

PSR ENGINEERING COLLEGE SIVAKASI



FLORA & FAUNA



Clytra laeviuscula

DESCRIPTION

Clytra laeviuscula can reach a length of 7.5–11.5 millimetres and a width of about 4 millimetres. These beetles have elongated bodies and shiny red-orange elytra with four black spots, two larger around the center of the elytra and two smaller on the shoulders. The prothorax is black and shiny. The head and legs are black, as well as the antennae that are quite short



***Trombidium* sp.**

DESCRIPTION

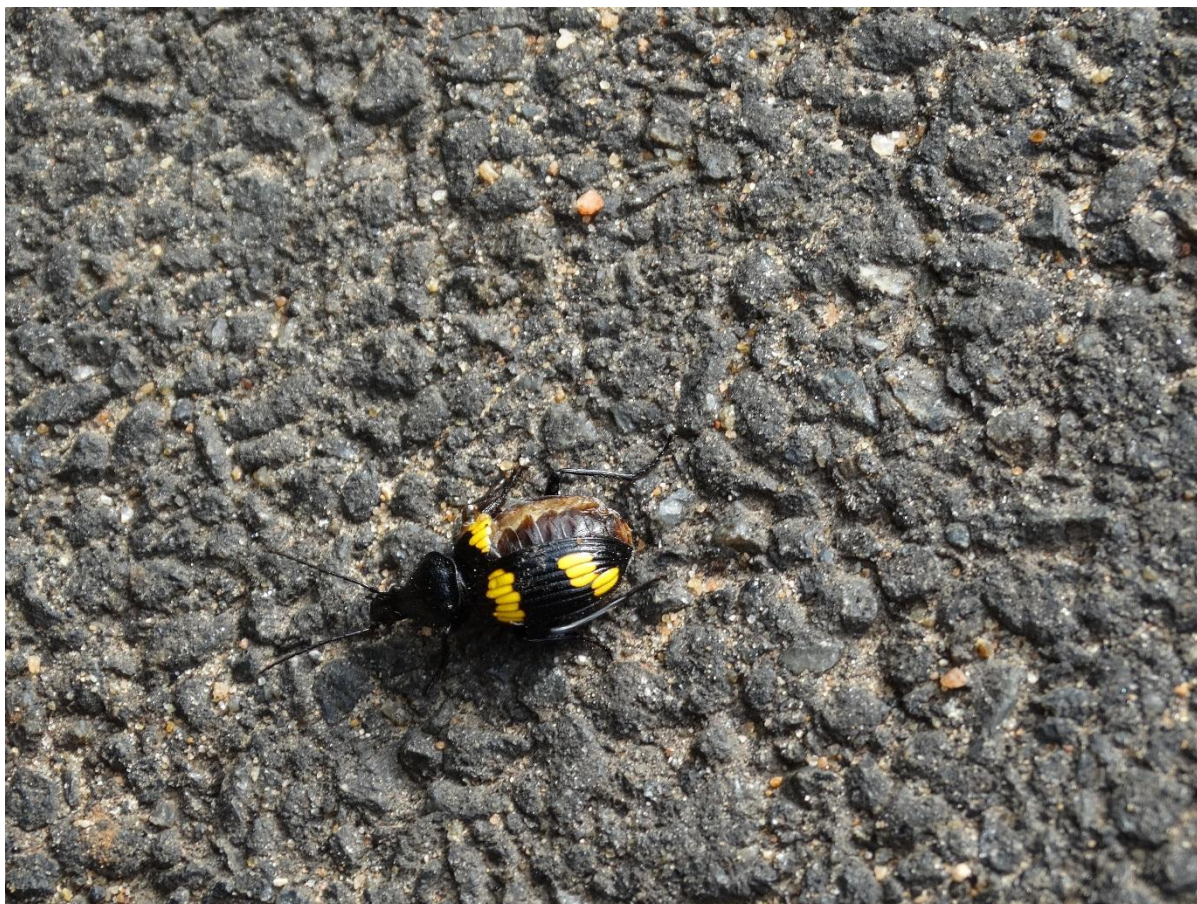
Trombididiidae, known as **red velvet mites**, **true velvet mites**, or **rain bugs**, are arachnids found in soil litter known for their bright red color. Red velvet mites are active predators as grown adults but as early instars are often parasites on insects and some arachnids. They are sometimes mistaken for spiders. While adult true velvet mites are typically 4 mm (0.16 in) in length, some, such as the genus *Dinothrombium* may reach up to 12 mm (0.47 in). They usually have only one breeding cycle per year.



Lumbricus terrestris

DESCRIPTION

Lumbricus terrestris is a large, reddish worm species widely distributed around the world. In some areas where it is an introduced species, some people consider it a serious pest for outcompeting native worms. It has an unusual habit of copulating on the surface at night, which makes it more visible than most other earthworms. Although this is not the most abundant earthworm, even in its native range, it is a very conspicuous and familiar earthworm species in garden and agricultural soils of the temperate zone, and is frequently seen on the surface, unlike most other earthworms.



Nicrophorus tomentosus

DESCRIPTION

Nicrophorus tomentosus (gold-necked carrion beetle or tomentose burying beetle) is a species of burying beetle that was described by Friedrich Weber in 1801. The beetle belongs to the family Silphidae which are carrion beetles. The beetles have sensitive antennae that contain olfactory organs. Thus, the beetle can locate dead animals, and then as the name suggests, can bury them. However, unlike other burying beetles, *N. tomentosus* does not feed these brood carcasses. They instead eliminate the soil under the carcass, so the carcass will sink underneath. Recognition of these beetles can be distinguished by its black color with yellow markings on the wing covers.



