A LETTER FROM THE PRESIDENT:
by Brett O’Brien, MW-ISA President

As many of you will recall, our annual MWISA conference location use to vary year to year from one region of the chapter to another, having been hosted in the past by such cities as Tulsa OK (2004), Bismarck ND (2006), and Topeka KS (2007). In a change largely driven by the logistical headache of planning for a conference in a new city every year, Chapter leadership voted in 2015 to initiate a biennial conference rotation beginning in 2016 between the Kansas City and Saint Louis metro regions. Although the two communities offer some distinct advantages for hosting our conferences, we surmised it wasn’t an ideal situation for everyone, most notable for chapter members traveling a significant distance from either the south or north.

To better understand how the membership felt about this current conference rotation, an email questionnaire was sent to MWISA membership early last August which posed the question “Where would you like to see MW-ISA’s next Conference?” Those that voted had an opportunity to list their 1st, 2nd and third choices.

We received 72 responses back and it confirmed what we suspected, while Kansas City and Saint Louis were both very popular destinations, other cities also garnered a sizable vote to host our MWISA conference. In the south/southwestern region of our chapter for example, we saw that Springfield MO and Tulsa OK ranked high. Toward the north, it was Omaha and Lincoln NE that both received a number of votes.

In order to meet the membership wishes, which we determined to mean a fiscally and logistically sound, but broader rotation of conference locations, the board has approved adding a third year to our current two year rotation with Kansas City and Saint Louis. We’re calling it the Wildcard year since the location in this third year of the rotation is not predetermined; it will move around north, south or wherever in our chapter that best serves members interests and needs.

Since we are already set up for a terrific conference in Overland Park KS this upcoming January 29-31, 2020, the Wildcard year will begin in 2021. After exploring several options and discussing the various merits of different locations, the board chose to begin the Wildcard in 2021 with Omaha NE. The following year, 2022, we plan to be back in St. Louis region, returning to Kansas City area again in 2023 before the next Wildcard year of 2024. I’m sure we’ll do some more polling beforehand, but presumably for this Wildcard year we’ll be looking for somewhere more conducive to chapter members from the south/southwestern region of our chapter.

Long term planning provides a valuable benefit for our conferences in consistency and time savings, but if it comes with the cost of rigidity, then the gain or value to MWISA members is likely to be lost. The intent of the Wildcard year is to build flexibility into this planning, allowing adaptation to change while offering a clear vision forward as the MWISA chapter moves toward the future.
MERIDITH LEADING FOREST RELEAF OF MISSOURI

Davey Resource Group has been very fortunate over the years to have built an incredibly strong team of Missouri-based urban forestry consultants. We are excited to share the good news that Meridith Perkins will be leaving DRG effective October 1st to take on the opportunity as the Executive Director of Forest ReLeaf of Missouri. Obviously, we are sad to see her leave the DRG family but are grateful for the 4 years that she shared with us. As she takes the reins of Forest ReLeaf in October, we know they are in good hands and will do even more great work over the years to come. Please join us in congratulating Meridith!

DRG is committed to providing our Missouri clients the best urban and community forestry solutions. We greatly appreciate all your support and confidence over the years. If you have any questions or project ideas please feel free to reach out to Jacob McMains, our new Area Manager!

WELCOME AMANDA WOOD

We are excited to welcome Amanda Wood to the DRG team. Amanda joins us from the Morris Arboretum in Philadelphia, Pennsylvania and has been with DRG for about 3 months. Most recently, Amanda has been an integral member of the team lead by Reid Gibson working in Sioux Falls, SD inventorying over 45,000 trees. Amanda will be joining Reid Gibson in the St. Louis area and will be focusing her efforts on tree inventories and urban forestry consulting projects throughout the region.

