

Habitat and Ecology: A rare and localised resident of forests, secondary woodland, old plantations and mangroves, particularly the Central forests, Pulau Ubin and Pulau Tekong. *ssp. burmanicus* from mainland SE Asia has also been sporadically reported during the migratory period, as have presumed dispersants of *ssp. malayensis* from Malaysia. Robinson (1927) thought its occurrence was doubtful but Gibson-Hill (1950) considered it a resident in very small numbers. Presently, regular sites for the species are Pulau Ubin where possibly one pair occurs, and at least a pair in the Central Catchment Nature Reserve and adjoining woodland. The best known locality for the species is the woodland patch at Goldhill Ave, adjacent to MacRitchie forest. The pair at Goldhill was first reported in 2011, has been recorded regularly thereafter with mating observed in March 2021 (one young fledged).

Distribution: Indian Subcontinent and S China, mainland SE Asia, east to Borneo, Sumatra and Java.

Threats: Habitat loss and degradation of secondary forests and woodland outside the Central forests expected to be a major threat.

Scientific Interest and Potential Value: A specialist predator of mostly reptiles, especially arboreal snakes.

Conservation Measures: The species is assumed to be secure in the key protected areas, but long-term management and protection of woodland areas in W Singapore and Ubin may benefit the species.

Scientific Name:
Haliaeetus ichthyaetus

Common Name:
Grey-headed Fish Eagle

Order/Family:
Accipitriformes: Accipitridae

National Status: Vulnerable (VU). The species is assessed to have met thresholds for Criterion D due to its relatively small population. However, the population is estimated to have increased by more than 160% over 10 years or three generations based on Annual Bird Census data, and the area of occupancy has expanded. In the 1990s, the population was estimated at no more than 3 pairs.

Habitat and Ecology: An increasing and widespread resident (and probably non-breeding visitor) of forested reservoirs, quarries and adjacent woodland. The first Singapore record was an individual seen off Loyang in 1949, the next record at Tanjong Murai in 1980, and another was at MacRitchie Reservoir in 1983. Subsequently, records became increasingly frequent in the Central Catchment Nature Reserve, especially in MacRitchie Reservoir, and Poyan in the Western Catchment. By 2010, birds were regularly seen on almost every month at several sites across Singapore,



Photo: Wang Bin

including Sungei Buloh and Pulau Ubin. There are breeding records annually but possibly the best documented breeding involves a pair at Little Guilin Park.

Distribution: Indian Subcontinent, mainland SE Asia and the Malay Peninsula, east to the Philippines and Sulawesi.

Threats: Habitat loss and degradation of riparian secondary forests and woodland outside the Central forests is expected to be a major threat.

Scientific Interest and Potential Value: A specialist predator of fish, directly competing with White-bellied Sea Eagle, typically requiring forested banks of large water bodies.

Conservation Measures: The species is assumed to be secure in the key protected areas, but long-term management and protection of woodland areas in western Singapore will be important.

Scientific Name:
Bubo sumatranus

Common Name:
Barred Eagle Owl

Order/Family:
Strigiformes: Strigidae

National Status: *ssp. sumatranus*. Critically Endangered (CR). Previously unassessed. The species is assessed to have met thresholds for Criterion D with an estimated population at less than 50 individuals. However, the increase in records over recent years suggests a growing population.

Habitat and Ecology: An uncommon resident of forests and tall woodland, primarily in the Central forests and Ubin. The species was believed to be extirpated after a long period with no records until the 1990s where the re-emergence of records may suggests that the species either recently recolonised Singapore or had escaped detection by earlier field surveys. There were several records from Central Catchment and Bukit Timah Nature Reserves between 1995 and 2008, while the first documentation on Pulau Ubin came in July 2015. Breeding has now been confirmed from sightings of juveniles at Pulau Ubin in March 2018, Bukit Timah (Singapore Quarry) in August 2018, 2019 and more recently in the Central Catchment (Rifle Range) in April 2021.

Distribution: Thai-Malay Peninsula, Sumatra, Java, Borneo and Bali

Threats: Habitat loss and degradation of secondary forests and woodland outside the Central forests expected to be a major threat.

Photo: Con Foley



Scientific Interest and Potential Value: An apex nocturnal predator in SE Asian forest ecosystems.

Conservation Measures: The species is assumed to be secure in the key protected areas, but long-term management and protection of woodland areas in Pulau Ubin will be important.

Scientific Name:***Strix seloputo*****Common Name:****Spotted Wood Owl****Order/Family:****Strigiformes: Strigidae**

National Status: *ssp. seloputo*. Vulnerable (VU). Previously Critically Endangered. Expected to have met thresholds for Criteria B and D as population is thought to be quite large, and the species has widely colonised parkland habitat.