Camponotus sericeus

DESCRIPTION

Camponotus sericeus is a species of carpenter ant widely distributed in the Afrotropical and oriental regions. This species can be recognized by the robust build (the major worker with very broad head and mesosoma), the coarse sculpture of the head and mesosoma, and by the gaster covered with thick, appressed, golden-mossy pubescence. The head of major workers is truncated posteriorly, with the anterior margin of the clypeus not extending beyond the anterior margin of the gena, broadly rounded and incised medially. The mesosoma has a distinct metanotal groove, the propodeal dorsum is broad and flat, margined laterally and posteriorly, with obtuse teeth.



Paratrechina longicornis

DESCRIPTION

This ant has been transported to almost all the populated subtropical and tropical areas in the world. It is usually in disturbed areas but can invade undisturbed areas as well. It is a general scavenger and also tends honeydew-producing Homoptera. Nests are in accumulations of dry litter or mulch or under objects on the ground.



Menemerus

DESCRIPTION

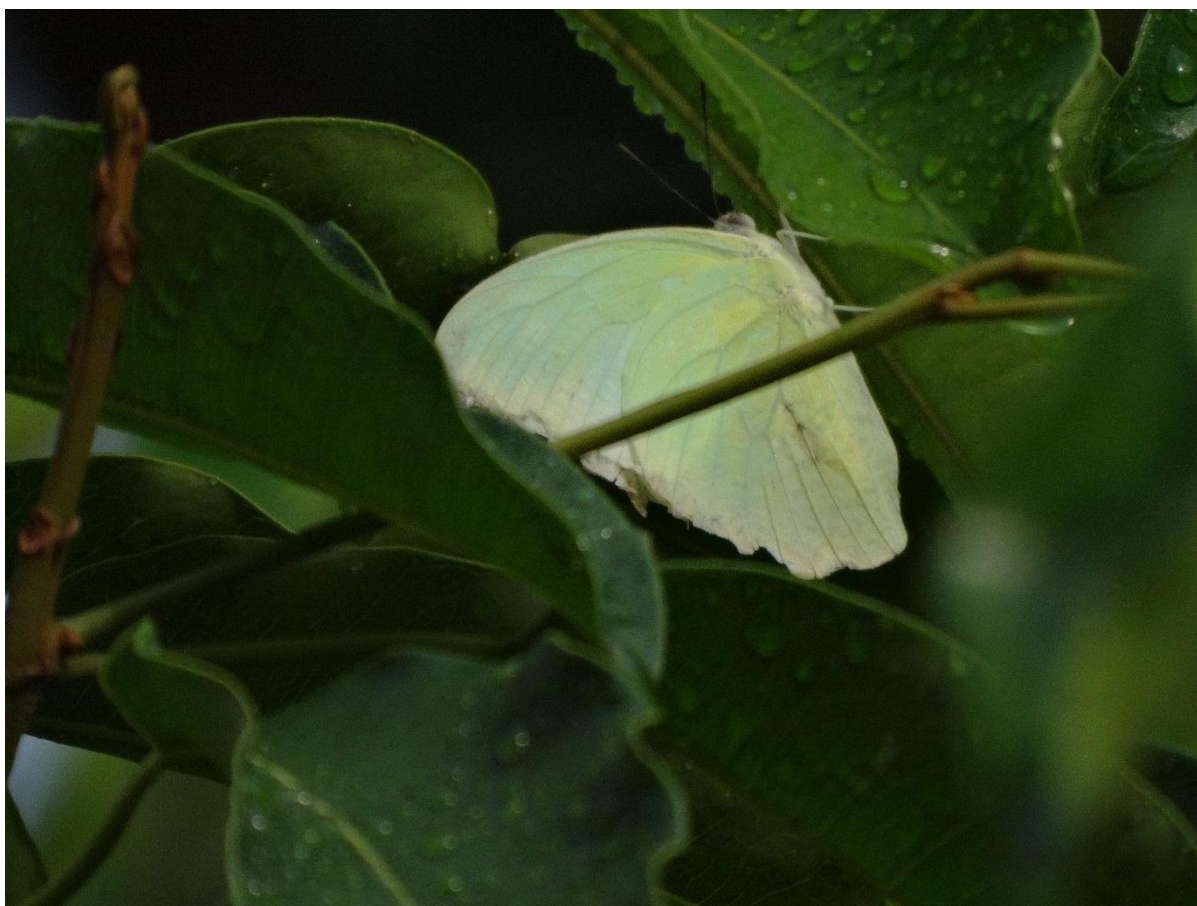
Menemerus is a genus of jumping spiders that was first described by Eugène Louis Simon in 1868. They are 4 to 10 millimetres long, flattened in shape, and very hairy, usually with brown and grayish hairs. Most species have white edges on the thorax. The abdomen is often oval, or sometimes elongated or rounded.



Eurema hecabe

DESCRIPTION

Eurema hecabe, the **common grass yellow**, is a small pierid butterfly species found in Asia, Africa and Australia. They are found flying close to the ground and are found in open grass and scrub habitats. It is simply known as "the grass yellow" in parts of its range; the general term otherwise refers to the entire genus *Eurema*. The common grass yellow exhibits seasonal polyphenism. The lepidopteran has a darker summer morph, triggered by a long day exceeding 13 hours in duration, while the shorter diurnal period of 12 hours or less induces a fairer morph in the post-monsoon period.



