

## Pollinators at a Crossroads

Western IPM July Newsletter - USDA Blog *Wednesday, June 24, 2020* Robert M. Nowierski, National Program Leader, NIFA

Bees and other pollinators, including birds, bats, butterflies, moths, flies, wasps, beetles, and small mammals, play a critical role in our food production system.

A healthy pollinator population is vital to producing marketable commodities. More than 100 U.S. grown crops rely on pollinators. The added revenue to crop production from pollinators is valued at \$18 billion. Pollinators also support healthy ecosystems needed for clean air, stable soils, and a diverse wildlife. That's why USDA's National Institute of Food and Agriculture (NIFA) partners with the Land-Grant University System, U.S. government laboratories, and private and non-profit organizations to support research, education, and extension programs advancing pollinator health.

Today, pollinators—especially Western honey bee populations—are at a critical crossroads. The total annual value of U.S. honey bee products and services sold is approximately \$700 million. Honey bee pollination increases crop production and quality for a wide variety of foods, including fruits, nuts, vegetables, legumes, oilseeds, and forage crops. Beginning in 2006, experts noted significant yearly declines in honey bee colonies. These declines were



attributed in part to a phenomena referred to as Colony Collapse Disorder (CCD), an abnormal condition that occurs when the majority of worker bees in a honey bee colony disappears, leaving behind a queen, an abundant supply of food, and a few nurse bees to care for remaining immature bees. Years of research determined the decline was likely attributable to a wide range of stressors such as pests, diseases, pesticides, pollutants/toxins, nutritional deficits, habitat loss, effects of climate variability, agricultural production intensification, reduced species or genetic diversity, and pollinator or crop management practices.

By focusing efforts on pollinator health, the U.S. today has about 2.8 million honey bee hives, and no incidents of CCD have been reported in several years. To continue this upward trend in pollinator populations, NIFA funds research to promote pollinator health and to address challenges affecting pollinators essential to U.S. agricultural crops, primarily



### **Our Mission**

The mission of the Eastern Nevada Landscape Coalition is to restore the dynamic, diverse, resilient landscapes of the arid and semi-arid West for present and future generations through education, research, advocacy, partnerships, and the implementation of on-the-ground projects.

### **Our Vision**

We envision a future where the ecosystems of the arid and semi-arid West thrive. Functioning, diverse ecosystems will be the result of restoration achieved and maintained with naturally occurring disturbances such as fire, in combination with other management prescriptions, including traditional uses. The Eastern Nevada Landscape Coalition, a 501(c) (3) non-profit, will be a recognized contributor and leader in this effort for future generations of Americans.

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The Landscape News is published two times per year. Design and layout by Tempra Board & Associates.

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# **Thoughts From the Barn**

Betsy Macfarlan, Executive Director



Mid-summer greetings from eastern Nevada. We are in the midst of an extremely hot, dry summer, following a very dry winter. The consequence of this is wildfires are starting to run rampant throughout the West. As I write this, the Ely BLM District has already burned over 100,000 acres. In combination with the heat and the drought we have all

been working through the challenges associated with COVID-19. Our federal partners have been working through having to deploy fire fighters to work on all the fires, while struggling to keep the fire fighters healthy and COVID free. ENLC staff, both full time and seasonal, to date have remained healthy and continued to work both from home, the office, and in the field throughout the COVID challenges.

We were awarded a new Forest Service agreement late in 2019 that provides three years of funding to the Snake Valley, Spring Valley, Steptoe Valley and White River Valley CWMAs. Unfortunately the remainder of the CWMAs operating under ENLC are currently left without any funds for noxious weed control. We are hoping to get a new grant from Nevada Department of Wildlife to assist the other CWMAs, but that is looking grim considering the State's economic woes, compliments of COVID-19. For those CWMAs for which we do have funding, ENLC and Tri-County Weed have been working closely with the landowners to help them get ahead of their noxious and invasive weed challenges.

ENLC plans to have a weed education booth at the White Pine County Fair on August 22nd and 23rd. I hope some of you will be able to stop by. As I write this the Fair is still going forward, so I hope to see you there.

In September, two mountain bike races are scheduled in Ely, the Race the Rails race and the Fears, Tears, and Beers race. ENLC is providing some free PlayCleanGo gear to the bikers and information cards about how they can help prevent the spread of noxious weeds. It is anticipated up to 300 bikers will receive these materials over the course of both races.

Unfortunately, 4H Camp was canceled because of COVID-19, so ENLC and the new 4H leader Alexandra Santaella are hoping to do a joint educational presentation this fall once school gets started.

I hope you enjoy the articles included in this newsletter. Until next time, stay well and do your rain dances.