Habitat and Ecology: A fairly common resident of forest edges, woodland, old plantations, and parkland widely distributed across Singapore, including on several offshore islands such as St. John's, Kusu, Sentosa and Ubin. The first modern record was a bird seen at MacRitchie Reservoir in December 1985, and since then it has been recorded from many sites throughout the mainland, including the fringes of the Central Catchment Nature Reserve, Singapore Botanic Gardens and the Southern Ridges (e.g. Telok Blangah, Kent Ridge), east to Pasir Ris and Changi. It is possible that the species colonised Singapore in the 1980s from populations in Peninsular Malaysia, as oil palm plantation (a known habitat) became more widespread there. The breeding period is from January to March and August to September, and there are several breeding records, most recently from Pasir Ris Park where a nest was discovered in February 2022, and chicks seen thereafter till June.

Distribution: Mainland SE Asia to the Thai-Malay Peninsula, Sumatra and Java. Also Palawan.

Threats: Habitat loss and degradation of secondary forests and woodland.

Photo: Norhafani Abdul Majid



Scientific Interest and Potential Value: An adaptable large owl that has spread widely across suburban woodland and parks in Singapore, and possibly an apex predator in such habitat.

Conservation Measures: The species is assumed to be secure in the key protected areas, but long-term protection of woodland area in Pulau Ubin, Pasir Ris and elsewhere will benefit the species.

Scientific Name:
Halcyon coromanda

Common Name:
Ruddy Kingfisher

Order/Family:
Coraciiformes: Halcyonidae

National Status: *ssp. minor*. Critically Endangered (CR). With a tiny estimated population of less than 50 individuals, the species is assessed to have met thresholds for Criterion D and possibly Criterion B.

Habitat and Ecology: A very rare and localised resident of mangrove forests, nipa swamps and adjacent coastal forest on Pulau Tekong and Pulau Ubin (*ssp. minor*). It also occurs as a winter visitor and passage migrant (*ssp. coromanda? major?*) in forests and woodland throughout Singapore. Historically, the species was recorded from mainland Singapore and the Ayer Merbau island cluster, but mangroves there have been entirely lost to the development of Jurong Island. There have been recent records from Pulau Ubin (2021–2022), and this may either involve recent colonists or a tiny, overlooked population. Pulau Tekong remains a stronghold for the species, and is the only site with breeding evidence, including observations of adults attending to juveniles and fledglings in

Photo: Belinda Wong



the late 1980s. The main influx of the migratory subspecies typically occurs from early October to the end of November and mid-February to March.

Distribution: E China, Korean Peninsula and Japan, to mainland SE Asia, east to the Greater Sundas, Sulawesi and the Philippines.

Threats: Habitat loss and degradation of mangroves and associated coastal vegetation.

Scientific Interest and Potential Value: One of three resident kingfishers in mangroves.

Conservation Measures: The continued protection of mangrove forests in Pulau Ubin and Pulau Tekong will benefit the species.

Scientific Name:
Alcedo meninting

Common Name:
Blue-eared Kingfisher

Order/Family:
Coraciiformes: Alcedinidae

National Status: *ssp. verreauxii*. Endangered (EN). The species is expected to have met thresholds for Criterion D for its small population but it is now known to be widespread, occurring across the Western Catchment, Pulau Ubin, Pulau Tekong, and several woodland sites.

Photo: Con Foley



Habitat and Ecology: A resident typically associated with forested streams in the Central forests. Gibson-Hill (1950) noted that it was resident in very small numbers and found in the more heavily wooded areas of Singapore. The occurrence of the species in Bukit Timah Nature Reserve and its adjoining parks since the 2010s suggests that it has successfully colonised the site from the Central Catchment Nature Reserve. Similarly, it appears to have recently colonised woodland on the fringes of Kranji Reservoir. Breeding has been variously documented, the first being a pair observed mating in July 1996 although no nests have ever been found in Singapore. Several more records of juveniles accompanied by adults have been documented across the Central Catchment and Bukit Timah Nature Reserves.

Distribution: Indian Subcontinent, mainland SE Asia, east to Sumatra, Borneo, Java and Palawan; also in Sulawesi and Lombok.

Threats: Habitat loss and degradation of secondary forests and woodland outside the Central forests expected to be a major threat.

Scientific Interest and Potential Value: A forest-living kingfisher that nests in earth banks.

Conservation Measures: The species is assumed to be secure in the key protected areas, but long-term protection of woodland areas in western Singapore and Pulau Ubin is expected to benefit the species.

