



## New Records of Tailed Cellar Spider *Crossopriza lyoni* (Blackwall, 1867) (Arachnida: Araneae : Pholcidae) from Uttar Pradesh (India), with Systematic Account, Distribution and other Aspects

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**ABSTRACT:** Present communication deals with new records of *Crossopriza lyoni*, the Tailed Cellar Spider, belonging to family Pholcidae under order Araneae and class Arachnida, from Azamgarh, Fatehpur Sikri and Noida (Uttar Pradesh, India) with systematic account, distribution, habitat, web, food & feeding, life-cycle, life-span, venom, self-defence and as being potential pest controllers.

**Keywords:** New records, *Crossopriza lyoni*, Uttar Pradesh.

### I. INTRODUCTION

The spider fauna of Uttar Pradesh, including referred quotes, has attracted the attention of various workers during the past (Blackwall, 1867; Pocock, 1900, 1901; Sherriffs, 1951; Basu, 1965; Tikader, 1966, 1971, 1980, 1982; Tikader & Gajbe 1975, 1976; Tikader & Malhotra, 1980; Tandon & Lal, 1983; Gajbe, 1988, 1992, 1999, 2008; Patel, 1988; Sethi & Tikader, 1988; Tikader & Sethi, 1990; Biswas & Biswas, 1992, 2004; Biswas & Majumder, 1995; Nigam & Patel, 1996; Khan & Mishra, 2003a,b; Majumder, 2005; Siliwal *et al.*, 2005, 2011; Singh (bb), 2005; Khan, 2006; Bastawade & Borkar, 2008; Hore & Uniyal, 2008a-d; Hore, 2009; Uniyal & Hore 2008, 2009; Singh (rp) & Singh (h), 2009; Biswas & Biswas, 2010; Anjali & Prakash, 2012, 2017, 2019; Halder *et al.*, 2012; Jager, 2012; Keshwani *et al.*, 2012; Marusik *et al.*, 2012 (MBO), 2020 (MOJ); Mishra *et al.*, 2012a,b; Prakash & Prakash, 2012; Lawania & Mathur, 2014a-d; Singh (bb) & Singh (r), 2014; Lawania & Trigunayat, 2015; Dhali *et al.*, 2016; Chandra *et al.*, 2017; Chaubey & Mishra, 2017; Kumar *et al.*, 2017a,b; Tigga *et al.*, 2017; Yadav (h), 2016, Yadav (rs), 2018; Sharma & Singh, 2018a,b; Anjali *et al.*, 2019; Chaubey, 2019; Jindal & Sant, 2019; Mishra & Rastogi, 2020; Sharma *et al.*, 2020, 2021; Singh (r) & Singh (g), 2020, 2021a, b, c, d; Singh *et al.*, 2020a (Sbb,Sr,Sg), b (Sr,Sg,Sa), c & d (Se,Sg,Sbb); Singh (r), 2021a,b; Singh *et al.*, 2021a (SDTS), b (SSSa), c (SSSbb); Tiwari & Singh, 2021; Tiwari *et al.*, 2021; Yadav & Prakash, 2021; De *et al.*, 2022; Singh (r) & Singh (g), 2022;) but no records from Azamgarh, Fatehpur Sikri and Noida are available.

Anjali & Prakash (2012, 2017, 2019) and Anjali *et al.* (2019) studied the diversity of spiders from semi-arid habitats in Agra but didn't record *Crossopriza lyoni*.

However, Anjali & Prakash (2014a, b; 2015) while dealing with cytogenetical investigations, somatic cell culture approach and genetic profiling for this species examined the material from some semi-arid areas (Cantonment, Dayal Bagh, Forest Colony and Poiya village) in Agra.

Recently specimens of *Crossopriza lyoni* were sighted inside residential houses in Azamgarh, Fatehpur Sikri and Noida and recorded here as the first from these areas.

This species was described by Blackwall (1867) from a collection of spiders from Meerut, Agra, and Delhi, besides other species, but without mention of particular localities/sites.