Betsy

## **BLM to Begin Triple B/Maverick-Medicine HMAs Emergency Wild Horse Gather**

ELY, Nev. – On or around July 24, the Bureau of Land Management, Ely District Office, Bristlecone Field Office, will begin an emergency wild horse gather on the Triple B and Maverick-Medicine Herd Management Areas (HMAs) located about 75 miles northwest of Ely in Elko and White Pine counties, Nevada. The action is needed due to lack of water and declining health of the wild horses associated with herd overpopulation.

The BLM plans to gather and remove approximately 360 wild horses from areas around the Cherry, Pony and Pot Springs water sources located within the Triple B and Maverick-Medicine HMAs. The gather is expected to last 15-30 days. The BLM will conduct gather operations utilizing temporary water

and/or bait traps consisting of a series of corral panels stocked with water and hay; no helicopters will be used.

The Triple B HMA encompasses over 1,232,494 acres of public and private lands. The Maverick-Medicine HMA encompasses over 323,562 acres of public and private lands. The Appropriate Management Level (AML) for the Triple B HMA is 250-518 wild horses. AML for the Maverick-Medicine HMA is 166-276 wild horses. As of March 1, 2020, the estimated population was 1,618 wild horses and 1,944 wild horses respectively, which includes additional foals born this year. The current population estimate, including the 2020 foal crop, puts the HMAs at approximately 3,562 wild horses or 448 percent over the high end of AML.

The gather is critical to ensuring the health of the HMA lands as well as the wild horses in the area, both of which are in jeopardy due to herd overpopulation and extremely limited water sources. The emergency gather will also help prevent further degradation of the public lands, associated with excess wild horses, and help make progress toward restoring a thriving natural



Wild horses drink from Pony Springs in the Triple B HMA.

ecological balance and multiple-use relationship on public lands, consistent with the provisions of Section 1333(b) of the 1971 Wild Free-Roaming Horses and Burros Act.

"The BLM is committed to conducting safe and humane emergency gather operations as we work to save animal lives by reducing overpopulation and bringing herd size more in line with what the resources of the area can support," said Leslie Riley, Acting Bristlecone Field Manager.

The BLM's priority is to conduct safe, efficient, and successful wild horse and burro gather operations while ensuring humane care and treatment of all animals gathered. The BLM and its contractors will use the best available science and handling practices for wild horses while meeting overall gather goals and objectives in accordance with the Comprehensive Animal Welfare Policy.

All wild horses identified for removal will be transported to the Palomino Valley Center Wild Horse

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# Weed News You Can Use

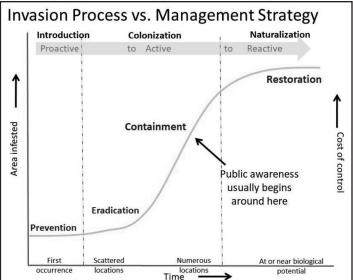
### Invasive Plants & Pandemics: Reflections from an Invasive Plant Ecologist

#### Jane Mangold Land Resources and Environmental Sciences Montana State University

The coronavirus pandemic has given us all much to think about. As I navigate professional and personal responsibilities, I have been considering how my experience as an applied invasive plant ecologist can inform and guide my actions as a responsible citizen and vice versa. On a (solitary) trail run last weekend, I contemplated parallels between information and guidance provided to us from medical experts, public health specialists, and local, state, and national leaders and what we promote as professionals within the discipline of invasive plant management.

One of the most obvious parallels is the importance of prevention, early detection and rapid response. "Flattening the curve" has been stated repeatedly by experts keeping us informed about the pandemic; the rationale behind this phrase is that by slowing the spread of the disease, medical providers will have more time and resources to treat those in need, and ultimately save more lives. Graphics used to display this concept remind me of those commonly used by educators and practitioners of invasive plant management when we preach the importance of detecting and eradicating a new invader early in order to prevent widespread establishment and associated negative ecological and economic impacts (see figure to left). Over the last several weeks, I have been encouraged by prime-time discussions of the value of proactive, preventative measures and widespread adoption of social distancing measures, signaling a general acceptance of the science behind them.

The value of prevention is difficult to measure, whether in the context of public health or invasive plant management. In the field of invasive species management, one statistic often shared is that \$1 spent on prevention and early intervention saves \$17 in later expenses, on average (OTA 1993). I calculated the economic benefit of a 20+ year cooperative project between land managers and county and state noxious



weed management specialists to prevent and eradicate dyer's woad, an invasive forb, from Montana; every dollar spent saved about \$14 that would have been spent on large-scale chemical control of dyer's woad had the species been allowed to spread. If we look back on our actions and feel we overreacted, we may have done exactly what we needed to do.