MDC COMMUNITY FORESTER ANN KOENIG EARNS INTERNATIONAL FORESTRY AWARD

The Missouri Department of Conservation’s (MDC) Community Forester Ann Koenig recently returned from Knoxville, Tenn., where the International Society of Arboriculture (ISA) awarded her its True Professional of Arboriculture award for 2019. The ISA True Professional award honors arborists and tree-care professionals from around the world for their positive impact in their communities and on the tree-care industry. Koenig earned a B.S. in forestry from the University of Missouri. She began working with MDC in 1997 where she works on public and private lands and oversees the central region’s community forestry program. As a community forester, Koenig is qualified through the ISA in tree risk assessment and as a certified arborist. She specializes in the health and sustainability of trees in our cities and towns, working with community leaders to foster appreciation for the functional, cost-saving benefits of trees and urban green spaces as infrastructure assets. At MDC, Koenig has collaborated with national Arbor Day Foundation programs benefitting local cities, campuses, and utilities. She serves on the Missouri Community Forestry Council and manages Tree Resource and Improvement Management (TRIM) grants across the region. Koenig created MDC’s Trees Work campaign which provides comprehensive resources for professionals and citizens to find information on how Missouri’s trees benefit individuals and communities. The campaign promotes sound forest management practices and reminds Missourians that if you care for the trees around you, those trees will work for you. Koenig’s passion for trees and her commitment to professional development also led her to competitive tree climbing. A six-time regional champion, she became the first woman from the Midwest to compete at the international level, where she has competed four times. Koenig was recognized as one of five individuals selected to receive the True Professional of Arboriculture award on Aug. 12 at the ISA Annual International Conference and Trade Show in Knoxville, Tenn. “Receiving the True Professional of Arboriculture award is an incredibly proud moment and a huge highlight for me,” said Koenig.
SAVING URBAN TREES
By NLC Guest Writer | August 19, 2019

When Asian longhorned beetles were first discovered in Worcester, Massachusetts in 2008, it came as a shock. “I knew our life was going to change,” said Patty Ruffini, then the United States Department of Agriculture’s State Plant Health Director for Massachusetts, Connecticut, and Rhode Island, in an interview for Worcester’s Telegram and Gazette.

The beetles likely arrived in Worcester burrowed in wooden shipping pallets from Asia. They are voracious tree pests, and are particularly fond of the maples that lined Worcester’s streets. In the 11 years since that initial discovery, over 35,000 trees have been removed from Worcester in an attempt to eradicate the outbreak and to keep it from spreading into nearby forests. “The neighborhoods will never look the same,” said Worcester resident Virginia Ryan to the Telegram. After the street trees were removed, she recalled, “It looked like a war zone to me. You just saw telephone poles.”

Worcester is not alone. Imported insects and diseases have devastated trees in parks, yards and along streets in cities, towns and villages throughout the country. The emerald ash borer, another Asian insect discovered in Michigan in 2002, is the most destructive pest ever imported into the United States. It is killing forest and city trees throughout the eastern half of the country, and has spread as far west as Colorado. It has the potential to kill all of the ash trees in North America. By some estimates, it will cause over $12 billion in damage before it is done.

Research has shown that municipal governments and homeowners bear the brunt of the over $4 billion annual cost of imported forest pests (see graph below). The costs mount because responses – either removing trees or treating them – are expensive. Plus, homeowners lose property value when mature trees on their property die.

The full value of city trees is not captured by the simple costs of removing them. Trees cool the air, absorb air pollution, reduce stormwater runoff and provide habitat for birds and other urban wildlife. And so, many cities, towns and villages are investing heavily in green infrastructure, like tree planting – an investment which is put at risk every time a new pest is imported into the country. Continued on next page...

REGISTRATION IS NOW OPEN FOR THE MW-ISA 74TH ANNUAL CONFERENCE & TRADE SHOW!

January 29 – 31, 2020
DoubleTree by Hilton, Overland Park, Kansas

The Conference will kick-off with our keynote speaker, Kathleen Wolf, who will speak on Public Perception and Perceptions of the Urban Forest. To see the full program, visit our website! First 50 attendee’s registered will receive a MW-ISA T-Shirt!

Local residents know that trees can reduce the stress of urban life, but they may not be aware that losing trees can harm their health. Recent studies in Midwestern cities show that rates of hospitalization and death from cardiovascular and respiratory ailments increased in the wake of city tree loss due to emerald ash borer infestations.

Imported forest pests are unintended byproducts of global trade; they enter the country via two main pathways. Solid wood packaging material, such as pallets and crates, allow insects like the emerald ash borer and Asian longhorn beetle to stowaway among goods loaded into container ships. While an international treaty mandates that wood packing materials be treated to kill embedded pests, treatment is often insufficient and thousands of infested shipments pass through our ports each year.

