

# Bugs & ALL

Invertebrate Conservation & Information Network of South Asia (ICINSA)

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

## GIANT CRAB SPIDER

Predation of Common House Gecko *Hemidactylus frenatus* Schlegel, 1836 by Giant Crab Spider *Heteropoda venatoria* Linnaeus, 1767



IUCN Red List:

Global — Not  
Evaluated

**Giant Crab Spider feeding on  
Common House Gecko**

### **Arachnida**

[Class of Spiders,  
Harvestmen, Scorpions,  
Mites, etc.]

### **Araneae**

[Order of Spiders]

### **Sparassidae**

[Family of Giant Crab  
Spider]

### ***Heteropoda venatoria***

[Giant Crab Spider]

Species described by  
Linnaeus in 1767

Spiders are top predators of arthropods in terrestrial ecosystems, and they play a critical ecological role by keeping insect populations under check (Schmitz 2008). Some species of spiders under different families viz. Lycosidae, Sparassidae, Theraphosidae were observed killing and eating frogs and lizards (Kaston 1965; Formanowicz et al., 1981; Stewart 1985; Brown et al., 1996; Conniff 1996; Hemidy et al., 2010; Diniz 2011). *Heteropoda venatoria* (Linnaeus), (Sparassidae: Araneae: Arachnida) is a highly valued species because they capture and feed on cockroaches and other domestic pests. *H. venatoria* is a common species across tropical countries, including Bangladesh. A total of 11 species under 4 genera

# Bugs & All

Invertebrate Conservation & Information Network of South Asia (ICINSA)

Newsletter of the

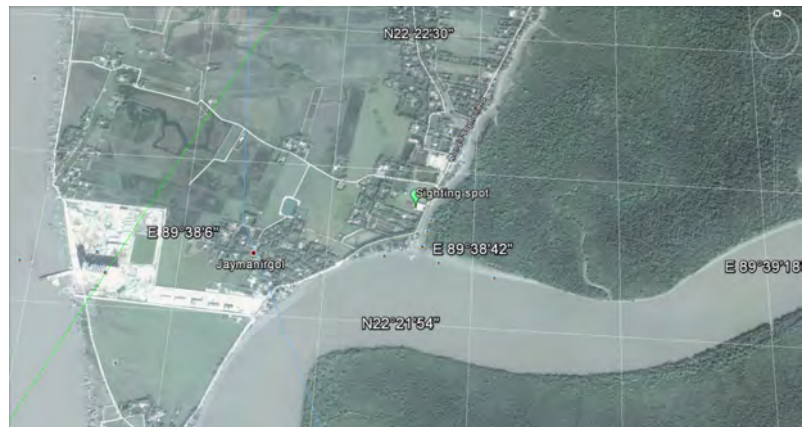
of Sparassidae family have been recorded from Bangladesh. They are commonly known as Giant crab spiders on account of their large size and crab like legs (Sethi & Tikader 1988). This ability along with its adaptability to human habitations, helps to explain its frequent occurrence in houses, barns, sheds, under boards on the ground, and in other sheltered areas (Edwards 1979). *H. venatoria* do not use webs to capture prey. They have strong chelicerae used to capture the prey on which they feed. Poison is also injected into the prey from glands extending from the chelicerae (Sethi & Tikader 1988). The flattened body enables this large spider to fit into surprisingly small cracks and crevices (Shukla 2008). *Hemidactylus frenatus* (Squamata: Gekkonidae) is predominantly a nocturnal, often found inside buildings feeding on insects that are considered to be pests (Tyler 1961; Newbery & Jones 2007; Biswas & Raychaudhuri 2006).

This current article is a report of predation on *H. frenatus* individual by *H. venatoria*. This observation was made at Jaymoni, Chandpie Range Sundarban in the Bagerhat district (22°22'7.52"N; 89°38'34.66"E) Southwest of

Bangladesh. The body length of *H. venatoria* measured approximately length of 2.3cm, and had a 11cm long leg. We observed one individual of this species preying a *H. frenatus* on a wooden pillar was sighted on 12 Aug, 2016, at 20.35 (GMT +6). The body length of *H. frenatus* was not measured because, it was already half eaten. The spider was sucking the fluids from the partially digested body of *H. frenatus* far before the observation was started, when both *H. frenatus* and *H. venatoria* foraged. Spider (*H. venatoria*) gradually moved its pedipalp began to suck the fluids from head of *H. frenatus* then from rest of the body. Spiders are one of the most groups of invertebrate predator entire terrestrial ecosystem that feed almost exclusively on insects. The observation of gecko-catching spider is not that peculiar if we consider the fact that a number of large sized spider are known to supplement their diet by occasionally preying on vertebrates.

## Global Distribution: Across tropical countries

Bangladesh (Bagerhat, Barisal, Faridpur, Jhenidah, Pabna, Rangpur).



