Asian Hornet

The **Asian giant hornet**, *Vespa mandarinia*, also known as the Japanese hornet and known colloquially as the yak-killer hornet, is the world's largest hornet, native to temperate and tropical Eastern Asia. Its body length is approximately 50.8 mm (2.0 in), with a wingspan of about 76 mm (3 in). Queens may reach a length of 55 mm (2.2 in). Due to its size, it is known in Japan as the *sparrow bee*

Anatomy

The head of the hornet is orange and quite wide in comparison to other hornet species. The compound eyes and ocelli are dark brown, and the antennae are dark brown with orange scapes. The clypeus (the shield-like plate on the front of the head) is orange and coarsely punctured; the posterior side of the clypeus has narrow, rounded lobes. The mandible is large and orange with a black tooth (inner biting surface).

The thorax and propodeum (the segment which forms the posterior part of the thorax) of the Asian giant hornet has a distinctive golden tint and a large scutellum (a shield-like scale on the thorax) that has a deeply-impressed medial line; the postscutellum (the plate behind the scutellum) bulges and overhangs the propodeum. The hornet's forelegs are orange with dark brown tarsi (the distal—furthest down—part of the leg); the midlegs and hindlegs are dark brown. Wings are a dark brownish-gray. The tegulae are brown.

The gaster (the portion of the abdomen behind the thorax–abdomen connection) is dark brown with a white, powdery covering; with narrow yellow bands at the posterior margins of the tergite, the sixth segment is entirely yellow. It is similar in appearance to the established European hornet, *Vespa crabro*.

Sting

The stinger of the Asian giant hornet is about 6 mm (¼ in) in length, and injects an especially potent venom that contains, like many bee and wasp venoms, a cytolytic peptide (specifically, a mastoparan) that can damage tissue by stimulating phospholipase action,[3] in addition to its own intrinsic phospholipase.[4] Masato Ono, an entomologist at Tamagawa University near Tokyo, described the sensation as feeling "like a hot nail being driven into my leg."

An allergic human stung by the giant hornet may die from an allergic reaction to the venom; but the venom contains a neurotoxin called mandaratoxin[5] which can be lethal to people who are not allergic if the dose is sufficient. Between 20 and 40 people die each year in Japan after being stung by giant hornets.