Issues in Agriculture

The Newsletter about Integrated Pest Management for the El Paso Valley

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ANNOUNCEMENTS

- **NEW LOCATION**! To better serve the community, El Paso Texas A&M Extension Service has moved to a new facility. Our new offices are outside the entrance of Ascarate Park on the right hand side: 301 Manny Martinez Sr. Dr., El Paso, TX 79905. Our contact information has also changed. Our new phone: (915) 771-2354 and fax: 915-771-2356.
- **EL PASO BUGS**: I just started building a webpage called "El Paso Bugs". It is a gallery of insects and related invertebrates that I have had the opportunity to photograph in this beautiful corner of Texas. My intention is to give the general public an increased awareness and appreciation of some of the fascinating arthropod species with which we share this land. To this day, this website displays only my photographs, but contributions of high-quality El Paso insect photos are most welcome. Of course, proper credit will be given by including the author's name on the image. You can visit this site at: http://elp.tamu.edu/integrated-pest-management/el-paso-bugs/. We have a Facebook page too. Please visit, like, share, comment, ask questions at: https://www.facebook.com/ElPasoBugs.
- **Gardening 101 Workshop Series**: All sessions are free of charge and will be held at the Multipurpose Center on 9301 Viscount. On August 28, from 4:00 PM to 5:30 PM, the topic of discussion on this date will be Fall Gardening. Information: Denise Rodriguez Texas A&M AgriLife Extension (915) 860-2515. This is the last presentation in the series this year!
- **Mario Saavedra's retirement celebration**: The Greater El Paso Pest Control Association is organizing a celebration to honor Mario Saavedra's many years of service with the Texas Department of Agriculture. This event will be conducted at Cattleman's Steakhouse at Indian Cliffs Ranch on August 29, from 5:00 pm to 11:00 pm. Tickets are $40 per person and include buffet BBQ meal, drink, music, and dance. Meal serving time is 6:00 pm. For more information and tickets call Jaime Lagos at (915) 309-3813.

GENERAL SITUATION:

I am glad to report that Southwestern cotton rust was stopped in its tracks. This was a very threatening situation barely a month ago! We are still heading for good cotton yields this season. Cotton aphids are more abundant than in previous years. A significant amount of bollworm moths were captured in my pheromone traps this week. I have found a high level of parasitism in blackmargined aphids (BMA). Do not confuse them with black pecan aphids (BPA), as BMA turns dark when parasitized and resembles BPA to the untrained eye. Black pecan aphids are building up too; reaching action thresholds in some orchards. Third-generation pecan nut casebearer moths were laying eggs a little over a week ago. Beneficial insects in cotton, pecan, and alfalfa continue at high population levels. Suspected red imported fire ants have been found at several locations in El Paso.

COTTON:

The danger of **Southwestern cotton rust** seems to be over in most cotton fields. A month ago, Fort Hancock and surrounding areas had been impacted by this disease. Symptoms were starting to show up near Socorro, Clint, Fabens, and Tornillo, but most cotton growers applied Quadris (Azoxystrobin) to their fields and this disease has made little progress since then. Maybe the lower frequency of rains and possible changes in direction of prevalent winds may have helped in reducing this threat too.

Cotton aphids on bracts. 8/25/2015

At this time, most cotton growers have stopped applying insecticides on their fields. However, they are still monitoring population levels of **cotton aphids** and **whiteflies**. There are no open bolls right now, but the "honeydew" produced by these two pests has the potential to result in "sticky cotton"; meaning that the lint fibers become glued together. Usually, whitefly population levels increase in September in El Paso and Hudspeth Counties. Cotton aphids have been more abundant this season than in previous years. Mr. Ray Jones told me that in his 47 years of scouting cotton, this season has had the most widespread infestation of cotton aphids. He said that usually he finds aphids affecting small areas of large fields, but this week, cotton aphids can be easily found in most cotton fields; especially near Clint and in close proximity to the Rio Grande. Be aware that these aphids do not affect pecan. No need to panic.

Bollworm moth. 8/11/2015

During the fifth week of moth captures in my pheromone traps to monitor the **cotton bollworm** (CEW), *Helicoverpa zea*, and the **tobacco budworm** (TBW), *Heliothis virescens*, I caught 61 CEW moths and only 1 TBW. I have encountered many CEW moths in El Paso city while searching for insects to photograph. During the day, I found them hiding in the lower part of plants canopy. At night, they have been flying around or resting near strong lights.