Nursery stock imported for landscaping is another important conduit for invasive pests. Exporting countries must certify that plants are ‘pest-free’, and they must pass through U.S. inspection stations when they arrive. Unfortunately, many insects and diseases are not easy to spot, making visual inspection a weak defense.

Because many ports and airports are in cities, urban forests are on the frontlines. If pest outbreaks in urban forests are not eradicated quickly, they can allow new invaders to become established and spread to other areas. Once pests gain a foothold, they are often impossible to stop. Effective monitoring and eradication efforts in urban forests are essential for protecting the entire country from invasive pests.

The best defense is preventing pests from entering the country in the first place. This responsibility falls squarely in the lap of the USDA’s Animal and Plant Health Inspection Service (APHIS).

APHIS needs to get tough with importers and increase penalties for noncompliance with the current wood packaging regulations. APHIS must restrict importation of live plants that are most likely to transmit pests to native trees. The USDA should beef up its monitoring of urban trees and enlist the help of city foresters, arborists and residents to spot new outbreaks.

These commonsense measures by the federal government could produce widespread benefits and help save local trees and the many services and benefits they provide. City officials should speak with a united voice to advocate for stronger defenses against imported forest pests.

For more information visit our website, follow @treeSMARTtrade on Twitter or view our policy brief, “Invasive Forest Pests in the United States”.

About the Author: Dr. Gary Lovett is a Senior Scientist and Forest Ecologist at the Cary Institute of Ecosystem Studies in Millbrook, NY. His research focuses on the impacts of invasive pests, climate change, and other environmental stresses on forests.
A PROMISING NEW PARASITOID DRILLS DOWN ON EMERALD ASH BORERS

ENTOMOLOGY TODAY | JULY 10, 2019 | By Melissa Mayer

The wasp flies through the forest, heavy with eggs, following the scent of beetle infestation. She locates a promising tree and lands, using sensory organs on her legs to detect beetle larvae feeding below the surface. She drills through the bark and deposits her clutch. Within a few days, emerging wasp larvae will feast on the soft body of the unlucky beetle larvae.

It reads like a horror story, but for researchers managing the invasive emerald ash borer (EAB) beetle (Agrilis planipennis), it’s a biocontrol solution for a problem plaguing ash forests in 35 states.

A report published in June in the Journal of Economic Entomology offers data on the newest parasitoid wasp released against the EAB beetle: Spathius galinae. One of the authors, Jian Duan, Ph.D., of the Beneficial Insect Introduction Unit at the U.S. Department of Agriculture's Agricultural Research Service, says including this species in the biocontrol lineup could be a gamechanger. “The addition of S. galinae to the current biocontrol arsenal will provide a whole spectrum of protection for surviving ash trees,” he says.

BEETLE INVASION

The Asia-native EAB beetle hitched a ride on U.S.-bound cargo sometime prior to its first detection in the U.S. in 2002 and began feeding on the phloem of local ash trees. The results have been devastating; infested trees lose most of their canopy within two years and die within three or four years.

Scientists decided to import the beetle’s natural enemies: parasitoid wasps. Between 2007 and 2012, they released three such species as biocontrol agents: Tetrastichus planipennisi, Spathius agrili, and Oobius agrili. The results were mixed. S. agrili’s parasitism rate never reached 1 percent. The other two species did better: O. agrili clocked in at 1 to 32 percent, depending on the release area, and T. planipannisi achieved 30 to 85 percent parasitism—but only in saplings.

Unfortunately, T. planipannisi’s effectiveness doesn’t extend to larger trees. Its 1.5- to 2.5-millimeter ovipositor is simply too short to reach larvae under bark thicker than 3.5 mm, which is the case for more mature trees.

ENTER SPATHIUS GALINAE

Researchers then turned to S. galinae, which boasts a substantial ovipositor, twice as long as that of T. planipennisi. This enables the wasp to reach larvae infesting much larger trees.

S. galinae has other advantages, too. Its offspring have a 3:1 female-to-male ratio, and its lifecycle is only about 30 days. This means it can yield two to three female-predominant generations of wasps during just one growing season. “This is a tremendous advantage for biocontrol of emerald ash borer, which has a 1- to 2-year life cycle in the United States,” says Duan.

