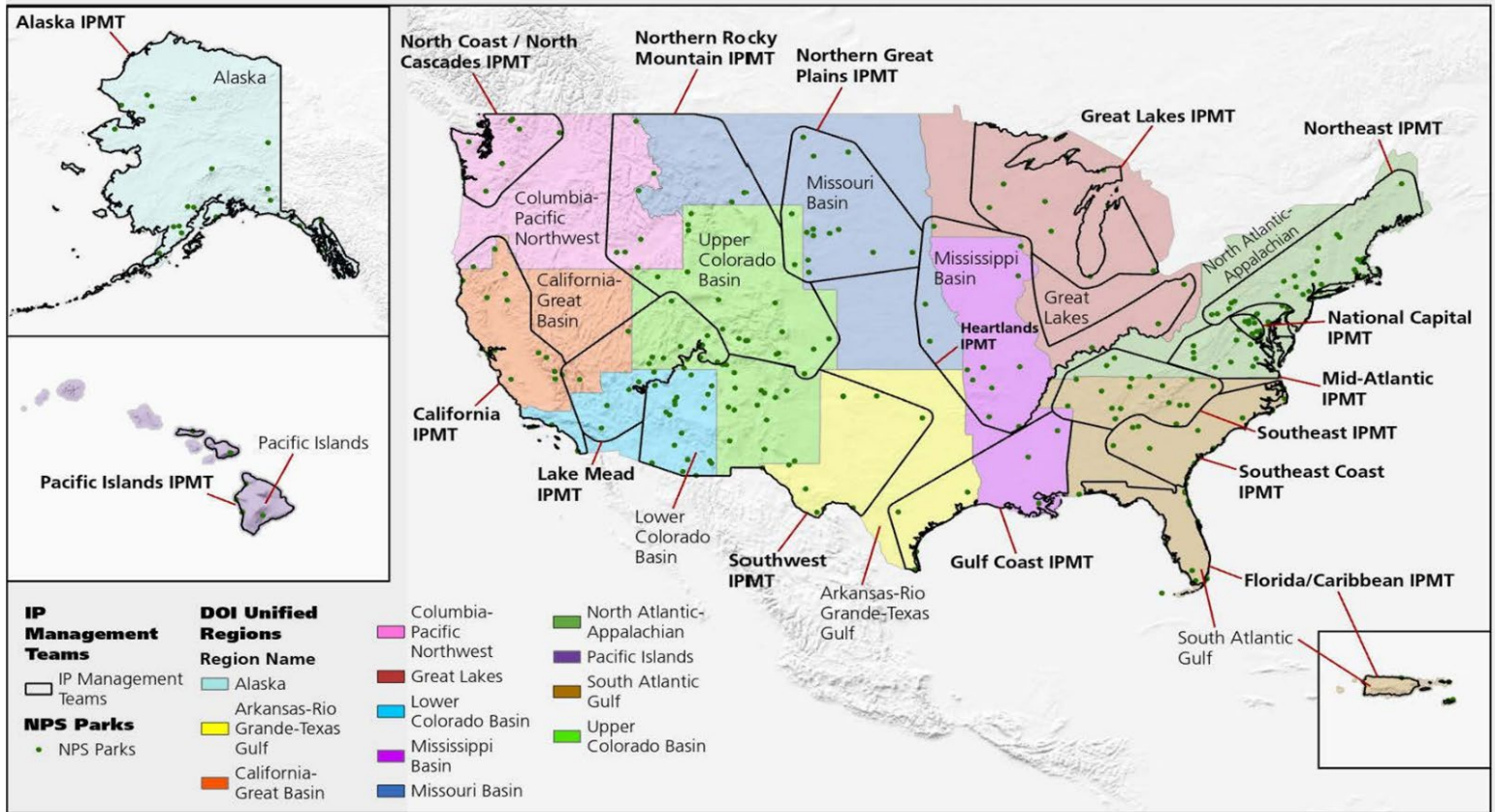




IPMT Annual Report: FY 2023



Map of Invasive Plant Management Team (IPMT) boundaries across the US and territories. Each team's name appears within the polygon that includes the parks they serve.

Background

The National Park Service (NPS), one of the 11 bureaus within the US Department of the Interior (DOI), is tasked with protecting park units' vast natural and cultural resources "for the enjoyment, education, and inspiration of this and future generations" (NPS Mission Statement). Federal laws and DOI and NPS policies direct park staff and 17 Invasive Plant Management Teams (IPMTs) to take steps to prevent the introduction of invasive species, and to control and eradicate established populations. The IPMTs were created in 2000 through the Natural Resource Challenge to assist parks with the growing threat posed by invasive plants. The national NPS Invasive Plant Program (IPP) funds 15 of the IPMTs. Interior Regions 3, 4, & 5 and Interior Region 2 oversee the other two teams. The teams serve over 309 park units as well as non-NPS partners across the US and its territories. The IPP staff and IPMTs are an integral part of the NPS response to a growing invasive species threat and provide a source of expertise in invasive plant management not otherwise available in most parks.

Since the program's inception, team liaisons have consistently demonstrated innovation, flexibility, and efficiency in managing their programs. Faced with unique challenges, each team incorporates strategies that best serve their partners to effectively protect natural, cultural, and significant ethnographic resources by providing or funding on-the-ground invasive species management support. In fiscal year (FY) 2023, the teams treated 7,430 acres and inventoried 20,390 acres for invasive plant species. In addition to treatment and survey work and with support from IPP and partners, IPMTs are leading efforts to prevent the introduction of new invasive species by guiding

parks to adopt the DOI Early Detection and Rapid Response (EDRR) framework into daily operations. The IPMTs also lead restoration efforts to increase native plant community resilience and reduce susceptibility to future invasions.

The IPMTs do so much more. They engage youth by providing employment and volunteer opportunities to inspire and train a new generation of land stewards. In FY 2023, 1,203 youth employees and volunteers contributed approximately 122,596 hours to inventory and control of invasive plant species under the purview of the IPMTs. The IPMTs also provide a range of valuable training opportunities to park staff, partners, and volunteers. They effectively leverage program dollars through resourceful, productive, and mutually beneficial partnerships with contributions valued at nearly \$4.6 million in FY 2023. This collaborative approach to manage invasive plants allows the teams to stretch limited IPMT funds to assist parks and partners.

The IPMT program is supported by the IPMT Advisory Group (IPMTAG) that is made up of representatives from across the NPS. The IPMTAG provides oversight, strategic direction, and invaluable assistance to the program. Together with the IPP Manager, they tackle emerging issues and significant challenges faced by the IPMTs in order to facilitate the teams' efforts across the country.

With a changing climate, parks and IPMTs must brace for new norms that may further exacerbate challenges associated with the management of invasive species. Through IPMTs' innovation, flexibility, and efficiency, the teams are well equipped to continue protecting and preserving the natural and cultural resources entrusted to the NPS for this and future generations.



Before (a) and after (b) oak savanna restoration site from 2015 to 2023 at Ice Age National Scenic Trail. NPS photo.

What the IPMTs Protect

The NPS IPMTs are proactive and innovative in their approaches to invasive plant management to protect resources. These resources span the entire US and its territories, and many are recognized as globally important, with designations and recognitions that include international biosphere reserves, designated wilderness, biodiversity hotspots, and Important Bird and Biodiversity Areas.

The IPMTs strive to protect a range of natural resources and ecosystems. IPMT territory covers coastal, wetland, and riparian native plant and animal communities including on the east, Gulf, and west coasts, the dunes along the shores of Lake Superior, western rainforest valleys, riparian woodlands, southeastern old-growth bottomland forest, and many types of wetlands. Teams cover terrestrial communities such as boreal forests, sagebrush steppe, subalpine meadows, cave features, tallgrass prairies, eastern deciduous forests, and mixed shortleaf pine-oak-hickory forests. The IPMTs' invasive plant management work also protects a range of species of concern and the habitats they require to survive including that of sea turtles, snowy plovers, least terns, and Coho salmon, as well as multiple rare, significant, and globally threatened ecosystems.

The IPMTs' work also protects and preserves cultural resources and historic sites and features. Many parks commemorate important historical events, locations, people, and cultural practices, which requires integrating invasive plant management into cultural landscapes. They include historic battlefields, archeological sites, earthworks, scenic byways, and ethnographic and cultural landscapes.

Imperiled and Important Systems and Species

The work of the IPMTs contributes substantially to protecting and restoring imperiled and important ecosystems and species. Many IPMT efforts in FY 2023 focused on such efforts.

Grassland Habitat

A mosaic of plant communities are embedded within grassland ecosystems that span the country. They are havens for at-risk and endemic species, and are themselves at-risk of loss. In the Midwest, the [Great Lakes \(GL\) IPMT](#) helps restore tallgrass prairie and oak savannas at the Ice Age National Scenic Trail Interpretive Site in Cross Plains, Wisconsin. Over 15 years, the team removed thickets of invasive plants, such as common buckthorn (*Rhamnus cathartica*), and replanted nearly 10 acres of oak savanna and 7.5 acres of prairie. In areas where only invasive brush once stood, there are abundant native grasses and wildflowers. In the southeastern US, the [Southeast \(SE\)](#)



Quinalt River, Olympic National Park (OLYM). NPS photo.

[IPMT](#) with the [Southeast Coast IPMT](#) and youth and veterans fire corps work closely with the Appalachian Piedmont Coastal Fire Management Zone and the Cumberland Piedmont Inventory and Monitoring Network. Together they plan coordinated rehabilitation efforts within the calcareous glades at Chickamauga and Chattanooga National Military Park that harbor rare and endemic plant species and are part of the cultural landscape. The IPMTs removed Chinese privet (*Ligustrum sinense*) followed by prescribed fire, retreatment, and monitoring. This work contributes to reclaiming and conserving declining and important grassland ecosystems.

Riparian Habitat

Intact, functioning riparian areas provide a range of services including protecting unique ecosystem features and wildlife corridors. The [Southwest IPMT](#) and a Conservation Legacy intern collaborated with the Tucson Audubon Society and White Sands National Park (WNSA) staff to treat tamarisk (*Tamarix* spp.) in the riparian area at the edge of the park's dune field. White gypsum sands form this wet dune system with shallow groundwater stabilizing the sand. Tamarisk infestations have the potential to change the hydrology of the dune system putting it at risk. In the Midwest, Scotts Bluff National Monument preserves a diverse riverside ecosystem along the North Platte River. The [Northern Great Plains IPMT](#), a Montana Conservation Corps crew, and park staff treated invasive plants within the floodplain releasing pollinator plant species like sunflowers and milkweed and young tree saplings from competing for resources with invasive plants.

