

MITES UP CLOSE

I have been using my Berlese Funnel to sample ants in leaf litter. The apparatus and method are as described in the [December 2020](#) issue of *Micscape* Magazine and using hardware-store bought methanol (about 99% alcohol) as the collecting fluid. Many of the same type of organisms as in the earlier study were extracted from the litter, with a preponderance of mites. Two species of mites seemed particularly interesting.

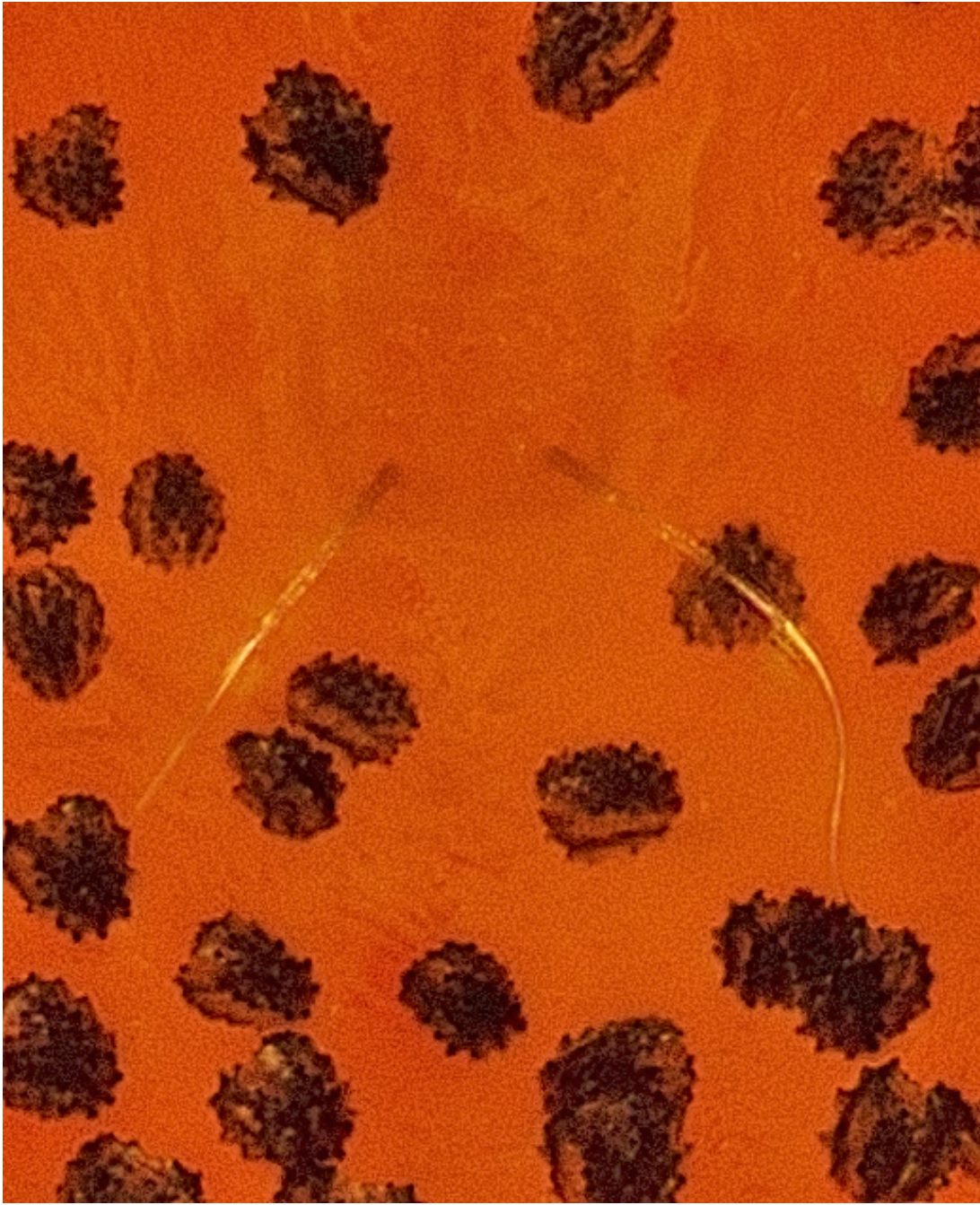
Long-legged Velvet Mite (Erythraeoidest: Smarididae). This was a relatively large orange-red mite with a body length of 1.06 mm; with outstretched legs it was in the order of 3 mm:



The dorsal body surface was adorned with numerous black dots and the legs with rows of black dashes. When photographed with a 20x objective the 'dots' were seen to be 3-dimensional structures as were the leg 'dashes' .