Catopsilia pyranthe

DESCRIPTION

Catopsilia pyranthe, the **mottled emigrant**, is a medium-sized butterfly of the family Pieridae found in south Asia, southeast Asia, and parts of Australia. The upperside is chalky white, slightly tinted in some specimens with green. The forewing is with or without a discocellular black spot, that varies in size; costa and termen sometimes without a black margin; occasionally the costa has its apical third narrowly black, broadened slightly at the apex with black spots between the anterior veins; or again, the costa may be narrowly black, the apex very broadly so, and this colour continued down the termen but narrowed posteriorly. The hindwing is sometimes immaculate, but generally with narrow terminal black spots at the apices of the veins, these often reduced to mere dots, or again so broadened as to coalesce into a narrow terminal black margin.



Harpaphe haydeniana

DESCRIPTION

Harpaphe haydeniana, commonly known as the **yellow-spotted millipede**, **almond-scented millipede** or **cyanide millipede**, is a species of polydesmidan ("flat-backed") millipede found in the moist forests along the Pacific coast of North America, from Southeast Alaska to California. The dark coloration with contrasting yellow-tipped keels warn of its ability to exude toxic hydrogen cyanide as a defense. Despite the various common names given the species, the coloration pattern, cyanide defense, and associated almond scent occur in other flat-backed millipedes around the world.



Cylindroiulus caeruleocinctus

DESCRIPTION

Cylindroiulus caeruleocinctus is a species of millipede in the family Julidae



***Lymantria dispar* Linnaeus**

DESCRIPTION

Lymantria dispar, the **gypsy moth**, is a species of moth in the family Erebidae. *Lymantria dispar* covers many subspecies, subspecies identification such as *L. d. dispar* or *L. d. japonica* leaves no ambiguity in identification. *Lymantria dispar* subspecies have a range which covers in Europe, Africa, Asia, North America and South America.



Linepithema humile

DESCRIPTION

The worker ants are 1.6–2.8 millimetres long and can easily squeeze through cracks and holes as small as 1 millimetre in size. Queens are 4.2–6.4 millimetres long, much smaller than other species of ants. These ants will set up quarters in the ground, in cracks in concrete walls, in spaces between boards and timbers, even among belongings in human dwellings. In natural areas, they generally nest shallowly in loose leaf litter or beneath small stones, due to their poor ability to dig deeper nests. However, if a deeper nesting ant species abandons their nest, Argentine ant colonies will readily take over the space



Lygaeidae

DESCRIPTION

The **Lygaeidae** are a family in the Hemiptera (true bugs), with more than 110 genera in 4 subfamilies. The family includes the insects commonly known as **milkweed bugs**, and also some of those known as **seed bugs**. The family used to be vastly larger, as numerous former subfamilies have been removed and given independent family status, including Artheneidae, Blissidae, Cryptorhamphidae, Cymidae, Geocoridae, Heterogastridae, Ninidae, Oxycarenidae, Pachygronthidae, and Rhyparochromidae, which together constituted well over half of the former family. Many of the species feed on seeds, although some feed on sap, and a few, such as the wekiu bug, feed on insects.



Byblia ilithyia - female

DESCRIPTION

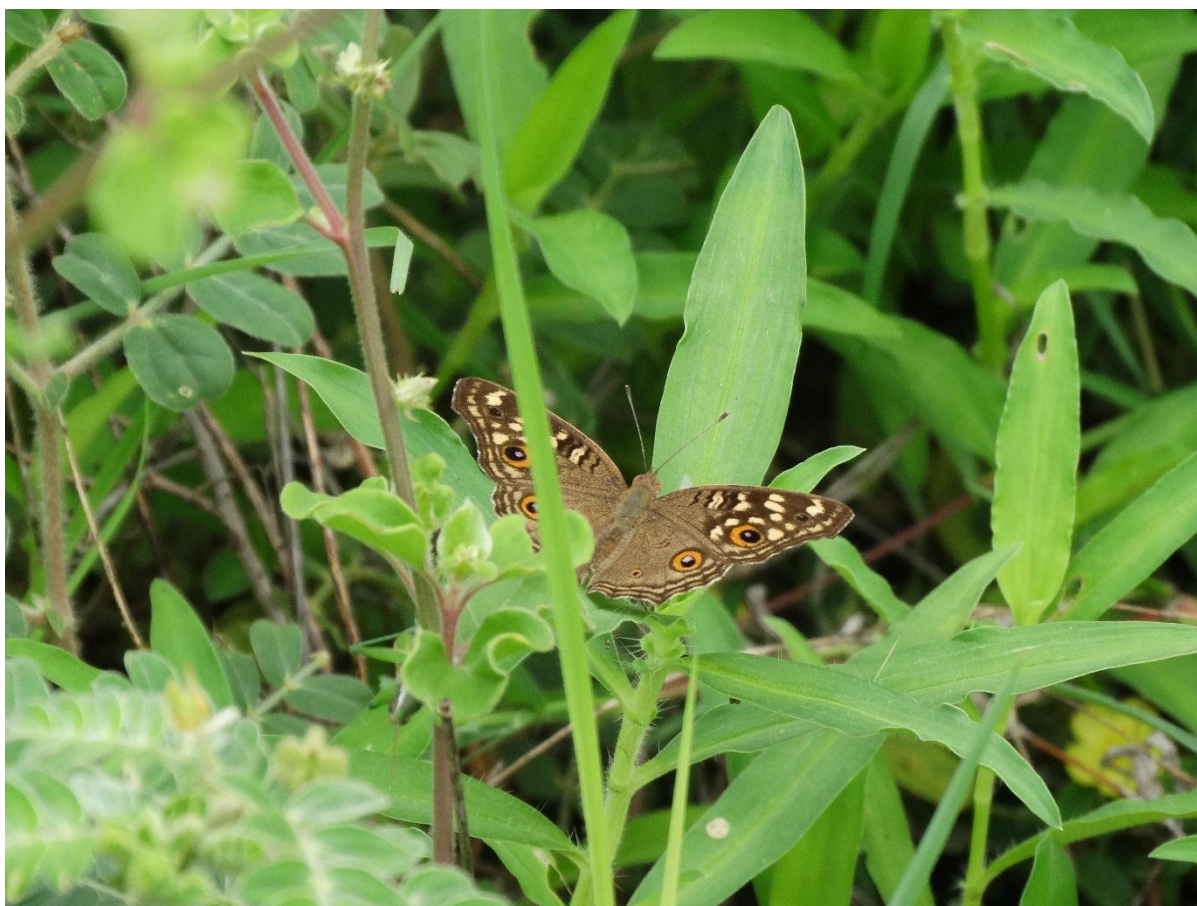
Female similar, with similar markings, but on the upperside the ground colour is paler, the black markings narrower. Forewing: the postdiscal black band nearly complete, interrupted only in interspaces 1 and 4; the terminal black band traversed by a broken white line. Hindwing: no subcostal black patch, instead three series of transverse spots; a postdiscal transverse broad black band bordered inwardly by a series of slender black loops, between these and the postdiscal band a series of spots of the ground colour; the terminal black band traversed as on the forewing by a whitish broken line. Underside similar to that in the male, but the ground colour paler. On the forewing the black markings comparatively narrower, less well-defined; on the hindwing the white on the bands and spots replaced by pale yellow.