### II. STUDY SITES

#### 1. Professors' Colony, Heera Patti, Azamgarh, Eastern Uttar Pradesh (India)

Physiography: Azamgarh (Coordinates: 26.068° N, 83.184°E), a district in Purvanchal sub-division of Uttar Pradesh, is situated on the bank of river Tamsa with an average elevation of 64 m and lying between rivers Ganga and Ghaghara. It is surrounded by six districts, Gorakhpur in north, Mau in east, Ghazipur in south-east, Jaunpur in south-west, Sultanpur in west and Ambedkar Nagar in north-west. Its landscape roughly consists of a series of parallel ridges, sloping from north-west to south-east and interspersed by various reservoirs. Professor's Colony, Heera Patti is a residential area in Azamgarh city.

Climate: Humid subtropical climate with large variations between summer (maximum 38 °C in May) and winter (minimum 8 °C in January) temperatures; average annual rainfall 1,025.4 mm (maximum average 320.6 mm in July); average mean maximum and

minimum relative humidity 77.75% (in September) and 17.98 % (in April).

Flora:

Professor's Colony, Heera Patti (study site): *Dieffenbachia* sp., the Dumb Cane (Araceae), *Beaucarnea recurvata*, the Elephant-foot Palm or Pony-tail Palm (Asparagaceae), *Cycas circinalis*, the Queen Sago (Cycadaceae), *Codiaeum variegatum*, the Garden Croton (Euphorbiaceae), *Psidium guajava*, the Guava (Myrtaceae) and *Citrus limon*, the Lemon (Rutaceae) etc.

District in general:

Trees: *Mangifera indica*, the Mango (Anacardiaceae), *Carica papaya*, the Papaya (Caricaceae), *Tectona grandis*, the Teak or *Sagwan* (Lamiaceae), *Azadirachta indica*, the Indian Lilac or *Neem* and *Swietenia mahagoni*, the Mahogany (Meliaceae), *Ficus religiosa*, the Sacred Fig or *Pipal* (Moraceae) and *Syzygium cumini*, the Java Plum or *Jamun* (Myrtaceae) etc.

Crops: *Cicer arietinum*, the Chickpea (Fabaceae) and *Oryza sativa*, the Paddy or Rice, *Saccharum officinarum*, the Sugarcane, *Triticum aestivum*, the wheat and *Zea mays*, the Maize (Poaceae).

Vegetables and ornamental plants: commonly grown.

## 2. Fatehpur Sikri, Agra district, Western Uttar Pradesh (India)

Physiography: Fatehpur Sikri (Coordinates: 27.091° N and 77.661° E) is a historical town in extreme west Agra district (lies between Lat. 27° 11' N and Long. 78° 0' and 78° 2' E; at an average 170 m altitude) of south-western Uttar Pradesh and just at the border with Rajasthan state. The district is bounded by Mathura, Hathras and Etah on north, Firozabad and Etawah on east and Rajasthan state on west and south, covering an area of 4,027 km<sup>2</sup>. The Yamuna flows through the district while Chambal makes a boundary in south-east with Madhya Pradesh.

Climate: Semi-arid, bordering humid subtropical; summers (May-June) with maximum daytime temperature fluctuating between 46 and 50° C and nights relatively moderate with around 30° C; in winter (December-January) minimum temperature usually around 6-8° C but sometimes touching as low as -2 to -2.5° C below freezing point; average annual rainfall 607.1 mm with maximum 628.6 mm during monsoon months (July-August), Singh & Islam (2010) mentioned 760.4 mm mean annual precipitation; humidity fairly high 30-41 % in the month of May which rises steeply and touching the highest point of 73-85 % from the month of June.

Flora: Sharma & Dharke (1995) studied in detail flora of Agra, out of which some plants and by personal knowledge are as under:

Trees: *Mangifera indica* (Anacardiaceae), *Wrightia tinctoria* (Apocynaceae), *Carica papaya* (Caricaceae) *Gymnosporia emarginata* (syn. *Maytenus emarginata*) (Celastraceae), *Anogeissus pendula* (Combretaceae), *Acacia leucophloea*, *Acacia nilotica* (syn. *Acacia arabica*), *Butea monosperma* and *Dichrostachys cinerea* (Fabaceae), *Azadirachta indica* (Meliaceae), *Helicteres isora*, *Grewia flaviscens* and *Grewia tenax* (Malvaceae), *Cocculus* spp. (Menispermaceae), *Ficus religiosa* (Moraceae), *Psidium guajava* and *Syzygium cumini*

(Myrtaceae), *Citrus limon* (Rutaceae), *Flacourtia indica* (Salicaceae) and *Balanites aegyptiaca* (Zygophyllaceae) etc.

