

spiders Spiders are part of the arthropod family. Arthropods are animals with jointed legs and an outer skeleton. They include crustaceans (crabs, prawns), INSECTS, centipedes, millipedes and arachnids (spiders, mites, harvestmen and scorpions). Spiders are distinguished from other arthropods by having four pairs of legs, with no wings or antennae. They are equipped with spinnerets at the end of their abdomen for producing silk.

It is suspected that, out of over 40,000 spider species in the world, Singapore has hundreds. Spiders are little studied here but, with few exceptions, all spiders are venomous, equipped with poison fangs for overpowering prey and defending themselves.

It used to be a popular pastime among local children to catch fighting spiders (*Thiania bhamoensis*) and put them together to watch them fight. The fighting spider has no need for a web. It catches prey by pouncing on them.

In homes

Many spiders can be found inside homes. The housefly catcher (*Plexippus* spp.) is very common, often spotted on walls or on tree trunks, in sheltered corners or crevices. The common house jumper (*Menemerus bivittatus*) is a 'domestic' spider associated with man-made structures. Its eggs are

laid in a white silken sac hidden in a crevice and guarded by the mother until they hatch.

Tiny house dwellers (family Oecobiidae) live in the walls of car porches, balconies and verandas. These fast-running spiders make small flat webs over wall crevices and indentations. Tent spiders (*Cyrtophora* spp.) (1) build huge, irregular three-dimensional webs. In neglected building corners, loose tangled webs of long-legged spiders can be found. Commonly known as daddy-long-legs (Pholcidae) (2), they hang upside down in their webs and vibrate vigorously when disturbed, becoming a blur to the intruder.



In forests

The St Andrew's cross spider (*Argiope* spp.) (5) lives in forests and mangroves. It builds a distinctive web 1–2 m from the ground, recognizable by the X-shaped, zig-zag bands of white silk in the centre of the web. The brilliantly

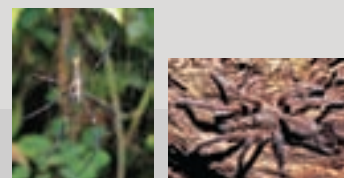
coloured spider sits head down in the centre of the web, holding its legs in pairs in such a way that they are aligned along the four arms of the 'X'.

The leaf-dwelling daddy-long-legs (*Uthina atrigularis*) is found only in Singapore, in the primary forest of

In gardens and parks

One of the larger, more common spiders of forest, wasteland and garden is the golden web spider (*Nephila maculata*) (3). It spins golden silk. A similar but less common species, the batik golden web spider (*Nephila antipodiana*) is named for the intricate batik-like pattern on its abdomen. Squatting in the webs of these spiders are silver spiders (*Argyrodes* spp.). Many of them have long, thin legs and silvery spots on their bodies. They help themselves to insects trapped in the web of the host.

Jumping spiders (Salticidae) can be found in gardens, mangrove



swamps, wasteland, forest and urban areas. They do not spin webs, preferring to spring on their prey and away from danger.

The fighting spider (*Thiania bhamoensis*) is a type of jumping spider. Some jumping spiders look like ants. By mimicking ants, the spiders protect themselves from predators who avoid ants.

The hairy Singapore tarantula (*Phlogiellus inermis*) (4) is a nocturnal creature that hides in silk-lined spaces among leaf litter in wasteland and gardens.

Bukit Timah.

Wolf spiders (Lycosidae) (6) are ground creatures. The females are protective mothers. They carry their eggs in an egg-sac attached to their spinnerets. When the spiderlings emerge, they are carried on their mother's back, living off the remains of their yolk.

Vegetation above mangrove swamps and jungle streams is home to the Singapore fishing spider (*Thalassius* spp.) (7). The female is only 16 mm in length but capable of attacking small fish by diving into the water and dragging them ashore for feeding.

Crab spiders (Thomisidae) look and move like crabs. They wait stationary on flowers to ambush their prey. One species of crab spiders lives inside the

pitchers of common PITCHER PLANTS (*Nepenthes gracilis*).

In the forest, spiny spiders (family Araneidae) can easily be recognized; they have a hard, flat body armed with spines on the edge of the abdomen. The curved spiny spider (*Gasteracantha arcuata*) can be found among tree branches in BUKIT TIMAH NATURE RESERVE.



cedures had been ignored while the *Spyros* was undergoing repairs.

SQ 006 crash On 31 October 2000, SINGAPORE AIRLINES flight SQ 006 crashed at Chiang Kai Shek International Airport in Taipei, Taiwan. Of the 179 passengers on board the flight, 83 perished. The airplane had been preparing to take off in bad weather during Typhoon Xangsane, and had taxied down a runway that was closed for repairs. As the plane attempted to take off, it smashed into concrete barriers and heavy construction machinery on the runway, and exploded.

An 18-month inquiry undertaken by Taiwan's Aviation Safety Council found that poor weather and pilot error were the 'probable causes' of the tragedy. Singapore's Ministry of Communications and Information Technology concluded, however, that the accident was due to 'a failure of the aviation system' rather than any single factor.

SQ 117 hijacking On 26 March 1991, SINGAPORE AIRLINES shuttle flight SQ 117 took off at 9.15 p.m. from Kuala Lumpur with 118 passengers and a crew of 11. A few minutes later, four Pakistani men, armed

with explosives and knives, hijacked the plane. When it landed at CHANGI AIRPORT at 10.15 p.m., the hijackers identified themselves as members of the Pakistan People's Party (PPP). They demanded the release of 11 PPP leaders from prisons in Pakistan. They also wanted to speak with the Pakistani ambassador, and with PPP leader Benazir Bhutto, the former prime minister of Pakistan. In addition, the hijackers demanded that the plane be refuelled to take them to Australia.

They threw two crew members off the plane and issued an ultimatum at 6.45 a.m., threatening to kill one passenger every ten minutes if their demands were not met, starting five minutes after their announcement. Three minutes into the countdown, a team of 20 commandos from the SPECIAL OPERATIONS FORCE stormed the plane. All the hijackers were shot dead. The rescue was completed in 30 seconds. None of the 129 hostages on board were injured.

SQ 006 crash: wreckage on runway at Chiang Kai Shek International Airport.

