

Bugsnail

Newsletter of the Invertebrate Conservation & Information Network of South-Asia (ICINSA)

Distribution record of three new spiders of the genus *Gasteracantha* from Nepal

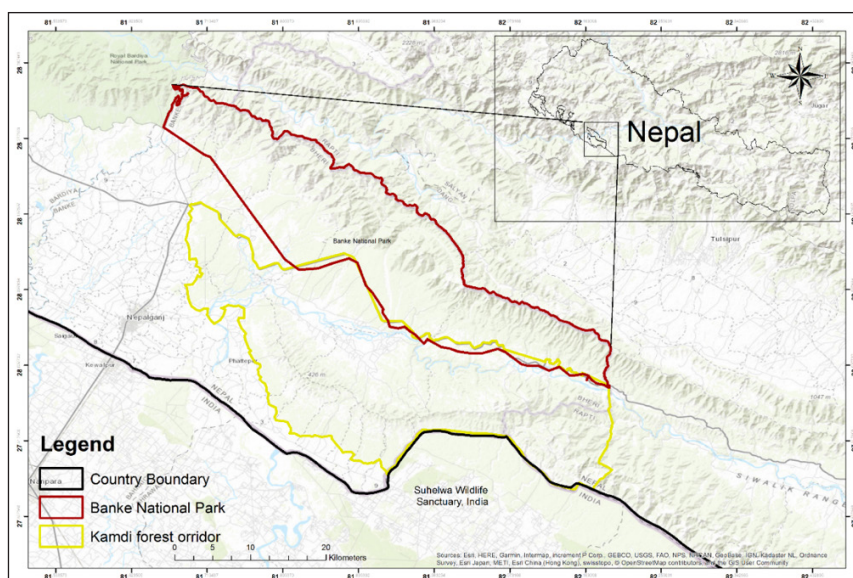
In Nepal, studies on spiders were initiated in the 20th century. Till date, there are 23 families, 79 genera, 222 species of spiders recorded from Nepal, among 79 genus of species recorded, four of them are endemic species (Siliwal & Molur 2007).

The study area lies in the western low land of Nepal with an elevation of 153–1,247 m between 28.36°–27.82°N & 82.43°–81.53°E. Banke National Park (BaNP) is surrounded by the Suhelwa Wildlife Sanctuary (SWS) in India in the south and Bardia National Park (BNP) in Nepal in the west. BaNP is rich in biodiversity and is a treasure house for 124 species of plants, 34 species of mammals, more than 300 species of birds, 24 species of reptiles, seven species amphibians and 58 species of fish. It contains an array

of eight ecosystems. A subtropical type of climate is prevailed with three distinct seasons summer, monsoon, and winter being the dominant season.

The study was conducted between 27 March to 14 April 2019, when I was involved in line transect method to count the animal density in BaNP and Kamdi Forest corridor. Before I noticed

the structure of the spider in the study area, I was fascinated by its colour and spines. It was the first time I noticed *Gasteracantha kuhli* C.L. Koch, 1837), in Lamjung, Nepal (28.10°N & 84.44°E). But for the first time I started collecting these species opportunistically when I found them in my line transect. Probably for collecting all three species I had walked at least 30



Study area showing Kamdi Forest corridor and Banke National Park, Nepal.

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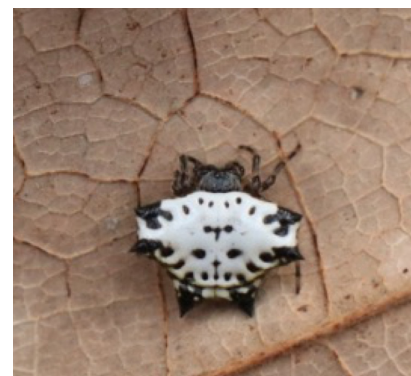
Table 1: Dorsal view of three species of spiders detected in Banke District belongs genus *Gasteracantha*.



Family: Araneidae
Species: *Gasteracantha hasselti*
 C.L. Koch, 1837
Guild/ GPS location:
 Orb-web builders/
 N 28.23°
 E 81.71°
 Elevation: 177 m



Family: Araneidae
Species: *Gasteracantha kuhli* C.L.
 Koch, 1837
Guild/ GPS location:
 Orb-web builders/
 N 28.23°
 E 81.71°
 Elevation: 192 m



Family: Araneidae
Species: *Gasteracantha sanguinolenta* C.L. Koch, 1844
Guild/ GPS location:
 Orb-web builders/
 N 28.23°
 E 81.69°
 Elevation: 204 m

line transect each having the length of approximately 1.2km to 2km. Photographs of dorsal view were first searched in Google, leading to dilemma in identification. I had adopted a morphospecies approach (assumption based on photographs and colours) to identify the spider species and confirmed that the species (from photographed) belonged to the orb weavers. In order to verify, I even checked the former researched works having the

photograph of spiders.

Three species of family Araneidae was first identified from Nepal, Banke District (Table 1). All three species *Gasteracantha hasselti* C.L. Koch, 1837, *G. kuhli* C.L. Koch, 1837, and *G. sanguinolenta*, C.L. Koch, 1844 belong to the family Araneidae (Adarsh & Nameer 2015). *G. hasselti* is found to occur in India, China and Indonesia. *G. kuhli* occurrence is recorded from India, China, Malaysia,

Japan, Philippines, whereas *G. sanguinolenta* are found to be recorded abundantly in South Africa.

The spider species *G. kuhli* is commonly known as black-and-white spiny spider even found in hilly region of Nepal, once observed myself in my backyard forest area in Lamjung (elevation of 528 m), Nepal. *Gasteracantha hasselti* is commonly known as Hasselt's Spiny Spider and is yellow in color. It is mostly sighted outdoors in



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the web. All the three species bear spines with different primary colors in their body and *G. sanguinolenta* has white color with some black points embedded in dorsal side (Table 1). This study depicts new distribution record from Nepal in fact the genus is recorded for the first time. This initiation of work on spider will contribute arachnologists in upcoming days to motivate the researchers for bringing spider studies to the notice.

References

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