Scientific Name:
Psilopogon rafflesii

Common Name:
Red-crowned Barbet

Order/Family:
Piciformes: Megalaimidae

National Status: Vulnerable (VU). Previously unassessed. The species is expected to have met thresholds for Criterion D on the basis of a small population, and is largely restricted to the Central forests. A small decline has been detected based on Annual Bird Census data.

Habitat and Ecology: An uncommon resident of forests and forest edges, and primarily recorded in the Central Catchment and Bukit Timah Nature Reserves, with dispersants recorded elsewhere. It was formerly found on Pulau Ubin (Gibson-Hill 1950) but became extirpated there by the 1950s. A key stronghold in the Central Catchment Nature Reserve is the Nee Soon forest where up to 5 or 6 individuals can be recorded in a morning. The first breeding record was in April 1979 when a nest with young was found at Upper Peirce Reservoir. Since then, there has been several more breeding records, most recently an adult seen feeding berries to a juvenile at Dairy Farm Nature Park in April-May 2022.

Photo: Isabelle Lee



Distribution: S Myanmar, Thai-Malay Peninsula, Sumatra and Borneo.

Threats: Competition with the introduced Lineated Barbet likely an important threat, especially in the fringes of the Central forests.

Scientific Interest and Potential Value: Likely an important fruit disperser for forest trees.

Conservation Measures: The species is assumed to be secure (but has small population size) in the Central forests, which are protected as Nature Reserves. Initiatives to improve forest connectivity can benefit the species.

Scientific Name:
Psittinus cyanurus

Common Name:
Blue-rumped Parrot

Order/Family:
Psittaciformes: Psittacidae

National Status: ssp. *cyanurus*. Endangered (EN). Previously Critically Endangered. The species is assessed to have met thresholds for Criterion B and D due to its relatively small population not exceeding 250 individuals. However, the population is estimated to have increased by 210% over 10 years or three generations based on Annual Bird Census data.

Habitat and Ecology: An uncommon resident of forests, forest edges and woodland, especially in the Bukit Timah and Central Catchment Nature Reserves where it appears locally common and where flocks are regularly observed. Presumed dispersants have been more widely recorded, including on Pulau Ubin. The highest count to date involves a report of 12 individuals, including two juveniles, at Old Upper Thomson Road in July 2018 and comparable numbers at Windsor Nature Park. Breeding has not been directly documented but a female was observed inspecting a tree hole at Bukit

Photo: Con Foley



Timah Nature Reserve on 27 November 1988 (SINAV 2:11).

Distribution: S Myanmar, Thai-Malay Peninsula, Sumatra, Borneo and intervening islands.

Threats: Competition with introduced parakeets (for nesting cavities) may be a potential threat.

Scientific Interest and Potential Value: Possibly a disperser for some forest trees (although more likely a seed predator).

Conservation Measures: A species recovery plan has been developed for the species by the National Parks Board and captive breeding activities are being undertaken at the (Mandai) Bird Paradise. The nature reserves provide protected habitat.

Scientific Name:
Cymbirhynchus macrorhynchos

Common Name:
Black-and-red Broadbill

Order/Family:
Passeriformes: Eurylaimidae

National Status: ssp. *malaccensis*. Critically Endangered (CR). Previously unassessed. The species is expected to have met thresholds under Criterion D for small population (fewer than 50 individuals).

Photo: Norhafani Abdul Majid



Habitat and Ecology: Formerly considered a very rare non-breeding visitor (to Pulau Ubin), it now seems more likely that the Black-and-Red Broadbill occurs as a rare and localised resident in Pulau Ubin and Sungei Buloh. Bucknill and Chasen (1927) reported that it was an uncommon resident and was quite numerous on Pulau Ubin while Gibson-Hill (1950) considered it to be scarce but then the most plentiful of its family. A male photographed in woodland abutting mangroves on Pulau Ubin in August 2004 was the first confirmed report in four decades, and since then there has been an increase in the regularity of sightings there, including several in the Chek Jawa area from 2022 to 2023, and the Noordin area during a two-year survey of Pulau Ubin's biota. An adult was ringed at Sungei Buloh in 2019.

Distribution: S Myanmar, Thai-Malay Peninsula, Sumatra and Borneo; also Cambodia and S Vietnam.

Threats: Habitat loss and degradation of mangrove forests and adjacent woodland. Small population at high risk of local extirpation.

Scientific Interest and Potential Value: Nests must overhang water. The species is attractive to photographers and birdwatchers.

Conservation Measures: The long-term protection of woodland areas in western Singapore and Pulau Ubin is expected to benefit the species.

