GARDENER'S NOTEBOOK

Horticultural News and Research Important to American Gardeners

WASPS AND PURPLE TRAPS SLOW EMERALD ASH BORER INVASION

Since their introduction to North America in the 1990s, emerald ash borer (EAB) beetles have killed about 50 to 100 million ash trees, despite efforts by arborists, government agencies, homeowners, and others to contain their spread. But, two new early warning systems are helping to slow EAB infestations before they overtake uninfested areas.



A Cerceris wasp captures an emerald ash borer to parasitize with its young.

Cerceris fumipennis, a native wasp about the size of a common yellowjacket, has proven to be an efficient parasitic predator of EABs. More importantly, its ability to detect the presence of the beetles is far better than any existing technology. "By the time humans are able to detect EABs visually, the infestation is usually well-established," says Frederic Miller, a research associate at the Morton Arboretum in Lisle, Illinois. "We hope this wasp will serve as an effective monitoring tool, giving us an earlier read as the EAB makes its way across the country." To that end, the arboretum has launched a pilot citizen science biosurveillance program at local parks to detect the borers' presence and hinder their spread across the Midwest. Through the Cerceris Identification Awareness Program, park users and employees are trained to keep an eye out for wasp nests that have EAB carcasses.

The U.S. Forest Service has also developed an early detection method in the form of purple, prism-shaped traps. In

2009, USDA scientists with the Animal and Plant Health Inspection Service (APHIS) determined that the brightly colored beetles were attracted to a particular shade of purple more than any other color. The APHIS team then determined that the best trap shape was a prism, and the most effective bait was manuka oil. This past summer, the Forest Service distributed more than 60,000 traps to state and local governments and tree conservation groups in all 48 continental states. These "Barney" traps, nicknamed for the similarly hued purple dinosaur beloved by small children, provide another relatively simple way to detect an infestation as early as possible.

For more information on the emerald ash borer and detection methods, go to www.emeraldashborer.info.

STAMP OF APPROVAL FOR BONSAI

The United States Postal Service (USPS) is celebrating the "beauty of bonsai" in 2012 with five new stamps depicting this horticultural art. Each features a popular design: Sierra juniper in semi-cascade style, a trident maple in informal upright style, a black pine in formal upright style, an azalea in multiple trunk style, and finally a cascade style banyan tree.

The stamps were designed by USPS art director and stamp designer Ethel Kessler and artist John D. Dawson. They will be issued as Forever® stamps that always carry the value of current first-class mailing rates.



One of five new bonsai-themed U.S. Forever® postage stamps to be available next year.

PEST-FIGHTING TURFGRASS FUNGUS

When it comes to lawns, fungi are usually seen as bad guys because they can cause diseases that wipe out grass. A study published recently in the Journal of Environmental Entomology indicates that there are some good guys, too, namely a fungus called Neotyphodium. It produces compounds that are toxic to certain insects, showing promise as an environmentally friendly turfgrass insecticide. However, these compounds are also toxic to grazing animals, which has been problematic for North American farmers.

In order to capitalize on the fungus's potential benefits while mitigating its downside, scientists at Purdue University in Indiana, in collaboration with researchers in New Zealand, searched for strains of Neotyphodium that are both safe for livestock and can act as a natural insecticide. The few they found offer a way to "decrease the footprint of cultured turf and pasture grasses," says Doug Richmond, an entomologist and lead author on the study. "And if you like having wildlife around, this is a benefit because it's safe for those animals." Soon farmers, golf course managers, and even homeowners may be able obtain grass seed inoculated with the fungal strains in order to ultimately use fewer insecticides to manage lawns.

SAN FRANCISCO NAMESAKE PLANT ELEVATED FROM EXTINCTION TO ENDANGERED STATUS

In 2009, San Francisco botanist Daniel Gluesenkamp was on his way home from speaking at a climate change conference when he noticed an unusual-looking plant on the side of the road near where a housing subdivision was going up. He returned later to get a closer look and recognized the plant as Franciscan manzanita (Arctostaphylos franciscana), a rare flowering shrub that hadn't been seen in the wild in the Bay Area since 1947.

Gluesenkamp immediately called a local non-profit, the Wild Equity Institute, which runs a program focused on

conserving endangered species in the Presidio Trust, a park in the Golden Gate Recreational Area. After government agencies relocated the plant to the park to protect it, Wild Equity also got it on the fast track toward Federal endangered species status.

"Franciscan manzanita needs both short term protection for the individual plant and long term protection to transform this one individual into a thriving species, and the Endangered Species Act provides both," says Brent Plater, executive director of the Wild Equity Institute. Visit www.wildequity.org for more information.