**Sighting map of *Heteropoda venatoria* in the coordinate of 22° 22'7.52"N; 89° 38'34.66"E at Jaymoni, Chandpie Range, Sundarbans in the Bagerhat, Bangladesh (Map source: Google earth).**



# Bugs R All

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

## References

- Biswas, V. & D. Raychaudhuri (2005).** Huntsman spiders of Bangladesh: Genus *Heteropoda* Latreille And *Olios* Walckenaer (Araneae: Sparassidae). *Rec. zool. Surv. India* 104 (3-4): 103-109.
- Brown, R.M., J.W. Ferner, R.V. Sison, P.C. Gonzales & R.S. Kennedy (1996).** Amphibians and reptiles of the Zambales mountains of Luzon Island, Philippines. *Herpetol. Nat. Hist.* 4: 1-17.
- Conniff, R. (1996).** Tarantulas: Earth tigers and bird spiders. *National Geographic* 190: 99-115.
- Daniel, J.C. (2002).** *The Book of Indian Reptiles and Amphibians*. Bombay Natural History Society: Oxford University Press, Mumbai, pp 202.
- Diniz, S. (2011).** Predation and feeding on the tropical house gecko *Hemidactylus mabouia* (Squamata: Gekkonidae) by the giant orb-weaver spider *Nephilengys cruentata* (Araneae: Nephilidae). *Herpetology Notes* 4: 357-358.
- Edwards, G.B. (1979).** The Giant crab spider, *Heteropoda venatoria* (Linnaeus) (Araneae: Sparassidae). Florida Department of Agriculture and Consumer Services, Division of Plant Industry, Entomology Circular 205: 1-2.
- Formanowicz, D.R.J., M.M. Stewart, P. Townsend & D.F. Brussard (1981).** Predation by giant crab spiders on the Puerto Rican frog *Eleutherodactylus coqui*. *Herpetologica* 37: 125-129.
- Greenstone, H. (1999).** Spider predation: How and why we study it. *The Journal of Arachnology*. 27:333-342.
- Hamidy, A., M. Matsui, K. Nishikawa, D. Belabut & N. Ahmad (2010).** *Rana picturata* (Yellow-spotted frog) predation. *Herpetol. Rev.* 41: 66-67.
- Kaston, B.J. (1965).** Some little known aspects of spider behavior. *Am. Mid. Nat.* 73: 336-356.
- Newbery, B. & D.N. Jones (2007).** Presence of Asian House Gecko *Hemidactylus frenatus* across an urban gradient in Brisbane: influence of habitat and potential for impact on native gecko species. *Royal Zoological Society of New South Wales Forum Proceedings*, 59-65.
- Schmitz, O.J. (2008).** Effects of predator hunting mode on grassland ecosystem function. *Science* 319: 952-954.
- Sethi, V.D. & B.K. Tikader (1988).** Studies on some giant crab-spiders of the family Heteropodidae from India. *Rec. zoo. Surv. India* 93 : 1-94.
- Shukla, S. & A. Lele (2008).** First report of the Giant Crab Spider, *Heteropoda venatoria* (Linnaeus), (Sparassidae: Araneae) from Konkan region, Maharashtra, India. *Newsletter of the Invertebrate Conservation & Information Network of South Asia & CBSG, South Asia*, pp 28.
- Stewart, M.M. (1985).** Arboreal habitat use and parachuting by a subtropical forest frog. *J. Herpetol.* 19: 391-401.
- Tyler, M.J. (1961).** On the diet and feeding habits of *Hemidactylus frenatus* (Dumeril and Bibron) (Reptilia: Gekkonidae) at Rangoon, Burma. *The Transactions of the Royal Society of South Australia* 84: 45-49.

**Acknowledgement:** The authors are grateful to Md. Ahsan Habib for his kind help to identify the species.

## Amit Kumer Neogi<sup>1</sup> & Md. Nur Islam<sup>2</sup>

<sup>1&2</sup>Department of Zoology, Jagannath University, Dhaka - 1100, Bangladesh. E-mail: <sup>1</sup>amit\_jnu52@yahoo.com (corresponding author)

Citation: Neogi, A.K. & M.N. Islam (2017). Giant Crab Spider: Predation of Common House Gecko *Hemidactylus frenatus* Schlegel, 1836 by Giant Crab Spider *Heteropoda venatoria* Linnaeus, 1767. *Bugs R All* #160. In: *Zoo's Print* 32(8): 22-24.

Newsletter of the Invertebrate Conservation and Information Network of South Asia (ICINSA) and Invertebrate Specialist Group (ISIG) of Conservation Planning Specialist Group, South Asia. ICINSA and ISIG are coordinated by Dr. B.A. Daniel, Scientist, Zoo Outreach Organization

Editor: B.A. Daniel

Editorial Advisor: Sally Walker and Sanjay Molur

Bugs 'R' All is published by ZOO and CPSG South Asia as a service to invertebrate Conservation community. This issue is published with the financial support of Zoological Society of London

For communication contact:

The Editor, ZOO/CPSG South Asia office

12, Thiruvanamalai Nagar, Saranampatti PO, Coimbatore 641035 TN India

Phone: +91 422 6575854; Email: daniel@zooreach.org