Scientific Name:
Pitta megarhyncha

Common Name:
Mangrove Pitta

Order/Family:
Passeriformes: Pittidae

National Status: Critically Endangered (CR). The species is expected to have met thresholds for Criteria B and D based on its small area of occupancy, and equivalently small population on Pulau Ubin and Pulau Tekong.

Habitat and Ecology: An uncommon but localised resident of mangroves and adjacent old plantations and woodland in Pulau Ubin and Pulau Tekong. The species appears to be a specialist feeder on crabs and other mangrove arthropods and is regularly seen hunting crabs on mud mounds and mangrove roots. Bucknill and Chasen (1927) noted the species to be a common resident of mangroves along the northern coast of Singapore but the species apparently became extirpated in the 1980s. Records elsewhere, including one from Sungei Buloh in 2008 may have involved dispersants from southern Johor. Allen (1955) described the first nest for Singapore from the Pasir Panjang area. Several records involving nest-building have been

Photo: Con Foley



documented on Pulau Ubin thereafter, and most recently adults and juveniles were reported in July 2022.

Distribution: Bangladesh, Myanmar, coastal Thai-Malay Peninsula and Sumatra.

Threats: Loss and degradation of mangrove forests.

Scientific Interest and Potential Value: Ecological interactions with the recently colonising Blue-winged Pitta merit further investigation. The latter species was not known to breed in Singapore until the past decade.

Conservation Measures: The species is assumed to be secure in Pulau Ubin.

Scientific Name:
Pericrocotus speciosus

Common Name:
Scarlet Minivet

Order/Family:
Passeriformes: Campephagidae

National Status: ssp. *xanthogaster*. Critically Endangered (CR). The species is expected to have met thresholds for Criterion D for small population (fewer than 50 individuals). There are very few records since the early 2000s when it was regularly documented at Bukit Timah, suggesting continuing declines.

Habitat and Ecology: A very rare resident occurring in tall secondary and primary forest in Bukit Timah and the Central Catchment Nature Reserves (Lim and Gardner 1997). Most recent reports come from Bukit Timah Nature Reserve, where a few birds were regularly encountered up till the late 1990s, sometimes in mixed foraging flocks. There were no records there after March 1998 (SINAV 12:1). Only three records after 2000 were reported elsewhere (SINAV 14:4,



Photo: Con Foley

SINAV 18:3, NSSMBR Feb 2021) and all may involve non-breeding visitors. Breeding has not been reported for Singapore.

Distribution: Indian Subcontinent, S and SE China, mainland SE Asia, Greater Sundas and the Philippines. Also present in the Andaman and Nicobars.

Threats: This species is threatened due to its low population levels.

Scientific Interest and Potential Value: A largely canopy-feeding insectivore.

Conservation Measures: None specific to the species other than habitat conservation.

Scientific Name:
Dicrurus macrocercus

Common Name:
Black Drongo

Order/Family:
Passeriformes: Dicruridae

National Status: ssp. *cathoecus*. Vulnerable (VU). Previously unassessed. The species is estimated to have declined by 43% over 10 years or three generations based on the Annual Bird Census data, and therefore meeting thresholds for Criterion A2.

Habitat and Ecology: A winter visitor and passage migrant occurring in grasslands, freshwater marshes, fields and open scrub, including on reclaimed land. Formerly regularly occurring in small numbers, the



Photo: Con Foley

evidence suggests that it has declined steadily and it has not been detected in some years since 2000s (LKS pers. obs.) and is corroborated by recent records, when sightings were only rarely reported (NSSMBR Nov 2014, Nov 2018, Mar 2019, Nov 2021, NSSBR 2022b). Surprisingly, the species is little documented in the historical literature such as Chasen (1923), Bucknill and Chasen (1927), Gibson-Hill (1950).

Distribution: Indian Subcontinent, E, SE and S China, mainland SE Asia, Java and Bali. E Asian populations winter south to SE Asia and the Greater Sundas.

Threats: Loss of open country habitat such as scrub. The increased use of agricultural chemicals may have contributed to its decline at the regional scale.

Scientific Interest and Potential Value: Considered an efficient agent in control of agricultural pests, such

as white grub (*Holotrichia*) (Rocamora and Yeatman-Berthelot 2020).

Conservation Measures: While currently globally abundant, this species is dependent on grasslands and open country, such as those around Tuas, Neo Tiew and Kranji; these are vulnerable to land clearance for development.

Scientific Name:
Hypothymis azurea

Common Name:
Black-naped Monarch

Order/Family:
Passeriformes: Monarchidae

National Status: *ssp. prophata*. Critically Endangered (CR). The species is expected to have met thresholds for Criteria B and D based on its small area of occupancy, and equivalently small population known only from Pulau Tekong.