Byblia ilithyia - male

DESCRIPTION

The male has the upperwings of a deep rich orange. The forewing has the costa broadly black until nearly the apex. The cell has three narrow short black bands, the inner and outer not reaching the median vein. An irregular black spot from dorsum to vein 4, continues very narrowly along that vein to meet an oblique irregular band from just beyond the middle of the costa. A postdiscal broad transverse black band from dorsum to vein 4, with the portions of the veins beyond it defined in black. The apex of the wing beyond the broad black edging to the costal border has its upper margin and the terminal portions of the veins defined in black; finally a narrow terminal band. The hindwing has an elongate black sub-costal patch near base, continued posteriorly across the cell by an inner and an outer series of small transverse spots; a complete broad black postdiscal band with the portions of the veins beyond it lined with black, and a narrow black terminal band as on the forewing. Cilia of forewings and hindwings white, alternated with brown.



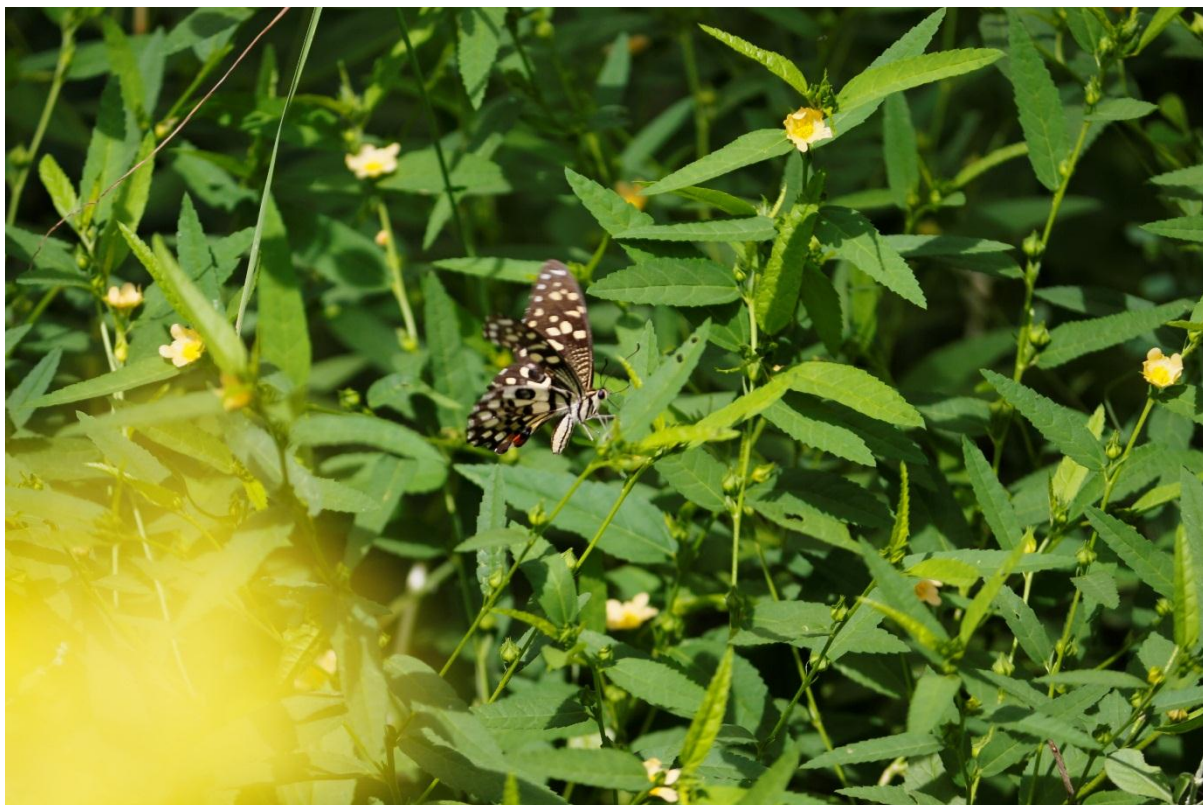
Junonia lemonias

DESCRIPTION

Junonia lemonias, the **lemon pansy**, is a common nymphalid butterfly found in Cambodia and South Asia. It is found in gardens, fallow land, and open wooded areas.