I, along with others I've spoken with recently, believe it is important to find something positive to take away from the current situation. My positive thought to share with you, as readers of the Monthly Weed Post, is this: I believe that we, as experts and proponents of invasive plant management, have a role to play in discussions and actions surrounding the coronavirus pandemic. In the present moment, we can help our family, friends, and neighbors understand the importance of prevention, early detection and rapid response and stand with them through inconvenient and challenging measures. Then, when the current situation passes, we can draw upon our shared experience to more fully engage our communities in proactive invasive plant management that prevents new and contains existing invasive plants in order to protect the lands we depend on for food, fiber, and inspiration.

Reprinted from Montana State University's Cooperative Extension's monthly Weed Posts (http://msuinvasiveplants. org/extension/monthly-weed-posts/index.html#2020)

## Spanish Thistle (Carduus cinereus)

#### INTRODUCTION

Spanish thistle (*Carduus cinereus*), also called Turkish thistle, is newly introduced to North America. The

plant originates from northern Africa and Eurasia. Most recently, Spanish thistle was identified in the Hells Canyon Wilderness in northeastern Oregon and adjacent western Idaho. This species is listed as a noxious weed in Oregon, and no populations are known in Montana. It was first detected in the United States in 2007, when it was misidentified as Italian thistle (Carduus pycnocephalus), but it was correctly identified more recently using morphological traits and genetic analysis. In January 2020, Gaskin and others published a description of Spanish thistle and a revised botanical key to identify Carduus species in North

America. Interestingly, populations of Spanish thistle in North America are genetically distant (less than 94% similarity) from other *Carduus* species on the continent.

#### IDENTIFICATION AND BIOLOGY

Spanish thistle, an annual forb in the Asteraceae family, ranges in height from 5 inches to 4 feet and has simple to openly branched stems. The stems have toothed wings; 0.4 inch spines also occur along stem wings. Basal leaves up to 4 inches long are lobed and taper to winged petioles. Stem leaves are sessile with densely matted hairs on both sides. Flower heads are purple, about 0.5 inch long, and appear individually or in clusters of two to five at the end of wooly-textured branches. Spanish thistle is distinguished from Italian thistle most notably by its loosely clustered flower heads and dry, membranous bract margins.

#### HABITAT AND SPREAD

Reproduction occurs through seeds, which likely spread by animals and wind. In Oregon and Idaho,

Spanish thistle was found in areas dominated by native bunchgrasses like Idaho fescue (*Festuca idahoensis*) and bluebunch wheatgrass (*Pseudoroegneria spicata*). Sites range from being dry and rocky on south-facing slopes to deeper soils in more moist areas.

#### IMPACTS

Spanish thistle is suspected to have similar negative impacts as other exotic *Carduus* species. The largest known infestations are in backcountry areas where impacts to local plant communities are evident. Agricultural impacts are currently unknown.

#### MANAGEMENT OPTIONS

Be on the lookout for this new thistle species in Montana. Early identification and control of Spanish thistle are key at present time. Because Spanish thistle was thought to be Italian thistle, it was managed as such. However, land managers will need to reevaluate effective management options in the coming years. For instance, the root crown weevil (*Trichosirocalus horridus*) used on thistle species was released into Spanish thistle infestations in Oregon, but it is believed the weevil did not establish and thus may not be an appropriate biological control for this *Carduus* species.

Reprinted from Montana State University's Cooperative Extension's monthly Weed Posts (http://msuinvasiveplants. org/extension/monthly-weed-posts/index.html#2020)



## As Feral Swine Spread, So Do Serious Problems

Reprinted from the Western IPM Center July 2020 newsletter, https://www.aphis.usda.gov/aphis/ ourfocus/wildlifedamage/operational-activities/feralswine

(Editor's note: This may not seem like a Nevada problem, but as can be seen on the 2019 map we already have feral swine in Northern Nevada and in Lincoln County, and they were just off our southern tip in Northern Arizona. We already have a wild horse challenge; we do not need to add pigs to the mix.)

The U.S. Department of Agriculture's Animal and Plant Health Inspection service has been focused on controlling the spread of feral swine since 2014. The animals, which are the same

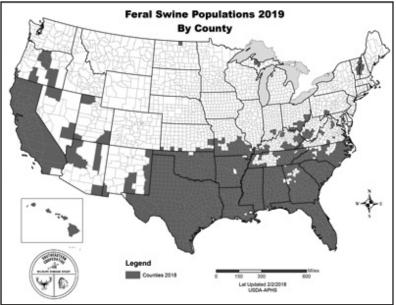
species as pigs found on farms, have been reported in 35 states and can cause extensive damage to agricultural fields, natural resources and, as carriers of a variety of diseases, to human and animal health.

