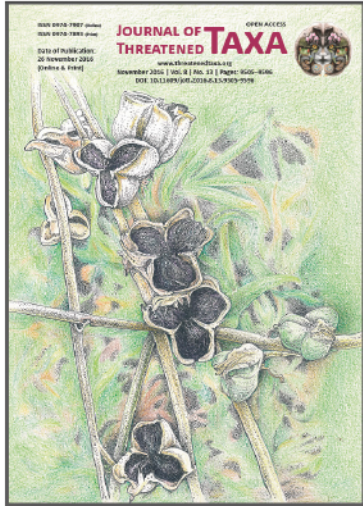


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NOTE

PARASITIZATION OF A HUNTSMAN SPIDER (ARACHNIDA: ARANEAE: SPARASSIDAE: *HETEROPODA VENATORIA*) BY A MERMITHID NEMATODE (NEMATODA: MERMITHIDAE)

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**PARASITIZATION OF A HUNTSMAN SPIDER
(ARACHNIDA: ARANEAE: SPARASSIDAE:
HETEROPODA VENATORIA) BY A MERMITHID
NEMATODE (NEMATODA: MERMITHIDAE)**

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On 15 September 2015, we witnessed a Mermithidae nematode emerging from a Huntsman spider at Buxa Tiger Reserve, West Bengal State in India. Sparassidae comprises a family of large spiders commonly known as the huntsman spiders. It includes 85 genera with 1,180 species (Platnick 2015) that are widely distributed throughout the tropics and sub-tropics. The huntsman spiders are well known to take shelter in houses, including our accommodation at Raja Bhat Khawa Village in Buxa Tiger Reserve. The human habitation provides them with moist, dark and secure areas to hide and at night, insects attracted to light are a source of food. They are often seen hunting large prey such as cockroaches and grasshoppers. We have observed females carrying their egg-case in their pedipalps under the body generally during the months of August–September.

On the evening of 15 September, a spider was seen wandering on the floor of the room. At 19:45hr, the spider was seen lying almost motionless while a worm emerged from it. The worm coiled tightly and stayed motionless-about 5cm from the host. The spider could

make feeble movements but died within an hour. When some water was poured on the worm, it started moving. The spider had a body length of 1.7cm while the nematode was 29cm in length. It appeared that the nematode was in the cephalo-thorax of the spider as that body part appeared translucent after the incidence. The abdomen of the spider remained wrinkled and dark. Based on the identification key developed by Pocock (1900), the spider appeared to be *Heteropoda venatoria* (Linnaeus, 1767), which is known from India, Myanmar and Sri Lanka.

Emerging mermithid worms from hosts are immature and are not suitable for taxonomic identification. It is known that after emerging, they spend time in a fresh water habitat and are dependent on their reserve food (Poinar 1987). Hence the worm was transferred to an aquarium. Unfortunately it did not survive for more than a week leaving many questions unanswered. We could not get the species identified and are not sure whether it's free living stage is aquatic or prefers just moist soil-mud. Since the huntsman spiders are seen catching grasshoppers frequently, it is possible that the nematode prefers moist soil and lays eggs on grass-blades as described by Penney & Bennett (2006). Its emergence on the dry floor with the host not seeking a water source could be indicative of the same.

Regarding nematodes of the family Mermithidae Braun, 1883, it is said 'The larvae are economically important because they are parasitic inside the bodies of nymphs or larvae of insects (grasshoppers, earwigs,



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Image 1. The Huntsman spider with a freshly emerged mermithid nematode.

ants), whose viscera they destroy, so that these insects may fail to develop or may die' (Soulsby 1982). They are also known to parasitize pseudo-scorpions (Harvey 1981). Yet, the feasibility of using the nematodes for controlling Yellow-legged Asian Hornet *Vespa velutina*, which is an invasive species in France was questioned by Villemant et al. (2015). Poinar (1985), for the first time published a list of spider hosts for Mermithidae worms. It was updated to 22 spider families by Penney & Bennett (2006) but did not include Sparassidae. Hence, this is the first host record of *Heteropoda venatoria* and the spider family Sparassidae for mermithid nematodes.

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