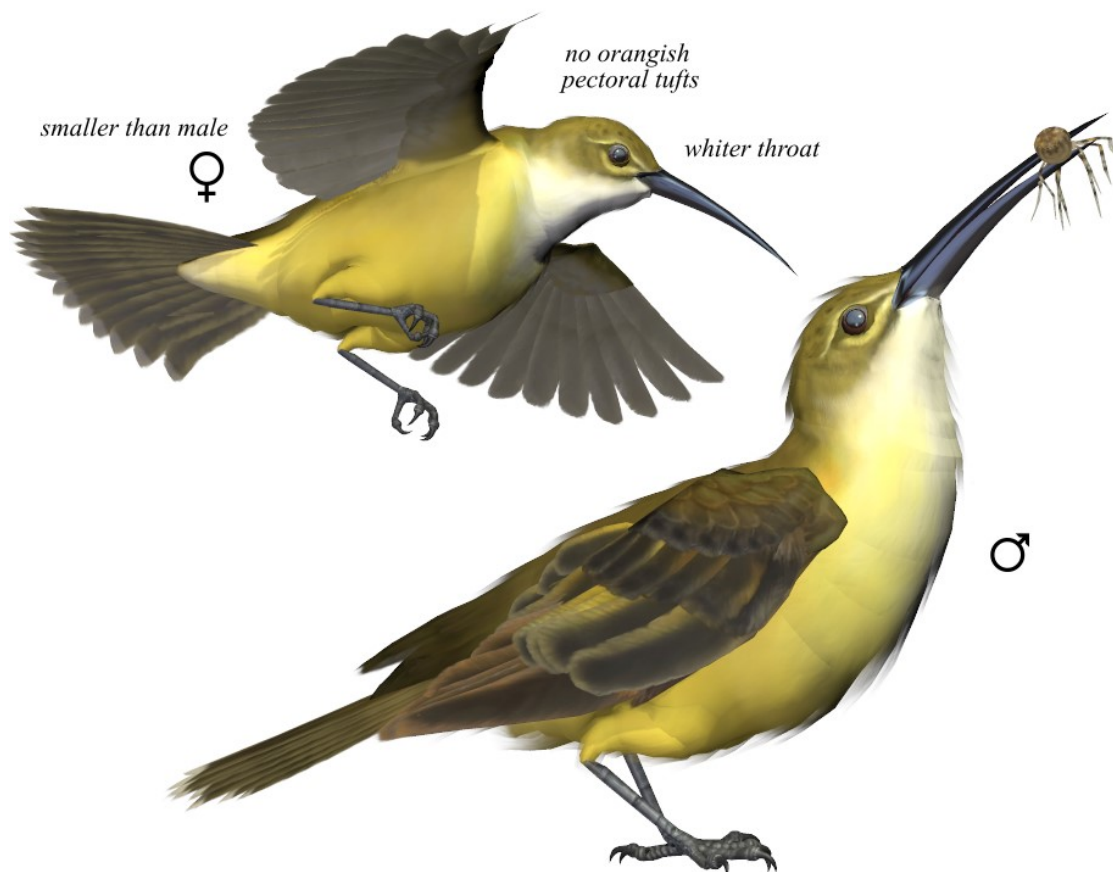
**Common Name:** Thick-billed Spiderhunter  
**Scientific Name:** *Arachnothera crassirostris*

**Size:** 6.3-6.7 inches (16-17 cm)

**Habitat:** Asia; found in Malay Peninsula (including Singapore), Sumatra and Borneo.

It is found in various types of forest; mangroves, also plantations, secondary growths, gardens, and among banana and wild ginger crops.

**Status:** Least Concern. **Global population:** 3,340,000 mature individuals with a declining population trend. It is uncommon in the Malay Peninsula and Borneo, and rare in Sumatra. It was recently rediscovered in Singapore. It occurs at the Khao Pra Bang Wildlife Sanctuary in Thailand, and the Taman Negara National Park in Peninsular Malaysia. It is considered rare in the Danum Valley Conservation Area in Borneo. The population is suspected to be in decline owing to ongoing habitat destruction.



**Diet:** Insects, including butterflies and termite alates. It also drinks nectar, including that from mistletoes, Eugenia and Hibiscus.

It forages mostly singly, and in all canopy levels, although usually it is found near ground level.

**Breeding:** The male is dark olive-brown above, with large yellow patch around eye bordered with olive below. There is a dark olive stripe through eye. The flight-feathers are olive-brown with green-yellow edging, and the olive-brown tail has grayish-yellow tips and edging on the outer feathers. From its chin to breast, it is gray-yellow with pectoral tufts of yellowish-orange. The rest of the under parts are green-yellow, becoming yellow on the under tail-coverts and flanks. Its iris is brown to dark brown and its bill is black with some horn at its base. The bill is bulkier than other spiderhunters. The legs are blackish and the feet soles brownish. The female is like the male but lacks the pectoral tufts. The juvenile is thought to be similar to female, but browner and with a paler bill.

