

Record of *Phaeacius* cf. *lancearius* (Araneae: Salticidae: Spartaeini) preying on *Hersilia* sp. (Araneae: Hersiliidae) in Karnataka

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Several papers have been written on the subject of predation by spartaeine jumping spiders of the genus *Phaeacius* Simon 1900, but all are based on observations of behaviour in the laboratory (Jackson & Hallas 1986; Jackson 1990; Li 2000). These studies characterise *Phaeacius* species as sedentary ambush predators living on tree trunks, predators that prefer other spiders, and jumping spiders in particular, over insects as prey. They move slowly and might turn to face potential prey, but otherwise capture approaching prey with a simple *lunge* to the front. They also avoid cribellate and ecribellate webs that could entangle them (Jackson & Hallas 1986). Here we document the capture of a tree trunk or two-tailed spider (*Hersilia* Audouin 1826 sp.) by a *Phaeacius* cf. *lancearius* in Sulia, Karnataka, India, shown here feeding on the opisthosoma of its prey (Figure 1).

A total of 14 species of *Phaeacius* have been described from tropical south and southeast Asia, only two, *P. fimbriatus* Simon 1900 and *P. lancearius* (Thorell 1895), from India (WSC 2019). These two species are closely related and their relationship, including local variation in colouration associated with concealment on tree trunks, needs more study (Wanless 1981, 1984). Only the male *P. lancearius* has been described from south India (Wijesinghe 1991), most recently described as *P. wanlessi* from Pathiramanal Island, Kerala (Malamel 2018). Several *Phaeacius* sp. from Sirsi, Uttarakannada, Karnataka are shown here (Figure 2).

The capture of a *Hersilia* by the salticid *Plexippus petersi* (Karsch 1878) in Karnataka was previously documented (Ahmed et al. 2015). Since *Hersilia* spp. are fast-moving predators that surround themselves with trap lines for the detection of prey (Figure 3), this is no mean feat. *Hersilia* is a large, worldwide genus with 78 described species, mostly living on tree trunks in tropical or subtropical Afroeurasia (Talukdar & Datta 2014; WSC 2019). Penney (2006) has estimated that the Hersiliidae were already established by the Early Cretaceous. They can immobilize fairly large insects by rapidly encircling them as they lay down silk from their characteristic long posterior lateral spinnerets (Talukdar & Datta 2014). An excellent video that shows the speed of this movement can be viewed online (SixLegTv 2015).