Scientists released S. galinae and T. planipennisi in Connecticut, Massachusetts, and New York in 2016. By 2018, S. galinae was established and attacking EAB larvae in pole size trees (6 to 12 centimeters in diameter at breast height) at all release sites.

Researchers think the wasp is effective in trees up to 50 cm in diameter.

S. galinae’s parasitism rate was 33 to 49 percent at two sites (a nearly 30-fold increase within just two years) and 13 to 15 percent at two more sites (a 13-fold increase). Rates stayed under 1.5 percent at the remaining two sites. In contrast, T. planipennisi showed parasitism at four of six sites, and those never reached 6 percent. Continued on next page...
These rates are lower than those in S. galinae’s native Russia, where the wasp parasitizes about 62 percent of late-instar EAB larvae. Still, the strong results just two years after principal release are promising.

“Natural enemy introduction normally takes more time for the introduced agent to firmly establish an appreciably high abundance that can cause high mortalities of the targeted pest,” Duan says. “We did not observe the strong recovery and sharp increase in densities and parasitism rate of the previously introduced EAB parasitoid, T. planipennisi, until approximately 5 years after the major releases.”

WHAT’S NEXT?
Some questions remain about S. galinae, especially regarding dispersal and spread and overwintering. Duan says he and his coauthors are already working on this. “Initially, we have documented spread of at least a mile from the release sites, and further sampling is likely to demonstrate spread over greater distances,” says Duan. This makes sense because T. planipennisi can spread just shy of 2 miles per year, and S. galinae has a larger body and wings.

Figuring out S. galinae’s cold tolerance is also on tap, as this data will guide future deployments of the biocontrol agent.

Melissa Mayer is a freelance science writer based in Portland, Oregon. Email: melissa.j.mayer@gmail.com.

**SALUTING BRANCHES**

Volunteer tree care professionals descended upon Jefferson Barracks National Cemetery to participate in the 5th Annual Saluting Branches event. Each year Saluting Branches, a non-profit organization, partners with the U.S. Department of Veterans Affairs and the National Cemetery Administration enlisting arborists nationwide to make veterans cemeteries safer and more aesthetic.

Richard Price with Tom’s Tree Service trims overgrowth on a tree on Wednesday, Sept. 18, 2019, at Jefferson Barracks National Cemetery as he and several volunteer tree care professionals participate in the 5th Annual Saluting Branches.

Garret Nelson with Tom’s Tree Service loads a grinder with trimmings from a tree on Wednesday, Sept. 18, 2019, at Jefferson Barracks National Cemetery as he and several volunteer tree care professionals participate in the 5th Annual Saluting Branches.

Scott Skopec with Cuivre River Electric uses a long saw to trim overgrowth on a tree on Wednesday, Sept. 18, 2019, at Jefferson Barracks National Cemetery as he and several volunteer tree care professionals participate in the 5th Annual Saluting Branches.

Wesley Langdon with Tom’s Tree Service trims overgrowth on a tree on Wednesday, Sept. 18, 2019, at Jefferson Barracks National Cemetery as he and several volunteer tree care professionals participate in the 5th Annual Saluting Branches.

Wesley Langdon with Tom’s Tree Service looks for a spot to trim overgrowth on a tree on Wednesday, Sept. 18, 2019, at Jefferson Barracks National Cemetery as he and several volunteer tree care professionals participate in the 5th Annual Saluting Branches.

A trimmer with Asplundh Tree Expert Company positions himself to trim overgrowth on a tree on Wednesday, Sept. 18, 2019, at Jefferson Barracks National Cemetery as he and several volunteer tree care professionals participate in the 5th Annual Saluting Branches.
ID That Tree Answer:
Common Persimmon
Diospyros virginiana

This tree species native to the region of Central and Eastern United States can be found growing in the MWISA chapter states of Nebraska, Kansas, Oklahoma, and Missouri. The fruit, extremely bitter from tannic acid when unripe, gradually sweetens in fall as weather turns cooler and the Tannin fades. Edible for humans when fully ripe, the fruit is generally favored more by wildlife such as raccoons, opossum and white-tailed deer for subsistence through fall and early winter.