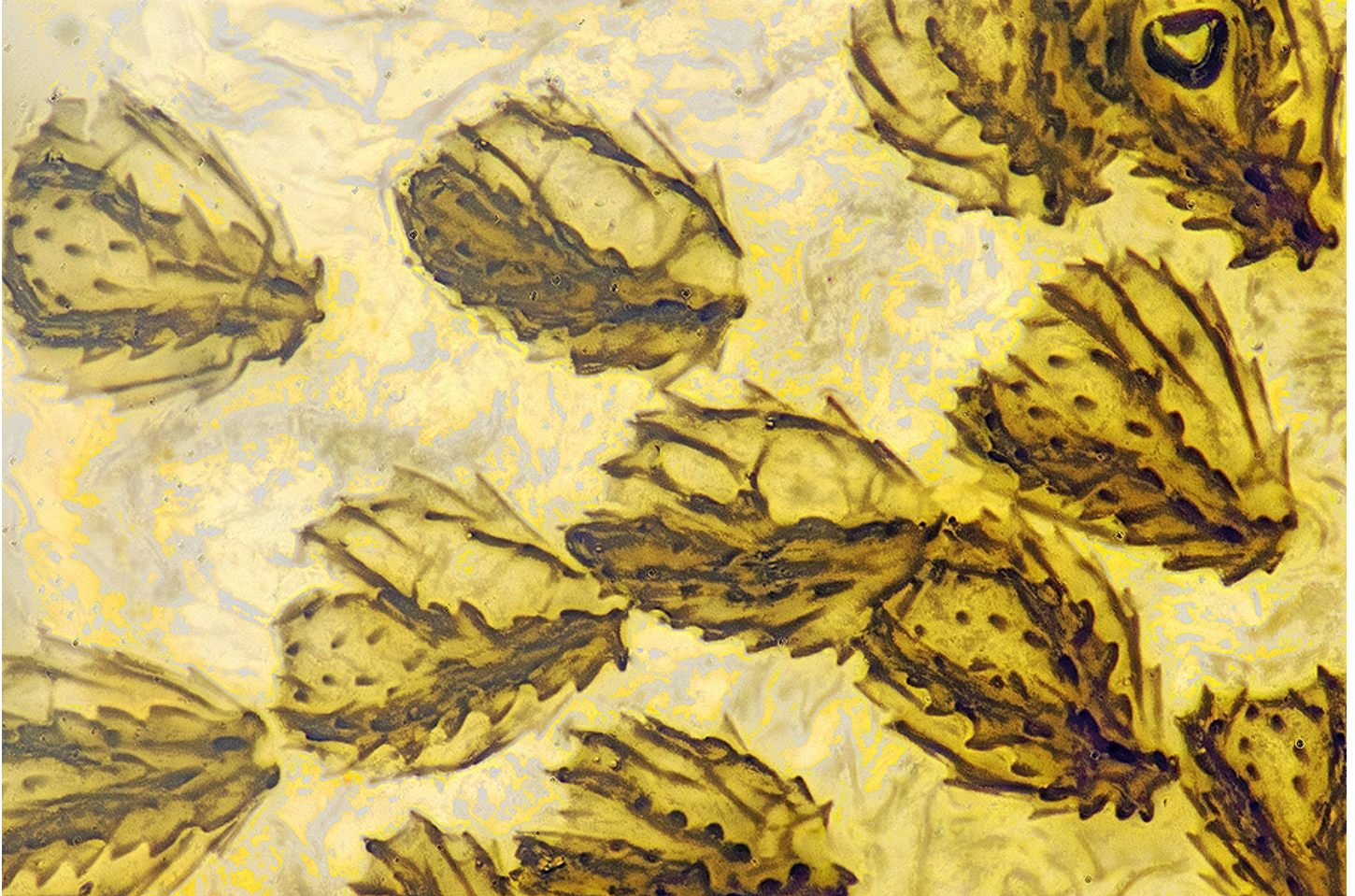
When the 20x image was enlarged to full size the dots were seen to have a complex structure of ridges and points. This crop is from the mid-line in the region of 'dot-less' area about one-third down the body length. This clear area has the only two 'regular' hairs seen on this mite:



