

ZOOLOGY

Courtship behavior, communication, and copulation in *Tigrosa annexa*

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The evolution of multimodal communication, where signalers use multiple signal components in multiple sensory modalities, has become the subject of investigation by many researchers. Signaling puts males at risk of predation, so why do males of some species evolve extra signals that may increase this risk? In some wolf spider species, males incorporate many visual and vibrational signals into a display that they use to attract a female for mating. Female spiders are often aggressive toward courting males and so the male display also functions to decrease the odds of cannibalism. Female wandering spiders deposit silk containing pheromones that communicate their condition to the males. Here, we investigate the complex mating displays and male-female interactions involved in reproduction in a locally-abundant wolf spider, *Tigrosa annexa*. We describe the male courtship display and observe male mating success and frequency of cannibalism. Males were exposed to the pheromone-laden silk of females and their courtship was recorded in the absence of a female. We also conducted mating trials in which a male and a female interacted for 30 minutes to measure rates of copulation and cannibalism. We found that males readily initiated courtship when exposed to cues from a female in a variety of conditions, and that females rarely engaged in cannibalism, despite our manipulation of their diet. The results of these experiments suggest that cannibalism by female *T. annexa* spiders may not have been a strong evolutionary force on male courtship display.