

but also root formation and growth (Figure 2). With *in vitro* nodal explant, the entire process requires a period of 4 months to obtain elite plantlets for field transfer. Almost 100% survival was achieved in case of plantlets obtained from *in vitro* nodal explants on medium with 2 mg l<sup>-1</sup> IBA. Hence the present investigation is of importance in demonstrating efficient multiplication and defining the rate of multiplication of shoots along with root growth during *in vitro* propagation of *V. planifolia*.

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## Rare sighting of poisonous spider *Latrodectus hasseltii indicus* Simon (Araneae: Theridiidae) in a cotton field in Baroda district, Gujarat

The widow spiders, belonging to the genus *Latrodectus* are amongst the best known spiders on earth. They are the largest of the cobweb weavers (Theridiidae – ‘widow’ family) and all members are poisonous. Venom of *Latrodectus* is neurotoxic<sup>1</sup> and its clinical symptoms include local pain, sweating, nausea, vomiting, inflammation, palpitations, weakness, muscle spasm, fever, etc.<sup>2,3</sup>. An antivenin is available, but usually used in severe/serious cases<sup>2</sup>.

Widow spiders are widely distributed and several species of genus *Latrodectus* are found across the world<sup>2,4</sup>. These include *L. mednevoli* in Madagascar, *L. katepo* in New Zealand, *L. geometricus* (brown widow) and *L. indistinctus* in Africa, *L. mactans* (black widow) in the West Indies and North America, *L. tredecimguttatus* (Karakurt or black wolf) in South Europe, *L. bishopi* (red widow spider) and *L. variolus* (northern widow spider) in the United States.

*L. hasseltii* (red-back spider) is a well-known venomous spider in Australia. It is also found in Burma, India, Japan, Pakistan, Muscat and New Zealand<sup>2,5–8</sup>. Although this spider has been recorded in India since the last century, reports about its occurrence are very scanty. The

earliest account of this spider was from Poona (Maharashtra) by Pocock<sup>7</sup>. Later, Daniel and Soman<sup>4</sup> sighted it at Suriamal in north Thana, Mumbai<sup>1</sup>. Apart from a single report about its occurrence in Gujarat<sup>8</sup>, no detailed account regarding its occurrence in any particular area in Gujarat has been reported. Hence, this is to place on record the occurrence of *L. hasseltii indicus* from Baroda district.

The body of the adult female *L. hasseltii* (Figure 1) is black with an obvious red longitudinal stripe on the dorsal side of the abdomen, which is broad on the anterior side and tapers gradually as it proceeds on the posterior side. A similar but shorter and broader red pattern (hourglass-shaped pattern) is present on the ventral side of the abdomen. The legs are lighter in hue. The adult female we collected measured about 14 mm in length. Only 2 spiders (adult and sub-adult females) were found in November (1999) and were never sighted again in the same field or in any other field nearby.

The web (Figure 2) was made at the base of a cotton plant (between the lower leaves and the ground) in the cotton field. The spider was in its retreat under a big soil lump. It is known to be found in

varied habitats<sup>2,4</sup> such as open country areas, cesspit closets, dark places, heaps of rubbish, wood-heaps, stacks of bags or of sheet-iron, under the bark of dead trees, empty tins, unused buckets, beneath or between stones, behind stag-horn ferns, about gas or water meters or old boxes, etc. The web was very thin, scanty, flimsy and irregular in the exposed portion, whereas the retreat or portion concealed in the dark recesses, i.e. under



**Figure 1.** Female of *Latrodectus hasseltii indicus* Simon (× 2).

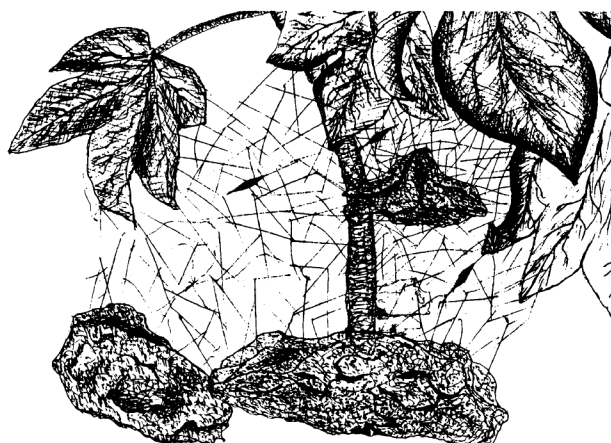


Figure 2. Web of *Latrodectus hasseltii indicus* Simon.

Table 1. Arthropods collected from the web of *Latrodectus hasseltii*

Arthropod	Number collected
Carabid beetle	1
Bombardier beetle	1
Dung roller	1
Assassin bug	1
Grasshopper	1
Ant	6
Harvestman	2
Spider	3

the lump of soil, was thick, matted or tangled and shapeless. Dry leaves and seeds of grasses were found entangled in the web, which might have fallen from the plant and nearby weeds. The exuvia of various insects, harvestmen and spiders (Table 1) were also found entangled among the silken threads. This shows that the web is efficient in trapping different types of prey, i.e. jumping, crawling and flying insects. The sclerotized insects were attacked on the thoracic region by the spider, while other soft-bodied arthro-

pods were attacked on the abdomen part.

The spider was collected and kept alive for photography. While taking the photographs, the spider was handled bare-handed, as the first author was not aware that it was venomous. The spider was not aggressive and it moved on the hand freely. During this process it released some silk fibres, which later created a slight burning sensation and irritation. But these symptoms lasted only for 15–20 min; except this no other symptoms of ‘arachnidism’ were felt. The spider was later preserved in 70% alcohol.

Along with the exuvia of various insects, an egg sac of this spider was also found in the retreat of the spider. It was white, coarse-textured and spherical in shape, with a diameter of 13 mm. The egg sac was collected and kept at room temperature in the laboratory.

Sixteen days from the date of collection, about 256 spiderlings emerged out from the cocoon through a small opening. The spiderlings were light-

brown and had a faint longitudinal streak on the dorsal side of the abdomen, where eventually the red stripe would develop. The spiderlings started spinning irregular strands of silk in the beaker and within 4–5 h the beaker was full of such strands. The spiderlings were released in a natural habitat after this observation, as rearing them in the laboratory was not possible due to lack of proper infrastructure.

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