Egg laying in starts late April with nestlings appearing by early June and even some dependent juvenile in early May in Malay Peninsula. The nest is a smaller version of that of the long-billed spiderhunter. Clutch of two eggs is laid which are ovate, unglossed white, with small black dots and long fine scrawls in zone around broad end.

**Cool Facts:** Its call is a hard, nasal "*chit chit, chissie-chissie*", also "*tch-tch*", also "*chek-chek-chek*" and variants.



**Common Name:** Long-billed Spiderhunter  
**Scientific Name:** *Arachnothera robusta*

**Size:** 8.3-8.7 inches (21–22 cm)

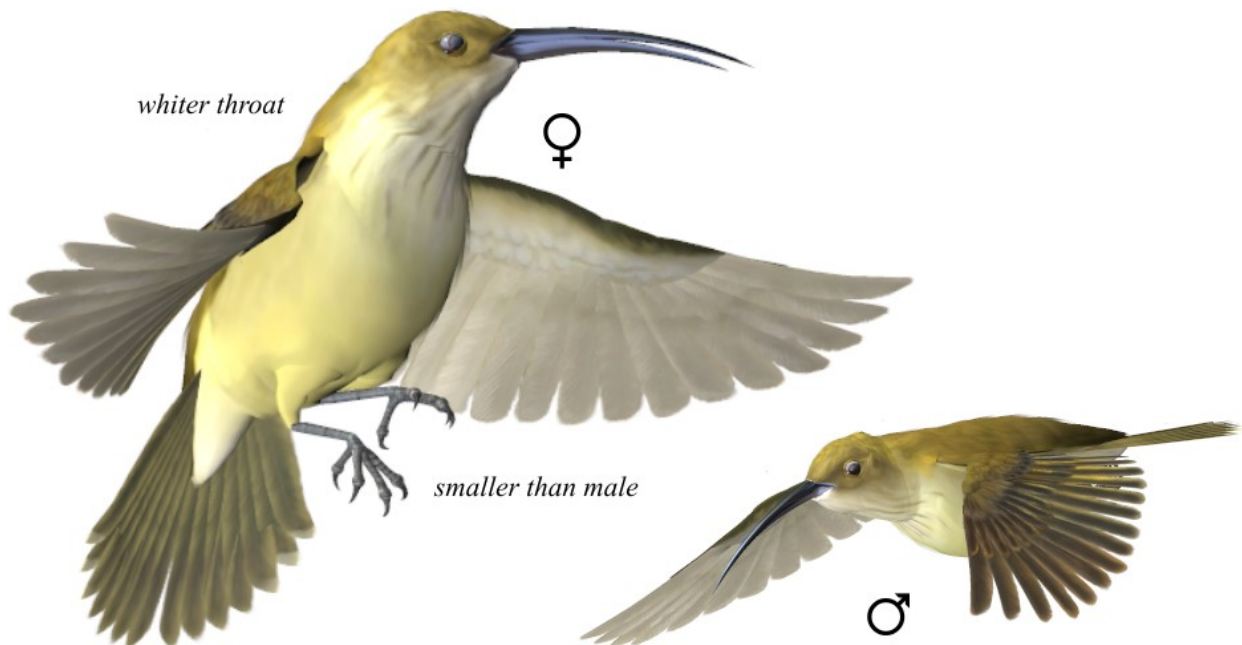
**Habitat:** Asia; endemic to Brunei, Indonesia, Malaysia, and Thailand.

It is found in various forest types, including dipterocarp, heath forests, peat-swamp forests and coniferous forests. It can also be seen at plantations, forest edges, secondary growths and gardens. It is found from sea-level to 1520 m on the Malayan Peninsula, and up to 1700 m in Sumatra, and to 1000 m in Borneo.

**Status:** Least Concern. **Global population:** 3,530,000 mature individuals with a declining population trend. This spiderhunter is considered “rare” in Thailand and Sumatra. It is fairly common in Peninsular Malaysia. It is scarce in Borneo, but locally common at sea-level in Java (but generally rare elsewhere). The population is suspected to be in decline owing to ongoing habitat destruction.

**Diet:** Caterpillars and other soft insects, mantids, and spiders. It takes nectar from small flowers and mistletoes, and the fruits of creepers.

It forages singly, usually in the canopy. It pollinates and takes nectar from durian trees.



**Breeding:** This spiderhunter has very long decurved bill. The male of the nominate race is olive above, with slight dark scaling on crown, remiges that are edged yellowish and a tail that is blackish-brown (with the outer two feather pairs tipped white). It is dull olive-yellow below, which is a brighter yellow on belly and under tail-coverts. It has streaked olive on its throat and

breast with orange-yellow pectoral tufts. The under wing-coverts are pale yellow. Its iris is brown, the bill black and the legs are a blackish-olive. The female is similar to male but smaller, and lacks pectoral tufts. The juvenile look similar to the female but lacks dark crown markings and neck/breast streaking.

Breeding season occurs from February to June/July on the Malayan Peninsula. Egg laying has been recorded in September in Sumatra (Jambi) and January, April through August and December in Java. In Borneo, egg laying occurs in May, June and December in the northwest (Sarawak), nestlings have been seen in March and mating in June in the north (Sabah). Young birds have been seen in September in the south (Kalimantan Tengah).

