Press Release

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Fort Drum Natural Resources staff takes ‘rapid response’ approach to fighting harmful invasive species

FORT DRUM, N.Y. -- Outdoor enthusiasts are familiar with “annoying” plants and insects such as poison ivy, ticks, and mosquitos. Then there are the “invasive” ones, which may be less bothersome to community members but are a menace to the environment.

Today marks the beginning of National Invasive Species Week, a time to raise awareness about invasive species and what is being done to prevent their spread.

“Invasive species are basically non-native plants or insects that have been brought into an area and they spread because there are no natural predators to keep them under control,” said Travis Ganter, installation forester with the Fort Drum Environmental Division.

Their introduction to a new ecosystem is either from accidental transport by land, air, or water, or sometimes intentional when used to eat pests. Invasive species can dominate vegetation, harm wildlife, and displace native species.

For example, the oriental bittersweet is a vine that smothers other plants and can uproot trees from its sheer weight.

“That’s one of our biggest invasive species around here,” Ganter said. “And if you drive down Route 81 toward Syracuse, you’ll see some big, tall, grassy looking vegetations. That’s common reed, also called Phragmites. It’s a non-native species that has come over and just decimated the wetland areas. Purple loosestrife was brought over as an ornamental plant. It’s pretty and it has these nice purple flowers. But it can produce 1.3 million seeds per plant, per year, and it destroys native ecosystems.”

Kudzu, known as the “vine that ate the South,” has its origins in Southeast Asia but in northern New York, bittersweet acts similarly. It is an aggressive, woody vine that can grow rapidly and spread just as fast. A few years ago, a Natural Resources team began clearing bittersweet behind The Peak.

“When we got back there the first time, it was like a vegetation wall,” Ganter said. “You couldn’t see basically 15 feet in front of you. It’s all green and it looks pretty, but it was all invasive species. It was overtopping trees, killing the pines, and it was just a complete monoculture.”

The area was cleared using mechanical equipment and treated with herbicides. Ganter said they did further maintenance work recently to manage the growth.

When it comes to proliferation such as this, he said doing nothing is not a good option.

“You would basically be fostering an area to grow and produce seeds that is just going to spread to other areas,” Ganter said. “Suppression and control is the desired course of action. So, when we clear all that and then we come in and spray, we’re spraying to prevent the regeneration of the rhizomes – the root systems – from the ground. It’s about catching these plants before they go to seed. That is the timing we follow, and it has been very effective for us.”

They are also working on preventing further infestation of the swallowwort plant in the training area. Also known as the dog-strangling vine, it forms dense mats on the ground that can impact maneuverability. It can cover large areas because their seeds are borne by white fluff, which can easily be carried by wind. The seeds can also stick to clothing and animal fur.

Ganter said the greater concern is that the plant is harmful to the monarch butterfly.

“They confuse the swallowwort for milkweed, which is the common host where they lay eggs on,” he said. “The larvae hatch and they eat the leaves. But when they do that on swallowwort, the plant itself is toxic, and they die.”

Ganter said if the monarch butterfly becomes listed as an endangered species, there will be immediate focus on controlling or completely eradicating the swallowwort. In recent years, Wehle State Park, in Henderson, has seen a proliferation of this perennial plant across its 1,100 acres, where biocontrol field testing has been conducted.

As for invasive insects, Fort Drum has been fortunate.

“We had one confirmed sighting of the sirex woodwasp,” Ganter said. “A team from the U.S. Forest Service came out, and we cut a couple of Scotch pine trees down and split them to check for them. We found a wasp in that first tree we cut.”

The sirex woodwasp doesn’t sting people, but they feed on healthy pine trees by chewing holes where they lay eggs inside the bark. The wasp secretes a toxic mucus that weakens and can kill the tree.

Ganter said Fort Drum also has been fortunate to have avoided the emerald ash borer (EAB) infestation that has impacted other parts of New York.

The emerald ash borer is an invasive beetle first discovered in New York 15 years ago. In 2017, the infestation spread to St. Lawrence County and made its way in the southern Adirondacks within three years.

“We have not had an EAB confirmation at Fort Drum,” Ganter said. “We’ve looked around and checked areas where we would expect it.”

Fort Drum is mandated by an executive order, as are all federal agencies, to prevent the introduction of invasive species; detect, respond to, and control invasive populations in a cost-effective and environmentally sound way; and monitor invasive populations accurately and reliably. In turn, this provides the restoration of native species and habitats in affected ecosystems. The Environmental Division is also responsible for conducting research on invasive species and promoting public education on the subject.

Ganter said community members probably haven’t noticed the invasive species management efforts around post, mostly because it looks like routine landscape maintenance work.

“If you look at all the vegetation clearing that we’ve done around the installation, in some of the open areas,” he said. “That’s all been for common buckthorn. And people might think, why? It’s green and it looks pretty. But it’s also invasive. It’s thick so deer hide in it, and they eat the berries and then it spreads. It becomes a constant cycle of spreading and growing.”

What Soldiers and family members should be aware of is the presence of wild parsnip, which is common throughout northern New York. Wild parsnip causes a chemical reaction called phytophotodermatitis, resulting in inflammation or blistering of the skin.

