1984 The Journal of Arachnology 12:244

EGG SAC 'THEFT' AMONG *LATRODECTUS HASSELTI* FEMALES (ARANEAE, THERIDIIDAE)

During a study of the development of *Latrodectus hasselti* Thorell a large (70 x 70 x 70 cm) shademesh cage was used to house seven females and four males outside the laboratory. The intention was to record the effect of the normal daily temperature cycle on the development of the eggs and spiderlings up to emergence, for comparison with data obtained at various constant temperatures. The ulterior motive was to observe the behavioral interactions between the adult spiders. Among the observations made were the following unexpected occurrences.

An egg sac produced by female 3 on May 30 was found to have been moved during the night of June 6 to the web retreat of female 1, 20 cm away, which already had one egg sac and was now (June 7) guarding both.

The same thing happened almost one month later. Female 5 had abandoned her egg sac to take up a different web site and female 4 subsequently abandoned her own egg sac to take over the site and the egg sac left unattended by female 5. On July 2 the adopted egg sac of female 4 was missing, female 6 had acquired an egg sac, and female 4 was loitering on the outskirts of the web of female 6, where she remained for four days.

Probably the spiders were confined within a crowding threshold where protective behavior towards egg sacs led to the 'theft' of such sacs from nearby females. The selective disadvantage of this behavior may not be as serious as it at first sight appears, considering that natural crowding would likely derive from local dispersal of siblings in a favorable site.

One possible advantage of this behavior would ensue were the acquired egg sac positioned to shield the incumbent egg sac from parasites. In this part of Queensland the mantispid neuropteran *Austromantispa imbecilla* Gerstaeker, and a species of the chalcidoid hymenopteran *Eurytoma*, cause moderate to heavy losses among the egg sacs of some theridiid spiders including *Latrodectus*.

Edgar Riek has kindly identified the insects mentioned above.

Michael F. Downes, Zoology Dept., James Cook University of North Queensland, Post Office, James Cook University, Queensland 4811, Australia.

Manuscript received November 1982, revised October 1983.