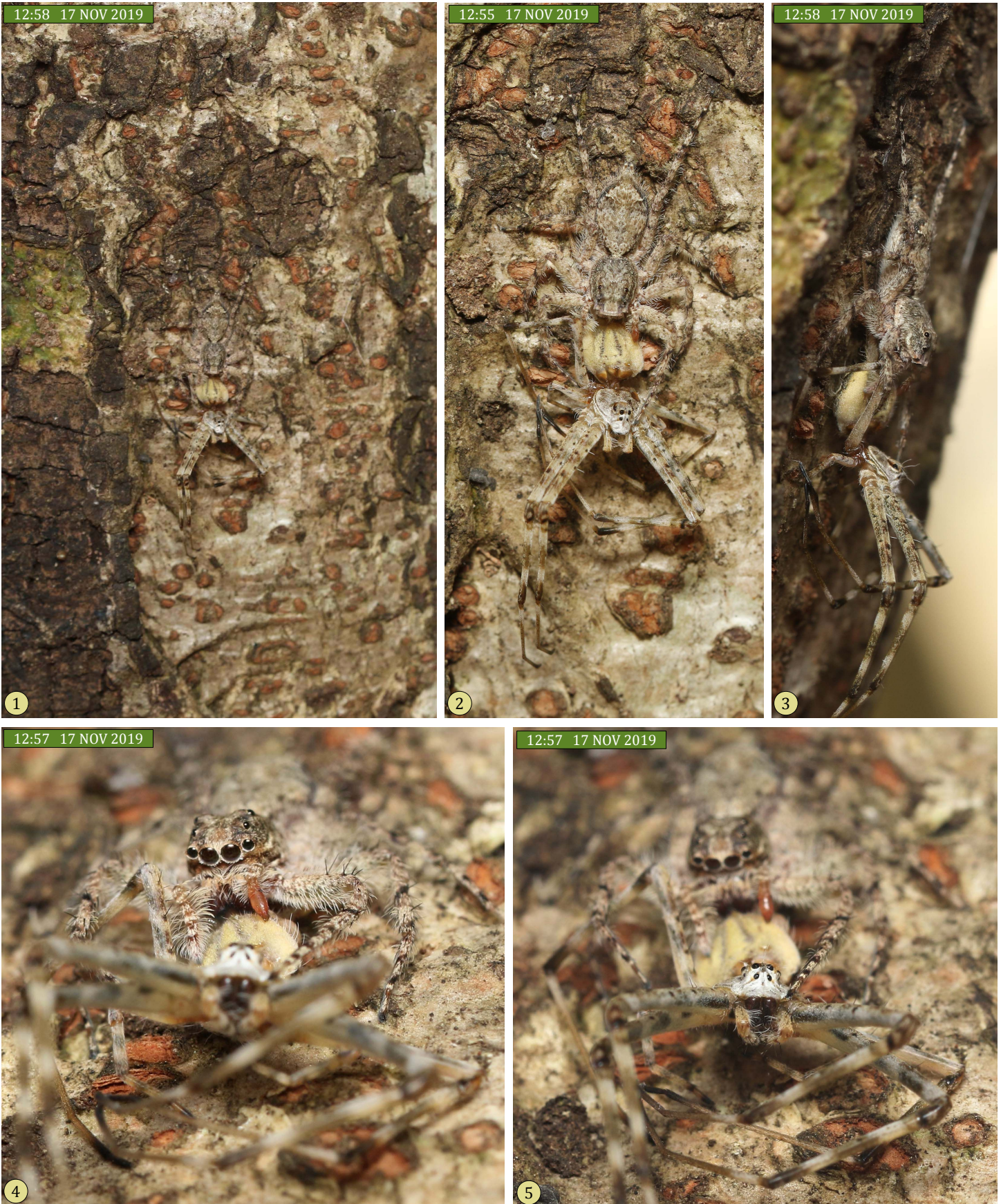


Figure 1. Five views of a female *Phaeacius cf. lancearius* feeding on a *Hersilia* sp., on a tree trunk in Sulia, Karnataka, India (17 NOV 2019). Note the regenerated left pedipalp of this *Phaeacius*.