My curiosity was piqued, there was a need for higher magnification. With a 60x objective (Nikon MPlan) only a small portion of the mite filled the frame; this is the head area showing a single eye; below it a crop of the full-sized image:



Why stop at 60x ? I mounted the mite in Euparal and examined it with an Olympus SPlan 100x oil objective + 1.25x intermediate tube + 2.5x projection eyepiece on an Olympus BH2/BHS. Thanks to a comment on *MicrobeHunter* these 'black dots' are non-sensory setae known as scutal scrobulae. In life these scrobulae are orientated vertically, here they are flattened horizontally by the coverslip.

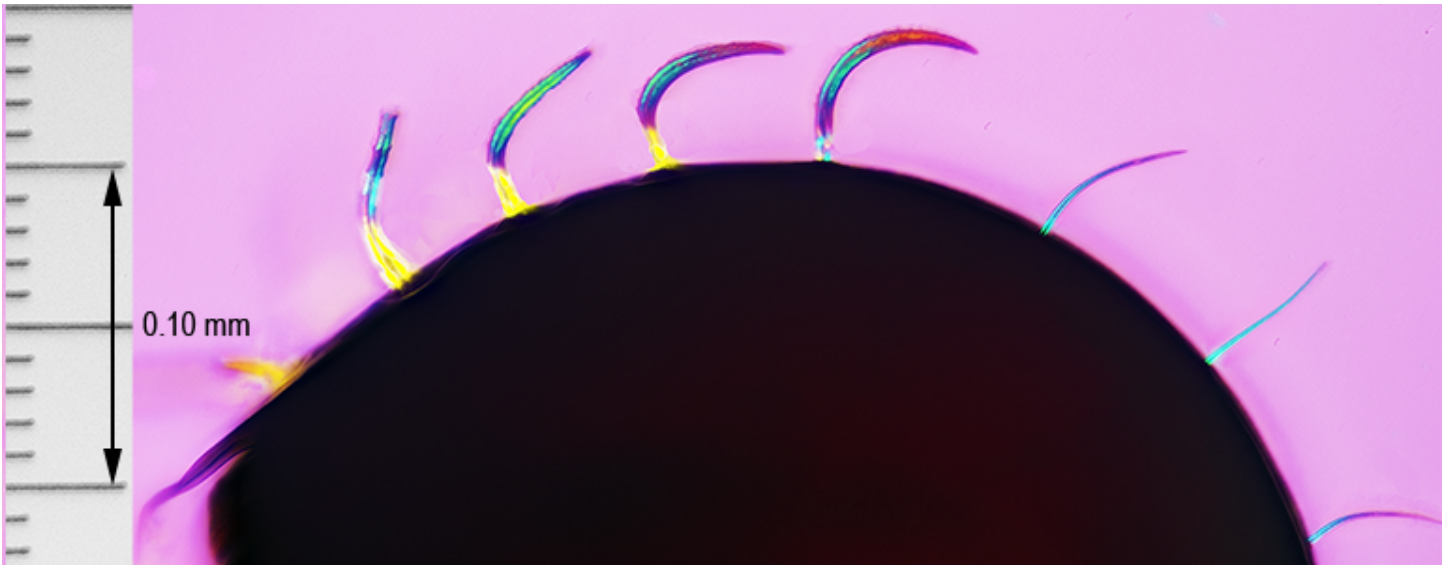


Mite #2. Whereas all of the 20-30 or so species of mites seen had multiple specimens there was this rather odd mite that appeared as a singleton. It was small, just 0.7 mm body length, and with a hard 'shell' on the back half of the body;



However, what impressed me most were the weird legs and the 2 rows of bent hairs on its 'shell'. The legs terminated in a fine point with a single claw (60x polarized):





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Quote – Holmes on 'Entomology'

"I suppose you are an entomologist ? "

" Not quite so ambitious as that, sir. I should like to put my eyes on the individual entitled to that name.

No man can be truly called an entomologist, sir;

the subject is too vast for any single human intelligence to grasp."

Oliver Wendell Holmes, Sr The Poet at the Breakfast Table.

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