It is brown with numerous eyespots as well as black and lemon-yellow spots and lines on the upperside of the wings. The underside is a dull brown, with a number of wavy lines and spots in varying shades of brown and black. There is also an eyespot on the lower side of the forewing. The wet- and dry-season forms differ considerably in coloration and even shape. In the wet-season form the markings are distinct and vivid and the wing shape is a little more rounded. In the dry-season form the markings are obscure and pale especially on the underside and the wing margin is more angular and jagged. This helps it camouflage in the dried leaf litter.

The lemon pansy is a very active butterfly and can be seen basking with its wings open facing the sun. It sits very low to the ground and can be approached easily. It feeds with its wings half open. It is a fairly strong flier and flies close to the ground with rapid wingbeats and often returns to settle back in the same spots.



Papilio demoleus

DESCRIPTION

Papilio demoleus is a common and widespread swallowtail butterfly. The butterfly is also known as the **lime butterfly**, **lemon butterfly**, **lime swallowtail**, and **chequered swallowtail**. These common names refer to their host plants, which are usually citrus species such as the cultivated lime. Unlike most swallowtail butterflies, it does not have a prominent tail. The butterfly is a pest and invasive species, found from Asia to Australia. The butterfly has spread to Hispaniola island in the Western Hemisphere,



***Hypolimnas misippus* -male**

DESCRIPTION

Hypolimnas misippus, the **Danaid eggfly**, **mimic**, or **diadem**, is a widespread species of nymphalid butterfly. It is well known for polymorphism and mimicry. Males are blackish with distinctive white spots that are fringed in blue. Females are in multiple forms that include male-like forms while others closely resemble the toxic butterflies *Danaus chrysippus* and *Danaus plexippus*. They are found across Africa, Asia, and Australia. In the new world they are found in the West Indies, with strays in Central and North America.



Battus polydamas

DESCRIPTION

Battus polydamas, also known as the **gold rim swallowtail**, the **Polydamas swallowtail** or the **tailless swallowtail**, is a species of butterfly in the family Papilionidae. The species was first described by Carl Linnaeus in his 10th edition of *Systema Naturae*, published in 1758. The wingspan is 90 to 120 mm (3.5 to 4.7 in) without the tail. The top of the wings are black with a broad submarginal band formed by large yellow spots. The undersides of the forewings have the same pattern, while the hindwings have a submarginal row of red lunules. This butterfly flies from April to November in three generations in the north of its range, throughout the year in several generations in the tropics. The larvae feed on *Aristolochia* plant species.



Anisoptera

DESCRIPTION

The order Odonata contains the dragonflies and damselflies and is one of the most popular insect groups. Odonates are popular with both the amateur and professional because they are large, colorful, easily observable and have exceptionally charismatic behaviors. In recent years dragonflies in particular have been popular with birders as many dragonflies rival birds in wingspan, color, gregariousness, and predictability. As a result of their popularity with the public, they have become the focus of many conservation efforts in North America, Europe, and Asia.



Rana

DESCRIPTION

Rana is a genus of frogs commonly known as the **Holarctic true frogs, pond frogs** or **brown frogs**. Members of this genus are found through much of Eurasia and western North America. Many other genera were formerly included here. These true frogs are usually largish species characterized by their slim waists and wrinkled skin; many have thin ridges running along their backs, but they generally lack "warts" as in typical toads. They are excellent jumpers due to their long, slender legs. The typical webbing found on their hind feet allows for easy movement through water. Coloration is mostly greens and browns above, with darker and yellowish spots.



Argya affinis

DESCRIPTION

The *Argya affinis* is a member of the Leiothrichidae family endemic to southern India and Sri Lanka. The yellow-billed babbler is a common resident breeding bird in Sri Lanka and southern India. Its habitat is scrub, cultivation and garden land. This species, like most babblers, is not migratory, and has short rounded wings and a weak flight and is usually seen calling and foraging in groups. It is often mistaken for the jungle babbler, whose range overlaps in parts of southern India, although it has a distinctive call and tends to be found in more vegetated habitats. Its name is also confused with *T. leucocephala*, which is also known as white-headed babbler.



Coracias benghalensis

DESCRIPTION

The *Coracias benghalensis* is a member of the roller bird family. It occurs widely from West Asia to the Indian Subcontinent. **It is listed as Least Concern on the IUCN Red List.**

It is best known for its aerobatic displays of males during the breeding season. It is often seen perched along roadside trees and wires and are commonly seen in open grassland and scrub forest habitats. The largest population occurs in India, and several states in India have chosen it as their state bird.



Pycnonotus barbatus

DESCRIPTION

The *Pycnonotus barbatus* is a member of the bulbul family of passerine birds. It is found in north-eastern, northern, western and central Africa. The bill is fairly short and thin, with a slightly downcurving upper mandible. The bill, legs, and feet are black and the eye is dark brown with a dark eye-ring, which is not readily visible. It is about 18 cm in length, with a long tail. It has a dark brown head and upperparts. Sexes are similar in plumage



Dendrocitta vagabunda

DESCRIPTION

The *Dendrocitta vagabunda* is a treepie, native to the Indian Subcontinent and adjoining parts of Southeast Asia. It is a member of the crow family, Corvidae. It is long tailed and has loud musical calls making it very conspicuous. It is found commonly in open scrub, agricultural areas, forests as well as urban gardens. Like other corvids it is very adaptable, omnivorous and opportunistic in feeding.