The nest is bottle-shaped or trough-shaped with cup at the end. It can be up to 43 cm long including entrance tunnel (about 22.5 cm long), entrance hole 11.5 cm wide, with chamber 10 × 65 cm. It is made from felted grass stems and other plant materials, woven together and held against the underside of a banana leaf by cobweb slings, knotted on surface of leaf (or built by sewing together the edges of a banana leaf to form tube, with entrance tunnel opening towards tip of leaf). The nest is 2–5 m above ground and a clutch of two eggs is laid. The eggs are matte white or faintly glossed, with a zone of black spots and lines around the broadest part.

**Cool Facts:** There are two subspecies:

- *A. r. robusta*. The nominate subspecies is endemic to southern Myanmar (extreme southern Tenasserim), southern Thailand and Peninsular Malaysia, Sumatra and Borneo.
- *A. r. armata*. It is found on Java. It is much smaller than nominate; normally with slightly different streaking pattern.

**Common Name:** Spectacled Spiderhunter  
**Scientific Name:** *Arachnothera flavigaster*

**Size:** 15-17 inches (21–22 cm)

**Habitat:** Asia; it is found in southern Thailand, Peninsular Malaysia, Sumatra and Borneo. It has been recently found in extreme southern Myanmar.

It prefers lowland dipterocarp forest, peat--swamp forests and secondary forests, forest edges, clearings, plantations, cultivated areas (primarily bananas and gingers) and gardens.



**Status:** Least Concern. **Global population:** 3,530,000 mature individuals with a declining population trend. It is locally common to uncommon on the Malayan Peninsula (where has possibly increased in south). It has extirpated from Singapore (main island). It is not uncommon in Sumatra, but uncommon to rare in Borneo. It had a presence in extreme southern Vietnam but now is extirpated. It occurs in Taman Negara National Park (in Peninsular Malaysia) and is “rare” at Danum Valley Conservation Area (in Borneo). The population is suspected to be in decline owing to ongoing habitat destruction.

**Diet:** Insects, spiders, pollen, fruit and nectar. The preferred nectar comes from coconut, *Erythrina*, *Eugenia*, *Firmiana fulgens*, *Spathodea* and Jacaranda.

It forages singly, occasionally in pairs and sometimes in small groups (where fruit is found). It usually stays in the middle to upper tiers of vegetation.

In nectar feeding, it hovers in front of flowers and probes fruits. It pollinates and takes nectar from durian trees.

**Breeding:** Sexes are similar. It has a medium length, thick, curved bill. The plumage is mostly olive, more greenish above, and more yellow on the flanks and belly. The edges of the remiges are brighter olive-green, with yellow to bronzy tinge. It has a large yellowish ear patch, and broad yellow eyering. The iris is brown. Its bill is blackish overall, with a hint of red-brown at base of the lower mandible. The legs are orange-brown.

On the Malayan Peninsula, nest-building occurs in February and egg laying in March, June, September and November. Egg laying occurs in April in Borneo. The nest is circular or with spout and is built from compacted plant fiber and lined with pappus seed, which is sewn on to underside of a coconut or other palm frond by silk. Sometimes it is placed between large rubber tree leaves sewn together. It is usually above 5 m above the ground. The clutch is two eggs, almost unglossed, dull greenish-gray with dark gray to brownish flecks, markings denser at broad end.

**Cool Facts:** Its call is a high-pitched “*chit-chit*”. While on the perch or in flight, it lets out an explosive “*tak*”, “*cha-tak*”, “*cha-ta-tak*” or other variants.

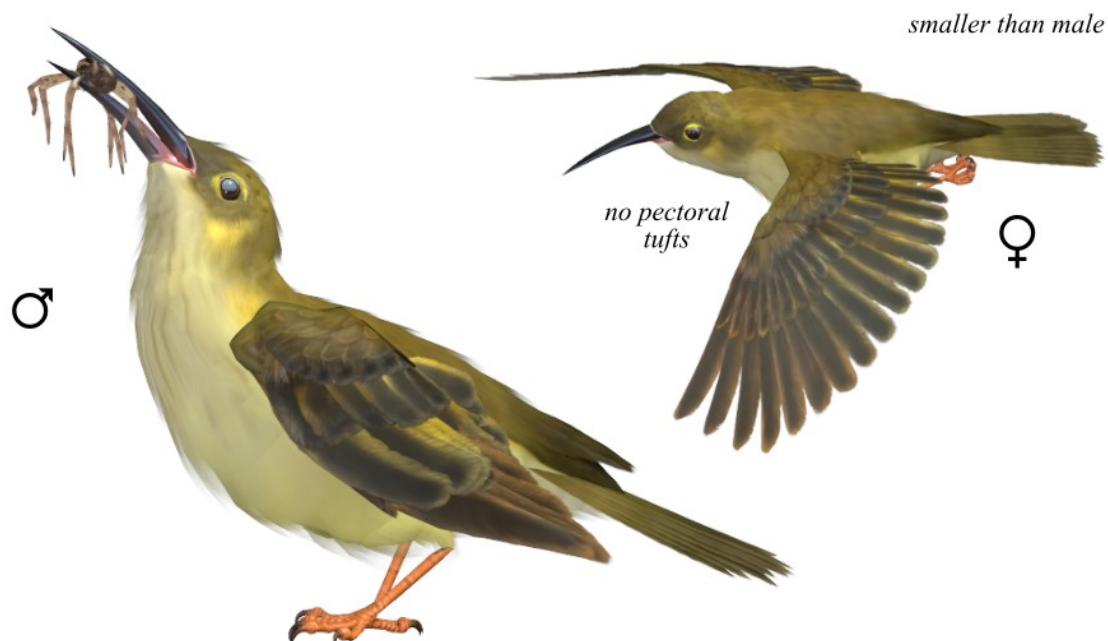
**Common Name:** Yellow-eared Spiderhunter  
**Scientific Name:** *Arachnothera chrysogenys*