Habitat and Ecology: A rare and localised resident of secondary forests and adjacent mangrove and woodland on Pulau Tekong Besar and rarely on Pulau Ubin. It is also a very rare non-breeding visitor, with sightings of single individuals reported over the years (SINAV 18:1, NSSMBR Oct 2019, Jan 2021, Mar 2021). Previously, Gibson-Hill (1950) reported that it was resident in small numbers in scrub and thickly wooded areas, although Gregory (1970) mentioned that there were no records collected by the Royal Air Force Ornithological Society between 1967 and 1970.

Photo: Con Foley



Distribution: Indian Subcontinent, S and SW China, mainland SE Asia and Greater Sundas, east to Philippines, Lesser Sundas.

Threats: Loss and degradation of forests on Tekong.

Scientific Interest and Potential Value: A forest understorey insectivore.

Conservation Measures: More individuals may occur if increased habitat loss in southern Johor forces birds to find refuge further south in Singapore.

Scientific Name:
Pycnonotus zeylanicus

Common Name:
Straw-headed Bulbul

Order/Family:
Passeriformes: Pycnonotidae

National Status: Endangered (EN). The species is expected to meet thresholds under Criterion D for small population, but newer data suggest that there has been a sustained population increase since the 2000s.

Habitat and Ecology: An uncommon to locally common resident of secondary forests, forest edge, old plantations, woodland, and parks on the Singapore mainland and Ubin. Several specimens were collected in Pulau Ubin in July 1921 (Chasen 1923) and are currently in the Lee Kong Chian Natural History Museum. Recent ecological studies have shown that this species favours ecotones (Ho 2000) and woodland and scrub in the vicinity of water such as quarries, ponds and rivers. Monitoring data by the Nature Society (Singapore) since the 2000s suggests that the species is expanding its mainland range. Recent documentation of breeding includes nesting observed at Dairy Farm Nature Park in July 2018 and sighting of adults with juveniles in March 2019 at Bukit Batok Nature Park. The documented breeding period is September to May. Observations of wild individuals in the Mandai area suggest that birds



Photo: Lee Tiah Khee

from previous clutches assist parents in raising young; up to two clutches have been reported in one year.

Distribution: S Myanmar, Thai-Malay Peninsula, Sumatra, Borneo and Java (probably now extirpated).

Threats: This species is globally threatened due to the songbird trade and to a smaller extent, degradation of its riparian habitat.

Scientific Interest and Potential Value: Potentially an important disperser of small fruits in secondary forests, and riparian areas.

Conservation Measures: Singapore supports a large proportion of the known global population and a national species action plan was recently developed and published for the species. 'Critically Endangered' on the IUCN Global Red List, the species was uplisted to Appendix I in CITES (Convention on International Trade in Endangered Species) in 2022 after proposals by governments in the region.

Scientific Name:
Pycnonotus simplex

Common Name:
Cream-vented Bulbul

Order/Family:
Passeriformes: Pycnonotidae

National Status: ssp. *simplex*. Vulnerable (VU). Previously unassessed. The species is expected to have met thresholds for Criterion D for small population (population fewer than 1,000 individuals). No clear



Photo: Norhafizani Abdul Majid

trend was documented through Annual Bird Census data but there have been suspected declines (and the species is likely to have met thresholds for Criterion A2).

Habitat and Ecology: An uncommon resident of primary and secondary forests, and adjacent woodland in the Central forests, including several buffer nature parks. Records elsewhere, for instance in Bukit Batok and Singapore Botanic Gardens, likely refer to dispersants. Considered as 'not uncommon' by Bucknill & Chasen (1927) but populations likely to have further declined since then. Breeding has been reported and the documented breeding period is April, and June to October.

Distribution: Thai-Malay Peninsula, Sumatra, Borneo and intervening islands.

Threats: Loss and degradation of forest habitat. The species appears to be less tolerant of habitat disturbance than most other bulbuls.

Scientific Interest and Potential Value: Useful indicator species for good quality forests in Singapore. The closely related Cream-eyed Bulbul *P. pseudosimplex*, a (cryptic) species formerly thought endemic to Borneo has now been found in the Peninsula, and could occur (or have occurred) in Singapore.

Conservation Measures: The species is assumed to be secure in the Central forests and adjacent nature parks which provide protected and managed habitat.

Scientific Name:
Pycnonotus brunneus

Common Name:
Asian Red-eyed Bulbul

Order/Family:
Passeriformes: Pycnonotidae

National Status: ssp. *brunneus*. Vulnerable (VU). The species is expected to have met Criterion D for small population – but the number of records has increased across Central Catchment Nature Reserve and adjacent parks and it is now relatively more abundant than Cream-vented Bulbul. A small increasing trend has been detected based on Annual Bird Census data.