Ixobrychus sinensis

DESCRIPTION

The *Ixobrychus sinensis* is a small bittern. It is of Old World origins, breeding in the northern Indian Subcontinent, east to Japan and Indonesia. It is mainly resident, but some northern birds migrate short distances. It has been recorded as a vagrant in Alaska and there is a single sighting in Britain, from Radipole Lake, Dorset on November 23, 1962 – however, the BOU have always considered this occurrence to be of uncertain provenance and currently it is not accepted onto the official British List.

This is a small species at 36 to 38 cm (14 to 15 in) in length, with a short neck and longish bill. The male is uniformly dull yellow above and buff below. The head and neck are chestnut, with a black crown. The female's crown, neck and breast are streaked brown, and the juvenile is like the female but heavily streaked brown below, and mottled with buff above. Yellow bitterns feed on insects, fish and amphibians.



Acridotheres tristis

DESCRIPTION

The *Acridotheres tristis*, sometimes spelled **mynah**, is a member of the family Sturnidae native to Asia. An omnivorous open woodland bird with a strong territorial instinct, the myna has adapted extremely well to urban environments.

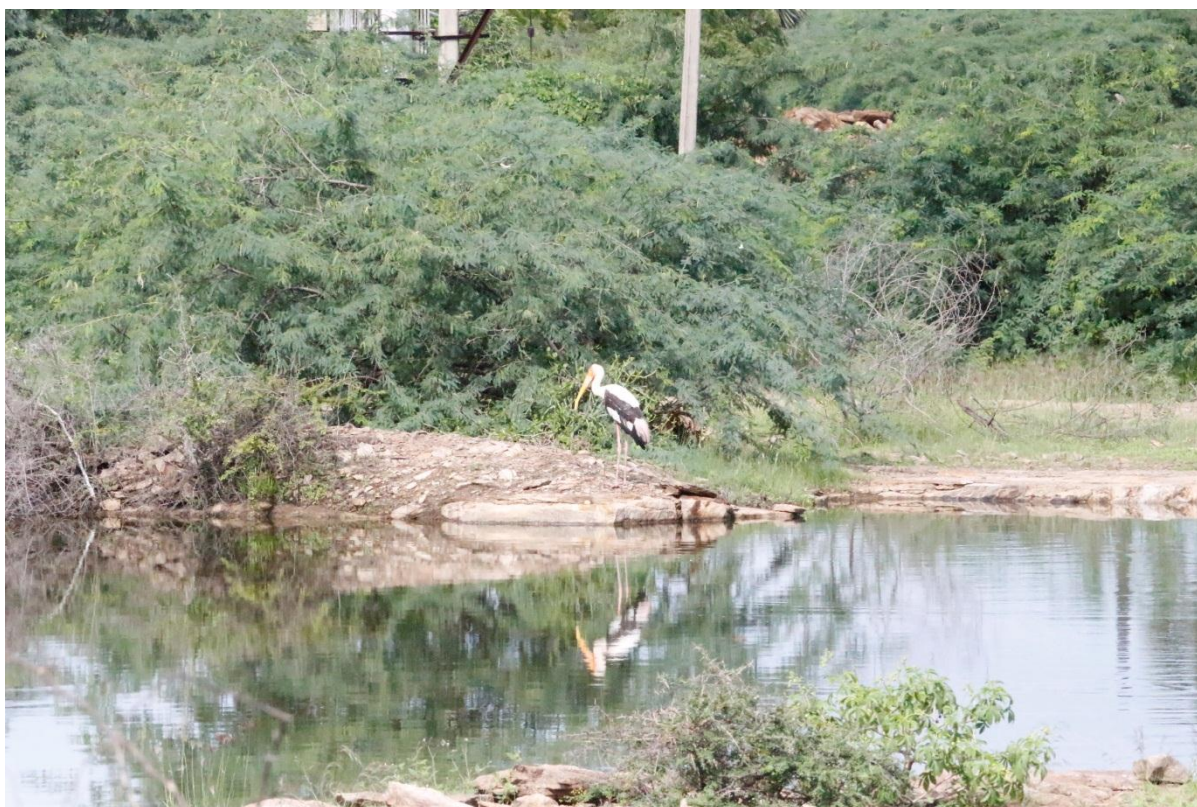
The range of the common myna is increasing at such a rapid rate that in 2000 the IUCN Species Survival Commission declared it one of the world's most invasive species and one of only three birds in the top 100 species that pose an impact to biodiversity, agriculture and human interests. In particular, the species poses a serious threat to the ecosystems of Australia where it was named "The Most Important Pest/Problem".



Dicrurus adsimilis

DESCRIPTION

The **fork-tailed drongo**, also called the **common drongo**, **African drongo**, or **savanna drongo** (*Dicrurus adsimilis*), is a species of drongo in the family Dicruridae, which are medium-sized passerine birds of the Old World. It is native to the tropics, subtropics and temperate zones of the Afrotropics. Its range was formerly considered to include Asia, but the Asian species is now called the black drongo. The fork-tailed drongo is 25 cm long and has short legs. They are medium sized and usually weigh about 50 grams. Males are mainly glossy black, although their wings are duller. Females are similar but less glossy. It is large-headed with well-developed rictal and nasal bristles, which are used as sensory organs. The rectrices curve outwards, forming the forked tail for which the species is named. The hooked bill is black and heavy, and the eye is red.