At-risk Species

The IPMTs also protect at-risk species. The [Lake Mead IPMT](#) works with many partners to protect desert tortoise habitat. The Quinalt River is in the temperate rainforest on the western side of Olympic National Park (OLYM). Previous logging activity within the floodplain altered salmonid habitat making side channels more important for the survival of young trout and salmon. Reed canarygrass (*Phalaris arundinacea*) moved into the side channels creating dense matting that degrades this vital habitat. The [North Coast and Cascades Network IPMT](#) worked with park staff and its partners to survey over 1000 acres for reed canarygrass infestations within large side channels of the Quinalt River. Mapping these infestations allows managers to prioritize reed canarygrass mitigation across OLYM. National parks in Hawai'i protect some of the best remaining habitat for endangered forest birds. Avian malaria threatens virtually all Hawaiian forest birds. It is spread by mosquitoes that have expanded their range to higher altitudes in a warming climate. In 2023, habitat restoration supported by the [Pacific Islands IPMT](#) complemented efforts to control mosquito populations and save these species from extinction.



New River Gorge National Park & Preserve staff pose by remains of the Kaymoor company store, New River Gorge National Park & Preserve. NPS photo.

Cultural Resource Protection

The IPMTs' work also protects important cultural resources. Reconstruction Era National Historical Park (REER) lies within the Penn School National Historic Landmark District, a cultural and educational center that was one of the country's first schools for freed slaves and also a retreat site for Rev. Dr. Martin Luther King, Jr., where he and the Southern Christian Leadership Conference planned the March on Washington. The [SEC IPMT](#) serves this out of network park by treating invasive plants with park staff, training park staff in invasive plant identification and the safe use of herbicides and giving them experience working alongside IPMT staff. New River Gorge National Park and Preserve (NERI) holds the remains of towns and infrastructure that once supported a coal boom during the first half of the twentieth century. Most of these now-abandoned sites are becoming degraded by invasive species. The Kaymoor mine, one of the most productive mines in the New River Gorge, operated from 1899 to 1962. In the town of Kaymoor, the Kaymoor company store provided goods to coal miners and their families. What remains of the store is threatened by kudzu (*Pueraria montana*) vines. The [Mid-Atlantic IPMT](#) and NERI staff worked cooperatively to remove kudzu around the Kaymoor's buildings to preserve them and increase their visibility. NERI staff continue protecting the buildings, offering park visitors a tangible reminder of the bustling coal industry that once existed within the walls of the gorge. Paterson Great Falls National Historic Park (PAGR) includes the Great Falls of the Passaic River (a National Natural Landmark) and a historic raceway system that once powered the city's mills and other industry. The [Northeast IPMT](#) treated Japanese knotweed (*Reynoutria japonica*) and tree-of-heaven (*Ailanthus altissima*) that invaded the raceways, blocking the view of the historic structure and creating habitat for spotted lanternfly, mosquitoes, and ticks. The park is committed to making the raceways a safe and beautiful place to visit with the help of the IPMT.

Overcoming Challenge

The IPMTs and NPS land managers face many challenges to their efforts to manage invasive plant species and preserve and restore or rehabilitate important resources. Capacity limitations and unavoidable work delays are only two such challenges. The [Northern Rocky Mountain IPMT](#) increases capacity by strategically locating IPMT staff in parks, incorporating park staff into treatment and restoration efforts, and working with youth conservation corps. COVID-19 travel restrictions meant that teams could not maintain some projects as scheduled. The [Heartland Network IPMT](#) was concerned about annual plants, Japanese stiltgrass (*Microstegium vimineum*) in



National Capital Partnership for Regional Invasive Species Management removing fountaingrass (*Cenchrus purpurascens*) at Rock Creek Park. NPS photo.

particular, due to their high seed output, successful germination, and rapid spread in parks. Based on treatment effectiveness data from two parks, Japanese stiltgrass abundance increased at Arkansas Post National Memorial and Lincoln Boyhood National Memorial by 44% and 67%, respectively, in 2021 following the missed treatment of 2020. The IPMT regained lost progress through 2023. These projects demonstrate how quickly progress may be lost reinforcing the importance of prudently sustaining projects.

Collaboration

Much of the work of the IPMTs is conducted in collaboration with others. In FY 2023, the [Florida and Caribbean IPMT](#) and Timucuan Ecological & Historic Preserve (TIMU) hosted the [SEC](#), [SE](#), and [Gulf Coast \(GC\) IPMTs](#) and the Southeast regional integrated pest management coordinator to treat Chinese tallow (*Triadica sebifera*), water hyacinth (*Eichhornia crassipes*), and Peruvian primrose willow (*Ludwigia peruviana*) to mark the 20th anniversary of the IPMT program at a regional scale. The [GC IPMT](#) youth intern assisted the [SEC IPMT](#) at Chattahoochee National River and Recreation Area (CHAT) in Georgia to survey the Island Ford area, treating many invasive species that were introduced in landscaping and escaped along riparian areas and from neighboring private properties. Several IPMTs engage in formal collaborations for early detection and rapid response to nascent infestations. The [National Capital Region IPMT](#) is part of the National Capital Partnership for Regional Invasive Species Management. This project is a success because of the active participation of volunteers who help detect and submit records of species found on public and private lands to iNaturalist. These projects are possible because they are collaborative efforts. Success requires teamwork.

Restoration

The IPMTs support restoration efforts to recover from and prevent the future infestation of important natural areas. The [Alaska IPMT](#) placed five interns in parks and funded two interns who traveled around the region working on restoration needs and invasive plant management. The [California IPMT](#) helped complete a native plant materials needs assessment beginning with California parks and expanding to all Interior Regions 8, 9, 10, & 12 parks. Plant materials production infrastructure for container plants, seed collection, curation, and storage as well as increased cleaning capacity were all elements of the focus on restoration plant materials supply in FY 2023.



The four IPMTs and IPM coordinator in Interior Region-2 that participated in the treatment at Spanish Pond at Timucuan Ecological & Historic Preserve in October 2023. NPS photo.



Collecting the future with seed collection at Point Reyes National Seashore. NPS Photo.

Safety

IPMTs, like park staff, face a range of challenges in the regular course of their work. They exemplify safety in the field despite the challenging conditions within which they work (i.e. working in remote areas over rugged terrain, exposure to biting and stinging insects, contact dermatitis from plants). IPMTs did not report any lost time injuries in FY 2023.

Accident prevention and mitigation are among the highest priorities for the IPMT program. These are achieved through regular training (e.g. Operational Leadership; herbicide application and safety; NPS National Chainsaw Program/Chainsaw Safety, Maintenance). Many of the IPMTs are also certified trainers in safety operations, training their own crews as well as park staff. In addition to training, IPMTs develop and use a range of required and indispensable safety tools (e.g. Job Hazard Analyses (JHAs), Standard Operating Procedures, Operational Safety Plans). Several teams review and update JHAs regularly throughout the season including editing at season's end while the work and potential and realized challenges are fresh. Other standard aspects of accident prevention and mitigation include daily tailgate safety sessions, before and after-action reviews, and adhering to heat index/work limits that empower crew members to take needed breaks and even stop work if needed. Many IPMTs are also members of park, regional, and IPMT safety committees.

Because many IPMTs drive a great deal to work at partner parks and more driving related incidents following COVID travel restrictions in FY 2022 were reported, the IPMT Safety Committee focused on identifying defensive driving training. The committee reviewed and assessed eight online defensive driving courses and three supplemental videos (e.g. trailering lessons). The committee ranked these materials for thoroughness, strengths, and weaknesses of each to make recommendations to the IPMTs. The IPMT Safety Committee acknowledges that complimentary behind-the-wheel training is also essential. Online trainings alone are not sufficient.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	1,203
Total Hours for Youth Participants and Youth Employees	122,596

More Information

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Alaska IPMT Annual Report: FY 2023



Student Conservation Association Core crew, and US Fish and Wildlife Service Seasonal Staff hand pulling white sweet clover (*Melilotus officinalis*) seedlings on an island in the Yukon River, Yukon-Charlie Rivers National Preserve. NPS photo.

Background

The Alaska Invasive Plant Management Team (AK IPMT) provides assistance to units of the National Park Service (NPS) throughout Alaska. These units cover more than 52 million acres of high-quality natural areas and wilderness, including coastal fjords, glacial valleys, tundra, and boreal forests. Most national parks in Alaska protect healthy, intact, native ecosystems; yet, invasive plants are making their way into some of these nearly pristine areas.

The geography of Alaska makes invasive plant management difficult, requiring backcountry or air travel to reach many parks. Recreational use is widely dispersed with access by boat, backpacking, or planes. Remote airstrips, trails, cabins, and concessionaire activities can provide pathways for the introduction of invasive species into wilderness areas, where they are difficult to detect and manage. Therefore, the AK IPMT program relies heavily on information, knowledge, and participation from park staff.

The AK IPMT provided technical assistance to most of the parks it services during fiscal year 2023. The IPMT placed interns in four units of the NPS. The IPMT liaison helped Sitka National Historic Park and Yukon-Charlie Rivers National Preserve (YUCH) with their non-native plant surveys. Glacier Bay and Lake Clark National Park and Preserve worked closely with the IPMT on several projects. All the parks doing invasive plant treatment or surveys worked with the IPMT for data management purposes.

Program Highlights

Recognizing Contributions of Staff from Alaska Parks

Much of the work of the AK IPMT is conducted at the park level through the efforts of park staff and IPMT interns. These park employees are a vital part of the AK IPMT program and are deserving of recognition.

Wendy Mahovlic of Denali National Park (DENA), and recent winner of the annual Alaska Invasive Species Partnership Lifetime Achievement Award, is a long-serving park AK IPMT member and supporter of the program. Wendy directs two AK IPMT interns every year who divide their time between treating invasive plants and collecting seeds for restoration. This year DENA also worked with a group of 5-6 Student Conservation Association (SCA) Core Crew members for four weeks (one week in the beginning of the summer doing invasive plant work and the other weeks at the end of the season for seed collection). Wendy and her interns trained the SCA crew and taught them about the importance of the park as well as the need for invasive species management and restoration. Wendy has been instrumental in DENA's restoration program which is the longest running such program in AK parks. She plans to retire after this field season. She, and her expertise, will be greatly missed.



Student Conservation Association interns C. Martinez and L. Gathright map invasive plants in Kennecott in Wrangle-St. Elias National Park & Preserve. NPS photo.



Christena Kriedeman leading interns and Youth Conservation Corps members on a dandelion (*Taraxacum officinale*) treatment in Kenai Fjords National Park. NPS photo.

Program Highlights (cont.)

Recognizing Contributions from Alaska Park Staff (cont.)

The AK IPMT has garnered invaluable support from other park staff. Christina Kriedeman is the face of the IPMT in Kenai Fjords National Park (KEFJ). She works passionately to keep KEFJ invasive plant-free and advocates for the park’s invasive plants program. Under Christina’s leadership KEFJ is the only park unit in AK that puts resources into a park-based crew lead to support invasive plant management. Christina’s passion for invasive plant work has made KEFJ a model park for what AK parks could look like.

Elaine Furbish of Klondike Goldrush National Historic Park retired in December. She managed the park IPMT interns and worked closely with the Skagway Traditional Council to assure that NPS staff, interns, and the community worked on invasive plant management together.

Although Don Corwin of YUCH was not a member of the IPMT, he was the main boat driver for the AK IPMT’s annual White Sweet Clover Pull at the park. Don passed away soon after the IPMT’s last trip with him. The AK IPMT relied on Don not just for his boating expertise but to instill a love of the area and the area’s history into the interns that went on every trip.