Cotton fleahoppers and **Lygus bugs** are no longer being monitored. At this stage of the crop, their abundance and activity should not affect cotton yields for this season.

PECAN:

This week, I have found a high level of parasitism in **blackmargined aphids** (BMA). Do not confuse them with **black pecan aphids** (BPA)! BMA turn dark when parasitized and in that sense resembles BPA to the untrained eye. To me, the easiest and most telling character to distinguish BMA and BPA is the position of their wings. BMA holds its wings flat over its abdomen, whereas BPA holds them in a tent-like position. The color banding of BMA antenna is also a big giveaway feature.

Body color is not a consistent characteristic because BMA has some color variation and it turns black when parasitized. Dr. James Wooley and Xanthe Shirley, a graduate student at Texas A&M Univ., are conducting a study on parasitoids of pecan aphids throughout Texas. I sent them samples from El Paso and kept some for me to rear. In the near future, I plan to share their findings with you.

Blackmargined aphid. 7/22/2015

Parasitized blackmargined aphid. 8/20/2015

Pecan orchards were treated recently to control both the blackmargined pecan aphid and black pecan aphids. I expect that aphids in pecan will not need to be closely monitored starting from late September to the remainder of the year, when temperatures drop and aphid populations decrease. Insecticide applications in October or later to control aphids may not provide important benefits for pecan tree health.

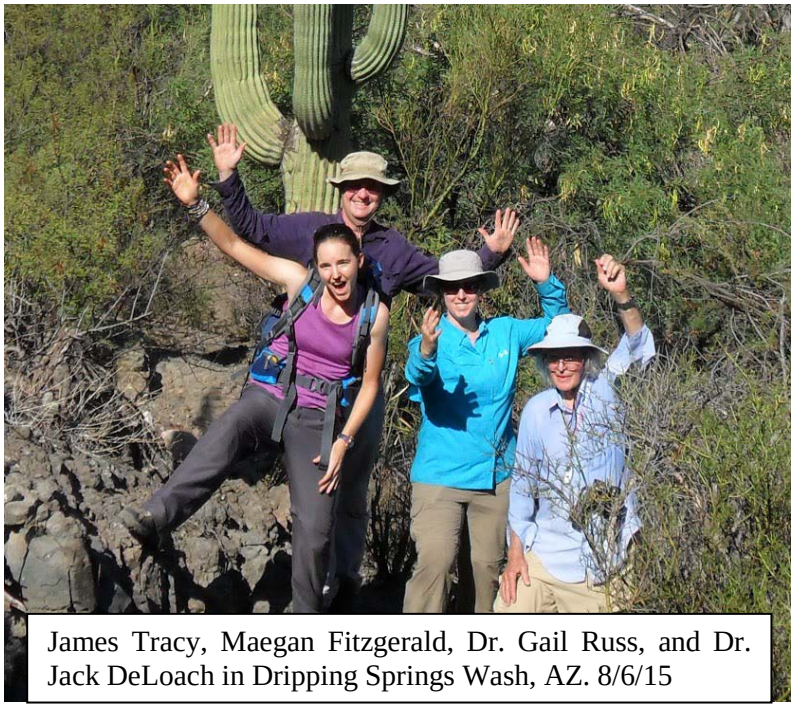
NEWEST PEST ON THE BLOCK! The **pecan bud moth**, *Gretchena bolliana*, has been found for the first time in New Mexico. According to Dr. Jane Pierce (Associate Professor and Extension

Pecan bud moth damage and larva. Photos courtesy of Patricia Monk (New Mexico State University)

Entomologist at NMSU): "*Pecan bud moth has been found as far west as Arizona but has never been reported in New Mexico. This infestation was found in a backyard tree and apparently was active for a few years before the homeowner approached a county agent about obtaining pest identification. The tree with the infestation had not been treated for other pests like pecan nut casebearer on a regular basis. We suspect that pecan nut casebearer applications have also suppressed this pest*." This sample was submitted to NMSU personnel on August 14, although the tree has apparently been infested for a couple of years. The affected tree is located in Roswell NM in Chaves County. I will follow this situation closely and let you know how it develops. Hopefully, the pecan bud moth will not become an important pest in our region.

