Maternal behaviour in a South American *Lyssomanes*

William G. Eberhard
Depto. de Bología,
Universidad del Valle, Cali,
Colombia, S.A.

It is not uncommon to find female salticids associated with the cocoon enclosing their eggs; such "brooding behaviour" is generally thought to represent some sort of defence of the eggs (Gertsch, 1949 p. 220; Bristowe, 1958 p. 154). It is much less common however to see a brooding female actually perform defensive behaviour. This note describes the unusual egg cocoon of *Lyssomanes jemineus* (Peck. & Wheel.) and a specialised defensive movement performed by brooding females. Notes on sleeping behaviour and developmental times are also included.

Three groups of unhatched eggs were found at the edge of the floor of the Cauca Valley near Cali, Colombia (alt. 1003 m) in an area described by Espinal & Montenegro (1963) as dry tropical forest. In each case a mature female was standing covering the group or at its edge. The light green eggs were stuck to the lower surface of a thin sheet or mesh of silk which was laid across a slightly concave area in the lower surface of a leaf. They were not in a clump as is usual for spider eggs but were dispersed on the sheet at more or less equal distances from one another. The green colour of the spider and her eggs made them difficult to see.

Periodic checks of two of these groups showed that the female spiders remained covering the eggs both day and night. Two types of reactions were elicited by placing potential egg predators on the leaf with a defending female. In the first, exemplified by the reaction to a chrysopid larva, the spider turned toward the larva as it moved, advanced toward it, struck at it, and ate it. The second type of reaction was given only to ants (probably *Campanotus*, and other species). The spider also turned to look at the ant and moved toward it; but, instead of striking at it and bringing it to her chelicerae with her front legs, she extended these legs and flicked them dorsally simultaneously. The invariable result was that the ant was knocked quickly and cleanly off the underside of the leaf, and the spider then resumed her stance covering the eggs.

The developmental time of the eggs was about two weeks. When the spiderlings first emerged, they stayed near the empty egg shells. About the time of hatching, the female added a mesh of threads below them so that they were surrounded by silk. She continued to brood them, but appeared to stray farther away than before. The spiderlings remained in the mesh until they moulted about two weeks later, then gradually left. The female also left about this time.

Some eggs were parasitized by an apparently undescribed species of the scelionid genus *Idris*. The wasps began to emerge 16 days after the spiders hatched and in one case the first to emerge were males. Both male and female wasps tended to remain more or less inactive within the webbing enclosing the spiderlings for several days. Neither the female spider nor the spiderlings showed any special reactions to them. The numbers of parasitized eggs in 5 groups were 35 of 39, 24 of 58, 5 of 7, 4 of 50 and 0 of 49, giving a total parasitism rate of 36%.

Both immature and adult spiders of both sexes apparently 'sleep' at night. Commonly one finds them immobile in a slight indentation on the underside of a leaf, covered by a small mesh similar to that which covers newly hatched spiderlings. Occasionally they also rest hanging immobile from a single thread strung between two supports. This last characteristic, which is shared by several other salticids in the Cali area, contradicts the old belief that only three-clawed spiders are able to climb on single threads.

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