

Maternal investment by an unmated Triangulate Cobweb Spider

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Introduction

Triangulate cobweb spiders are a species in the family Theriidae. In nature, they tend to be found around wood piles and under rocks while in manmade environments, they tend to hide under furniture, gardening equipment, bridges, and other things that typically aren't moved around much by humans, (Chiri, n.d.) They tend to produce egg sacs even if they aren't viable, (Van Ert. 2016,) like the one in our study who tended to her egg sacs even though the eggs had not been unfertilized by a male.

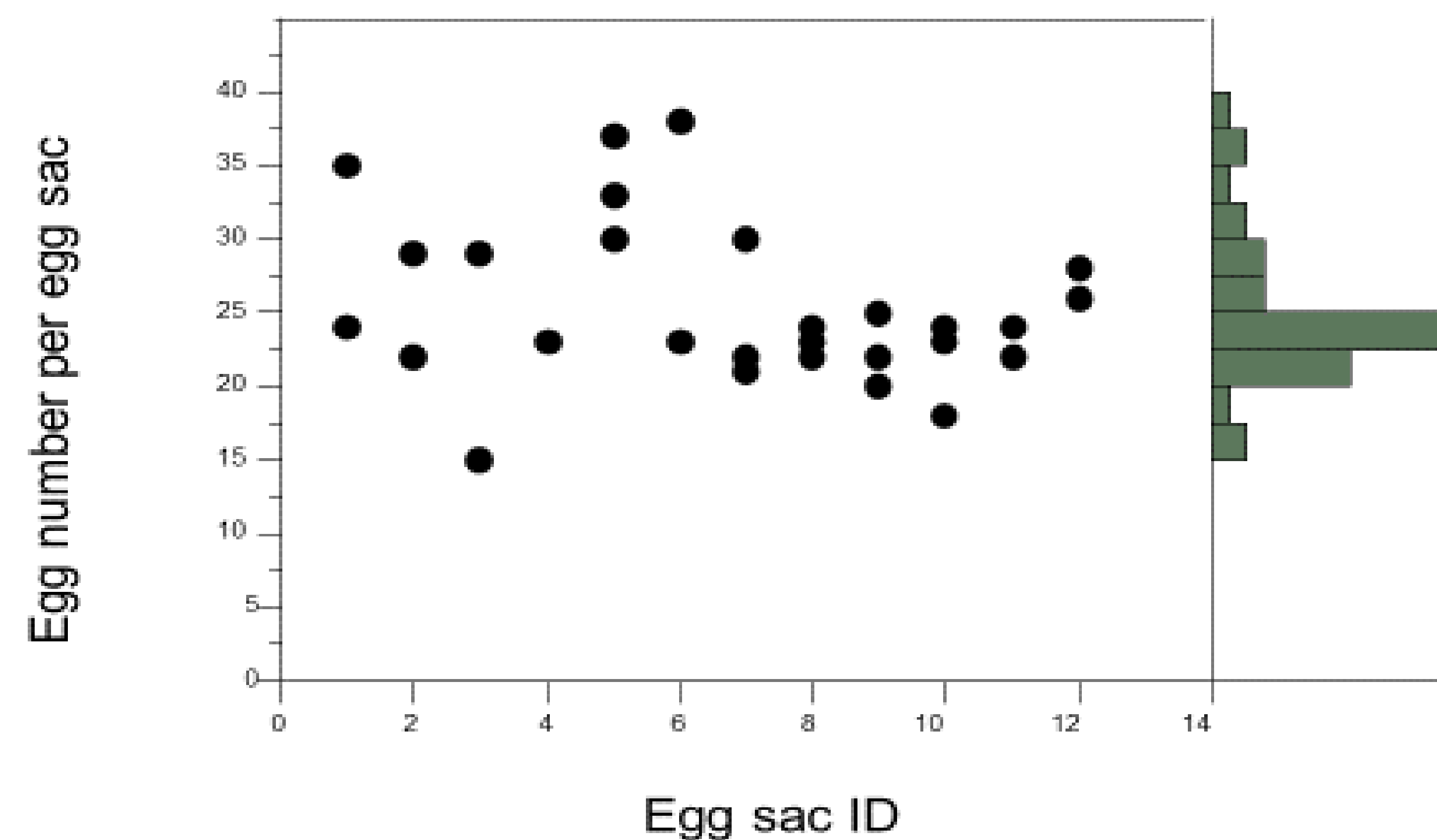
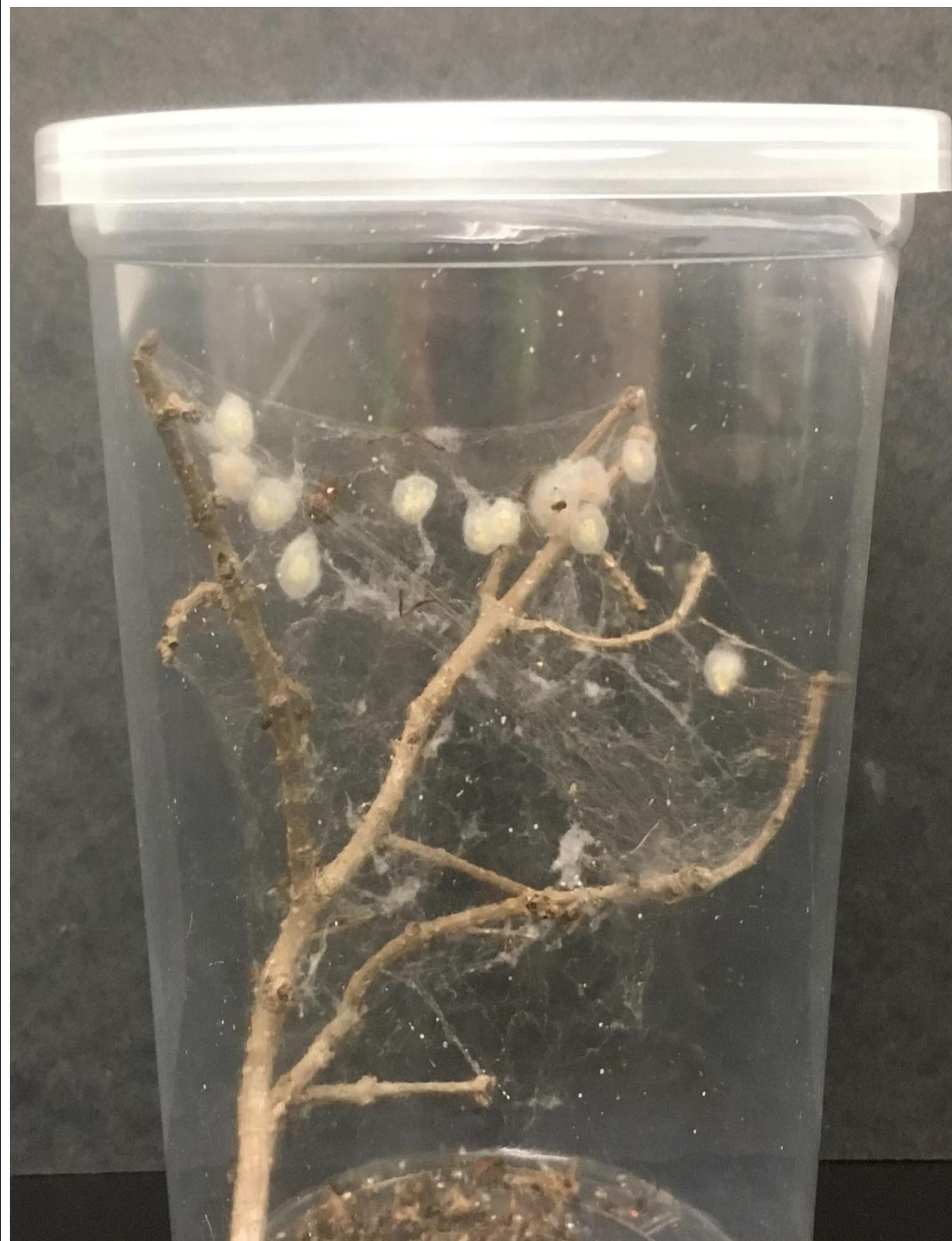


Figure 1: Total egg number per egg sac.

Methods

Eggs and sacs were visually counted under a Fluorescents Desktop Magnifying lamp using a manual counter. The results were calculated using JMP and Excel.

Results

The mean egg number per egg sac was 24.8 (Fig. 1a; range: 15 to 38). The number of eggs per egg sac did not vary significantly across egg sacs (ANOVA: $F_{1,31} = 1.04$; $p = 0.315$).

Conclusion

In conclusion, our female spider was laying eggs and investing in them all because she was an income breeder with ample enough resources, (since she was constantly being fed, she could afford to produce and tend to eggs even if they weren't fertilized.) Our findings concur with those of Van Ert study, which notes that spiders fed high protein flies reproduce more successfully and have higher quality offspring.

References

Van Ert, E. A. (2016). How Female Diet Impacts Life History Traits in the Triangulate Cobweb Spider: Effects of Nutrition on Females and Their Offspring (Doctoral dissertation).

Chiri, A. A. Common Spiders (Arachnida: Araneae) in the Wichita Mountains and Surrounding Areas.