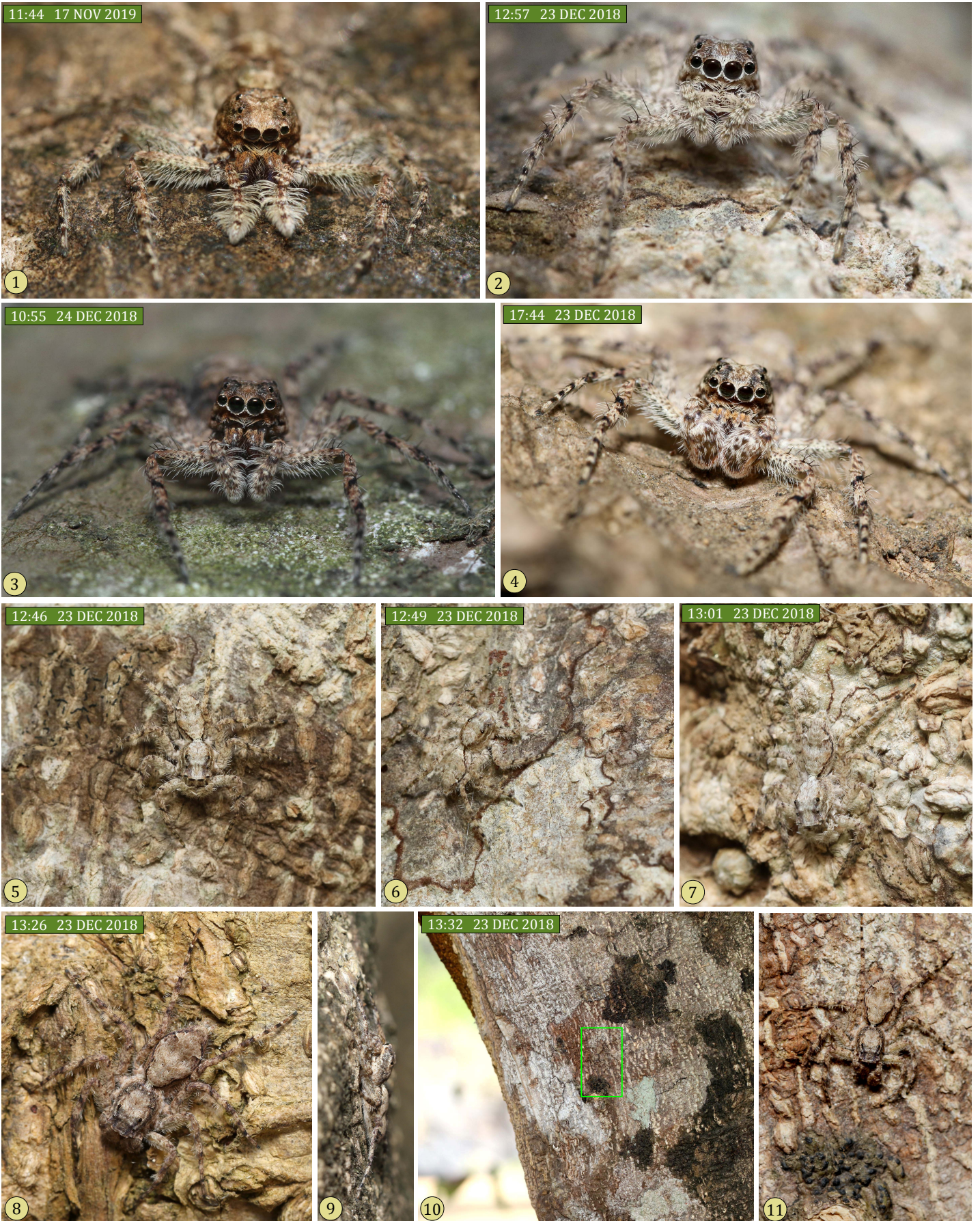


Figure 2. *Phaeacius* spp. on tree trunks in Sirsi, Uttarakannada, Karnataka. 1-2, 5-7 Females. 4, 8-11, Males. 11, Detail of inset from (10), showing male. These spiders are very difficult to find as they move little on a matching background.

