

Male *Manogea porracea* spiders found to care for young

December 6 2016, by Bob Yirka



Dew on a spider's web in the morning. Credit: Wikipedia/Luc Viatour/Lucnix.be

(Phys.org)—A trio of Brazilian researchers has found that a species of spider, *Manogea porracea*, is unique in that the male plays a major role in web upkeep and protection of their young. In their paper published in the journal *Animal Behavior*, Rafael Rios Mouraa, João Vasconcellos-Netob and Marcelo de Oliveira Gonzagac, describe their study of the

spider that lives throughout Central and South America.

Male spiders are not known for caring for their young. Instead, many [species](#) are notorious because the females eat the [males](#); males of other [spider species](#) simply die after mating. But until now, just one species of male spider has ever been seen providing assistance to its young—the social male African *Stegodyphus domicols* have been observed guarding offspring. But *M. porracea* takes paternal care to a whole new level, the researchers report. After mating, when the females produce egg sacs, the males build a dome-shaped web over the top of the web where the mother and egg sacs reside. That allows the male to capture prey while also offering support to his offspring. The researchers report that in addition to attacking predators, the males have been spotted making repairs to the web and even mopping up rain drops from the egg sacs, presumably to allow air to get inside.

To learn more about the unique species, the researchers set up camp in a eucalyptus plantation (the spiders live on the lower limbs and within leaves that fall) and then watched what happened as the spiders mated and produced offspring. They report that by the end of the [mating season](#), 68 percent of the egg sacs were being tended to by single adult male spiders—the mothers had died, mostly from being eaten by predators. If a female died, the male simply moved to the web holding the egg sacs. The males continued their parenting duties after the young emerged from the egg sacs. The researchers also captured some of the spiders and watched what happened when they were placed in the vicinity of predators—they found the males would attack them. In situations where both parents were killed, the researchers found that half of the webs collapsed due to neglect, making it impossible for the young to survive.

The researchers suggest that the high female mortality rate is due to the females offering a fattier meal for predators—they fatten up after mating in preparation for reproducing. For the species to survive, the

male had to take on more responsibility.

More information: Rafael Rios Moura et al, Extended male care in *Manogea porracea* (Araneae: Araneidae): the exceptional case of a spider with amphisexual care, *Animal Behaviour* (2017). [DOI: 10.1016/j.anbehav.2016.09.018](https://doi.org/10.1016/j.anbehav.2016.09.018)

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Citation: Male *Manogea porracea* spiders found to care for young (2016, December 6) retrieved 10 May 2024 from <https://phys.org/news/2016-12-male-manogea-porracea-spiders-young.html>

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