**Size:** 15-17 inches (17–18 cm)

**Habitat:** Asia; it is found in Brunei, Indonesia, Malaysia, Myanmar, Singapore, Thailand, and Vietnam.

It can be seen in various forest types, including peat-swamp forests, mangroves and secondary forests, forest edges, plantations and gardens.

**Status:** Least Concern. **Global population:** 4,150,000 mature individuals with a declining population trend. It is described as local and uncommon on Sumatra, rare in west Java and very scarce on Borneo. The population is suspected to be in decline owing to ongoing habitat destruction.



**Diet:** Insects and spiders. It also feeds on nectar, pollen and small fruits. Recorded nectar sources include gingers, *Firmiana fulgens*, Eugenia and Erythrina, among with others. It also pollinates and takes nectar from durian trees.

It forages singly, sometimes in pairs, and occasionally in small groups, mostly in the canopy.

**Breeding:** The male of the nominate race has its head and upper parts olive-green, suffused golden on the mantle, becoming brighter on the rump, with large yellow cheek patch and narrow yellow filoplume eye ring (much narrower on lower half). The edges of the remiges are golden-bronze. The throat to the breast is a yellowish-green with indistinct greenish streaks, becoming brighter yellow on the belly, lower flanks and under tail-coverts. The pectoral tufts are gray. Its iris is brown and the bill is blackish with a

fleshy-pink base to the lower mandible, and often a long central orange to yellow line along the cutting edges, becoming pale gray on the gape. The legs are a dull fleshy-brown to pale brown. The female is similar to male but lacks the gray pectoral tufts. The juvenile resembles the adult female, but lacks the streaking and dark feather bases.

Egg laying occurs usually in January, April and May on the Malayan Peninsula. It occurs in May through June in southern Sumatra (Lampung) and in December in Java. In Borneo, egg laying occurs in February and March in the north (Brunei) and September in the northwest (Sarawak). The nest is basket-shaped, with or without long entrance tunnel, made from reddish-brown fibers from rotting leaf bases, with inner cup of finer material that is sewn to the under surface of a palm frond or banana leaf. The clutch is usually two eggs which are white, ringed with fine black lines at broader end, or dirty grayish-white and flecked heavily (at broader end) with sepia and gray-brown.

**Cool Facts:** There are two subspecies:

- *A. c. chrysogenys*. The nominate subspecies is endemic to extreme southern Myanmar (southern Tenasserim), southern Thailand, Peninsular Malaysia, Singapore, Riau and Lingga Archipelagos, Sumatra and most of its satellites, western Borneo and western Java.
- *A. c. harrissoni*. It is found in eastern Borneo. It differs from the nominate in almost completely lacking of the golden suffusion on mantle, which is nearly concolorous with crown. It also has exposed parts of closed wing lighter and duller than the nominate.

**Common Name:** Naked-faced Spiderhunter  
**Scientific Name:** *Arachnothera clarae*

**Size:** 6.8 inches (17.2 cm)

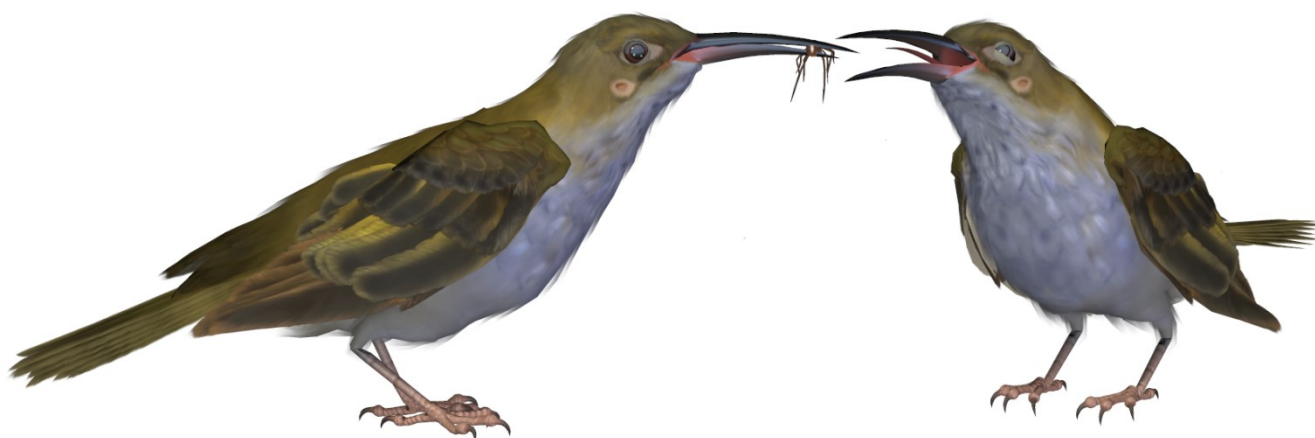
**Habitat:** Asia; it is endemic to the Philippines.