The expertise, support, energy, and passion embodied by all of these people furthers the mission of protecting the NPS’ important resources. The IPMT honors their many contributions.

Summary of Accomplishments

This year the AK IPMT placed five interns in parks, funded two interns who traveled around the region working on Seeds of Success and invasive plant management, jointly funded three seasonal staff with parks, benefited from contributions of five permanent park staff who directed IPMT and invasive plant work in their parks, and garnered the assistance of a SCA Core Crew for three pay periods. The AK IPMT also transitioned from historical data management into a new process and new equipment. The AK IPMT has worked hard to set up financial agreements and partnerships to make the coming year even better than this last one.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	12
Total Hours for Youth Participants and Youth Employees	1,840

More Information

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Californian IPMT Annual Report: FY 2023



Collecting the future: Seed collection at Point Reyes National Seashore. NPS photo.

Background

The Californian Invasive Plant Management Team (CA IPMT) serves 17 National Park Service (NPS) units in the California Floristic Province and southern Oregon. The region is noted as one of 25 global biodiversity hotspots. The CA IPMT assists partner parks with all aspects of invasive plant management providing technical assistance, direct financial support to parks, strategic investments in shared capacity, and expanded coordination among parks, other state and federal agencies, partners, and non-governmental organizations. The CA IPMT model alleviates travel cost and overhead, directing those funds to partner parks, augmenting local invasive plant management capacity and enabling partners to leverage local resources to successfully build and maintain programs at parks across the region.

CA IPMT supports redundancy and resiliency in systems, both within the agency and the invaded vegetation communities the team and partners hope to someday fully restore. The CA IPMT is one-part community organizer, one-part technical support, and one-part strategic planner focused on maintaining persistent treatment across the parks, while working on developing a more reliable native plant materials supply to support restoration efforts. The CA IPMT is working to build early detection and rapid response (EDRR) capacity and collaborating with NPS Inventory & Monitoring (I&M) networks and other agencies to train the next generation of botanists to expand inventory and mapping efforts throughout the network. The intergenerational nature of the invasive plant problem necessitates building the human systems to sustain park capacity indefinitely.

Program Highlights

Developing Plant Materials for Restoration Success

Beginning in late October 2022, CA IPMT worked closely with Pacific West regional staff to complete a native plant materials needs assessment. CA IPMT was successful in 2022 getting funding for California parks to develop seed supply for grassland restoration efforts. The regional needs assessment started with CA IPMT parks and eventually expanded to cover all parks in the Pacific West region. The results set the stage for millions of dollars to support parks. Plant materials production infrastructure for container plants, seed collection, curation, and storage, as well as increased cleaning capacity, were all elements of the restoration plant materials supply work in fiscal year (FY) 2023.

Funding for CA IPMT parks in FY23 included the seed collection manager at Santa Monica Mountains National Recreation Area, as well as nursery infrastructure at Cabrillo National Monument and Sequoia/Kings Canyon and Channel Islands National Parks. The team supported seed collection programs at nine California parks. CA IPMT seed collection teams made over 150 collections, collecting over two million seeds for restoration work that will be accomplished in NPS units throughout California in the coming years.



Native plant seed collected by NPS staff and partners drying at Lava Beds National Monument. NPS photo.



Yosemite National Park Invasive Plant staff navigate the high elevation landscape of the Buttraces at Devils Postpile National Monument, searching out and treating remnant cheatgrass populations. NPS photo.

Program Highlights (cont.)

Keeping the Pressure on Dwindling Cheatgrass

Small parks are challenged to continue work on long-term infestations due to lack of capacity through staff turnover or inconsistent funding. In FY22 and 23, CA IPMT funded Yosemite National Park (YOSE) invasive plant staff to keep pressure on dwindling populations of cheatgrass (*Bromus tectorum*) across the Buttraces area of Devils Postpile National Monument, first with youth crews in FY22 and then in FY23 with YOSE staff. Working with the YOSE crew resulted in visits to all known populations, surveys to locate missed invaded areas, and development of more accurate maps for planning and tracking treatment efficacy. Despite logistical and environmental challenges, including a narrow treatment window, the team treated the entire known cheatgrass infestation, updated the extent and density of mapped populations, and discovered and mapped several small populations. For a park lacking invasive plant staff, access to the expertise of network and regional resources like YOSE staff is a critical piece in maintaining the long-term work needed to eradicate a challenging species like cheatgrass. Better data informs CA IPMT work prioritization and supports continuity of invasive plant management efforts in small parks.

Summary of Accomplishments

The CA IPMT provides broad and substantial support to partner parks in a holistic way, including supporting infrastructure development, engaging relevant partners, and assisting with planning. CA IPMT funded network and regional seed and plant materials development and substantially supported implementation of the National Seed Strategy in IPMT parks. CA IPMT worked closely with Fire and Aviation Management and partners like the California Invasive Plant Council (Cal-IPC) to prepare NPS vegetation managers for fire operations, offering multiple workshops and producing a fire preparedness guide for NPS managers. Collaborating with Cal-IPC, the team supported John Muir National Historic Site with strategic planning. The team also cooperated with 11 parks to identify target species for seed collection, yielding over two million seeds in 10 parks. The team directly supported invasive plant control operations in nine parks, while also providing support to the Klamath I&M network by assisting the implementation of their early detection protocol, ultimately training and managing a two-person team that supported six parks with EDRR capacity.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	20
Total Hours for Youth Participants and Youth Employees	6,415

More Information

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Florida/Caribbean IPMT Annual Report: FY 2023



Cypress trees along Loop Road in Big Cypress National Preserve. NPS photo.

Background

Invasive plants have a destructive effect on native plant communities by reducing native plant diversity and altering ecological processes. The Florida and Caribbean Invasive Plant Management Team (FLC IPMT) supports 16 National Park Service units by expanding existing invasive plant control efforts including inventory and monitoring, control, education, restoration, and research. The FLC IPMT contracts crews for large eradication projects within park units while the team, parks, and volunteers carry out smaller projects. The temperate, tropical, and sub-tropical climate zones within the 2.68 million acres of park lands supported by the FLC IPMT favor invasive plants. More than 400,000 of these acres are infested with invasive species. Some common species include Brazilian peppertree (*Schinus terebinthifolius*), Old World climbing fern (*Lygodium microphyllum*), Australian pine (*Casuarina equisetifolia*), guineagrass (*Megathyrsus maximus*), and punktree (*Melaleuca quinquenervia*).

The FLC IPMT holds an annual steering committee meeting to review and approve the team's strategic direction and financial plan, rank projects, ensure the team provides information relevant to management, and develops a treatment schedule for the fiscal year. The ranking committee consists of representatives from the Interior Region 2 - South Atlantic Gulf IPMT Program, US Army Corps of Engineers, and Florida Fish and Wildlife Conservation Commission (FWC). These meetings are held at a different park unit each year.

Program Highlights

Corridors of Invasiveness: Early Detection and Rapid Response

The early detection and rapid response protocol's objective is to detect emerging invasive plant species in the national parks of South Florida along the most likely routes, or "corridors of invasiveness" (i.e. trails, roadways, campgrounds, and boat launches). Expertise is required for this work to be successful. An experienced South Florida/Caribbean Network (SFCN) botanist and the FLC IPMT conduct the surveys. This monitoring protocol is based on 5-year intervals. The survey areas are Big Cypress National Preserve (BICY) North region, BICY South region, Everglades National Park (EVER) East region, EVER West region, and Biscayne National Park (BISC). The survey team treats invasive species immediately when possible or reports them to park staff and through the Early Detection and Distribution Mapping System, better known as EDDMapS, a web-based mapping system for invasive species.

Survey areas in this rotation included BICY South and EVER East. In BICY South, the team surveyed 172 km and found a total of 49 invasive species including two new species: centipede tongavine (*Epipremnum pinnatum*) and crapemyrtle (*Lagerstroemia indica*). The team reported these infestations to park staff. In East EVER, the team surveyed 180 km and found a total of 55 invasive species including one new species, black poui (*Jacaranda mimosifolia*), which the FLC IPMT eradicated. Although it can be challenging to find and manage early plant invaders, this strategy has proven to be successful in locating and eradicating new species before they are a problem.



South Florida/Caribbean Network Botanist, Brooke Shamblin, and Florida/Caribbean IPMT liaison survey for invasive species along the Florida Scenic Trail in Big Cypress National Preserve. NPS photo.

Program Highlights (cont.)

Timucuan Ecological & Historic Preserve: Spanish Pond Treatments

Timucuan Ecological & Historic Preserve (TIMU) submitted a project to the FLC IPMT for ranking that could not be funded, so the four IPMTs in IR-2 (FLC, Gulf Coast, Southeast, and Southeast Coast) agreed this would make an excellent opportunity to mark the 20th anniversary of the EPMT/IPMT program at a regional scale. Fifteen NPS staff participated, including IPMT staff, park staff, and the regional Integrated Pest Management coordinator. This group successfully treated Chinese tallow (*Triadica sebifera*), water hyacinth (*Eichhornia crassipes*), and Peruvian primrose willow (*Ludwigia peruviana*) with a follow up treatment in March by park staff and the IPMTs. These control efforts were effective, but the FLC IPMT plans one more follow up treatment with park staff continuing to monitor the site. Larger scale projects are difficult to carry out successfully. This project was possible because of the support of the other IPMTs and park staff. The FLC IPMT hopes to reciprocate this support in the coming years.

Summary of Accomplishments

In February 2023, the FLC IPMT held its ranking meeting at EVER. After the meeting, the review committee made site visits to see the issues that the park faces then participate in an invasive plant removal day. The ranking committee approved funding for all five proposals presented by park representatives. The FWC contributed additional funding for projects in BICY and EVER.

Shea Bruscia successfully completed a remote detail as the Gulf Coast IPMT liaison. The position is similar to the FLC IPMT position as it oversees contract crews in parks. Shea held several meetings with parks and contractors to ensure that contract work was implemented and completed for FY23. She also worked with the IR-2 contracting office to get the FY24 treatment contract in place.

Additionally, the Fabian Cousteau Society, BISC, the FLC IPMT, Miami-Dade County, and Coast Love had a successful trial run to monitor and control invasive plants at Black Point prior to implementing the overall project with students from Cutler Bay Senior High School.



The four IPMT's and IPM coordinator in the IR-2 that participated in the treatment at Spanish Pond at Timucuan Ecological & Historic Preserve in October 2023. NPS photo.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	1
Total Hours for Youth Participants and Youth Employees	2,080

More Information

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Great Lakes IPMT Annual Report: FY 2023



Quincy Mines Dry House Ruins site at the Keweenaw National Historical Park, 2023. NPS photo.

Background

The Great Lakes Invasive Plant Management Team (GL IPMT) provides support to twelve national parks across four states in the western Great Lakes Region. From the dunes along the shores of Lake Michigan, west to the scenic riverways of Wisconsin and Minnesota, and north to the boreal forests along the Canadian border, this is an area with diverse aquatic and terrestrial ecosystems. The region contains multiple rare, significant, and globally-threatened ecosystems. It is also home to an international biosphere reserve.