Habitat and Ecology: An uncommon to locally common resident of primary and secondary forests, now largely restricted to the Central forests and adjoining woodland, including Bukit Batok. Compared to Cream-vented Bulbul, the species appears more adaptable, frequently occurring in secondary forest and woodland. Historically the species was more widespread and was considered as 'not uncommon' but it became extirpated from Pulau Ubin and Labrador Park by the 1980s. Breeding has been reported with the documented breeding period being March to April, and July.

Distribution: Thai-Malay Peninsula, Sumatra and Borneo.



Photo: Norhafiani Abdul Majid

Threats: Loss and degradation of forest habitat.

Scientific Interest and Potential Value: Useful indicator species for good quality forests in Singapore.

Conservation Measures: None specific to the species other than general habitat protection, and the species is assumed to be secure in the Central forests and adjacent nature parks.

Scientific Name:
Acrocephalus orientalis

Common Name:
Oriental Reed Warbler

Order/Family:
Passeriformes: Acrocephalidae

National Status: Vulnerable (VU). Previously unassessed. The species is estimated to have declined by 45% over 10 years or three generations based on the Annual Bird Census data, and therefore meeting thresholds for Criterion A2.

Habitat and Ecology: A winter visitor and passage migrant to freshwater marshes, *Phragmites* reed beds and the well-vegetated fringes of ponds and reservoirs, flooded grassland and scrub. Presumed passage migrants occur in scrub in reclaimed areas such as Tuas and Changi, and occasionally in mangroves. Birds arrive from September and winterers (more females than males) may stay as late as mid-May. This is the commoner of two reed warblers occurring in Singapore, and appears to have a wider habitat breadth than Black-browed Reed Warbler *A. bistrigiceps*.



Photo: Norhafani Abdul Majid

Distribution: Breeds E Russia, E Mongolia, south to NE and E China, Japan and Korea; winters NE India, S China, mainland SE Asia, Sumatra, Borneo, the Philippines and Wallacea.

Threats: Habitat loss due to clearance of grasslands and marshes. Clearance of large areas of swampy grassland and reedbeds in the Neo Tiew area is expected to have reduced habitat significantly.

Scientific Interest and Potential Value: A useful indicator species of freshwater wetlands in E Asia.

Conservation Measures: The long-term management of the Kranji Marshes and other areas of freshwater wetlands (e.g. Sengkang, Lorong Halus) is expected to benefit this species.

Scientific Name:
Cyanoderma erythropterum

Common Name:
Chestnut-winged Babbler

Order/Family:
Passeriformes: Timaliidae

National Status: ssp. *erythropterum*. Critically Endangered (CR). Newly uplisted. Expected to have met thresholds under Criterion D for small population; also Criterion B for small area of occupancy and limited number of sites (B2-a) where it is known to occur.



Photo: Con Foley

Habitat and Ecology: An increasingly uncommon resident of primary and secondary forests, and forest edges, often skulking in dense growths of ferns in the Central Catchment Nature Reserve where the Nee Soon swamp forest remains a stronghold; it appears extirpated from Bukit Timah. A species strongly associated with the forest understorey, Cros et al. (2020) found that genetic diversity of the species in intact forests elsewhere in SE Asia (Borneo) was nearly three times higher than sampled populations in Singapore, demonstrating the sustained erosion of genetic diversity as a result of forest fragmentation (which has reduced gene flow between forest patches within the Central Catchment Nature Reserve). Breeding reported and nest building activities have been most recently documented in May 2018. The breeding period in Singapore is April-May, and August.

Distribution: S Myanmar, Thai-Malay Peninsula, Sumatra and Borneo.

Threats: Loss and degradation of forest habitat, small, declining population is at high risk of loss of genetic variability.

Scientific Interest and Potential Value: Useful indicator species of good quality forests in Singapore.

Conservation Measures: : The species is assumed to be secure in the Central Catchment forests, and adjacent nature parks; the constructed ecological corridor in the form of the EcoLink bridge between the Central Catchment and Bukit Timah may benefit the dispersal of this species, enabling potential recolonisation of suitable habitat in future.

Scientific Name:
Pellorneum malaccense

Common Name:
Short-tailed Babbler

Order/Family:
Passeriformes: Pellorneidae

National Status: ssp. *malaccensis*. Vulnerable (VU). Expected to have met thresholds under Criterion D for small and declining population, and now shown to have low genetic variability (see Cros et al. 2017); also expected to have met thresholds for Vulnerable/Endangered under Criterion B2a.