It is found in forested areas, forest edges and scrub and clearings, particularly around plantains.

**Status:** Least Concern. **Global population:** 602,000 mature individuals with a stable population trend. It is uncommon in most areas. Habitat destruction is a concern.

**Diet:** Nectar and small arthropods. It appears to prefer Philippine lipstick vine flowers and is a known pollinator of that species.

It forages singly, and in pairs.



**Breeding:** Sexes are similar. It is a medium length billed spiderhunter. The nominate race has its lores and area around the eyes a dark gray. There is bare skin in front of the eye which is dark gray. Its submoustachial patch and ears are naked and pinkish. The rest of the head and upper parts are olive-green and the edges of the remiges are olive-yellow to golden-olive. The coloring of the throat to breast is a brownish-gray with dark feather centers (giving an indistinct streaking appearance), while the rest of the under parts are greenish, paler, more yellowish, on the belly and lower flanks. There are no pectoral tufts. The iris is dark brown to black and the bill is black with a yellow gape. The legs are a pinkish-brown to dark brown.

Breeding seasons appears to be from January to May.

**Cool Facts:** There are four subspecies:

- *A. c. luzonensis*. This race is found in eastern central and southern Luzon (Sierra Madre Mts and Mt. Isarog), in the northern Philippine Islands. It differs from the nominate race in having burnt-orange edging of remiges, and a gray breast.
- *A. c. philippinensis*. This subspecies is found on Samar, Biliran and Leyte, in the east central Philippines. It has pink naked skin on the forehead, and its under parts are greener than the nominate race.
- *A. c. clarae*. The nominate race is endemic to central Mindanao (Davao).
- *A. c. malindangensis*. This race is found in northern and western Mindanao (including Mt. Malindang) and Basilan, in the southern Philippines. It is lighter olive-green above, has golden edges of the remiges, and olive-gray under parts (darker and duller green above and grayer, less greenish, below than race *philippinensis*).



**Common Name:** Gray-breasted Spiderhunter  
**Scientific Name:** *Arachnothera modesta*

**Size:** 6.7-7 inches (17–18 cm)

**Habitat:** Asia; Brunei, Indonesia, Malaysia, Myanmar, Singapore, Thailand, and Vietnam.

It prefers dipterocarp forests, peat-swamp forests, secondary and dry coastal forests, forest edges, coastal scrub, banana plantations, orchards and coconut groves,

**Status:** Least Concern. **Global population:** 3,480,000 mature individuals with a declining population trend. It is rare in Myanmar, common in Thailand and the Malayan Peninsula, common in Sumatra, but uncommon in Borneo. It probably went extinct in Singapore, where last confirmed record in the 1940s (although there was a reported sighting in 1981). It also occurs in several protected areas like Khao Pra Bang Wildlife Sanctuary (in Thailand), and Taman Negara National Park (in Peninsular Malaysia). The population is suspected to be in decline owing to ongoing habitat destruction. Its nests are sometimes parasitized by Plaintive Cuckoo (*Cacomantis merulinus*) in Borneo



**Diet:** Spiders, also insects, including crickets and ants, nectar.

It forages singly and in pairs, in all canopy levels of forest. It is usually seen though, at low to middle levels.

**Breeding:** Sexes are alike. The nominate race is golden olive-green above, its crown with sooty-brown feather centers and its remiges blackish-brown

and edged yellowish-green. Its tail green with blackish-brown tips (all except central feathers). There are white subterminal spots that are visible from below that become smaller and duller towards central tail). Its throat and under parts olive-gray to buff-gray (it is darker on some birds). Its chin to upper breast has some variable narrow brown streaking. The iris is brown and its bill is medium brown to black-brown with a paler lower mandible. The legs are pinkish brown to brown. Juveniles lacks streaking.

Egg laying begins in late April in Peninsular Malaysia and in February in Borneo. The nest is a shallow cup of wood bast placed inside layer of leaf skeletons. It is latter felted with cobwebs to form asymmetrical basket, and placed against trunk of palm or, more usually, on underside of large leaf of banana and attached by cobweb slings. It is usually 1.5–2.5 m above the ground. The clutch is usually 2 eggs that are smooth and glossy, unevenly colored olive-brown, with a darker brown ring around broadest part.

