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Nonsexual cannibalism by a female *Hyllus semicupreus* (Araneae: Salticidae: Plexippina)

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The semi-coppered heavy jumper, *Hyllus semicupreus* (Simon 1885), is a widely-distributed and relatively well-known jumping spider in India and Sri Lanka, also found far to the southeast of Asia, from the Malayan peninsula to Borneo (WSC 2022).

On 16 October 2021, during the early winter, with uncharacteristic intermittent late monsoon showers, the author observed an adult female *Hyllus semicupreus* with prey on a branch of a young *Ficus racemosa* tree in her private garden in Nagaon village, on the Konkan Coast, in Maharashtra, Western India. On closer inspection the spider was seen to be feeding on a female of the same species (Figures 1-2). The prey spider was immobile and must have been killed at least several minutes previously. The feeding continued for one hour and ten minutes (13:30-14:21), during which time the predator once changed her position on the branch to face the opposite direction, all the while continuing to hold and feed on the prey spider. At 14:40 p.m. the predator moved the prey's carcass forward and held it in front of her with her front legs (Figure 3).

Figures 1-3. Adult female *Hyllus semicupreus* feeding on another female of the same species.

Araneophagy has been recorded for many plexippine salticids including *Plexippus petersi* (Ahmed et al. 2015), *Hyllus brevitarsus* (Gilman 2016) and *H. semicupreus* (Sharma & Oli 2021). I have also observed female *H. semicupreus* feeding on oxyopid spiders on two occasions in 2019 (Figures 4-6).

Figures 4-6. Two adult female *Hyllus semicupreus* (4, 5-6) feeding on oxyopid spiders.

Sexual cannibalism generally applies to an instance of a female feeding on a conspecific male, but in some cases a male may also feed on a female. This unusual behavior has been documented for *H. semicupreus* (Hill et al. 2020). An instance of *nonsexual* cannibalism involving two female *Telamonia dimidiata*, much like that described here for *H. semicupreus*, has also been documented (Ahmed et al. 2019).

Limited food resources have been hypothesised as a probable cause for the evolution of cannibalism in spiders (Wise 2006). However, this *Ficus racemosa* tree along with the rest of the garden here has abundant arthropod populations, including common prey species (several Diptera species, planthoppers and leafhoppers, mayflies and several Coleoptera species), resulting from complete avoidance of insecticide use. Consequently this *F. racemosa* tree is inhabited by numerous spiders, including theridiids, araneids (*Poltys*, *Eriovixia*, *Cyclosa* and *Araneus*) and hunting spiders (*Cheiracanthium*, *Oxyopes*, *Hamataliwa*, *Oxytate* and *Tmarus*). During the late monsoon, when this incident was observed, insect numbers had perceptibly and significantly increased. It is possible that this was simply opportunistic predation on a nearby conspecific.

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