Geographical and environmental conditions have mostly limited invasive species to those of cultural origin (ornamental and intentionally planted species). However, visitor use and maintenance activities have introduced other invasive species.

The team balances its activity to meet two vastly different needs: (1) long-term, large-scale control and restoration, and (2) early detection and eradication of nascent populations. To meet those needs, the team provides parks with focused regional expertise and skilled control work. Discipline-specific knowledge and a network of partners allow the team to anticipate threats to individual parks and implement site-specific management strategies. As a shared regional resource, the team either augments existing management efforts at parks or provides the parks with management options.

Program Highlights

Partners Protect History Through Invasive Plant Management at the Keweenaw National Historical Park

Keweenaw National Historical Park (KEWE), located in Michigan's Upper Peninsula, and partner owned lands hold significant cultural value, harboring historic landscapes and cultural mining relics that are key to interpreting the “copper country” story. Keweenaw National Historical Park works to preserve the region’s copper mining heritage dating back 7,000 years. But to be successful, this work requires a collaborative approach accomplished through a network of partners and cultural heritage sites.

The GL IPMT has worked with KEWE and the neighboring Quincy Mine Hoist Association since 2015 to remove invasive brush and other invasive plants. However, with limited time dedicated to each of the team’s partner parks, partnerships play a key role in successful management. In addition to youth corps support from the Conservation Corps of MN and IA, a new agreement with WisCorps was established in 2023, expanding youth partners involved in this project and others. Receiving additional support on-the-ground makes appreciable differences for park projects. Support allows treatments and follow-up work to be completed with vigilance. GL IPMT, KEWE staff, Quincy Mine Hoist Association, MN Conservation Corps, WisCorps, and the Keweenaw Invasive Species Management Area work together, continuing to uncover and protect important cultural and natural resources across ownership boundaries.



Conservation Corps of Minnesota and Iowa intern and WisCorps crew members chip invasive brush on Quincy Mine Association property, 2023. NPS photo.



Before (top) and after (bottom) oak savanna restoration site from 2015 to 2023 at Ice Age National Scenic Trail. NPS photo.

Program Highlights (cont.)

Oak Savanna and Prairie Restoration Continues at the Ice Age National Scenic Trail

There are many steps to a successful prairie/oak savanna restoration. However, invasive plant removal is often the first, most labor-intensive step. At the Ice Age National Scenic Trail (IATR) Interpretive Site in Cross Plains, WI, the GL IPMT has spent nearly 15 years removing dense thickets of invasive plants such as common buckthorn (*Rhamnus cathartica*) and honeysuckle (*Lonicera* spp.) to restore remnants of tallgrass prairie and oak savanna. Since 2016, the GL IPMT has replanted nearly 10 acres of oak savanna and 7.5 acres of prairie. Now, in areas where only invasive brush once stood, there are abundant native grasses and wildflowers. For GL IPMT members, park staff, and others who have spent many long days and engaged in hard work at this site, it is emotional to see the transformation back to a native plant community.

Knowing this work contributes to reclaiming and conserving an ecosystem that now covers less than 1% of its former several million acres reinforces the importance of this effort. Success at this site laid the groundwork for an upcoming 3-year project funded to restore 10 additional acres of prairie and 20 of oak savanna at IATR.

Summary of Accomplishments

In 2023, the GL IPMT extended the field season to complete more work and projects than ever before. Projects were completed in 10 of the IPMT's 12 partner parks, including an initial site assessment for a new non-partner park, River Raisin National Battlefield Park.

The GL IPMT continued to lead the Midwest Region in the National Park Service Chainsaw Safety Program (NCSP). Crew leader Dan Jorgensen became certified as an Operational Leadership instructor as well as a Master Faller/Journeyman Faller NCSP instructor and competency evaluator, while GL IPMT member Renea McNemee obtained Journeyman Faller credentials. These qualifications will aid the team with certifying additional chainsaw instructors and operators, while assisting parks with the increasing need for qualified chainsaw operators for invasive plant and forest health projects.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	14
Total Hours for Youth Participants and Youth Employees	7,940

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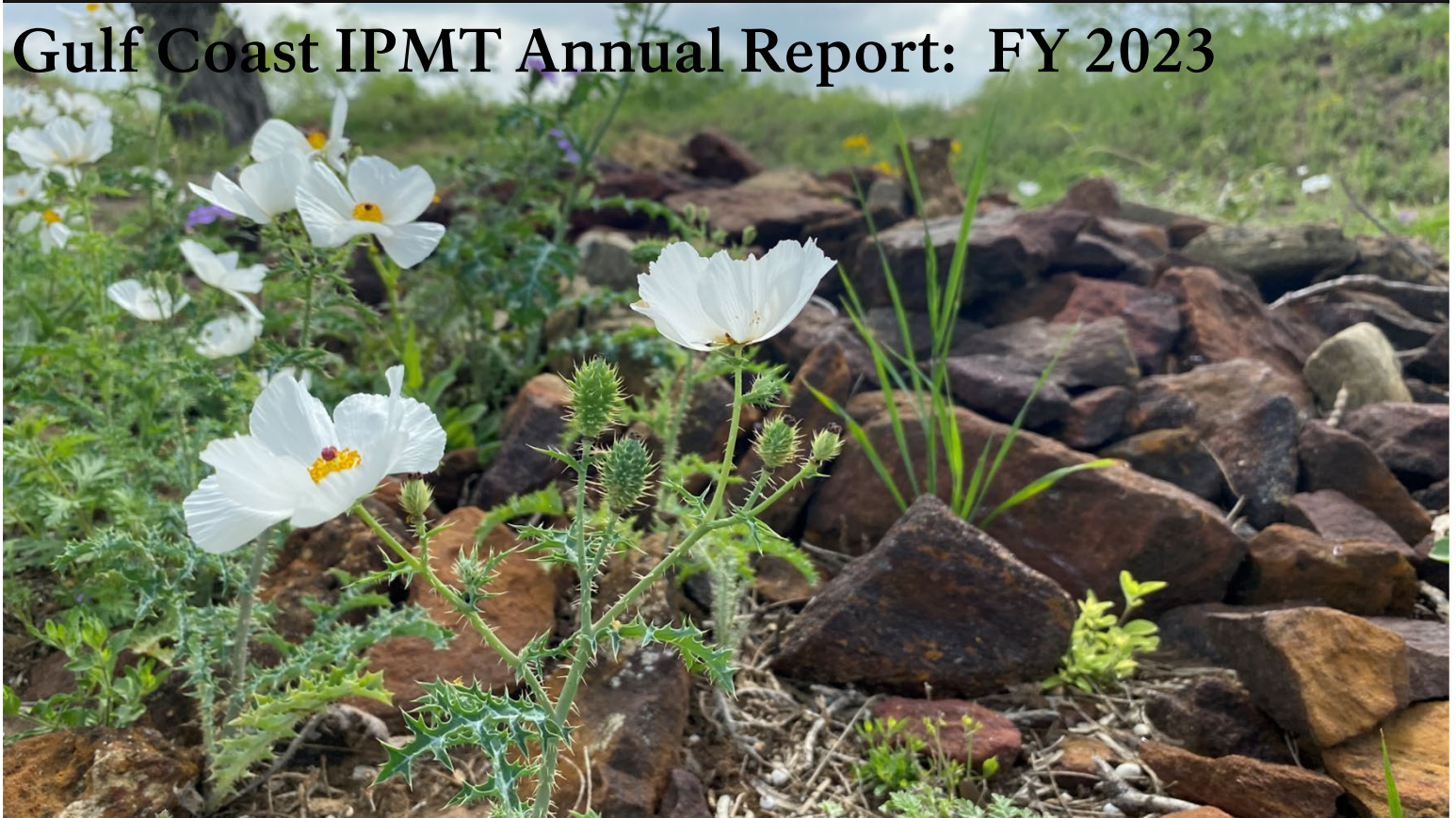
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Gulf Coast IPMT Annual Report: FY 2023



The Gulf Coast IPMT protects resources such as this native white prickly poppy (*Argemone albiflora*) among the ruins of one of the first ranches in Texas within the Rancho de las Cabras unit of San Antonio Missions National Historical Park. NPS photo.

Background

The Gulf Coast Invasive Plant Management Team (GC IPMT) supports eight National Park Service (NPS) units within Interior Regions 2, 4, and 6. In east Texas, the GC IPMT provides invasive plant management services for the culturally significant salt prairie and brushland ecosystems of Palo Alto Battlefield National Historic Park, bird habitat of Padre Island National Seashore on the undeveloped barrier island and dredge material islands, the cultural landscapes surrounding the four mission churches of San Antonio Missions National Historic Park, and the ecologically important floodplain and wetland habitats of Big Thicket National Preserve. East to Louisiana, Mississippi, Alabama, and Tennessee, the GC IPMT aids in the protection of the Barataria wetlands ecosystem of Jean Lafitte National Historical Park and Preserve, the Civil War battlefield cultural landscape and surrounding natural areas at Vicksburg National Military Park, portions of seven ecoregions along Natchez Trace Parkway, and barrier islands including federally designated wilderness at Gulf Islands National Seashore.

The GC IPMT implements invasive plant control work across all partner parks through contracts and direct assistance and, in the past, has relied upon partnerships to identify and geospatially map priority plant infestations within the parks. The GC IPMT liaison works directly with park management to address management priorities and oversees contracts and cooperative task agreements. The regional IPMT data manager provides data management support.

Program Highlights

Assisting Southeast Coast IPMT

The GC IPMT youth intern assisted the Southeast Coast IPMT (SEC IPMT) at Chattahoochee National River and Recreation Area (CHAT) in Georgia in February 2023. The teams surveyed CHAT's Island Ford area, treating 10 invasive species including trees and shrubs (e.g., autumn olive (*Elaeagnus umbellata*), Chinese holly (*Ilex cornuta*)) woody vines (e.g., Chinese wisteria (*Wisteria sinensis*)) and other invasive species of concern (e.g., Japanese plum yew (*Cephalotaxus harringtonia*), leatherleaf mahonia (*Berberis bealei*)). Chattahoochee is in an urban environment. Many of these species were introduced in landscaping and escape along riparian areas and from neighboring private properties. Successfully finding and treating these species requires a team approach. The IPMTs in Interior Region 2 (IR-2) look forward to partnering together in support of parks as opportunities present themselves.

New Park Reference Documents

In 2023, the GC IPMT continued to develop new reference documents that identify best management strategies for controlling invasive plant species. This multi-year project removes the burden of gathering important information for successfully controlling invasive plant species from park staff. It is highlighted with greater detail in the FY22 Gulf Coast IPMT Program Brief.



Gulf Coast IPMT contractors cleared a monoculture of Brazilian peppertree (*Schinus terebinthifolius*) from the Resaca de la Palma Battlefield unit of Palo Alto National Battlefield Historical Park in Texas. NPS photo.



