Mite Damage on three South Florida Landscape Plants: Mexican Petunia, Downy Jasmine and Black Olive

Mites aren’t insects, but members of the arthropod class Arachnida, along with ticks, scorpions, and spiders. Following egg hatch, all mites (except eriophyid mites) are six legged, a stage known as a larva. After the first molt they transform into eight-legged immature stages and possess the general body form of the adult for the remainder of their development. An unusual mite family is the eriophyid mites. These are minute with an elongated, carrot-shaped form. They possess only two pairs of legs in all life stages.

Because mites are so small, the use of a magnifying hand lens (10k) will make it easier to observe them. Another technique frequently used to detect mites is to shake the stems and leaves of suspected plants above a white sheet of paper. If mites are present, they will be easily seen as small, moving spots.

Eriophyid mites are too small to be seen by the naked eyes. They feed on plants. Some produce distinctive abnormal plant growths including galls, blisters and fingerlike projections. The feeding of some eriophyid mites causes the plant to form feltlike patches of hairs on the leaves called erinea. Disorganized growths of buds or flower parts are also induced by infestation of some eriophyid mites.

In the months of May and June, samples of three species of plants were sent to the entomology and nematology laboratory in Gainesville to determine the species of mites causing plant damage. In all cases, no insects were found on any of the samples.

**Mexican Petunia** (*Ruellia simplex*)

**Damage Description:** “Bleaching” appearance of leaves and stems which are patches of white or pink erinea.

**Mite Found:** Eriophyid mite (*Acalitus simplex*)
Mexican Petunia (*Ruellia simplex*)

*Acalitus simplex* caused erinea on *Ruellia simplex*
Downy Jasmine (*Jasminum multiflorum*)

**Damage Description:** Leaves with shiny, slightly elevated blisters on top and sometimes having green rings with yellow halos.

**Mite Found:** Eriophyid mites (*Disella ilicis*)

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Front of leaves  
Back of leaves

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Eriophyid mites (*Disella ilicis*)

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Lyle Buss

**Damage Description:** Leaves with shiny, slightly elevated blisters on top and sometimes having green rings with yellow halos.

**Mite Found:** Eriophyid mites (*Disella ilicis*)
**Black Olive** (*Bucida buceras*)

*Front of leaves*

*Back of leaves*

**Damage Description:** Leaves with shiny, slightly elevated blisters on top and dark patches of erinea on bottom

**Mite Found:** Eriophyid mite (*Eriophyes buceras*)

*Eriophyid mite damage* is also associated with the flower and fruit of black olive trees.
References
Stamps, Robert and Lance Osborne. 2009. *Selected Miticides* for Use on Ornamental Plants. UF/IFAS, University of Florida, Gainesville


Useful Links
Chili Thrips Fact Sheet A Landscaper’s Guide
Croton Scale Power Point
Erythrina Gall Wasp Power Point
Ficus Whitefly Fact Sheet
Hibiscus Insect Problems Power Point
Recent Insect Pests of South Florida (2012) Power Point
Spiraling Whitefly Power Point
Ficus Whitefly YouTube
Thorn Bugs on Wild Tamarind YouTube
Whiteflies and Sooty Mold YouTube
‘Shady Lady’ Black Olive Fact Sheet
More on Mexican Petunia

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All pictures taken by Stephen H. Brown except where indicated