Habitat and Ecology: A resident in primary and secondary forests in the Central Catchment Nature Reserve; there are very few recent records from Bukit Timah and it may now be on the verge of extirpation there. The species also once occurred in Singapore Botanic Gardens (Bucknill & Chasen 1927). A species of the forest understorey and floor, Short-tailed Babblers are not good dispersers and do not easily cross large gaps in forest landscapes, including large roads and water bodies. Cros et al. (2020) found that genetic diversity of the species in Singapore forests is nearly three times lower than populations in intact forests in Borneo and there are landscape-level barriers to gene flow



Photo: Norhafizah Abdul Majid

even within the Central Catchment (Sadanadan et al. 2015), splitting the species into further subpopulations. Breeding has been reported, the earliest being that of a pair carrying insects near a possible nest at Sime Road in May 1988. The documented breeding period in Singapore is January and May.

Distribution: Thai-Malay Peninsula, Sumatra and Borneo.

Threats: Loss and fragmentation of forest habitat. The small, declining and fragmented population even within the Central forests is at high risk of loss of genetic variability.

Scientific Interest and Potential Value: Useful indicator species of good quality forests.

Conservation Measures: The species is assumed to be secure in the Central forests, and adjacent nature

parks; the construction of an ecological corridor, the EcoLink between the Central Catchment and Bukit Timah may benefit the dispersal of this species, enabling potential recolonisation of habitat in future.

Scientific Name:
Copsychus malabaricus

Common Name:
White-rumped Shama

Order/Family:
Passeriformes: Muscicapidae

National Status: ssp. *tricolor*. Endangered (EN). Previously Critically Endangered. The species is expected to have met threshold under Criterion D for small populations, although Pulau Tekong populations are yet to be quantified. The species is now known to occur at fairly high densities in Pulau Ubin.

Habitat and Ecology: An uncommon to rare resident of forests, woodland and old plantations but appears locally common in Pulau Ubin and Pulau Tekong. The species was formerly not uncommon in mainland Singapore (Bucknill & Chasen 1927, Gibson-Hill 1950) but the population was thought to have been poached to near extinction (Lim 1992). Pulau Ubin and Pulau Tekong remain key strongholds for the species in Singapore, and recent surveys have found up to 20 individuals in a morning in Pulau Ubin. Birds in the Central forests and elsewhere may involve a combination of genuinely wild birds and escapees. Breeding has been reported and the documented breeding period in Singapore is March and June to August.

Photo: Con Foley



Distribution: Indian subcontinent, S China, mainland SE Asia and Greater Sundas.

Threats: Poaching for the songbird trade (at the regional level), and the loss and degradation of forest habitats.

Scientific Interest and Potential Value: A sought after species in the songbird trade, an important component in the forest soundscape, and part of a genetically diverse group in SE Asia.

Conservation Measures: The long-term conservation and management of forest and woodland habitat is expected to benefit the species in Pulau Ubin, and possibly Pulau Tekong. Restricted access to Pulau Tekong limits the risk of poaching there.

Scientific Name:
Cyornis rufigastra

Common Name:
Mangrove Blue Flycatcher

Order/Family:
Passeriformes: Muscicapidae

National Status: ssp. *rufigastra*. Critically Endangered (CR). The species is expected to have met thresholds for Criterion B and D (localised, and tiny population in Pulau Tekong, unlikely to exceed 50 individuals, few recent records from Pulau Ubin although breeding was documented there in the 2000s).

Habitat and Ecology: A rare and localised resident of mangrove forests, and adjacent secondary forests and woodland in Pulau Ubin and Pulau Tekong. It was formerly widespread and considered to be 'not uncommon in mangroves' on mainland Singapore (Chasen 1923, 1924; Bucknill & Chasen 1927; Gibson-Hill 1950), but by the late 1960s had declined greatly and was largely confined to mangroves in the Jurong area (Tweedie 1970). Breeding has been reported on both Pulau Ubin and Pulau Tekong from May to July.

Distribution: Thai-Malay Peninsula, Sumatra, Java and Borneo, north to the Philippines.

Photo: Lee Tiah Khue



Threats: Loss and degradation of mangrove forests; small, declining population is at high risk of loss of genetic variability.

Scientific Interest and Potential Value: A mangrove specialist that is an important indicator of good quality mangrove forests.

Conservation Measures: The species is assumed to be secure in Pulau Tekong for the time being despite its small population.

Scientific Name:
Cyornis brunneatus

Common Name:
Brown-chested Jungle Flycatcher

Order/Family:
Passeriformes: Muscicapidae

National Status: Vulnerable (VU). Previously unassessed. The species is expected to have approached thresholds under Criterion D, due to dependence on forests as wintering habitat. 'Vulnerable' on IUCN Red List due to presumed declines and small population.