Herbs: *Barleria cristata*, *Elytraria acualis*, *Lepidagathis hamiltoniana* and *Ruellia patula* (syn. *Dipteracanthus patulus*) (Acanthaceae), *Achyranthes aspera* and *Pupalia lappacea* (Amaranthaceae), *Drimia indica* (syn. *Urginea indica*) (Asparagaceae), *Bidens biternata*, *Cyanthillium cinerum* (syn. *Vernonia cinerea*), *Dicoma tomentosa*, *Echinops echinatus* and *Glossocardia bosvallea* (Compositae), *Evolvulus alsinoides* (Convolvulaceae), *Acalypha ciliate* and *Euphorbia parviflora* (Euphorbiaceae), *Indigofera cordifolia*, *Indigofera linifolia*, *Tephrosia purpuria* (syn. *Tephrosia hamiltonii*) and *Zornia gibbosa* (Fabaceae), *Triumfetta rhomboidea* (Malvaceae), *Boerhavia chinensis* and *Boerhavia diffusa* (Nyctaginaceae) and *Solanum anguivi* (syn. *Solanum indicum*) (Solanaceae) etc.

Grasses: *Alloteropsis cimicina*, *Aristida adscensioinis*, *Aristida funiculata*, *Bothriochloa pertusa*, *Chloris virgata*, *Cymbopogon commutatus* (syn. *Cymbopogon parkeri*), *Dichanthium annulatum*, *Digitaria stricta*, *Melanocenchris jacquemontii*, *Oropetium thomaeum*, *Tragus mongolorum* (syn. *Tragus roxburghii*) and *Tetrapogon tenellus* (Poaceae) etc.

## 3. Noida, Gautam Buddha Nagar district, Western Uttar Pradesh (India)

**Physiography:** Noida is located in Gautam Buddha Nagar district of Uttar Pradesh, bounded on west and southwest by river Yamuna, on north and north-west by Delhi, on north-east by Delhi and Ghaziabad, north-east, east, and south-east by river Hindon, covering an area of 1,442 Km<sup>2</sup>.

**Climate:** Summer temperature up to 48°C, in winter it falls to as low as 3°C - 4°C and monsoon season prevails mostly during July-August, with maximum (av. 269 mm) in July.

**Flora:** Some important plants (after Kumar, 2020).

*Rauvolfia serpentina*, a milkweed (Apocynaceae), *Eleocharis geneculata* (syn. *Eleocharis capitata*), the Bent Spikerush (Cyperaceae), *Tephrosia villosa* (syn. *Tephrosia villosa incana*), the Hoary Tephrosia and *Trifolium ripens* (not *Trigonella repens*), the White Clover (Fabaceae), *Ficus benghalensis*, the Banyan tree, *Ficus racemosa* (syn. *Ficus glomerata*), the Cluster Fig or *Gular*, *Ficus religiosa*, the Sacred Fig or *Peepal* and *Streblus asper*, the Tooth-brush tree or *Khoi* (Moraceae), *Adenosma indianum* (syn. *Adenosma capinatum*) (Plantagniaceae), *Isachne albens*, the Indian Murain-grass (Poaceae), *Feronia limonia*, the Wood-apple or *Bel* and *Kaith* (Rutaceae), *Madhuca longifolia* var. *latifolia* (not *Madhuca sativa*), the *Mahua* (Sapotaceae) and *Balanites roxburghii* (Zygophyllaceae) etc.

