

Micaria formicaria Sundevall. (Aran.)

By
E. Nielsen.

During a stay in 1932 at Stora Rör in Öland in Sweden on July 7th I found a white retreat placed in the dense web which is made abundantly by lepidopterous caterpillars of the genus *Hyponomeuta* across branches and twigs of *Prunus spinosa*. The retreat was not fixed to any of the branches or twigs but was placed freely in the web. Believing it to be that of a jumping-spider I made the retreat free without paying regard to the possibility that the animal might easily escape. This also happened before long, the spider suddenly coming out and dropping to the ground. On July 14th I found on the same blackthorn and on some others close by several similar retreats; all these, however, were disposed in branch-angles or at such places where many small twigs radiated and thus presented a proper foundation for the retreat (fig. 1). In fig. 2 a branch is shown, near the top of which there is a single retreat, whereas more distant from the top there are two retreats, forming a little colony after the manner of some few species of *Attidae*, for instance *Attus floricola*.

In most of the retreats there was a spider, *Micaria formicaria* Sundev., which either had laid its eggs or was going to do so; in the former case the spider watched the cocoons, the number of which varied from 1

to 3. Several retreats were deserted and nearly all of these contained 3 cocoons.

The cocoon of *Micaria formicaria* is shaped like a pot with a flat lid on the top, which does not extend

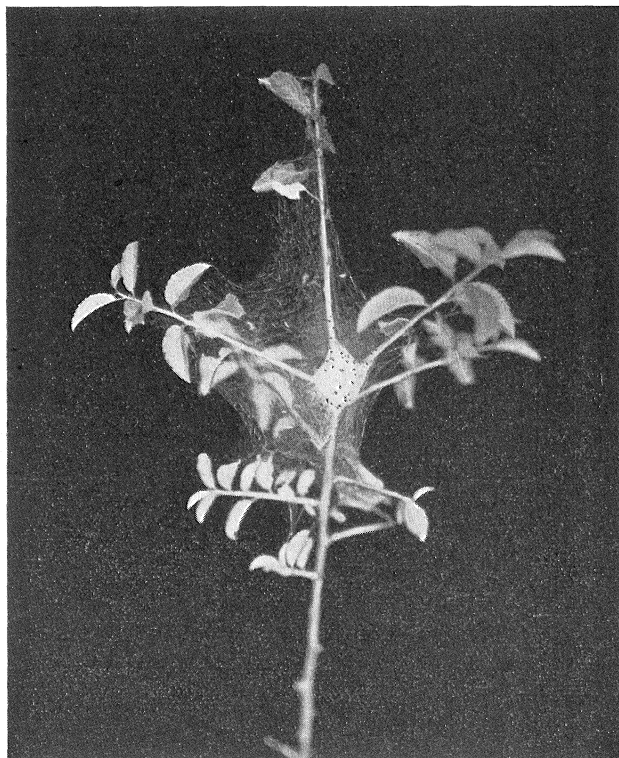


Fig. 1. Branch of *Prunus spinosa*. In the web of *Hyponomeuta* the retreat of *Micaria formicaria* is shown. — Photo. E. Nielsen.

beyond the edge of the pot. The actual pot is the base sheet of the cocoon, whereas the lid is the cover sheet. The number of eggs is about 10.

The cocoon is of a beautiful greyish golden colour almost like that of hemp-seed.

When opening the retreat of a *Drassus* or *Clubiona* the cocoon is immediately to be seen; this is not the case with respect to the retreat of *Micaria formicaria* although this species belongs to the family *Drassidae*; its retreat