SALTCEDAR BIOLOGICAL CONTROL: Mr. James Tracy recently organized a field study to monitor saltcedar leaf beetles in Texas, New Mexico, and Arizona. He kindly shared the following information about this trip: "*From August 3-13, four research ecologists and entomologists surveyed tamarisk stands potentially utilized by endangered birds in west Texas, western New Mexico and eastern Arizona for fire susceptibility and potential impacts from dispersing tamarisk beetles. Mostly camping for the 11 days while surveying vegetation at five riparian study sites in the 100 degree heat were Dr. Gail Drus, Asst. Professor from St. Francis Univ. PA, studying tamarisk fire ecology, 84 year old Dr. Jack DeLoach, retired USDA/ARS Research Entomologist specializing in tamarisk biocontrol, Texas A&M Ph.D. Entomology candidate James Tracy, studying landscape ecological interactions between tamarisk beetles and endangered birds, and Texas A&M Ecosystem Sciences and Management student Maegan Fitzgerald. The researchers traveled thousands of miles collecting data on fuel levels and flammability of tamarisk-willow-cottonwood stands used by the endangered Southwestern Willow Flycatcher and threatened Western Yellow-billed Cuckoo along the Rio Grande in New Mexico and Texas and the Middle Gila River and Tonto Creek in Arizona. Large stands of tamarisks being utilized by the rare birds have yet to be reached by subtropical and northern tamarisk beetles that are rapidly defoliating and suppressing invasive exotic tamarisk along rivers and creeks as they move north and west from Texas and south from Colorado and Utah. Dr. Salvador Vitanza, Texas AgriLife Extension at El Paso, assisted in surveying for tamarisk beetles densities north of El Paso and heavy populations were found at Sunland Park and Canutillo. Dr. Carol Sutherland at New Mexico State University met with the researchers and provided specimens confirming the recent finding of subtropical tamarisk beetles as far north as Truth or Consequences, NM with heavy populations a little south near Caballo, NM. Tamarisk increases fire susceptibility in riparian (riverine) areas and the rapid defoliation by tamarisk beetles can lead to temporarily higher fire risk. But as the tamarisk dies back from beetle herbivory over several years, their fire susceptibility should decline.*

Dr. Allen Knutson, Texas AgriLife Research at Dallas, met with the researchers at Candelaria and Balmorhea Texas, to help assess the impact of subtropical tamarisk beetles after several years on tamarisk trees, and they found that beetles produced from about 30% to 80% dieback in tamarisk, depending on the site. Projecting the short and long term interactions of tamarisk defoliation by the spreading tamarisk beetles with nesting site availability for the listed birds and fire susceptibility is a main goal of the research. They found that many study sites in Arizona and New Mexico had low growing tamarisk serving as important nesting sites for flycatchers in areas where Goodding willows and Fremont cottonwoods were too tall and old to provide nesting. Some sites also had low growing coyote and Goodding willow that could provide nesting habitat, and these willows need protection from cattle grazing and encouragement to grow as the tamarisk beetles move in. But some cattle grazing can serve to reduce understory fine fuels and help reduce fire hazard in the bird habitats. Data was also collected on locations of various tree species and vegetation types at each site for use in classifying the amounts of potential bird habitat from 1 m resolution aerial imagery. Projection models developed from this data can inform riparian fire management and bird habitat conservation plans as the tamarisk beetles continue dispersing and suppressing tamarisk in sensitive riparian ecosystems across the western US. This research is funded by a two year USDI Bureau of Reclamation Desert Landscape Conservation Cooperative



James Tracy, Maegan Fitzgerald, Dr. Gail Russ, and Dr. Jack DeLoach in Dripping Springs Wash, AZ. 8/6/15

grant entitled Fire-smart southwestern riparian landscape management and restoration of native biodiversity in view of species of conservation concern and the impacts of tamarisk beetles.This research effort is being led under forest entomologist and landscape ecologist Dr. Robert Coulson of the Knowledge Engineering Laboratory in the Texas A&M Department of Entomology".

Since 2012, I have been monitoring the abundance of the Subtropical Tamarisk Leaf Beetle and its associated plant damage in El Paso and Hudspeth Counties. This year, I started scouting by the middle of April. In June, I found a small group of beetles near Fort Hancock and a much larger population in Sunland Park, NM and adjacent areas in Texas. By early August, the Sunland Park site was the only place where I could find this beetle. What happened to the beetle in the rest of our region? It is a mystery to me.