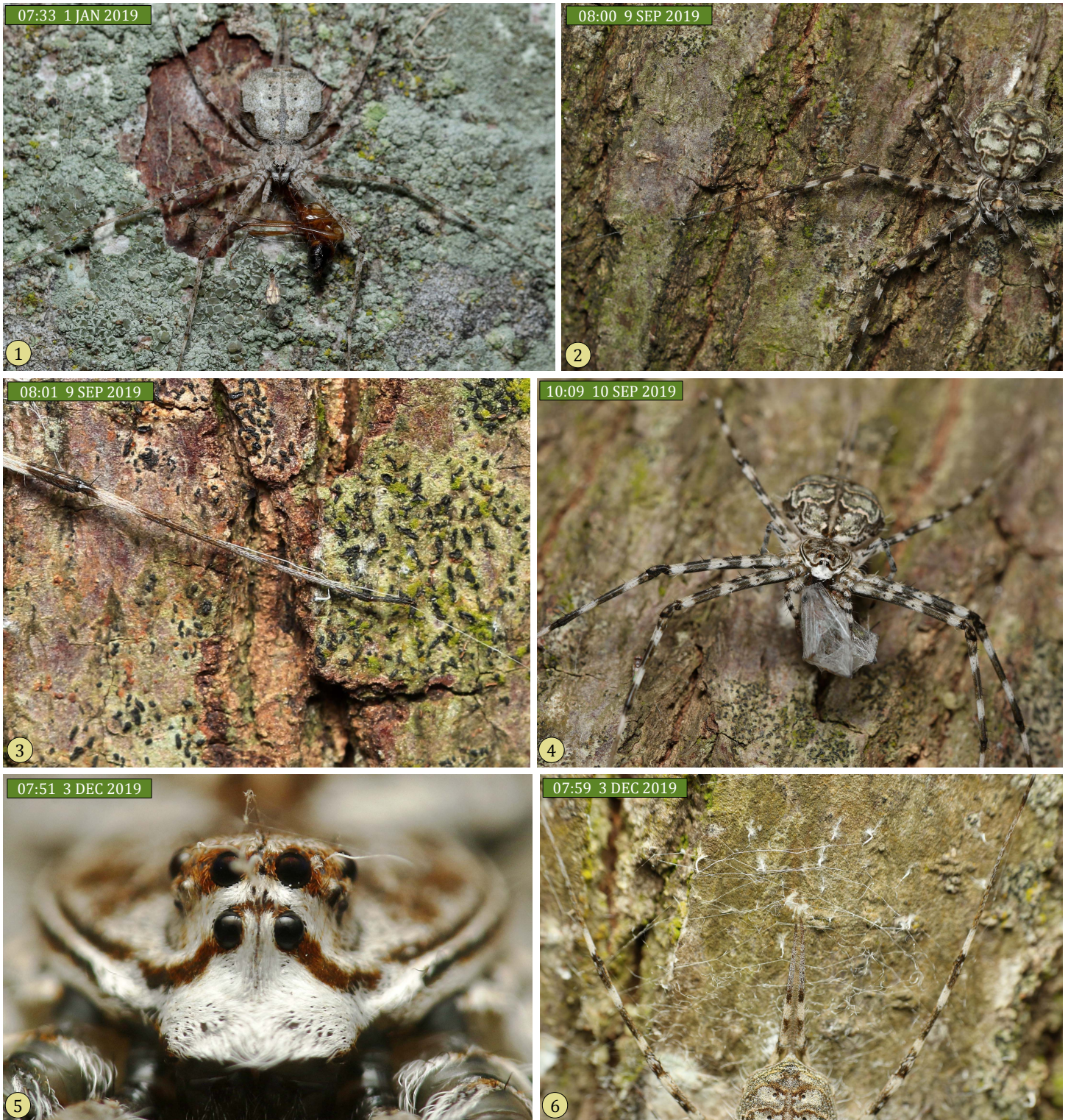


Figure 3. *Hersilia* spp. on tree trunks in Sirsi, Uttarakannada, Karnataka. **1**, Female holding insect prey. Below, center, a small kleptoparasitic fly (Diptera) can be seen. **2**, A different female *Hersilia* sp., with leg RII holding a silk trap line far to the right. Curiously, *Hersilia* have very short legs III, but these might be used to wrap prey. **3**, Detail showing an extended leg LII holding a silk trap line. **4**, Female feeding on wrapped prey. **5**, Detailed view of a female face showing elevated position of eyes, above the flattened carapace. Darker bands of setae probably make the eyes less visible to potential prey. **6**, Dorsal view of posterior opisthosoma showing elongated posterior lateral spinnerets and legs IV. Note the irregular skein of silk laid down beneath the spinnerets. The relative length of legs and spinnerets varies greatly between the various species of *Hersilia*.

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