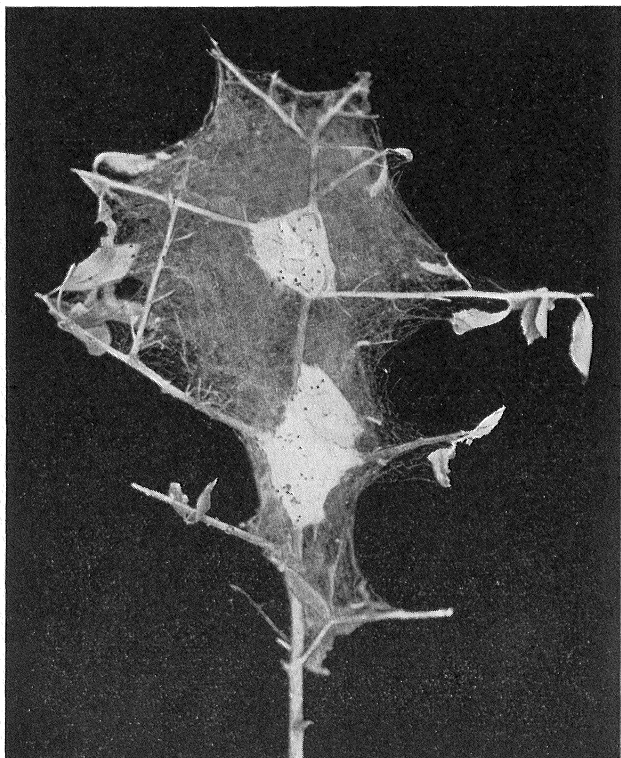


Fig. 2. Branch of *Prunus spinosa*. At top in the web of *Hypnomeneta* a single retreat of *Micaria formicaria* and at bottom two retreats are shown; the last-mentioned lie so close to each other as to look like one retreat. — Photo. E. Nielsen.

is filled with a web concealing the cocoons, which moreover separately are densely wrapped in white although transparent silk.

During my stay in Öland I was unable to ascertain

to which species the *Micaria* belonged. It was likely to suppose it to be *Micaria fulgens*, whose cocoon was found in the retreat tube of *Agalena labyrinthica* first by Menge (Preussische Spinnen 1866, p. 327) and afterwards

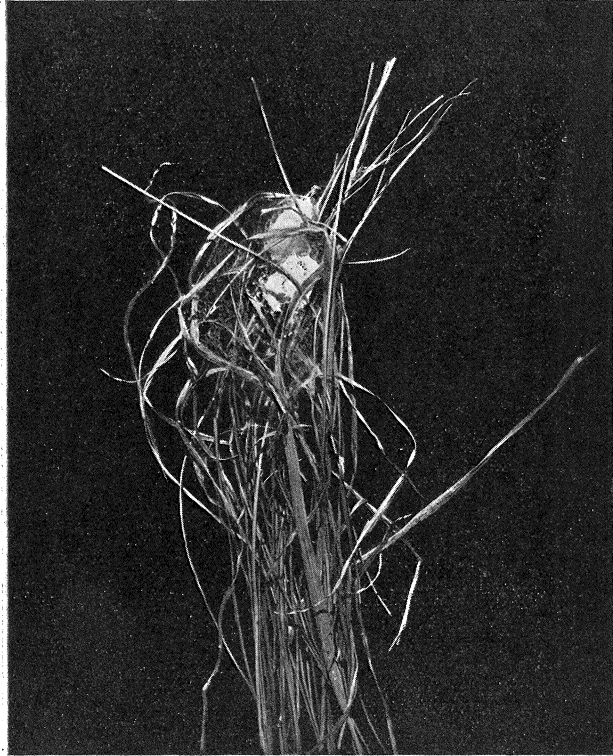


Fig. 3. Grass-stalks with a very thin and transparent retreat of *Ocyale mirabilis*. At top a retreat of *Micaria formicaria* is shown and below this the deserted cocoon of *Ocyale* (the two webs almost merge together in the figure). — Photo. E. Nielsen.

by Woldemar Wagner (L'Industrie des Araneina 1894, p. 98). In truth both of them found the cocoon attached to the inner wall of the retreat tube without being protected by any retreat, however, I did not attach any im-

portance to this fact. I therefore thought it natural to examine the snares spun by *Agalena labyrinthica* near the above mentioned shrubs of *Prunus spinosa*. However, there were only few of these snares and neither retreats nor cocoons of *Micaria* were found in any of them; but in two retreats of *Ocyale mirabilis* I found retreats of *Micaria* with cocoons (fig. 3).

From the findings made in Öland it is thus ascertained that *Micaria formicaria*, when the time of egg-laying is approaching, takes refuge in the webs of other animals, namely in those of caterpillars of moths as well as in those of spiders, for depositing its eggs there; however, the fact that I found two retreats with cocoons in a dry anthocarp of *Hypericum perforatum* shows that an extraneous web is not an absolute necessity for the egg-laying of *Micaria formicaria*.

After having examined a fairly large number of retreats of *Micaria formicaria* with cocoons I feel convinced that "the pot" is the base sheet and "the lid" the cover sheet of the cocoon, and as all the other species of *Micaria* seem to shape their cocoons similarly I must give up the following view which I set forth about *Micaria pulicaria* in "The Biology of Spiders" Vol. I p. 77: "The lid is no doubt to be interpreted as the base sheet of the cocoon. This view is supported by the fact that the lid of the similarly shaped cocoon of *Tapinopa longidens* is actually the base sheet".

If in one species of the genus *Micaria* "the lid" is to be considered as the cover sheet of the cocoon it is to be considered so in all the species of the genus and therefore in *Micaria pulicaria* too. This view will also be in full accordance with Menge, who observed and described the egg-laying of *Micaria fulgens* (loc. cit. p. 323).