IPMT 20th Anniversary field event at Timucuan Ecological and Historic Preserve in Florida to treat Chinese tallow (*Triadica sebifera*), water hyacinth (*Eichhornia crassipes*), and Peruvian primrose-willow (*Ludwigia peruviana*). NPS photo.

Program Highlights (cont.)

Serving Parks Alone and Together

The GC IPMT serves a range of types of NPS units from large natural resource focused parks to smaller units that preserve an important historic event. They all need support from the IPMT. In fiscal year (FY) 2023 the team treated invasive species at Vicksburg National Military Park in Mississippi and funded completion of treatments at other units within Big Thicket National Preserve, the Resaca de la Palma unit of Palo Alto Battlefield National Historical Park, island bird habitat at Padre Island National Seashore, and the Rancho de la Cabras unit of San Antonio Missions National all located in Texas.

In 2020, the NPS IPMT program turned 20, but the COVID-19 pandemic challenged IPMTs' ability to observe this historic anniversary. In FY 2023, all IR-2 IPMTs (Florida/Caribbean, GC, Southeast, and SEC) celebrated the 20th Anniversary of the program with an invasive plant treatment event at Timucuan Ecological and Historical Preserve (TIMU) in FL. The event was supported by the Regional Integrated Pest Management Coordinator, TIMU staff, and staff from Chickamauga and Chattanooga National Military Park resulting in treatment of 11 acres within the historically important Spanish Pond unit, an area of the park previously infested with Chinese tallow (*Triadica sebifera*), water hyacinth (*Eichhornia crassipes*), and Peruvian primrose-willow (*Ludwigia peruviana*).

Summary of Accomplishments

During FY 2023, the GC IPMT supported treatment at five partner parks as noted in the Program Highlights section above. The team's liaison coordinated over 1,450 hours of surveys and treatments. The team treated eight target species at these five parks including Australian pine (*Casuarina equisetifolia*), Brazilian peppertree, Chinese privet (*Ligustrum sinense*), Chinese tallow, giant reed (*Arundo donax*), golden bamboo (*Phyllostachys aurea*), guineagrass (*Megathyrsus maximus*), and white leadtree (*Leucaena leucocephala*). In support of park invasive plant management needs, the team also developed 23 reference documents during the year, assisted the SEC IPMT with field treatments, and participated in an IPMT 20th Anniversary field event in Florida.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	1
Total Hours for Youth Participants and Youth Employees	1,390

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Heartland Network IPMT Annual Report: FY 2023



Crownvetch infestation at Pipestone National Monument. NPS photo.

Background

The Heartland Network Invasive Plant Management Team (HTLN IPMT) serves 15 national parks in eight states of the Midwest and Mid-south. The parks include an array of plant communities ranging from unplowed and restored tallgrass prairie in the Flint Hills of Kansas and Sioux quartzite outcrops in Minnesota; eastern deciduous forests from northeastern Iowa and northeastern Ohio to southwest Missouri and southern Indiana; Midwestern riparian woodlands; mixed shortleaf pine-oak-hickory forests in the Ozark and Ouachita Mountains; and a variety of wetlands from southeastern cypress-tupelo swamps to emergent wetlands along tributaries to Lake Erie. The majority of these parks commemorate important historical events, locations, people, and cultural practices, which requires integrating invasive plant management into cultural and natural landscapes.

The HTLN IPMT exists solely to serve park managers and the resources that they are charged to protect. The IPMT follows the National Park Service's constructive model of identifying "prudent and feasible" invasive plant control projects. Because there is, unfortunately, no single litmus test to assess the prudence or feasibility of a project, the IPMT works to ensure the connection of invasive plant management and restoration projects with larger park vegetation management goals; to assess the long-term costs of projects; and to rely on evidence-based scientific data to support projects.

Program Highlights

Crownvetch Control at Pipestone National Monument

Crownvetch (*Securigera varia*) at Pipestone National Monument has been present in the park since at least 2006. The plant was introduced to the US in the 1950's, as with many invasive plants, as a cover to limit erosion. Crownvetch likely invaded following planting in the roadside to the East of the park. Subsequently, crown vetch invaded restored prairies as well as native prairie associated with Sioux quartzite outcrops.

The twining nature of crownvetch makes the plant especially difficult to control. While a selective herbicides can be used to limit harm to prairie grasses, application can affect other prairie forbs. For this reason, applicators must be highly attentive when making the application to limit non-target damage. This careful work is tedious and time-consuming.

Positive results and the beginning of good control of the infestation are evident after nine years (2015 — 2023) of treatment. Based on effectiveness data, crownvetch cover declined 95% in those project areas worked in 2023 from their earlier highest reported years. In one 34 acre project area, person-hours required to complete annual treatments decreased by 84% from 247.5-hrs in 2022 to 37.5-hrs in 2023. There are, however, still some heavily infested project areas with little management attention in the past where the IPMT hopes to make strides during the fiscal year (FY) 24 year.

COVID Impact on *Microstegium vimineum* Cover



Chart illustrating the increase in Japanese stiltgrass (*Microstegium vimineum*) cover from 2019 to 2021 during the COVID-19 pandemic, and its subsequent decline over the 2022 and 2023 treatment years when post-pandemic work resumed.

Program Highlights (cont.)

Responding to COVID-19 Project Setbacks

Due to COVID-19 travel restrictions, HTLN IPMT could not maintain several projects as scheduled. The IPMT was concerned over the response of annual plants due to their high seed output and successful germination. Japanese stiltgrass (*Microstegium vimineum*) posed particular concern due to its rapid spread in parks, but the team was less concerned about woody invasive plants such as tree-of-heaven (*Ailanthus altissima*) that reproduces largely through clonal growth.

Based on treatment effectiveness data from two parks, Japanese stiltgrass abundance increased at Arkansas Post National Memorial and Lincoln Boyhood National Memorial by 44% and 67%, respectively, in 2021 following the missed treatment of 2020. The IPMT regained lost progress through 2023. These projects demonstrate how quickly progress may be lost, especially for highly invasive species like Japanese stiltgrass. Lapsed treatments, on the other hand, did not affect tree-of-heaven project areas at Buffalo National River. For example, Woolum project areas were down 71% since 2018 levels and down 99% since project area inception in 2012. These results show the importance of prudently sustaining projects.

Summary of Accomplishments

The FY23 season continued to be highly productive for the HTLN IPMT. The IPMT completed projects in 14 parks in six states. The team continued to work collaboratively with partners to complete this work. While most of these projects entailed re-treatments of committed projects, the IPMT expanded projects at Buffalo National River and Hot Spring National Park into new areas by 87 and 110 acres, respectively.

Currently, the HTLN IPMT portfolio of projects consists of 24 projects spanning over 3,204 acres. In FY23 the IPMT continued work on projects that covered approximately 1,630 acres. Using treatment data, these projects are continually evaluated to determine the extent to which management actions help meet desired conditions.

The IPMT also continues to strengthen its relationships with the Conservation Corps of Iowa and the Watershed Conservation Corps.



Japanese stiltgrass infestation at Lincoln Boyhood National Memorial. NPS photo.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	12
Total Hours for Youth Participants and Youth Employees	15,000

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Lake Mead IPMT Annual Report: FY 2023



Lake Mead IPMT creating hazard fuel buffers by reducing invasive annual grasses to protect Joshua tree forests at Mojave National Park, CA. NPS photo.

Background

The Lake Mead Inter-Regional Invasive Plant Management Team (LAKE IPMT) was established in 1996 serving as the prototype model for what eventually developed into the National Park Service (NPS) IPMT program. The IPMT has conducted on-the-ground projects with field crews on land managed by the NPS, the Bureau of Land Management (BLM), US Fish and Wildlife Service Refuges, US Forest Service (USFS), Bureau of Indian Affairs Units, Bureau of Reclamation (Reclamation), Marine Corps Yuma Air Station, and sites managed by state and local entities.

LAKE IPMT's three primary goals are to 1) provide expertise in the control of invasive plants in priority areas to preserve, restore, and maintain native plant communities, 2) professionalize invasive plant management and career opportunities within the NPS and partner organizations by developing staff expertise, and 3) improve government efficiencies through interagency cooperation by developing partnerships to effectively manage invasive plant species on a landscape scale. Partnerships are integral to the team's success, annually leveraging each NPS base dollar with three to four additional dollars. Partnerships facilitate invasive plant management across boundaries and increase the LAKE IPMT's capacity to serve NPS units. Annually, partnership funds total over a million dollars and support up to a 20-person crew in the field throughout the year. The LAKE IPMT's geographic locality and many partnerships in the regional area enable year-round operations that maximizes efficiency and the ability to control a diversity of invasive plant species.

Program Highlights

A Year with the Lake Mead IPMT

Fall is a good time to treat perennial rhizomatous species, when herbicide is translocated to extensive root systems, and for pre- and post-treatment of annual invasive grasses. At Arches National Park, the team focused on Russian knapweed (*Rhaponticum repens*) in the remote upper Salt Wash requiring remote backcountry camping and many miles of hiking to cover the drainages. Organ Pipe Cactus National Monument funded the team's work on buffelgrass (*Cenchrus ciliaris*). The team conducted multiple trips to control camelthorn (*Alhagi maurorum*) along five miles of the lower Virgin River in Nevada partnering with the BLM, Clark County, and Lake Mead National Recreation Area (LAKE). The IPMT also treated invasive annual brome grass (*Bromus tectorum*) at priority areas within Zion National Park to reduce hazard fuels. The IPMT garners significant support from partner parks and other collaborators for this work.

Winter and Spring is the time to transition to lower elevation projects to support regional and local partners and partner parks including invasive plant control along the lower Colorado River from LAKE to the Mexico border. Efforts focus on treating woody invasive species, such as tamarisk (*Tamarix* spp.), pre- and post-treatment of annual species such as Sahara mustard (*Brassica tournefortii*) that can vary in density and management effort required from year to year, and restoration projects. The IPMT treated multiple annual invasive species at two Maricopa County Parks in Arizona and BLM's Ridgecrest Field Office in California. Over 100 acres of previously



The Lake Mead IPMT controls invasive tamarisk trees in Salt Wash at Canyonlands National Park, UT to protect cottonwood trees, reduce fire hazard, and prepare for native plant restoration. NPS photo.



Lake Mead IPMT control Russian knapweed in remote upper Salt Wash at Arches National Park, UT to protect riparian habitat. NPS photo.

Program Highlights (cont.)

A Year with the Lake Mead IPMT (cont.)

dense tamarisk forests along the Virgin River were masticated as part of a restoration process for the BLM and Clark County, Nevada. The IPMT followed up by treating resprouts using the low volume basal spray method. The IPMT treated Sahara mustard at the Mormon Mesa Area of Critical Environmental Concern for the BLM Southern Nevada District. Active revegetation also continues to be a priority. At riparian restoration sites the crew planted over 1,500 donated willow trees and other native plants grown at the LAKE Song Dog Native Plant Nursery. LAKE IPMT’s work, which is often conducted in remote and challenging terrain, encompasses the full suite of restoration actions to improve the area’s ecological health.