## III. SYSTEMATIC ACCOUNT, DISTRIBUTION AND OTHER ASPECTS

### *Crossopriza lyoni* (Blackwall, 1867)

**Synonymy including distributional and other references:**

*Pholcus lyoni* Blackwall, 1867. *Annals and Magazine of Natural History* (Series 3), 19 (114): 392-394 (Dmf) (East India); *Crossopriza lyoni*, Pocock, 1900. *The fauna*

of British India, including Ceylon and Burma. *Arachnida*: 240; Dayal, 1935. *Bulletin of the Department of Zoology of the Panjab University*, 1: 168, pl. 15, figs. 90-96 (male, female); Bole-Godwa, 1958. *Proceedings of the Zoological Society of Bengal*, 11: 69-108; Sharma et al., 1959. *Research Bulletin of the Punjab University*, 10: 49-53; Zhu & Wang, 1963. *Journal of Jilin Medical University*, 5: 462, figs. 4, 7, 8 (male, female); Chrysanthus, 1967. *Tijdschrift voor Entomologie*, 110: 96, figs. 20-24 (male, female); Tikader & Biswas, 1981. *Rec. zool. Surv. India*, Occ. Paper No. 30: 18, figs. 13-15 (f); Nandi & Raut, S. K., 1985. *Bull. zool. Surv. India*, 7 (2-3): 179-183; Yaginuma, 1986. *Spiders of Japan in color* (new ed.): 31, fig. 17.5 (male, female); Srivastava & Shukla, 1986. *Chromosome Information Service*, 41: 23-26; Parida & Sharma, 1987. *Chromosome Information Service*, 43: 11-13; Sharma & Parida, 1987. *Pranikee*, 8: 71-76; Tikader, 1987. *Handbook Indian Spiders*: 170; Kim, 1988. *Korean Arachnology*, 4: 35, figs. 1-6 (male, female); Chikuni, 1989. *Pictorial encyclopedia of spiders in Japan*: 29, fig. 7 (male, female); Chen & Zhang, 1991. *Fauna of Zhejiang: Araneida*: 72, figs. 62.1-3 (male, female); Biswas & Biswas, 1992. Araneae: Spiders. In: Fauna of Delhi. *State Fauna Series*, 6: 477; Biswas & Biswas, 1992. Araneae. In: Fauna of West Bengal. *State Fauna Series, State Fauna Series*, 3 (3): 368, 383; Biswas & Biswas, 1997. Arachnida: Araneae. In: Fauna of Delhi. *State Fauna Series*, 6: 477; Edwards, 1993. *Entomology Circular*; Daniel et al., 1997. *The Journal of Arachnology* (American Arachnological Society), 25: 194-201; Huber et al., 1999. *American Museum Novitates*, No. 3262: 2-6, figs. 1-6, 7-12 (male, female); Song et al., 1999. *The spiders of China*: 52, figs. 22H-O (male, female); Huber, 2000. *Bulletin of the American Museum of Natural History*, 254: 30, fig. 98; Deeleman-Reinhold & van Harten, 2001. Description of some interesting, new or little known Pholcidae (Araneae) from Yemen. In: Prakash, I. (ed.) *Ecology of Desert Environments*: 195, figs. 5-6 (male, female); Ire, 2001. *Kishidaia*, 80: 7, figs. 1-8 (male, female); van Keer & van Keer, 2001. *Nieuwsbrief van de Belgische Arachnologische Vereniging*, 16 (3): 83, figs. 2.1-8 (male, female); Biswas & Biswas, 2004. Araneae: Spiders. In: Fauna of Manipur, *State Fauna Series*, 10 (2): 25, 30; Blick et al., 2004. *Checklist of the spiders of Central Europe (Checkliste der Spinnen Mitteleuropas)*; Huber, 2005. *African Biodiversity: Molecules, Organisms, Ecosystems*: 182; Majumder, 2005. *Mem. zool. Surv India*, 20 (3): 4, 41; Siliwal et al., 2005. *Zoos' Print Journal*, 20 (10): 2029; Oliviera et al., 2007. *The Journal of Arachnology*, 35: 296-298, figs. 1-4, 5-7, 8-9; Beatty et al., 2008. *Journal of Arachnology*, 36 (1): 9, figs. 17-18, 47-48 (male, female); Colmenares-García, 2008. *Boletín del Centro de Investigaciones Biológicas de la Universidad del Zulia*, 42: 88, figs. 2A-C (male); DAISIE, 2009. *Handbook of alien species in Europe*. p. 252; Hore & Uniyal, 2008. *Indian Forester*, 134 (10): 