**Cool Facts:** There are 4 subspecies.

- *A. m. caena*. This subspecies is found in extreme southern Myanmar (south Tenasserim) and southwestern Thailand. It is paler, less streaked and more yellowish below than nominate, and has upper parts more golden or yellow-green
- *A. m. modesta*. The nominate race is found on the Malayan Peninsula and Borneo (Sarawak, Brunei, Kalimantan).
- *A. m. concolor*. It is found on Sumatra, including the Mentawai Islands. It is darker green above than nominate, and some are less streaked below.
- *A. m. pars*. It is endemic to eastern Borneo

**Common Name:** Streaky-breasted Spiderhunter  
**Scientific Name:** *Arachnothera affinis*

**Size:** 8.3 inches (21 cm)

**Habitat:** Asia; it is endemic to Java and Bali. This species may also occur in montane Sumatra (replacing Gray-breasted Spiderhunter (*A. modesta*) of the lowlands).

It prefers lowland, lower montane, and hill dipterocarp forests, as well as other, less densely wooded habitats including plantations and gardens. It occurs below 1,600 m on Java, but at 800–1,600 m on Sumatra.

**Status:** Least Concern. **Global population:** 1,520,000 mature individuals with a declining population trend. It is considered 'fairly common', although the species' status (and indeed presence) on Sumatra requires confirmation. The population is suspected to be in decline owing to ongoing habitat destruction.

**Diet:** Nectar, spiders and insects.

It forages singly, and in pairs.



**Breeding:** Sexes are alike. It has golden-green upper parts with dark scaling on the crown. The remiges and rectrices are blackish brown, the feathers edged green, the central rectrices with much green (except at the tips), and all except the central pair with white subterminal spots (visible from below) that

become smaller and duller towards the central tail. The underparts are gray with a slight yellow tinge, being heavily streaked brownish from the chin to belly, and some streaking on the flanks; the under tail-coverts are whitish with dark barring.

On Java, egg laying occurs in February, April, October, and December.

**Cool Facts:** Previously, this spiderhunter was often considered conspecific with both the Gray-breasted Spiderhunter (*A. modesta*) and Bornean Spiderhunter (*A. everetti*). DNA comparisons show that while the species are relatively close to each, they do exhibit subtle but unique differences.

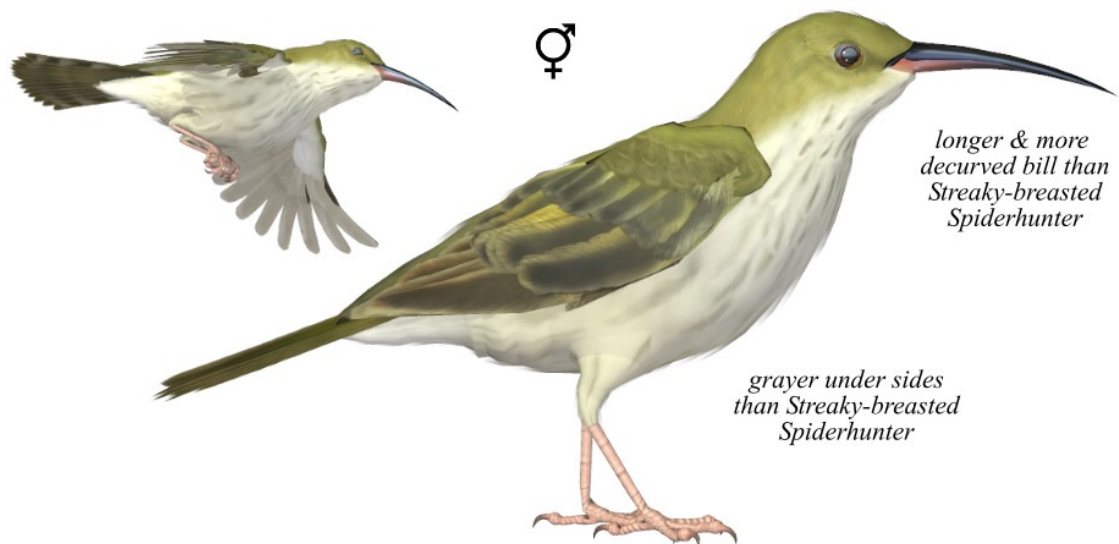
**Common Name:** Bornean Spiderhunter  
**Scientific Name:** *Arachnothera everetti*

**Size:** 8.3 inches (21 cm)

**Habitat:** Asia; Borneo.

It is principally a montane species, occurring in forests, edge habitats, and around plantations, mostly above 600 m in areas of distributional overlap with Gray-breasted Spiderhunter (*A. modesta*), and to 2,200 m overall. However, in Sabah, where the latter species is not present, this spiderhunter has been found in logged forest, rubber and abaca plantations, and gardens at low elevations.

**Status:** Least Concern. **Global population:** Unknown amount mature individuals with a declining population trend. Bornean Spiderhunter is unlikely to be listed as threatened owing to its relatively large range and tolerance of degraded habitats, including plantations and garden



**Diet:** Nectar, spiders and insects. Often found near to bananas and plantains.

It is generally believed to forage singly, occasionally in pairs, and mostly in higher levels of the forest.