## Pollinators at a Crossroads

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through the Agriculture and Food Research Initiative Program.

In 2019, NIFA awarded approximately \$4 million in competitive grants for pollinator health-related projects. Examples of past projects addressing pollinator health include: Honey bee Hive Monitoring System for Varroa Mite Management & Honey Bee Health; Using Vaccines to Increase Pollinator Health: Testing a Honey Bee Nosema Vaccine; and Quantifying the Intersections Between Neonicotinoid Insecticide Use for Seed Treatments and Foraging Honey Bees. Results from these projects will help preserve pollinator populations and promote continued improvement in crop yields and the environment.



APHIS has a variety of resources about feral swine, including a new video series about them and the damage they can do. As populations expand in the West, those resources may become more and more important. Watch the informational video here: www. youtube.com/watch?v=DG2OOlkriW8&feature=you tu.be

#### What are Feral Swine

Feral swine are the same species, *Sus scrofa*, as pigs that are found on farms. Feral swine are descendants of escaped or released pigs. Feral swine are called by many names including; wild boar, wild hog, razorback, piney woods rooter, and Russian or Eurasian boar. No matter the name they are a dangerous, destructive, invasive species.

Feral swine were first brought to the United States in the 1500s by early explorers and settlers as a source of food. Repeated introductions occurred thereafter. The geographic range of this destructive species is rapidly expanding and its populations are increasing across the nation.

For more information about APHIS' national feral swine damage management program, please contact the APHIS Wildlife Services program for your state at the number below or use the Wildlife Services Directory at www.aphis.usda.gov/aphis/ourfocus/wildlifedamage/ sa\_program\_overview/ct\_contact\_us, 1-866-4USDA-WS (866-487-3297)

## Nevada Department of Agriculture Potential Invasive and/or Disease Warning

The Nevada Department of Agriculture (NDA) has received reports of people getting seeds in the mail from China, often labeled as jewelry, that they did not order. Unsolicited seeds could be invasive, introduce diseases to local plants, or be harmful to livestock. This appears to be a nation-wide issue and the NDA is coordinating with federal and state partners to determine necessary follow-up for those that have received such shipments. In the meantime, if you have received a shipment that meets this description, please:

• Email or call Russell Wilhelm at 775-750-5910 or rwilhelm@agri.nv.gov

- Do not open the package. Leave it in an isolated place until further notice.
- If you have already opened the package, place the entire package in a plastic bag and seal it. \*\*DO NOT plant any materials.\*\*
- If you have already planted seed materials, contact Russell Wilhelm at 775-750-5910 or rwilhelm@ agri.nv.gov.

We appreciate your attention and patience as additional guidance is prepared.

## BLM to Begin Emergency Wild Horse Gather

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and Burro Corrals, in Sparks, Nev., where they will be checked by a veterinarian and readied for the BLM's wild horse and burro Adoption and Sale Program. For information on how to adopt or purchase a wild horse or burro, visit www.blm.gov/ whb.

Due to the nature of the bait and water trap method, wild horses are reluctant to approach the trap site when there is too much activity; therefore, only essential gather operations personnel will be allowed at the trap site during gather operations.

Once the gather begins, gather reports and additional information for the "2020 Triple B and Maverick-Medicine Emergency Wild Horse Gather" will be posted on the BLM website at https:// go.usa.gov/xf8w4.

For technical information, contact Ben Noyes, Wild Horse and Burro Specialist at (775) 289-1800 or bnoyes@blm.gov.

### **Come Visit our Booth during White Pine County Fair**



2019 ENLC Weed Booth

Please stop by the ENLC booth during the White Pine County Fair. We will have information on noxious and invasive weeds, in addition to lots of give-away PlayCleanGo materials and swag. We want to encourage everyone to get out and enjoy Nevada's wide-open spaces, but to do so safely and without transporting any hitchhikers such as invasive plant seeds or insects. We will staff the booth during the day August 22 & 23.



#### Eastern Nevada Landscape Coalition

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## **Calendar of Events**

August 22-23	ENLC Weed Booth at White Pine County Fair, Ely		
September 4	White Pine County Coordinated Resource Management Committee Meeting. Location and time to be announced at a later date		
September 7	Labor Day, ENLC Office closed		
October 6-8	NAISMA Virtual Weed Conference. Register at NAISMA.org		
Late October	CWMA Meetings will be held if possible		
November 11 Veterans Day, ENLC Office Closed			
November 26-27 ENLC Office closed for Thanksgiving Holiday			

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