1375; Huber, 2009. *Zootaxa*, 1970: 65 (with synonymy); Irie, 2009. In: Ono, H. (ed.). *The spiders of Japan with keys to the families and genera and illustrations of the species*: 106, figs. 3-5 (male, female); Sebastian et al., 2009. Suborder Araneomorphae. In: Sebastian & Peter (eds.), *Spiders of India*: 258, pl. 86 (female with egg sac); Mathew et al., 2009. Updated Checklist of Indian Spiders. In: Sebastian & Peter (eds.), *Spiders of India*: 522; Uniyal & Hore, 2009. *Effect of Management practices on spider diversity in Terai Conservation Area. Final Project Report*: 222 pp; Biswas & Biswas, 2010. Araneae: Spider. In: Fauna of Uttarakhand. *State Fauna Series*, 18 (Part-3): 243, 248; Nentwig & Kobelt, 2010. *BioRisk*, 4 (1): 140, fig. c (female with egg sac); Sanyal & Talukder, 2011. Arachnida: Spider. In: Fauna of Tamil Nadu. *State Fauna Series*, 17 (2): 272; Gupta & Siliwal, 2012. *Indian journal of Arachnology*, 1 (2): 81; Keswani et al., 2012. *Indian Journal of Arachnology*, 1 (1): 53; Yin et al., 2012. *Fauna Hunan: Araneae in Hunan, China*: 163, figs. 30a-h (male, female); Anjali & Prakash, 2014a. *Indian Journal of Arachnology*, 3 (2): 40-54; Anjali & Prakash, 2014b. *International Journal of Engineering and Technical Research*, 2 (8): 29-32; Anjali & Prakash, S., 2015. *Indian Journal of Arachnology*, 4 (2): 22-30; Sen et al., 2015. *World Scientific News*, 20: 88, figs. 514-518, pl. 19 (female); Ambily & Antony, 2019. *The Journal of Zoology Studies*, 3 (5): 74; Bauer et al., 2016. *Arachnologische Mitteilungen / Arachnology Letters*, 52: 4-6, figs. 1-7 (male, female); Palem et al., 2016. *South Asian Journal of Life Sciences*, 4 (2): 55; Karthikeyani et al., 2017. *Mun. Ent. Zool.*, 12 (1): 186; Kumar et al., 2017. *Journal of Entomology and Zoology Studies*, 5 (4): 1953; Kumar et al., 2017. *J. Environ. Sci. & Tech.*, 4 (5): 43; Caleb & Kumar, 2018. Arachnida: Araneae. In: *Faunal Diversity of Indian Himalaya*: 184; Raiz et al., 2018. *International journal of Biological Sciences*, 9 (1): 39; Sharma & Singh, 2018. *Research Journal of Life Sciences, Bioinformatics, Pharmaceuticals and Chemical Sciences*, 4 (4): 386; Sharma & Singh, 2018. *Research Journal of Life Sciences, Bioinformatics, Pharmaceuticals and Chemical Sciences*, 4 (4): 529; Pande et al., 2019. *Haya: the Saudi Journal of Life Sciences*, 4 (5): 198; Sumesh & Sudhikumar, 2020. *Uttar Pradesh Journal of Zoology*, 41 (9): 111; Singh et al., 2021. *International Journal of Modernization in Engineering Technology and Science*, 3 (10): 511; Bourque et al., 2022. *Hutchinsonia*, 2: 28, figs. 1-11 (male, female); Huber, 2022. *European Journal of Taxonomy*, 795: 193, figs. 702-705, 783-805 (mf, syn. of *Crossopriza nigrescens*); Singh, R. and Sharma, A., 2022. *Munis Entomology & Zoology*, 17 (2): 1380; Singh & Singh, 2022. *Arthropods*: 11 (1): 29; Suzuki, 2022. *Kishidaia*, 120: 193, figs. 16-17 (female). *Smeringopus lyoni*, Thorell, 1895. *Descriptive catalogue of the spiders of Burma, based upon the collection made by Eugene W. Oates and preserved in the British Museum*: 70; *Crossopriza brasiliensis* Mello-Leitao, 1935. *Chilena Hist. Nat.*, 34: 94, 96, figs. 13a-c (male, female). *Crossopriza mucronata* Mello-Leitao, 1942. *Rev. Mus. La Plata* (New Series), 2: 389-390, figs. 1, 2 (female). *Crossopriza francoisi* Millot, 1946. *Mem. Mus. Natl. Hist. Nat.*, 22 (3): 154-155, figs. 29, 30B (male) [type-locality: Maevatanana, Madagascar].

