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Predation on a Freshwater Crab, *Dilocarcinus dentatus* (Tricodactylidae), by Several Tropical Wolf Spiders, *Ancylometes bogotensis* (Ctenidae), in Trinidad, W.I.

Rakesh Bhukal, Mike G. Rutherford and Ryan S. Mohammed

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On 4 September, 2014, during a nocturnal field trip to the Aripo Savannas, Trinidad, (WGS 84 UTM 0697545 1176021), an unusual observation was made. Three adult spiders were observed feeding on an adult freshwater crab. The spiders were on vegetation above a flooded trail and there were many crabs in the water below. The crab was initially held by a female spider; two males were then seen to approach and also feed on the crab (Fig. 1 and Cover Photo).

The spider was identified from photographs as *Ancylometes bogotensis* (Keyserling 1877) of the family Ctenidae (pers. comm. H. Höfer) and the crab identified as *Dilocarcinus dentatus* (Pretzmann 1968). No other species within the genus is known to inhabit Trinidad. *Ancylometes* spp. have a mainly South American distribution and are more commonly called 'giant fishing spiders', to prevent confusion with the smaller 'fishing spiders' (*Dolomedes* sp.). They inhabit moist Neotropical forests where they hunt at night at the edge of water bodies (Höfer and Brescovit 2000). *Ancylometes* spp. are documented as having a diet consisting of anything from insects to small vertebrates such as fishes, tadpoles, frogs, toads and lizards (Menin *et al.* 2005). Deacon *et al.* 2015 and White *et al.* 2015 document instances of *A. bogotensis* feeding on a fish and a frog respectively, in Trinidad.

Although the capture of the crab was not observed (carapace length ≈4.0cm), it is likely that it was caught live by the female spider and taken into the surrounding vegetation to be fed upon, as *Ancylometes* sp. are only known to feed on prey they have caught themselves (pers. comm. H. Höfer). While fish and amphibian predation by spiders has been widely reported (see Platnick 2013; Nyffeler and Pusey (2014); Menin *et al.* 2005), to our knowledge, there have not been any recorded observations of spiders of this family feeding on crustaceans. While these spiders are known to be ambush predators, where they lay in wait for prey that passes within striking distance, they also actively dive, such is the case when they hunt for fish. Indeed, prey of the size and morphology of a freshwater crab present an additional challenge to a spider predator, as do the crab's formidable pincers which can be used as a defensive tool.

Social groups can form when individuals aggregate because of inherent advantages of group living according to Alexander (1974). These benefits are usually associated with defence against predators or detection and harvest of food resources. As it pertains to social behaviour in spiders, it is uncommon, with only around 60 out of the more than 40,000 species having been documented exhibiting such behaviour (Lubin 2010). Of these, almost all are records from web-building species, therefore seeing ground-hunting spiders feeding peaceably together is a rare occurrence. In all of the social species, several spiders attack large prey jointly and feed together on it because by hunting in a group, spiders can capture larger prey and save on per capita costs of silk production (reviewed in Avilés 1997). In addition to this, they may also benefit from sharing digestive enzymes. However, as the capture of the crab was not witnessed, it is not possible to say if the spiders were actively foraging together or just brought together independently by the presence of potential prey. It must be noted however, that despite being in proximity to each other, aggressive behaviour amongst the three spiders was not observed.

This is, therefore, the first account of a member of the

family Ctenidae feeding on a crustacean and exhibiting social behaviour out of the courtship period. It would be of great interest to establish definitively that *Ancylometes bogotensis* captures live crabs, and whether individuals hunt together or happen to aggregate near to prey-rich habitats.

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Rakesh Bhukal[1, 2], Mike G. Rutherford[1] and **Ryan S. Mohammed[1]**

1. Department of Life Sciences, Faculty of Science and Technology, UWI, St. Augustine.
2. School of Veterinary Medicine, Faculty of Medical Sciences, UWI, St. Augustine.

Fig. 1. Female *Ancylometes bogotensis* (top) feeding on female *Dilocarcinus dentatus* with male spider attempting to feed as well.