NEW GENUFLECTING PLANT DISCOVERED

The Atlantic Forest, located along the eastern coast of Brazil, is known for its amazing biodiversity, much of which scientists believe remains undiscovered. Recently, a tiny plant with pink-and-white flowers turned up, exhibiting the unusual trait of burying its own seeds.

An international team of scientists, working to characterize and classify the plant, discovered that it represented an



Spigelia genuflexa

entirely new species in the genus *Spigelia*. They named it *Spigelia genuflexa* to reflect the plant's ability to genuflect, or bow down, to place its seeds on the ground. This new species is the only member of its family to engage in geocarpy, the technical term for the self-planting mechanism. This ensures that the offspring stay close to the parent plant in a favorable environment for their survival.

NATIONAL PARK SERVICE AND GARDEN CLUB OF AMERICA TEAM UP FOR CONSERVATION

The Garden Club of America (GCA) and the National Park Service (NPS) have recently renewed their partnership

for native plant conservation and management. "This ongoing relationship has enhanced our ability to achieve mutual goals," says Joan George, GCA president.

Through this partnership, national park staff will work with local GCA clubs to map, monitor, propagate, transplant, and inventory threatened or endangered plants that are native to the area. Other joint projects include removing invasive plants and conducting research. For example, previous initiatives under this partnership have included surveys of rare plants at Acadia National Park in Maine, which has culminated in a book, The Plants of Acadia National Park, released earlier this year. Other notable joint plant conservation efforts include removal of invasive plants at Congaree and Cuyahoga Valley national parks in South Carolina and Ohio, respectively, as well as the restoration of Texas trailing phlox (Phlox nivalis ssp. texensis) in Big Thicket National Preserve in Texas.

Visit www.gcamerica.org for more information.

BOSTON TREE PARTY

Back in 1773 it was tea, today it's trees. Boston has launched a city-wide revolution in urban agriculture through an unconventional public art project called the Boston Tree Party. Tufts University art graduate student Lisa Gross started the project as part of her master's thesis and has mobilized more than 50 community groups and organizations from all over Boston to plant and care for their very own pair of apple trees, creating an urban



Peabody Elementary School students joined the Boston Tree Party by planting two apple seedlings on school grounds.



PEOPLE and PLACES in the NEWS

Leadership Transitions at American Public Gardens Association and Coastal Maine Botanical Gardens

When Dan Stark resigned as executive director of the American Public Gardens Association (APGA) this past August, the association appointed Casey Sclar as its interim executive director. Sclar currently serves as the plant healthcare leader at Longwood



Casey Sclar

Gardens in Kennett Square, Pennsylvania. In the past, he has been an active leader at APGA, chairing and serving on two of the organization's committees and advocating climate change issues for public gardens to the National Oceanic and Atmospheric Administration. In addition to handling day-to-day issues, Sclar will help maintain the APGA's important partnerships and collaborative programs with other organizations, such as the U. S. Department of Agriculture and the Let's Move! program spearheaded by First Lady Michelle Obama. He will also help plan the association's 2012 annual conference.

The Coastal Maine Botanical Gardens (CMBG) in Boothbay is also in the middle of a leadership transition, with Maureen Heffernan stepping down in August to become executive director at the Myriad Gardens and Crystal Bridge Tropical Conservatory in Oklahoma City. Bill Cullina, who has been CMBG's director of horticulture and plant curator for the last few years, is serving as the gardens' acting executive director until a permanent replacement is named.

orchard of sorts. Hospitals, universities, assisted living centers, city agencies, religious centers, low-income housing communities, and several other groups have banded together to metaphorically dump some tea in the harbor in the name of planting trees and eating healthy.

"The original Boston Tea Party was a symbolic performance that launched the movement toward American independence," says Gross. "What if planting a pair of apple trees could also be a symbolic performance, too—of universal access to healthy food and bringing diverse communities together." Gross also notes that they want to promote heirloom varieties that aren't commercially available, because the potential loss of these species is "a loss of flavor, culture, history, and biodiversity."

The first group of saplings was planted in April, and will most likely bear fruit by 2015 when the project officially comes to an end. But, apple trees can live for up to 100 years, so Gross hopes they will provide Boston with fruit for many years to come. For more information on the project, visit www.bostontreeparty.org. ~

Written by Editorial Intern Helen Thompson.



2012 "Gardener's" Calendar

One of the benefits that TGOA/MGCA offers its members is the opportunity for TGOA/MGCA and AHS members to participate in our annual photography contest. From these entries, photos are chosen for our annual calendar. We encourage all men and women to become a member of TGOA/MGCA and enjoy the benefits of a worthwhile organization. For more information about TGOA/MGCA or to order calendars for \$6.95 postpaid, please call

The Gardeners of America/ Men's Garden Clubs of America

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