*Crossopriza nigrescens* Millot, 1946. *Memoires du Museum National d'Histoire Naturelle de Paris* (N.S.) 22: 155, fig. 30A (juvenile).

*Crossopriza stridulens* Millot, 1946. *Mem. Mus. Natl. Hist. Nat.*, 22 (3): 156-157, fig. 31A, B (female) [type-locality: Mahajanga, Madagascar].

*Tibiosa caracensis* Gonzalez-Sponga, 2006. *Saplens, Revista Universitaria de investigacion*, 7 (1): 11-13, pl. 1, figs. 1-10 (male, female).

*Tibiosa casanaimensis* Gonzalez-Sponga, 2006. *Saplens, Revista Universitaria de investigacion*, 7 (1): 14-16, pl. 2, figs. 1-9 (male, female).

*Tibiosa coreana* Gonzalez-Sponga, 2006. *Saplens, Revista Universitaria de investigacion*, 7 (1): 17-19, pl. 3, figs. 1-7 (male).

*Tibiosa guayanesa* Gonzalez-Sponga, 2006. *Saplens, Revista Universitaria de investigacion*, 7 (1): 20-22, pl. 4, figs. 1-9 (male, female).

*Tibiosa moraensis* Gonzalez-Sponga, 2006. *Saplens, Revista Universitaria de investigacion*, 7 (1): 23-25, pl. 5, figs. 1-9 (male, female).

*Crssopriza* sp., Dhamorikar, 2016. *A field guide to insects & spiders of Kanha Tiger Reserve*. Section III Spiders: 180, pl. 42j.

*Crssopriza lyoni*, Yadav & Prakash, 2021. *Applied Ecology and Environmental Sciences*, 9 (2): 151 (genus spelling mistake).

**Common Names:** Box Spider, Tailed Cellar Spider, Tailed Daddy Long-legs Spider.

**Classification:** Class Arachnida, order Araneae, suborder Araneomorphae, family Pholcidae, subfamily Holocneminae, genus *Crossopriza* Simon, 1893.

**Sightings:**

(i). 1 example; 2, Professors' Colony, Heera Patti, Azamgarh; 28.xi.2021; by Mr. S. M. Parvez.

(ii). 1 example (with kill); Residence Sajjada-nasheen, Buland Darwaza Campus, Fatehpur Sikri, Agra district, Uttar Pradesh, India; 16.ii.2022; by 2<sup>nd</sup> author (HJH).

(iii). 1 example; Q 701, Supertech Ecociti, Sector-137, Hansraj Road, Noida, Gautam Buddh Nagar district, Western Uttar Pradesh; 25.iii.2022; by Er. S. M. Hussain.

**Diagnosis:** Small body mass with extremely long thin legs without spines but with fine hairs.

**Description:**

Cephalothorax: Wider than long, greyish-white or pale amber with a dark band along mid-longitudinal line, and a brown deep pit on carapace; pedipalps prominent; carapace more or less circular (when seen from above); six pearly-white eyes on tip, anterior median eyes smallest, others arranged in two triads; legs also amber, extremely long, very thin and fragile with fine hairs and with several dark spots all through, joints black, patellae brown, distal edges of femora and tibiae with white rings, tarsi flexible; posterior lateral corners of carapace with triangular picks touching file plates on anterior corners of abdomen, forming stridulatory organs (sound-producing organs), more prominent in females, characteristic to the genus.

Sternum: Having straight posterior border between the joints of 4<sup>th</sup> leg coxae; lateral extensions are extensions of the carapace that reach ventrally on both sides of the

petiole and almost contact the sternum; median extension an unpaired sclerite on the petiolus; borders of all these sclerites often poorly visible due to underlying patterns of dark pigment in the soft tissue directly under the cuticle (Huber, 2009).

Abdomen: Greyish-white with white lateral stripes, black and white patches above and on sides, a more or less irregular dark ventral stripe between sternum and cauda; cardiac area translucent, distinctly squarish (en.wikipedia.org) or triangular (Edwards, 1993) in shape with tapering caudal end and spinnerets on lower part; a small conical projection on upper posterior end.