“The chemical reaction happens when the sunlight hits your skin, and then it basically causes a chemical burn,” Ganter said.

People are cautioned to wear long-sleeved shirts, pants, and boots when hiking in the woods to prevent skin contact.

Since identifying locations where wild parsnip grows in the training ranges and cantonment, Ganter said the Environmental Division has sought venues where they can share information about invasive species with the community, such as the annual Safety Luau and Outdoor Adventure Day events.

“It’s really starting to proliferate throughout the North Country,” he said.

Ganter said it is surprising that Soldiers have yet to report any skin reaction to wild parsnip during training activity on the ranges. That hasn’t given any pause in efforts to control the spread.

“For the past three years now, we’ve had a crew through the Natural Heritage Program who are doing a systematic grid search throughout the entire training area to look for all 16 invasive plants,” Ganter said. “And each season, Crystal (Wixon) has four technicians work on that grid, spraying invasive plants. We call it EDRR: Early Detection, Rapid Response.”

Nearly 13 years ago, Ganter and Wixon essentially became Fort Drum’s invasive species hunters. They were conducting landscape vegetation analysis in the training areas and saw a surprising level of invasive species. This led to a road survey throughout the cantonment area, which yielded even more surprising results.

“And just from two days of work, we found over 250 locations for invasive species, just by looking up the road – not even walking into the woods,” Ganter said.

Since then, their work expanded across the whole installation to more than 5,000 locations, and they have identified 16 different species of invasive plants while Ganter continually updates the invasive species management plan for Fort Drum.

“Every area that is known to have invasive species, we have a treatment method for, whether it is mechanical, biological, or chemical,” he said. “At every location, we document the percent solution, what the target species is, how much chemical we put down – we track all of that. Every summer, I’ll go out and spray, Crystal will spray sometimes, but the four-person crew that works for her is out there non-stop every day during the summer. They come back with so much data that she has to process, it’s unbelievable.”

Ganter said that some of their invasive species data and tracking methods are among the best in the country, so sharing and collaborating with other agencies is a key component of their management plan.

The Fort Drum Environmental Division has worked with the U.S. Department of Agriculture’s Forest Service and Animal Plant Health Service-Plant Protection and Quarantine to study and manage invasive plants in the region. They also collaborate with the St. Lawrence-Eastern Lake Ontario Partnership for Regional Invasive Species Management (SLELO-PRISM).

Additionally, Fort Drum Natural Resources Branch personnel working on their own projects will report any sightings of invasive species while in the field.

“We all work together in this branch, and that’s been one of the great things about being here,” Ganter said. “We may all have our own niches, but we are all Natural Resources people, and we help each other out all the time.”

“On our GPS units, we have what is called a data dictionary,” he continued. “So, if Chris Debony, our endangered species biologist, is out in an area and finds a patch of swallowwort, he can hit that data dictionary button and track the precise location. Then he comes back to the office and sends it to me.”

He also credits the heavy machine operation crew in the Operations and Maintenance Division for providing tractor work and mowing.

“Those guys have been integral, especially in managing wild parsnip and buckthorn,” Ganter said. “They’ve been a large contributing factor, and we would not have been able to do a quarter of what we’ve accomplished in the last four or five years if it wasn’t for them.”

Ganter said that he is proud of the success they’ve had in eradicating areas of invasive species over the years and their ability to greatly reduce the proliferation in other areas.

“My first year doing this, I sprayed almost 150 gallons along the road on Fusa Boulevard,” he said. “Last year, it was 20. Massive suppression. And now, as soon as you find one plant, we eliminate it before it starts to populate and take over, because that is the most efficient and cost-effective way to treat these plants.”

Ganter said they’ve seen seminal reductions at other locations, to the point where some plants no longer flower because their growth has been stunted.

“We’ve seen success all over the place, and it’s been awesome,” he said. “But it’s been a long time. And just think, if we didn’t do anything about it and the invasive species becomes so large and dense, the amount of research required would be astronomical and the chemicals needed wouldn’t be cheap either.”

While Fort Drum community members may not see Ganter or members of the Natural Resources Branch in the field doing the work, he said that people should know it is being done with their health and safety in mind.

“I have been passionately hating invasive species for decades.” he said. “But I have the best job in the whole world, and I’ve looked forward to coming to work every day for the last 13 years. It’s been a daunting task, but we care about this.”

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Photo Captions:

Fort Drum Natural Resources 1 - A technician sprays wild parsnip plants with herbicide at Fort Drum in 2021. The Fort Drum Natural Resources Branch is responsible for controlling and eliminating the spread of invasive species across the installation. They also inform and educate community members about the effects non-native species have on the environment, and any potential safety concerns due to contact. (Fort Drum Natural Resources Branch photo)

Fort Drum Natural Resources 2 - The Fort Drum Natural Resources Branch is responsible for controlling and eliminating the spread of invasive species across the installation. They also inform and educate community members about the effects non-native species have on the environment, and any potential safety concerns due to contact. (Fort Drum Natural Resources Branch photo)