Mycteria leucocephala

DESCRIPTION

The *Mycteria leucocephala* is a large wader in the stork family. It is found in the wetlands of the plains of tropical Asia south of the Himalayas in the Indian Subcontinent and extending into Southeast Asia. Their distinctive pink tertiaries of the adults give them their name. They forage in flocks in shallow waters along rivers or lakes. They immerse their half open beaks in water and sweep them from side to side and snap up their prey of small fish that are sensed by touch. As they wade along they also stir the water with their feet to flush hiding fish. They nest colonially in trees, often along with other waterbirds. The only sounds they produce are weak moans or bill clattering at the nest. They are not migratory and only make short distance movements in some parts of their range in response to changes in weather or food availability or for breeding. Like other storks, they are often seen soaring on thermals.



***Pavo cristatus* -female**

DESCRIPTION

The **Indian peafowl** (*Pavo cristatus*), also known as the **common peafowl**, and **blue peafowl**, is a large and brightly coloured bird, is a species of peafowl native to the Indian subcontinent, but introduced in many other parts of the world.

The male, or peacock, is predominantly blue with a fan-like crest of spatula-tipped wire-like feathers and is best known for the long train made up of elongated upper-tail covert feathers which bear colourful eyespots. These stiff feathers are raised into a fan and quivered in a display during courtship. Despite the length and size of these covert feathers, peacocks are still capable of flight. Peahens lack the train, and have a greenish lower neck and duller brown plumage. The Indian peafowl lives mainly on the ground in open forest or on land under cultivation where they forage for berries, grains but also prey on snakes, lizards, and small rodents. Their loud calls make them easy to detect, and in forest areas often indicate the presence of a predator such as a tiger. They forage on the ground in small groups and usually try to escape on foot through undergrowth and avoid flying, though they fly into tall trees to roost.



***Pavo cristatus* -male**



Funambulus palmarum

DESCRIPTION

The **Indian palm squirrel** or **three-striped palm squirrel** (*Funambulus palmarum*) is a species of rodent in the family Sciuridae found naturally in India (south of the Vindhyas) and Sri Lanka. In the late 19th century, the palm squirrel was introduced to Madagascar, Réunion, Mayotte, Comoro Islands, Mauritius, Seychelles and Australia, where it has since become a minor pest. The closely related five-striped palm squirrel, *F. pennantii*, is found in northern India, and its range partly overlaps with this species.



Psittacula krameri

DESCRIPTION

The **rose-ringed parakeet** (*Psittacula krameri*), also known as the **ring-necked parakeet**, is a medium-sized parrot in the genus *Psittacula*, of the family *Psittacidae*. It has disjunct native ranges in Africa and South Asia, and is now introduced into many other parts of the world where feral populations have established themselves and are bred for the exotic pet trade.

The rose-ringed parakeet is sexually dimorphic. The adult male sports a red and black neck ring, and the hen and immature birds of both sexes either show no neck rings, or display shadow-like pale to dark grey neck rings. Both sexes have a distinctive green colour in the wild, and captive bred ringnecks have multiple colour mutations including blue, violet and yellow. Rose-ringed parakeets measure on average 40 cm (16 in) in length, including the tail feathers, a large portion of their total length. Their average single-wing length is about 15 to 17.5 cm (5.9 to 6.9 in). In the wild, this is a noisy species with an unmistakable squawking call. Captive individuals can be taught to speak. They are a herbivorous and non-migratory species. The species is listed as least concern by the International Union for Conservation of Nature (IUCN)