Abdomen short, oval, prominent posteriorly above the spinnerets (Tikader, 1987).

Size: Female 5/16, length and breadth of cephalothorax 1/10, breadth of abdomen 1/6, length of an anterior leg 2 6/10 and length of leg of third pair 1 2/10 in length of an inch (Blackwall, 1867); body length males 2.5-6.0 mm, females about 3-7 mm, leg 1 in larger males may reach or up to up 6 cm in length (Edwards, 1993; en.wikipedia.org); except for one all male tibia 1 measure 10.1-15.8 mm (Huber, 2009); males 3-5 mm, females 5-6 mm (Sebastian *et al.*, 2009); extremely long fragile legs reaching up to 6 cm in length and a body length of that ranges from 2.5 to 7.0 mm (www.mindat.org).

**Distribution:** Cosmopolitan (Siliwal *et al.*, 2005; Sebastian *et al.*, 2009; Bauer *et al.*, 2016; World Spider Catalog).

Uttar Pradesh:

1. Azamgarh district: Professors' Colony, Heera Patti, Azamgarh (new record).

2. Agra district: Buland Darwaza Campus, Fatehpur Sikri (new record).

3. Gautam Buddh Nagar district: Noida (new record).

Rest of Uttar Pradesh: Agra and Meerut (without exact location) (Blackwall, 1867); Terai Conservation Area (Hore & Uniyal, 2008a); Uttar Pradesh (Biswas & Biswas, 2010); Semi-arid areas and flood plains of the Taj Trapezium Zone of Agra (Anjali & Prakash, 2014a,b, 2015; Yadav & Prakash, 2021); Unnao (Nawabganj Bird Sanctuary) (Kumar *et al.*, 2017a), Lucknow (Kukrail Reserve Forest) (Kumar *et al.*, 2017b); Gorakhpur, Kushinagar, Maharajganj and Siddharthnagar districts (Sharma & Singh 2018a, b); Gonda (Parvati Aranga Bird Sanctuary) (Singh *et al.*, 2021a); Gangetic riparian zone (De *et al.*, 2022).

Rest of India: Andhra Pradesh, Delhi, Himalaya (Western and Central), Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Odisha, Punjab, Rajasthan, Tamil Nadu, Telangana, Uttarakhand and West Bengal (Tikader & Biswas, 1981; Sharma & Parida, 1987; Biswas & Biswas, 1992, 1997, 2004, 2010; Huber *et al.*, 1999; Majumder, 2005; Sanyal & Talukdar, 2011; Gupta & Siliwal, 2012; Sen *et al.*, 2015; Ambily & Antony, 2019; Dhamorikar, 2016 (as *Crossopriza* sp. from Kanha Tiger Reserve); Palem *et al.*, 2016; Karthikeyani *et al.*, 2017; Sailu *et al.*, 2017; Caleb & Kumar, 2018; Raiz *et al.*, 2018; Pande *et al.*, 2019; Sumesh & Sudhikumar, 2020; Patil, 2021; Singh & Sharma 2022).

Elsewhere: Africa (north-west and sub-north, Huber, 2005); Belgium (van Keer & van Keer, 2001); Brazil (as *Crossopriza brasiliensis*, Mello-Leitao, 1935; as *Crossopriza lyoni*, Oliviera *et al.*, 2007); Chile (as *Crossopriza mucronata*, Mello-Leitao, 1942); China (Zhu & Wang, 1963; Chen & Zhang, 1991; Song *et al.*, 1999; Yin *et al.*, 2012); Europe (Blick *et al.*, 2004; DAISIE, 2008); Florida (Edwards, 1993); Germany (Bauer *et al.*, 2016); Japan including Okinawa Islands (Yaginuma, 1986; Chikuni, 1989; Irie, 2001, 2009; Suzuki, 2022); Madagascar (Millot, 1946; Huber, 2005); Micronesia and Polynesia (Beatty *et al.*, 2008); Myanmar (as *Crossopriza lyoni*, Biswas & Biswas, 1992, 1997, 2004, 2010 and Majumder, 2005; as *Smeringopus lyoni*, Thorell, 1895); Pakistan (Dyal, 1935); Pacific Islands (Huber *et al.*, 1999); South New Guinea (Chrysanthus, 1967); Venezuela (as *Tibiosa caracensis*, Gonzalez-Sponga, 2006; as *Crossopriza lyoni*, Colmenares-Garcia, 2008); Yemen (Deeleman-Reinhold & van Harten, 2001); Argentina, Australia, Brazil, Madagascar, Mali, Nicaragua, Nigeria, Paraguay, Philippines, Sri Lanka and USA (Texas) (Huber *et al.*, 1999); Asia (Nentwig & Kobelt, 2010); North and South America (Huber *et al.*, 1999; Beatty *et al.*, 2008).