Subtropical Tamarisk Beetle. 8/3/2015

On the same subject, Mr. Ben Bloodworth, the Program Coordinator of the Tamarisk Coalition, reported: "*The early season showing of beetles in Kansas seems to have disappeared and no beetles are being found anywhere. The same can be said of Oklahoma and much of eastern Colorado. I have not heard anything from Texas or Utah, but a few of the places I have found beetles in the past in Utah were devoid of them when I checked this year. They are present and moving in the Virgin River and Mesquite Nevada, as well as causing substantial defoliation in the Little Colorado and Rio Puerco watersheds. There has also been a significant late season bump northward in the Rio Grande populations in new Mexico, with beetles found in Caballo Reservoir and expected in Elephant Butte by season's end*."

OTHER PEST PROBLEMS:

SUGAR CANE APHIDS (SCA): This is a very damaging pest that has been spreading fast and far throughout Texas and recently throughout south west New Mexico. I have been monitoring, on a weekly basis, a small field of Sudan grass near Clint for the presence of SCA and so far, the only aphid species that I have found there is the usual corn leaf aphid. According to the AgriLife publication The Sugarcane Aphid: A New Pest of Grain and Forage Sorghum: "*Sugarcane aphids are known to feed on grain and forage sorghum (Sudan grass, sorghum/Sudan hybrids) and Johnsongrass. All of these hosts are in the genus Sorghum. Laboratory tests show that SCA does not feed on wheat, oats, or on seedling foxtail millet or proso millet. There is no evidence to date that SCA reproduces on any other crop in Texas*." El Paso and Hudspeth Counties do not have any sorghum and only very few acres of Sudan or Johnson grass. Thus, I expect that SCA will have very limited impact in these two Counties. Dr. Jane Pierce (NMSU) has been monitoring and working intensively on this pest in New Mexico. She kindly shared the following information: "*We have confirmed SCA in at least four eastern counties in NM with Eddy County bordering West Texas. Eddy County farmers started treating SCA this week. Curry County is spraying also. Chaves County was the first to reach treatment threshold the week of Aug 10. As far as I know Roosevelt County has not made any applications for SCA in fact the Extension County Agent has been monitoring three fields where he found SCA and now cannot find them which is unusual but wonderful. We do not have a section 18 for Transform, but I have been working with NMDA on their application and think it will likely go out tomorrow. I have not seen it yet in the Loving area which would have the closest sorghum to El Paso*." Dr. John Idowu (NMSU) provided the following information: "*There has been no reported sighting of the SCA in Dona Ana and other southwestern Counties of NM. However, given*

the recent rapid progress of the pest in the eastern Counties, it is only a matter of time before we see it here in the southwest." Dr. Carol Sutherland also said that SCA has not been found in southwestern New Mexico.

For extensive information on SCA biology, distribution maps, videos, and other educational resources go to: http://txscan.blogspot.com/

RED IMPORTED FIRE ANT (RIFA): Approximately a month ago, I found what I suspect to be RIFA in El Paso. Dr. James Trager, the Missouri Ant Curator, confirmed via photographs, that I had submitted to http://bugguide.net/, the presence of RIFA in the city of El Paso. Immediately, I mailed samples to Drs. Brad Vinson and Robert Puckett (Texas A&M) for their diagnosis. This finding may have profound implications for our region. I will report to you on any significant developments.

This year, I observed the highest population of **June beetles**, Cotinis nitida, in the nine years that I have been living in El Paso. Also, **Bagrada bugs** seem to be well established throughout El Paso County. Bagrada bugs can be found on weeds and flowering plants in parks and in the desert. They are not as abundant in the vegetable gardens that I have visited. Their population levels have decreased compared to when I first noticed them in 2012. They resemble the **Harlequin bug**; which is currently much more abundant.

Harlequing bug. 7/29/2015

Bagrada bug. 8/12/2015

The **Western grapeleaf skeletonizer** has been a common sight in El Paso this season. Lately, I have seen large numbers of these moths flying near bodies of water where sometimes they drown and seem to favor as locations for mating.

Ground beetles in the genus Selenophorus are very abundant in El Paso. They reached large population levels approximately two months ago. These beetles are not a pest (at most a nuisance) and are not hurting plants or anything else. They are part of the desert environment and at night are attracted to outside lights of houses and buildings. During the day, they seek shelter in dark places such as under rocks, pots, or object lying on the ground. Spraying pesticides kills them, but does not stop others from arriving. More effective approaches include pest-proofing your house, changing lights that are not as attractive to insects, turning off outside lights if possible, and keeping windows closed with thick curtains.

Ground beetle, Selenophorus 8/26/2015

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