**Velvet Mite**

*(Family Trombidiidae: *Dinothrombium* spp.)*

**Identification**
Compared with most mites, the brightly coloured adults of the genus *Dinothrombium* Oudemans, 1910 are among the largest known mites, with some individuals of the African species (*D. tinctorum*) exceeding 12 mm in length. With 22 species known from Africa, Europe, Asia, Australia, and America, the giant velvet mite is covered with a thick red coat of scarlet hair-like setae. The adults have eight legs but the young hatchlings emerge with six legs, not eight.

**Habitat**
*Dinothrombium* members are found in sandy desert areas, in soil, and in soil litter habitats around the world. Adult velvet mites spend most of their lives in subterranean burrows in a diapause-like state waiting for a specific set of ecological conditions triggered by summer rains. On desert soils, *Dinothrombium* adults only emerge to the surface of the sand after heavy rain, and may only forage for a few hours per year.

**Biology and ecology**
During mating, the male and the female are involved in a “mating dance” during which they encircle each other and tap each other with their forelegs. The males deposit sperm onto leaves and twigs, and then lay down a trail that leads to them. A female follows the path then “sits” in the sperm. After mating, female *Dinothrombium* lays as many as 100,000 eggs. The larvae hatch from eggs, and survive initially as parasites, attaching themselves to insects such as grasshoppers. Once fully fed the six-legged larva detaches itself and subsequently develops through three eight-legged stages, proto-, deuto- and tritonymph to an adult in the soil. Adult *Dinothrombium* mites are predators of small arthropods and their eggs.

**Agricultural and medicinal importance**
The presence of the red velvet mite is critical to the environment. They participate in the decomposition process within the soil matter. Owing to their parasitism in the larval stage and appetite in the mature stage, they have also been considered possible biological control agents for invertebrate pest species. Velvet mites are harmless to humans, but their extracts are used for the treatment of male infertility and paralysis in traditional Eastern medicine. Some tribes in Namibia consider their appearance as an indication of a wet season.

**Compiled by:** Pholoshi Maake and Eddie Ueckermann
ARC-Plant Protection Research
Contact: MaakePA@arc.agric.za
www.arc.agric.za