**Breeding:** It is a large spiderhunter with olive-green upper parts and dark-streaked mid-gray under parts. The bill is longer and more decurved than the Streaky-breasted Spiderhunter (*A. affinis*).

Breeding season appears to be year-round. Cup-like and suspended from leaves by cobweb that is sewn through the nest, which in turn mostly comprises a bright silky substance that is found on the fronds of young ferns,

as well as seed down. The outside of the nest is often covered with small flower and plant stems, again attached by cobweb. A clutch of two eggs,

**Cool Facts:** The call is a simple, harsh, and squeaky chee-wee-dee-weet...tee-ree, chee chee-chur. BirdLife International considers Bornean Spiderhunter to be conspecific with Streaky-breasted Spiderhunter (*A. affinis*); however many scientists disagree and believe this spiderhunter to be an unique species.

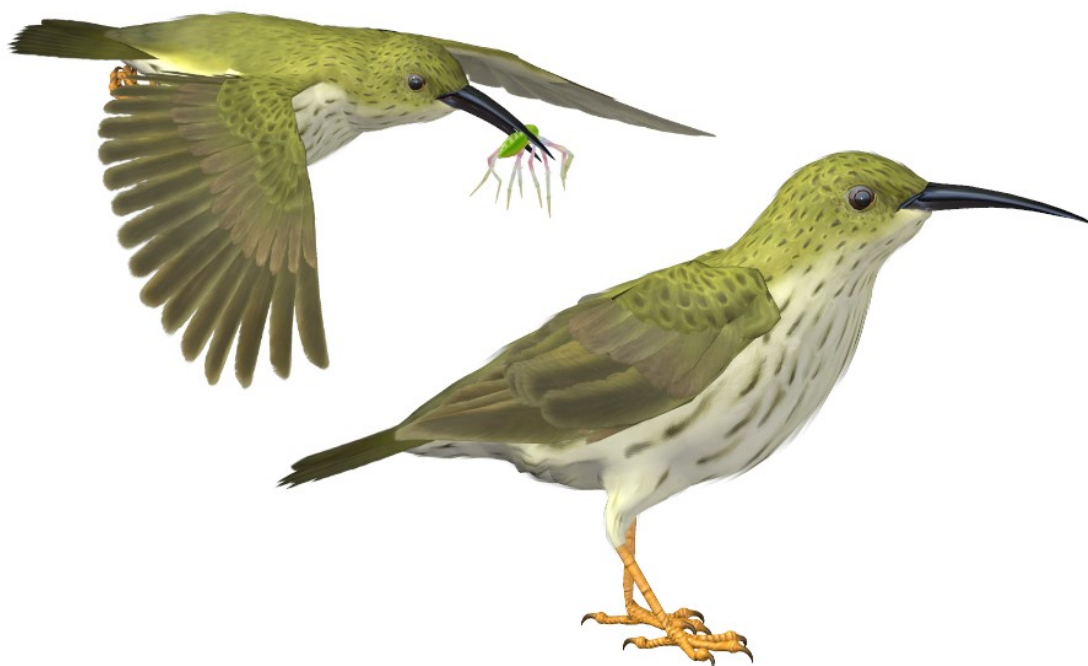
**Common Name:** Streaked Spiderhunter  
**Scientific Name:** *Arachnothera magna*

**Size:** 6.7-7.9 inches (17–20 cm)

**Habitat:** Asia; it is found in Bangladesh, Bhutan, Cambodia, China, India, Laos, Malaysia, Myanmar, Nepal, Thailand, and Vietnam.

It frequents various types of forest, including heavily disturbed and secondary forests, but also forest edges, bamboo, scrub, thickets and gardens. In Nepal, it is generally found at elevations up to 450 m, (but has been recorded up to 2135 m).. In India, it is found from 600–2200 m (lower in winter), and down to 500 m in northern Vietnam. It found at up to 150 m in Cambodia and 800 m, to at least 1890 m, on the Malayan Peninsula.

**Status:** Least Concern. **Global population:** 4,560,000 mature individuals with a stable population trend. It is locally common in the northeastern Indian Subcontinent, and frequent in parts of Bhutan. It is common in much of the southeast Asian range, but locally not uncommon to very rare in Myanmar. It is common in the Malay Peninsula, and locally common in southern China. It occurs in several protected areas throughout its range.



**Diet:** Nectar (particularly from bananas), as well as, insects, and spiders.

It forages singly, sometimes in pairs and occasionally joins mixed-species parties. It is seen foraging in upper canopy, but often at lower levels, too. It has been seen removing spiders from their webs.

**Breeding:** Sexes are alike. The nominate race is golden yellowish-olive with black streaking on the upper parts. The tail is tipped olive-buff and with a

blackish subterminal band. Its under parts are a very pale yellowish-white with bold black shaft streaks. The under tail-coverts are yellow to olive-yellow with bold black chevrons. The iris is brown and the bill is usually blackish-brown (it has been seen with a horn colored bill). The legs are yellow to orange with pale claws. The juvenile is more buffy and gray (less golden-green) above and less yellow below than adult.