Summer sees a shift in work to high elevation sites for invasive plant surveys and treatment and continuing restoration work. Local partners include USFS Spring Mountains National Recreation Area, the Boulder City Conservation Easement that was set aside to protect desert tortoise habitat, as well as Great Basin and Bryce Canyon National Parks. The IPMT conducted post-wildfire invasive plant surveys and control at Coconino National Forest. Summer projects continued in Elko, Battle Mountain, and Winnemucca BLM Districts in northern Nevada. The IPMT also continued year-round invasive plant control and revegetation at the Clark County Wetlands Park and Nature Preserve that has been a partner for 24 years. The LAKE IPMT’s work is at the watershed scale and includes non-NPS partners on adjacent lands resulting in more comprehensive and effective invasive plant management and restoration.

Summary of Accomplishments

In fiscal year 2023, the LAKE IPMT conducted projects at 12 NPS units, five BLM Districts, two USFWS Refuges, four Reclamation Conservation Units, two National Forests, multiple units within Clark County, Nevada and Maricopa County, Arizona. Staff dispersed native plant seed from 24 native species at two restoration sites, rehabilitated several miles of illegal roads, and hired three new permanent members and a new data manager.

Summarized Data for 2023

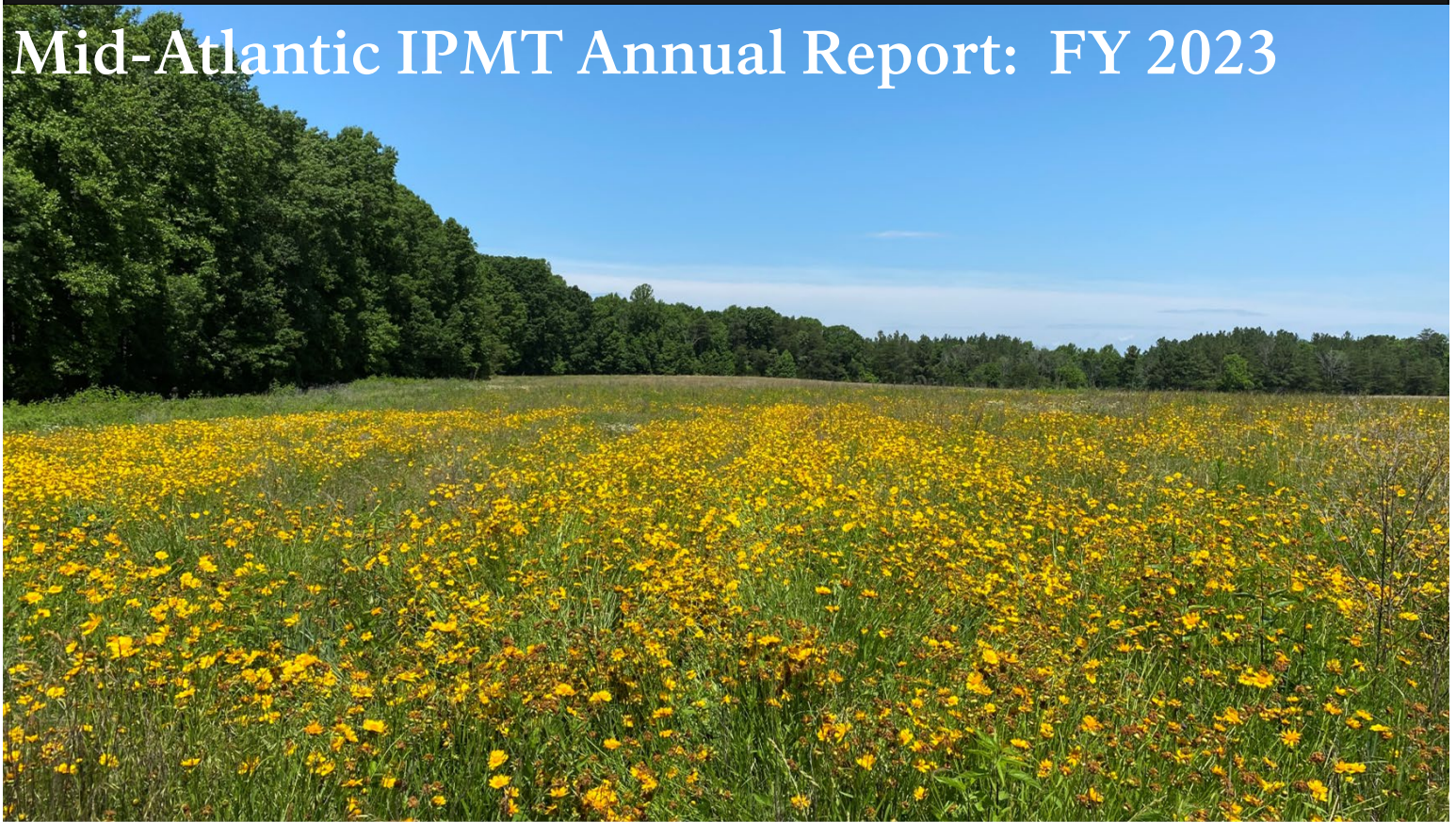
Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	14
Total Hours for Youth Participants and Youth Employees	18,080

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Mid-Atlantic IPMT Annual Report: FY 2023



Pollinator meadow at Appomattox Court House National Historical Park. NPS photo.

Background

The Mid-Atlantic Invasive Plant Management Team (MA IPMT) began in 1999 as the Virginia Invasive Vegetation Management Team, which supported nine units of the National Park Service (NPS) in Virginia. In 2003, to meet a growing need for invasive plant management, a seven-team IPMT program was established including the MA IPMT, stationed at Shenandoah National Park (SHEN). Today, the MA IPMT provides invasive plant management support to 22 parks in Maryland, Pennsylvania, Virginia, and West Virginia, ranging in size from 47 acres (Fort McHenry National Monument and Historic Shrine) to over 193,000 acres (SHEN). The parks served encompass wilderness, natural areas, suburban and urban environments, and include Appalachian Mountain, Piedmont and Coastal Plain, and Atlantic seaside ecosystems.

The MA IPMT uses Integrated Pest Management and best management practices to control invasive plants effectively, efficiently, and safely in order to protect valuable park resources and human health. The team works with park staff to help achieve their short and long-term natural resource management goals and acts quickly when rapid response to a new plant invader is required. In addition to on-site visits for invasive plant surveys, treatments, meadow conversion, and restoration work, the team provides technical advice to parks on invasive plant management and training to park staff and volunteers. Team members stay current on scientific and technological developments in invasive plant management throughout the year to continue providing high-quality, meaningful services to partner parks.

Program Highlights

New River Gorge National Park & Preserve Kudzu Control

New River Gorge National Park & Preserve (NERI) supports rare plant communities found in only a few places worldwide and holds the remains of towns and infrastructure that once supported a coal boom during the first half of the twentieth century. Most of these now-abandoned towns, including the town of Kaymoor, are becoming hidden by forest growth and degraded by invasive species. Kaymoor mine, one of the most productive mines in the New River Gorge, operated from 1899 to 1962. In Kaymoor Bottom, between the railroad and river, sat the Kaymoor company store, which provided goods, groceries, clothing, and more to coal miners and their families.

The structural remains of the store are threatened by the weight of climbing kudzu (*Pueraria montana*) vines. NERI staff and the MA IPMT worked cooperatively to remove kudzu around the buildings to preserve the structures and improve their visibility. The team was expertly guided to the site by NPS River Rangers on whitewater rafts. Once onsite, NERI and MA IPMT staff cut and stump treated larger kudzu vines with glyphosate and pulled smaller kudzu vines that threatened the buildings. NERI staff will regularly visit Kaymoor to continue protecting the structure and visibility of the buildings, offering park visitors a tangible reminder of the bustling coal industry that once existed within the walls of the gorge.



The Kaymoor company store in the early 1900s, New River Gorge National Park & Preserve. NPS photo.



New River Gorge National Park & Preserve staff pose by remains of the Kaymoor company store, New River Gorge National Park & Preserve. NPS photo.

Program Highlights (cont.)

Meadow Conversion at Hampton National Historic Site

In late 2022, Hampton National Historic Site (HAMP) staff contacted the MA IPMT about converting a five-acre grassy area in front of Hampton Mansion into native meadow, with a goal of improving pollinator and wildlife habitat. The meadow had been previously maintained by mowing and was dominated by non-native tall fescue (*Schedonorus arundinaceus*).

The MA IPMT visited HAMP in June 2023 to apply a broadcast application of glyphosate and applied a second treatment in late October 2023. The team will treat the meadow again in spring 2024 before joining HAMP staff to plant a native seed mixture that will include several native warm season grasses and deer-resistant native wildflowers, including native milkweed species to support the threatened Monarch butterfly (*Danaus plexippus*).

HAMP and the MA IPMT have begun to convert two acres of meadow in 2023, and three more acres will be added in 2024. HAMP will follow up with monitoring of the meadow, and the MA IPMT will continue to proactively assist with invasive plant control.

Summary of Accomplishments

In 2023, the MA IPMT provided invasive plant support to 14 partner parks, including a first visit to Fort Monroe National Monument to survey for puncture vine (*Tribulus terrestris*) around public beach access areas. The team provided meadow conversion support, including project implementation and technical advice, at three partner parks. The team provided technical support and advice to five additional parks and helped create an Invasive Plant Management Plan for Gettysburg National Military Park in collaboration with the Mid-Atlantic Inventory & Monitoring Network. In 2023, the team cooperated with NPS staff at partner parks, non-NPS partners and NGOs, and private landowners, all of whom are committed to improving ecosystem health and protecting history through invasive plant management.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	5
Total Hours for Youth Participants and Youth Employees	2,000

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National Capital Region IPMT Annual Report: FY 2023



Black fountain grass growing along Capital Crescent Trail at Chesapeake and Ohio Canal National Historical Park. NPS photo.

Background

The National Capital Region Invasive Plant Management Team (NCR IPMT) supports National Park Service (NPS) units from the center of the District of Columbia to the foothills of the Appalachian Mountains. In addition to National Capital Region parks, the NCR IPMT assists non-NPS partners: National Capital Partnership for Regional Invasive Species Management (NatCap PRISM) and the Virginia Department of Conservation and Recreation's Crow's Nest Natural Area Preserve.

The National Capital Region Invasive Plant Management Team:

- 1) Preserves habitats implementing an early detection and rapid response framework,
- 2) Controls invasive plants impacting ecologically sensitive areas,
- 3) Restores native habitats by removing invasive plants and reestablishing native plants and natural processes,
- 4) Prevents the spread of invasive species through training and careful stewardship of tools and equipment, and
- 5) Works closely with partner parks and agencies to inventory and monitor invasive plants, train staff and volunteers, implement treatment and restoration efforts, and share resources and information.

The NCR IPMT serves NPS and partner units located in Virginia, Maryland, West Virginia, and the District of Columbia (DC).