Vinca



Petunia



***Ixora coccinea* yellow**



Chinese ixora



Bougainvillea glabra



Nymphaea caerulea



Morning Glory



Tecoma stans



Bougainvillea alba



Senna marilandica



Tridax procumbens



Tribulus terrestris



Ixora coccinea deep red



Ixora coccinea orange



Gardenia brighamii



Perforate St John's-wort



Hibiscus rosa-sinensis





Zoysia





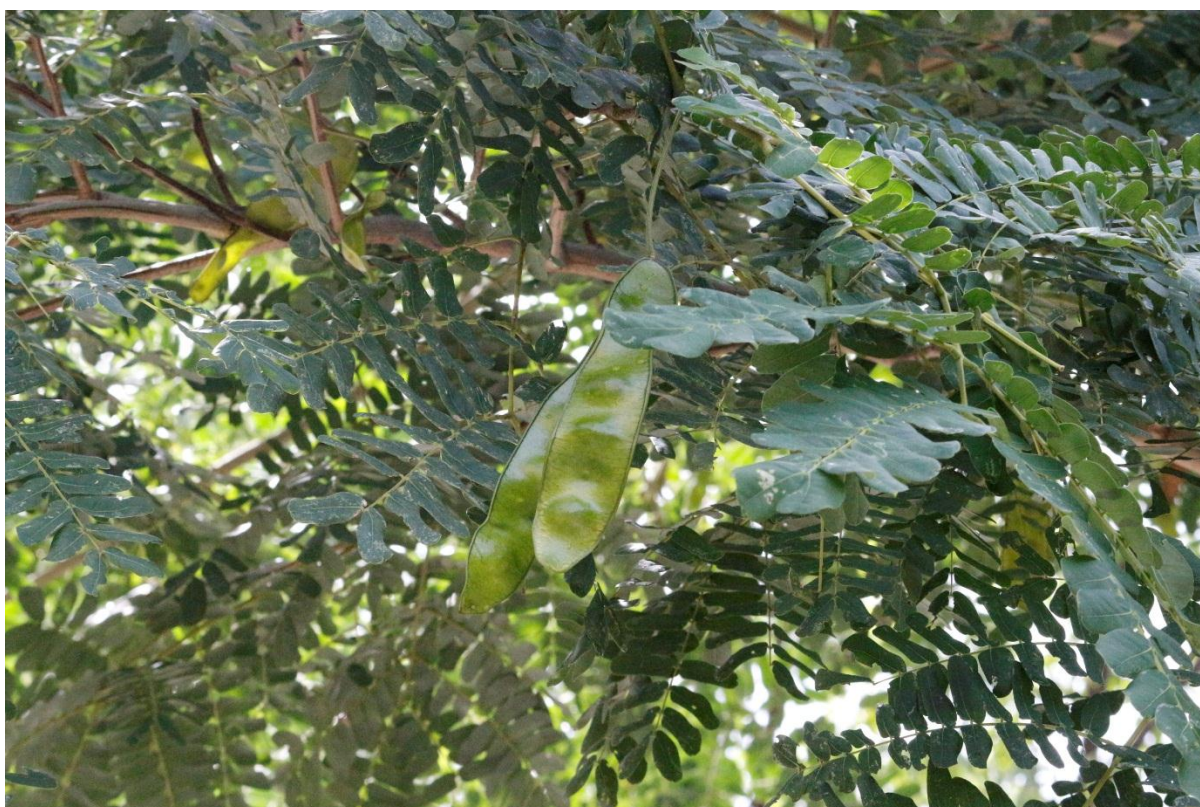
Dendrocalamus strictus



Psidium guajava



Azadirachta indica



Albizia lebeck

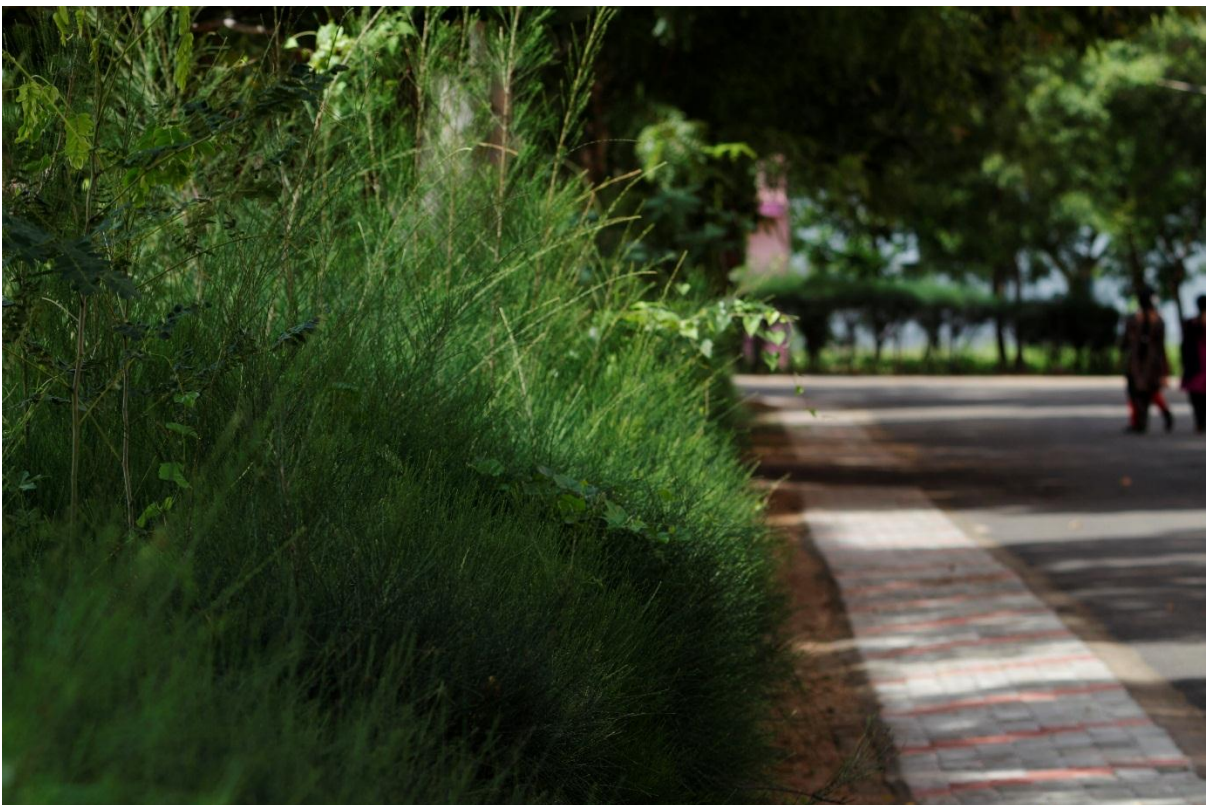


Tectona grandis

Tectona grandis is native to south and southeast Asia, mainly Bangladesh, India, Indonesia, Malaysia, Myanmar, Thailand and Sri Lanka, but is naturalised and cultivated in many countries in Africa and the Caribbean. Myanmar's teak forests account for nearly half of the world's naturally occurring teak. Molecular studies show that there are two centres of genetic origin of teak: one in India and the other in Myanmar and Laos.



Unidentified



Casuarina equisetifolia



Unidentified



Xanthophyllum arnottianum



Dypsis lutescens



***Cycas revoluta* Thunb**



Millettia pinnata



Tamarindus indica



***Coleus amboinicus* Lour.**



Codiaeum variegatum



Ficus religiosa



Duranta erecta



Bauhinia malabarica



Belischnedia tarairi



Bucida buceras



Commelina communis



Zantedeschia



Araucaria heterophylla



Rhapsis excelsa



Carica papaya



Unidentified





Mukia maderaspatana



Parasola plicatilis



Nerium oleander



Ipomoea obscura



Unidentified



Menispermum canadense



Polyalthia longifolia



sacred fig



Tarragon



Tectona



Terminalia Catappa



Viper bowstring hemp



Wodyetia bifurcata