Egg laying occurs from March to July in India, and April, then July through August Myanmar. Nest-building occurs in late February, March and September, with eggs and nestlings in March through April and fledgling early May in Peninsular Malaysia.

Its nest is a neat inverted dome or oblong, with one or two entrances (but no tunnel). It is constructed from leaf skeletons joined together with cobwebs, lined with grass and more leaf skeletons. It is sewn together by vegetable down and cobwebs to the underside of broad leaf (usually banana, large ginger, teak, or huge dock (*Rumex*) leaves. The nest is 0.5–2 m above the ground and contains a clutch two to three eggs. The eggs are brown to olive-brown, darker at broader end.

The nests are parasitized by Large Hawk-cuckoo (*Hierococcyx sparveroides*), Indian Cuckoo (*Cuculus micropterus*), Common Cuckoo (*Cuculus canorus*) and Lesser Cuckoo (*Cuculus poliocephalus*).

**Cool Facts:** There are 5 subspecies:

- *A. m. magna*. The nominate race is found in Nepal, Sikkim, Bhutan, eastern Bangladesh and northeastern India eastward to southern China (southeastern Xizang east to western, southern and southeastern Yunnan, southwestern Guizhou and western Guangxi) and northern Myanmar.
- *A. m. aurata*. This race is endemic to central and eastern Myanmar. It is slightly smaller than nominate, has golden rump and upper tail-coverts, dusky olive under tail-coverts broadly tipped yellowish-white.
- *A. m. musarum*. This race is endemic to southeastern Myanmar, northern Thailand, Laos and northern Vietnam (west Tonkin). It has a less golden suffusion above than the nominate. It is only faintly washed yellow below, and the ventral streaking is broad and bold.
- *A. m. pagodarum*. It occurs in southern Myanmar, western Thailand and the southern Malayan Peninsula. It is duller, greener and less golden than previous, with streaking above less clear.
- *A. m. remota*. It is found in south-central and southern Vietnam and eastern Cambodia. This race is more green and less golden than the nominate, with smaller black feather centers on the head and back. It has a deeper yellow on the bend of the wing and under tail-coverts. The rest of the under parts tend to be more yellowish than the nominate race.



**Common Name:** Whitehead's Spiderhunter  
**Scientific Name:** *Arachnothera juliae*

**Size:** 6.1-6.4 inches (15.5–16.5 cm)

**Habitat:** Asia; endemic to Borneo. On Sarawak, it is found on Mt. Dulit, Mt. Kalulong, Mt. Murud, Mt. Selidang, the Usun Apau Plateau, the Kelabit Uplands and Mt. Mulu. On Sabah, it is found on Mt. Kinabalu, Mt. Trus Madi and the Crocker Range and on Kalimantan Utara, the upper Bahau River and Mt. Lanjut.

It prefers hilly dipterocarp forests and montane forests, and forest edges.



**Status:** Least Concern. **Global population:** 86,500 mature individuals with a declining population trend. Formerly, it was considered “Near Threatened”. It is a restricted-range species which is only present in the Bornean Mountains EBA. It is considered locally common. It possibly occurs on other mountains in Borneo. It is present in the Rafflesia Forest Reserve, in the Crocker Range, and in Kinabalu Park (both in Sabah). The population is suspected to be in decline owing to ongoing habitat destruction.

**Diet:** Small arthropods, berries and nectar.

It forages singly and in pairs, and occasionally in groups of up to five individuals. Sometimes, it associates with mixed-species flocks. It feeds mostly in the canopy, but also comes lower at the forest edges. It forages within foliage, especially among clumps of epiphytes on the higher branches. It has been observed probing rhododendron flowers for food.

**Breeding:** Sexes are similar although males are 10% larger. The plumage is mainly brownish-black, with the crown streaked buffy white. Its neck and back are narrowly streaked white and its rump is bright yellow. The throat has small brownish-white streaks, while the rest of the under parts are broadly streaked white (except for the unmarked bright orange-yellow under tail-coverts). The iris is brown and the bill and legs are black.

Active nests appear in canopy in March, June and November. Nests consist of a bowl lined with fine bark materials. In one case, the nest was found inside a naturally occurring hanging ball of moss 19 m above the ground in a large tree.

**Cool Facts:** In 1887, the British ornithologist Richard Bowdler Sharpe described Whitehead's spiderhunter as *Arachnothera juliae* on the basis of specimens collected from Mount Kinabalu, Borneo by the British explorer John Whitehead.

## Special Thanks to my Beta-Testing Team...

*Alisa & FlintHawk*

## Species Accuracy and Reference Materials

The author has tried to make these species as accurate to their real life counterparts as possible. With the use of one generic model to create dozens of unique bird species, some give and take is bound to occur. The texture maps were created in Painter with as much accuracy as possible.

## Field Guide Sources:

- **Handbook of the Birds of the World** <https://www.hbw.com/>
- **Wikipedia** [https://en.wikipedia.org/wiki/Main\\_Page](https://en.wikipedia.org/wiki/Main_Page)
- **BirdLife International** <https://www.birdlife.org/>

**Shirts, jerseys, sweatshirts,  
prints, cards, posters, pillows,  
coffee cups, calendars & more**