Photo: Norhafani Abdul Majid



Habitat and Ecology: An uncommon passage migrant, occurring in primary and secondary forests, woodland, scrub, old plantations and occasionally parkland. Migrants have also shown up in remnant woodland in Bidadari, in stands of *Leucaena* and *Casuarina* scrub on reclaimed land in Tuas, and several offshore islands including Pulau Jurong, Ubin, Hantu and St. John's. There are also records from wooded patches in urban areas (e.g. Changi Business Park, Shenton Way) during the migration period from mid-September to early November, with birds periodically reported to collide with windows of lighted buildings. There are however very few records of wintering birds; in Peninsular Malaysia it mostly winters in lowland forests. This species was not listed by Bucknill & Chasen (1927) or Gibson-Hill (1950) and was only first documented in Singapore in the 1980s.

Distribution: Breeds C, SE China; winters Thai-Malay Peninsula and Sumatra.

Threats: Habitat loss and degradation in the wintering range. Also collisions with man-made structures on migration.

Scientific Interest and Potential Value: Recent taxonomic studies have established it to be an aberrant 'blue' flycatcher in the genus *Cyornis*.

Conservation Measures: Long-term protection and management of small woodland patches can be expected to benefit the species as stopover habitat. A small patch of woodland at Bidadari has been retained for the conservation of migratory landbirds.

Scientific Name:

Chloropsis sonnerati

Common Name:

Greater Green Leafbird

Order/Family:

Passeriformes: Chloropseidae

National Status: ssp. *zosterops*. Critically Endangered (CR). Expected to meet thresholds under Criterion D (population fewer than 250 individuals). Also expected to meet Criterion B2 for small area of occupancy and small populations. 'Endangered' on IUCN Red List.

Habitat and Ecology: An uncommon resident of primary and secondary forests, and adjacent woodland in the Central forests. It was formerly considered to be 'not uncommon' in mangroves (Chasen 1923; Bucknill & Chasen 1927) but there are no records today in mangroves. Recent data suggest that it is now restricted to the Bukit Timah and Central Catchment Nature Reserves, with the Nee Soon swamp forest an important stronghold. The summit at Bukit Timah Nature Reserve is known to attract as many as five to eight birds when the several *Ficus benjamina* trees are in fruit. Breeding has been variously documented in recent years, with immatures and juveniles seen in Bukit Timah and adjacent areas such as Dairy Farm Nature Park.

Photo: Con Foley



Distribution: S Myanmar, Thai-Malay Peninsula, Sumatra and Borneo.

Threats: Loss and degradation of lowland forest habitat. This species is also threatened by poaching for the regional songbird trade.

Scientific Interest and Potential Value: A potentially important seed disperser for forest trees.

Conservation Measures: The species is assumed to be secure in the Central forests and adjacent nature parks; the construction of an ecological corridor, the EcoLink between the Central Catchment and Bukit Timah may benefit the dispersal of this species.

Scientific Name:
Leptocoma calcostetha

Common Name:
Copper-throated Sunbird

Order/Family:
Passeriformes: Nectariniidae

National Status: Vulnerable (VU). Previously unassessed. Restricted to a small set of mangrove remnants and expected to have met thresholds under Criterion B (population fewer than 1,000 individuals), locally extirpated in Pasir Ris and Ulu Pandan mangroves.

Habitat and Ecology: A locally common resident of mangroves and adjacent coastal vegetation such as beach scrub and secondary woodland. Historically 'plentiful' around the coasts and in coconut plantations (Bucknill & Chasen 1927; Gibson-Hill 1950), the species is now largely confined to mangroves and coastal scrub in and around Sungei Buloh Wetland Reserve, and on Pulau Ubin, Pulau Tekong and Pulau Semakau. The documented breeding period is February to May, August and December. Nest building has also been regularly reported from Sungei Buloh between March and June in recent years.

Distribution: S Myanmar, Thai-Malay Peninsula, Sumatra, Java, Borneo and Palawan.

Photo: Norhafiani Abdul Majid



Threats: Loss and degradation of mangrove forests.

Scientific Interest and Potential Value: A mangrove specialist that is an indicator of good quality mangrove habitat. May potentially be an important pollinator for several mangrove trees.

Conservation Measures: The long-term conservation and management of mangrove forests at Ubin is expected to benefit the species in Pulau Ubin. Similarly, the expansion of the Sungei Buloh Wetland Reserve towards Mandai and Kranji will also help to secure key habitat.

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