**Introduced:** Introduced into other parts of the world accidentally and are now pantropical in distribution. The species has so far been recorded from every continent (except Antarctica) and consequently is listed in the World Spider Catalog as cosmopolitan (Bauer *et al.*, 2016).

**Habitat:** Synanthropic, as generally prefer living in residential houses, abandoned houses, buildings and other human made structures.

**Web:** Make irregular webs in ceiling corners in sheltered places of human dwellings, which are almost invisible and may be sometimes located by the female with egg case. They hang upside-down underneath the web. They frequently clean the webs for leftover carcasses of prey and build new ones in case of becoming too dirty (Nandi & Raut 1985; Nieuwenhuys & Bryan, 2004).

**Food and Feeding:** Prey on flies and other insects coming closer to the web and also sometimes pursue nearby prey. They first wrap the prey by silk and keep it aside for feeding when they feel hungry. They can consume 12 to 20 mosquitoes in a day, in addition to other insects. They sometimes engage in cannibalism by preying on their own siblings, when short of food (Nandi & Raut, 1985; Edwards, 1993; Daniel *et al.*, 1997).

**Life-cycle:** After 5-6 days of mating with male, female lays about 53-58 eggs and binds them by some silken threads forming egg-sac and then clutching it with her chelicerae move around and still feed during this period by leaving the sac for a while, an peculiar feature of cellar spiders; after 11-13 days 5 to 54 spider-lings hatch out from the eggs and become active in 2-4 days and start preying on mosquitoes; they grow to adulthood in about 80 days (Nandi & Raut 1985; Daniel *et al.*, 1997).

They don't make cocoons but glue the eggs together and are carried by the chelicerae of mother (Biswas & Biswas, 2004).

Blackwall (1867) described an interesting case of hermaphroditism in one adult specimen, in which the left side was male and the right side was female.

**Life-span:** Around 194 days /around 6.5 months (Daniel *et al.*, 1997).

**Venom:** They possess some potent venom against insects and other spiders but not medically significant as their fangs are too small to penetrate the skin (Edwards, 1993; Berenbaum, 2004; Nieuwenhuys & Bryan, 2004).

**Self-defence:** Daddy-longlegs when disturbed violently move their bodies in small circles, blurring them and stridulate and also vibrate their web rapidly and if this does not work, they drop from their webs to the ground and flee awkwardly with their characteristic long-legged gait (Nieuwenhuys & Bryan, 2004; Sebastian *et al.*, 2009).

**Potential Pest Controllers:** They are considered beneficial, being efficient predators of mosquitoes and other disease-transmitting insects harmful to humans and hence killing these spiders should be avoided, especially in areas where mosquito-borne diseases like Dengue and Malaria fevers are prevalent. It has been observed that these spiders consuming Dengue virus-infected mosquitoes do not acquire the virus themselves. It has also been found that webs of these spiders exhibit anti-bacterial properties against *Escherichia coli*, *Pseudomonas aeruginosa*, *Staphylococcus aureus* and others; Gram-positive bacteria are more vulnerable to proteins from their webs than Gram-negative bacteria. In view of these benefits, it is recommended not to destroy them and their webs (Daniel *et al.*, 1997; Huber, 2005).



**Fig. 1.** *Crossopriza lyoni*, the Tailed Cellar Spider (Azamgarh).



**Fig. 2.** *Crossopriza lyoni*, the Tailed Cellar Spider with kill  
(Fatehpur Sikri)



**Fig. 3.** *Crossopriza lyoni*, the Tailed Cellar Spider  
(Noida).

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