Driving around to different locations across the Keys, I’ve noticed more and more Mexican petunia, Ruellia simplex, plants covered in white patches. These aren’t mealybugs or whiteflies, its erinea, excessive development of leaf trichomes (surface hairs in this case). This is caused by the feeding of tiny, microscopic mites called eriophyid mites (a type of gall mite), that cannot be seen with the naked eye. The mites cause the plant to produce abnormal growth (what we see as white, velvety masses on the leaf). This distorted tissue provides shelter to the mites as they continue to feed. Because of this, the mites can be very difficult to control since they are essentially protected from any contact insecticides.

The damage looks unsightly, but the mites do not kill the plants. Since mites prefer warm, dry conditions, populations... Continued on page 3
Shelly recently accomplished the following activities:

- Shelly was the invited speaker at the History of Diving Museum for “Sponges and Water Quality in the Florida Keys.” Now through December 31, the History of Diving Museum in Islamorada is displaying Sponge Hunters – Key West hookers, Bahamian free divers, and the hard hat divers of Tarpon Springs and Shelly was invited to teach about the history of commercial sponging in the Florida Keys and her research on sponges and water quality. This fall, Shelly and Lisa Mongelia are planning to teach Marathon High School students about sponges and visit a FWC sponge nursery. The seminar was recorded on the History of Diving YouTube Channel

- Shelly is the leader of the communication session at Reef Futures in Key Largo on September 28 entitled “Coral Communication: Building a Community of Practice.” We are using our regional Florida Coral Disease Response Communication Team as a model to create an international coral conservation communication community of practice in order to advance coral reef population-management interventions and build human capacity for expanding the global reach of coral reef restoration efforts.

The Environmental Horticulture Program and Master Gardener Volunteers remain dedicated to helping you with your plant related questions.

CALL OUR OFFICE:
(305)292-4501

EMAIL YOUR QUESTIONS TO:
mastergardener@monroecounty-fl.gov

Please include a detailed description of the problem and photos if available

VISIT OUR OFFICE:
Email Monroe@ifas.ufl.edu or Call (305)292-4501 to schedule an appointment

FACEBOOK PAGE:
Visit our Facebook page for updates, requests, information and so much more!
https://www.facebook.com/MonroeCountyExtension

Michelle recently accomplished the following activities:

- Michelle worked with Sherwood Construction on getting a Florida Friendly Landscaping recognition for a new construction project at the Boat Works property in Marathon. The Florida Friendly Landscaping designation recognizes efforts for sustainable practices including the use of native plants, water conservation, and proper planting and design. The recognition will allow them to apply for additional incentives towards the Fair Income Housing Tax Credits.

- Master Gardener Volunteers gave a presentation to youth and adults at the Marathon Public Library on How to Build a Butterfly Garden. 11 adults and 30 children participated.

Be sure to “Like” us on Facebook and follow us on Twitter and Instagram!
Alicia recently accomplished the following activities:

- Alicia continued the effort to expand equity in energy efficiency programs through the Southeast Energy Efficiency Alliance grant. This grant has enabled the regional partners to look at census track data and energy use to determine better-targeted areas for efficiency programs.

- Alicia gave an annual update of Extension activities to the Board of County Commissioners and encouraged them to visit our new demonstration gardens.

- Alicia participated in planning meetings and workshops as part of the UF, Sea grant Climate Work Action Group. The group met in Crystal Spring to develop program materials including simulation games to educate people about pollution and climate change impacts. They also developed work plans and collaborative activities for the coming year.

- Alicia revised and updated program material in the Climate Smart Communities Program.

- Alicia spoke to a senior group about energy efficiency in the home.

Continued from page 1

may be greater in the winter. During periods of new growth, applications of a horticultural oil can be used as a preventative since these tender plant parts are preferred by the mites. However, damage can also appear on the older leaves, stems, and flower petals. For existing infestations, a heavy pruning followed by repeated spray applications will protect the new foliage. Irrigation and fertilization should be reduced or eliminated at this time because that will promote more growth and therefore more infestations. Caution should be used when using horticultural oils since phytotoxicity can occur in high temperatures, especially applications made during midday. For professionals, when oils aren’t an option, miticides like Avid may be used.

This could also be used as an opportunity to remove Mexican petunia from your landscape. Mexican petunia, *Ruellia simplex*, is listed as a category I invasive plant by the Florida Invasive Species Council. It rapidly spreads via numerous seeds and lateral roots and forms dense mats, outcompeting native plants in natural habitats and quickly overtaking plant beds in yards and gardens. Even when the plant is removed, regrowth may occur for years to come. Plants should be dug up in their entirety to remove all vegetative parts and roots.

Choosing the right plant to replace *Ruellia* will depend on the area they are planted, since ruellia can handle a wide range of light and soil conditions. In areas of deep shade, ferns might be a better option. Southern shield fern, *Thelypteris kunthii*, is a wonderful native fern that will grow well in shady to partial sun environments; also, wild bamboo, *Lasiacis divaricatus*. Wild coffee, *Psychotria nervosa* and *Psychotria ligustrifolia*, also will flower and thrive in shadier areas of the landscape. For sunnier locations, ornamental grasses like muhlygrass, *Muhlenbergia capillaris*, or saltmeadow cordgrass, *Spartina patens*, make beautiful additions and are salt tolerant. To add a bit of color, East coast dune sunflower, *Helianthus debilis* subsp. *debilis*, blue porterweed, *Stachytarpheta jamaicensis*, tickseed, *Coreopsis leavenworthii*, tropical sage, *Salvia coccinea*, or firecracker plant, *Russelia equisetiformis* can be used.

For more recommendations on possible replacements, contact our Master Gardener Volunteers at mastergardener@monroecounty-fl.gov. Happy planting!

*This article has been reviewed by Dr. Alexandra Revynthi, Extension Entomologist*
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