Program Highlights

Early Detection and Rapid Response in Action

Other than prevention, early detection and rapid response (EDRR) is one of the most cost-effective approaches to managing invasive species. Many programs and agencies have created tools to help in the early detection of new invasive species. However, it is the responsibility of the landowning agency to respond promptly to these new invaders. Volunteers contribute significantly to early detection efforts across the NCR. The NCR IPMT and the NatCap PRISM collaborated to create an Invader Detectives project on iNaturalist. This project aims to provide land managers with real-time observations of species considered EDRR in the NCR.

Park managers and the NatCap PRISM identified several species as priorities for the region. They selected these species because of their limited range across the region and high potential for invasiveness. Some examples of species of most concern in the region are incised fumewort (*Corydalis incisa*), two-horned trap (*Trapa bispinosa* var. *iinumai*), and black fountain grass (*Cenchrus purpurascens*). Collaboratively the NatCap PRISM and NCR IPMT monitors over 100 EDRR species from all taxa as well as their close relatives that are often misidentified for more common invasive species or native lookalike species. Although this project is complex, it is successful due to the active participation of volunteers who detect and submit records of species found on public and private lands to iNaturalist.



Yvonne Ng, Community Volunteer Ambassador, hand pulling incised fumewort shortly after detection in Rock Creek Park. NPS photo.



Volunteer examining black fountain grass during volunteer survey event at Rock Creek Park. NPS photo.

Program Highlights (cont.)

Early Detection and Rapid Response in Action (cont.)

As early detection efforts increased across the region, the NCR IPMT sought to identify an effective rapid response to new invaders. To achieve this, the IPMT Community Volunteer Ambassador (CVA) intern sent a Weed Alert to Invader Detectives volunteers to raise community awareness about black fountain grass and its potential impacts on natural areas. The intern organized volunteer survey events to increase understanding of the current extent of this species. Volunteers surveyed several locations where this species was detected at least once in the past and expanded their search by following trails and bodies of water which play a big role in the movement of seeds. The IPMT used the survey observations posted by volunteers on iNaturalist to begin their treatments and continued management beyond the areas surveyed by volunteers. Through this effort, the IPMT found a significant recent increase in the extent of black fountain grass in urban NCR parks. Therefore, the IPMT added treatment days to their schedule to better manage this new invader.

The IPMT will use this methodology to manage other EDRR species and set aside treatment days to respond to new populations of known EDRR species or new invasive species in the region.

Summary of Accomplishments

Fiscal year 2023 was a great success for the NCR team. The NCR IPMT provided internship opportunities to four individual placement interns and was selected to host another CVA intern, which increased the team's capacity to engage with more volunteers and visitors. New team members participated in the First Aid/CPR/ AED, Chainsaw, Safety, Maintenance (CSMO), and Operation Leadership (OL) training. The team leader played a key role in teaching both CSMO and OL classes. Additionally, the CVA hosted 23 invasive plant removal and survey events throughout the year, engaging 184 volunteers who contributed a total of 494 hours of service. The team also supported 2.5 Weed Warrior training events, which were attended by volunteers from multiple parks.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	137
Total Hours for Youth Participants and Youth Employees	11,075

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Northeast IPMT Annual Report: FY 2023



The meadows of Saratoga National Historic Park. NPS photo. NPS photo.

Background

The Northeast Invasive Plant Management Team (NE IPMT), stationed at the Delaware Water Gap National Recreation Area, was established in 2003 and serves over 30 partner parks in 10 states from Delaware to Maine. The parks served by the NE IPMT range in size from nine to 100,000 acres and are dedicated to the preservation and interpretation of both expansive natural lands and culturally significant landmarks. Many of these parks are in or near large urban areas, providing visitation opportunities to millions of people.

The NE IPMT approaches invasive plant management through a combination of services including on-site manual, mechanical, and chemical control, technical advice and assistance, and in-person and virtual trainings. The team works with partner parks to help prioritize treatment areas and to develop treatment plans that are achievable and cost effective, with a focus on human and environmental safety.

In 2016, the NE IPMT established a small grants program to supplement site visits from the team and provide additional flexibility for partner parks to conduct invasive plant management in-house. Projects are selected for funding through a competitive proposal and ranking process that includes plan feasibility, use of best management practices, creative leveraging of resources, and engagement of youth and volunteers. The grant program has successfully supported partner parks in establishing and implementing their own invasive plant management strategies for both short- and long-term projects.

Program Highlights

The Start of an Invasive Plant Program at Paterson Great Falls National Historic Park

Paterson Great Falls National Historic Park (PAGR) was established in 2009 in Paterson, New Jersey and includes the Great Falls of the Passaic River (a National Natural Landmark) and a historic raceway system that once powered the city's mills and other industry. The park established first contact with the NE IPMT for assistance with management of Japanese knotweed (*Fallopia japonica* var. *japonica*) and tree-of-heaven (*Ailanthus altissima*) invading the raceways, blocking the view of the historic structure, and creating habitat for spotted lanternfly, mosquitoes, and ticks.

The NE IPMT visited the park three times in 2023: once for an initial survey, again in early spring to cut back knotweed, and finally in summer to apply chemical treatments to the knotweed and tree-of-heaven. The team plans on re-visiting the park for follow-up treatments in coming years and assisting PAGR maintenance staff with their goal of acquiring state pesticide applicator licenses for in-house treatments. The park is committed to making the raceways a safe and beautiful place to visit, and the team hopes to continue to help park staff meet their goals.



Foliar treatment of Japanese knotweed in the lower raceway at Paterson Great Falls National Historic Park. NPS photo.



The Northeast IPMT conducting a training at Fort Necessity National Battlefield for the staff from the five parks of western Pennsylvania. NPS photo.

Program Highlights (cont.)

In-person training at Western Pennsylvania Parks

The NE IPMT serves five parks in western Pennsylvania (WEPA), which preserve memorials, battlefields, and historic sites. These parks wanted to expand their ability to manage invasive species and asked the team to organize a multi-park in-person training for staff from the Resource Management and Maintenance Divisions.

Park staff and the NE IPMT met at Fort Necessity National Battlefield (FONE) for discussion and hands-on training. The day began with talks on Integrated Pest Management (IPM), data and vegetation management, followed by discussion and demonstrations of field data collection, invasive plant identification, herbicide mixing, equipment calibration and recommendations, and treatment methods. All of the training incorporated human and environmental safety and concluded with an active question and answer session.

While at FONE, the NE IPMT checked some project sites and provided consultation on their future management. The NE IPMT also provided funding to the park for equipment purchases. Through this training, and by obtaining state applicator licenses, WEPA created a multidisciplinary team with the knowledge and skills to integrate invasive plant management into their existing programs.

Summary of Accomplishments

The NE IPMT provided a variety of services to partner parks in 2023. For the first time in several years, the team resumed a full travel schedule and hired a seasonal employee. In addition to work at the host park and day trips to nearby parks, the team made several longer trips, many to parks that had not been visited in years or were visited for the first time. The team conducted manual and chemical treatments, provided formal and informal trainings, surveyed sites of interest, and helped formulate long-term management strategies that include the parks and other partners.

Through its small grant program, the NE IPMT partially funded invasive plant projects in seven parks, helping staff reach more management goals than the parks or the team could accomplish on their own. NE IPMT, regional Inventory and Monitoring Network, and park staff collaborated in the development of Invasive Species Priority Plans for two parks.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	137
Total Hours for Youth Participants and Youth Employees	5,788

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North Coast Cascades Network IPMT Annual Report: FY 2023



Quinault River, Olympic National Park. NPS photo. NPS photo.

Background

The North Coast & Cascades Network Invasive Plant Management Team (NCCN IPMT) provides assistance to nine National Park Service (NPS) units in western Washington and Oregon. From dramatic coastlines to rainforest valleys and alpine ecosystems, the NCCN IPMT covers a range of ecosystems that bring resource challenges across its service area. Parks served in fiscal year (FY) 2023 include Ebey's Landing National Historical Reserve (EBLA), Lake Chelan National Recreation Area (LACH), Lewis and Clark National Historical Park (LEWI), Mount Rainier National Park (MORA), North Cascades National Park, Olympic National Park (OLYM), Ross Lake National Recreation Area (ROLA), and San Juan Island National Historical Park (SAJH).

The team provides a range of services to partner parks using an ecosystem-based approach in vegetation management that largely focuses on restoration projects and population management of invasive plant species. NCCN IPMT uses its technical expertise and wealth of fieldwork experience to assist its partner parks with specific invasive plant management needs as well as native seed collection, revegetation, and hazard tree management. The team's collaborative approach addresses resource issues, provides an adequate labor force to accomplish project goals, and offers technical solutions to a variety of threats and challenges faced by the team's partners.

Program Highlights

Holding Ground at Ebey's Landing National Historical Reserve

The NCCN IPMT lost two permanent staff before the beginning of the field season and entered FY 2023 with a small crew that focused more on assisting the team's host park, OLYM. Still, some projects are ongoing and an interruption in service would have resulted in a major loss of time and work invested.

Poison hemlock (*Conium maculatum*), a plant famous for its toxicity to humans and livestock, has been a priority species for treatments at Ebey's Landing National Historical Reserve (EBLA) since the early 2000s. It is present at several sites within the Reserve, but treatment this year focused on areas adjacent to the historic Ferry House near Coupeville, WA. The Ferry House borders local farmland and one of the busiest roads and visitation spots at the site, making the continuing control of poison hemlock at EBLA imperative to local human and environmental health. NCCN IPMT has continuously treated this species over multiple growing seasons. This species is believed to have an 8-year seedbank. Through the use of pre-emergent and mechanical treatments, the team continues to see significant reduction of the amount of poison hemlock at EBLA.

NCCN IPMT also works on this species across boundaries with local agencies like the City of Coupeville, Island County, Washington State Parks, The Nature Conservancy, and the Pacific Rim Institute to manage this invasive species.



North Coast-Cascades Network IPMT continued stump cut treatment of scotch broom at Lewis and Clark National Historical Park with assistance from Olympic National Park vegetation teams. NPS photo.



NCCN IPMT mechanically treated poison hemlock at Ebey's Landing National Reserve. To help stop the spread of this invasive species, the team also collected and destroyed seeds from seed-bearing plants. NPS photo.

Program Highlights (cont.)

Protecting Salmonid Habitat in the Quinault River

The Quinault River dominates the temperate rainforest on the remote west end of OLYM. Timber harvests in the 1800s to 1900s heavily altered the landscape of the river's floodplain, creating terraces vulnerable to erosion and seriously undermining sensitive salmonid habitat. Less-altered side channels of the river, important habitat for juvenile salmon and trout, are vital for salmonid survival. Unfortunately, infestations of reed canarygrass (*Phalaris arundinacea*) have begun to dominate these side channels, greatly impacting habitat quality by slowing water flow and increasing turbidity.

NCCN IPMT assisted OLYM vegetation staff in surveying over 1,000 acres for reed canarygrass infestations within large side channels of the North and East Forks of the Quinault River. They identified 93 infestations during this process, making future treatment much easier. These mitigation efforts will help to ensure that native populations of salmonids can once again thrive in previously infested areas.

Summary of Accomplishments

Each year, partner parks submit requests for NCCN IPMT support, and the team guarantees support for each partner park's top priorities. In FY 2023, the team took on almost every partner park request in spite of reduced staffing. The team continued to push back invasive plant populations at partner parks, most notably poison hemlock at EBLA, scotch broom (*Cytisus scoparius*) at LEWI, rush skeletonweed (*Chondrilla juncea*) at Lake Chelan National Recreation Area, reed canarygrass at OLYM, and smooth brome (*Bromus inermis*) at MORA. Successful mitigation efforts against these species demonstrate the NCCN IPMT's ability to improve native plant communities and restore important habitat.

The NCCN IPMT went through major transitions in FY 2023. Cheryl Decker, NCCN IPMT liaison for the last eight years retired from the National Park Service. Collin McAvinchey and Sophie Wilhoit, long-time crew leads for the team also left the team to pursue other ventures. The NCCN parks and IPMT are grateful and appreciative of their work and dedication to the program and its partner parks.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	3
Total Hours for Youth Participants and Youth Employees	2,557

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Northern Great Plains IPMT Annual Report: FY 2023



Contracted helicopters control Canada and musk thistle in the Badlands National Park Wilderness and other hard to reach areas of the park. NPS photo.

Background

The Northern Great Plains Invasive Plant Management Team (NGP IPMT) works with 14 partner parks in five states and two National Park Service (NPS) regions. The goal of the NGP IPMT is to help parks preserve native plant communities and historic landscapes by managing the spread of invasive plant species. The team works with park personnel and other non-governmental organizations to accomplish restoration activities, such as implementing prescribed fires, developing native plant materials, and seeding sites to restore desired resource conditions. The area served by the NGP IPMT is approximately 452,000 acres and is ecologically diverse, with vast grasslands, forests, and river systems. Integrated Pest Management (IPM) strategies used to manage invasive plants include chemical, biological, mechanical, and cultural methods. Education and management using IPM are priorities of the team. NGP IPMT staff provide park employees and partners training on current and safe IPM principles and practices. The IPMT advocates for, pursues, and provides financial assistance to partner parks to bolster their internal capacity to manage invasive plant species.

Field crews for the NGP IPMT are based at Badlands National Park (BADL), Wind Cave National Park, and Theodore Roosevelt National Park and travel to other parks in the network. The IPMT utilizes teams from the Montana Conservation Corps and Conservation Corps of Iowa to increase capacity and efficiency of operations. This allows youth on these crews to engage in important and substantive work to further the mission.

Program Highlights

Badlands National Park Mounts Landscape Effort to Conserve Great Plains Prairie Habitat

Badlands National Park has a significant infestation of invasive plants including Canada thistle (*Cirsium arvense*), musk thistle (*Carduus nutans*), knapweed (*Centaurea* spp.), common mullein (*Verbascum thapsus*), downy brome (*Bromus tectorum*), and crested wheatgrass (*Agropyron cristatum*), some of which are state-listed noxious weeds. Insufficient invasive plant management has a negative impact on the relationship park administrators have with park neighbors, displaces native species, poisons wildlife, degrades habitat, and interferes with the visitor's experience. It's a daunting task to care for the park's 380 square mile expanse. However, in order to treat BADL's large area, managers and IPMT staff are utilizing creative strategies.

In 2023, in an effort to amass the greatest coverage and impact, BADL targeted invasive plant populations by foot, vehicle, and air. In areas where soils, slopes, vegetation, and cultural resources wouldn't be impacted by heavy equipment use, utility terrain vehicles applied herbicides. Helicopters sprayed noxious weeds throughout the Sage Creek and Conata Units of the Badlands Wilderness Area and the North Unit perimeter outside of the wilderness area. In addition, restoration staff hiked into sensitive canyons and riparian areas for targeted control of small patches of invasive vegetation. In total, BADL's efforts treated 2,683.5 acres of national park land.



Badlands National Park’s Restoration Crew use utility terrain vehicles and tank sprayers to control invasive plants in valuable prairie habitat. NPS photo.



Post-treatment evidence of mullein control along the banks of the North Platte River at Scotts Bluff National Monument. NPS photo.

Program Highlights (cont.)

Riverside Invasive Plant Treatment at Scotts Bluff National Monument

As important as the iconic Scotts Bluff is, the few miles of North Platte River bank habitat that is included in Scotts Bluff National Monument (SCBL) preserves a diverse riverside ecosystem. The riparian woodland, located on the park’s northern boundary, is dominated by cottonwood (*Populus deltoides*), box elder (*Acer negundo*), willows (*Salix* spp.), American elm (*Ulmus americana*), and green ash (*Fraxinus pennsylvanica*) and provides both a critical wildlife corridor and refuge for migrating birds. However, much of this lush greenway is under pressure from encroaching invasive plant life that displaces and outcompetes the preferred natural environment.

In June 2023, with assistance from the Montana Conservation Corps crew, SCBL staff treated the floodplain adjacent to the river. They targeted poison hemlock (*Conium maculatum*), Canada thistle, musk thistle, houndstongue (*Cynoglossum officinale*), and mullein. Using a grid-like search pattern the crew chemically controlled 24.3 acres for invasive plants. As a result, pollinator plant species like sunflowers and milkweed and young tree saplings were released from competing for resources with undesirable invasive plants.

Summary of Accomplishments

In 2023, the NGP IPMT partnered with Montana Conservation Corps, Conservation Corps of Iowa, helicopter contractors, and partner parks and the specialists therein to complete invasive plant control treatments in eight NPS sites.

Looking forward to 2024, the IPMT will expand its reach and effectiveness to all 14 network partner parks. This effort is bolstered by a networkwide biological control effort and a newly hired liaison—a position that was vacant for four years. The IPMT will increase its presence, provide boots on the ground support and training, and act as a subject matter expert for invasive plant and restoration related projects, including the Annual Brome Adaptive Management (ABAM) project, pollinator studies, the development of NGP native plant material, and other activities where this capacity is essential.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	8
Total Hours for Youth Participants and Youth Employees	960

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Northern Rocky Mountain IPMT Annual Report: FY 2023



The 2023 NRM IPMT at DINO. From Left, Jessie Sanzos (COLM Biotech), Arley Canfield (GLAC IPMT Crew Leader), Andy Ringholz (YELL IPMT Crew Leader), Kyle Blair (Montana Conservation Corps (MCC)), Matt Rothrock (COLM Crew Leader), Michael Reeves (NRM IPMT Liaison), and Liam Haley (GLAC Biotech). Michela Ossola and Lex Luthor (MCC) not pictured. NPS photo.

Background

The Northern Rocky Mountain Invasive Plant Management Team (NRM IPMT) serves 25 national parks across CO, ID, MT, northern NM, UT, and western WY. Since its inception in 2003, the NRM IPMT program emphasizes the systematic, long-term management and control of invasive plant species. The area served by NRM IPMT is vast and diverse encompassing high and low elevation sagebrush steppe, forests, sub-alpine meadows, high deserts, and wetland and riparian areas. Many parks in this network are relatively small (median size is 20,000 acres) and many do not have the capacity to address their highest priority invasive plant species.

The NRM IPMT is a nine-person crew divided into three smaller crews based at Yellowstone National Park (YELL), Glacier National Park (GLAC), and Colorado National Monument (COLM). The program also partners with other crews to address distant parks. Repeat visits are part of the NRM IPMT's management strategy as these are critical to ensure all invasive plants are located and removed. Much of the team's effort is focused on controlling state-listed noxious weeds and providing rapid response to new and/or particularly problematic invaders. The NRM IPMT program relies heavily on the region's seasonal dichotomy, working lower elevation parks in UT, CO and ID early in the growing season and higher elevation parks in CO, WY, and MT later in the summer. Field efforts typically continue into the early fall to address perennial invasive plants as they enter dormancy.

Program Highlights

Strategies for Effective Invasive Plant Management

The NRM IPMT serves more units of the National Park Service (NPS) than most IPMTs and over a very large area. In fiscal year (FY) 2023, work at four parks demonstrated the team's ability to use a range of strategies to ensure effective management of invasive plant species. These parks are Golden Spike National Historical Park (GOSP) in northwestern UT, Dinosaur National Monument (DINO) in northwestern CO, and Florissant Fossil Beds National Monument (FLFO) in central CO.

These sites share some high priority invasive plant species such as Canada thistle (*Cirsium arvense*), but other high priority species vary across park units. At DINO, leafy spurge (*Euphorbia esula*), Russian olive (*Elaeagnus angustifolia*), Russian thistle (*Salsola tragus*), and Canada thistle are among the species targeted. At FLFO, broadleaf dock (*Rumex obtusifolius*), field bindweed (*Convolvulus arvensis*), musk thistle (*Carduus nutans*), and hoary alyssum (*Berteroa incana*) are high priority species. At GOSP, the NRM IPMT focused on rush skeletonweed (*Chondrilla juncea*).

It can be challenging for the NRM IPMT to serve so many parks over such a large area and effectively manage a broad range of invasive plant species. However, the NRM IPMT engages in multiple strategies to address these challenges. These include using integrated pest management to select treatment methods that will be the most



IPMT crew leader trains Golden Spike National Historical Park's first biological technician on truck tank sprayer operation, purchased with IPMT assistance. NPS photo.



A small patch of spotted knapweed, an early detection and rapid response species at Florissant Fossil Beds National Monument. The IPMT mapped and treated the site. NPS photo.

Program Highlights (cont.)

Strategies for Effective Invasive Plant Management (cont.)

effective and most protective of environmental and human health and safety, conducting early detection and rapid response efforts (EDRR) whenever possible, and, perhaps most importantly, increasing the NRM IPMT's capacity. To this end, the NRM IPMT assisted in the release of 12,100 flea beetles (*Aphthona* spp.) and leafy spurge stem borers (*Oberia erythrocephala*) for leafy spurge biocontrol at DINO. The team conducted EDRR for new species at FLFO including spotted knapweed (*Centaurea stoebe*). The NRM IPMT increases capacity by strategically locating IPMT staff in parks and increasing team size. The IPMT also incorporates park staff into treatment and restoration efforts and works with youth conservation corps. The IPMT also plans to increase capacity by tapping into other sources of funding such as Burned Area Emergency Response (BAER) funding for seed collection and planting. Through these strategies, the NRM IPMT increases its ability to effectively support its partner parks.

Summary of Accomplishments

In FY 2023, the NRM IPMT served 19 NPS units in the Intermountain Region. Eighteen partner parks received on-the-ground assistance from the team with repeat treatments at 11 of these parks. Eleven members of youth organizations were recruited from the American Conservation Experience (ACE), Montana Conservation Corps, and Utah Conservation Corps (UCC) who contributed 2,830 person hours to NRM IPMT's efforts. IPMT assistance and expertise included surveys, invasive plant species control, restoration, data collection, and analytics. Program highlights include: hiring Michael Reeves as the program liaison making the NRM IPMT a fully staffed team ramping up for the 2024 season, implementation of invasive plant biocontrol at DINO, leading and training UCC crews and two biological technicians who were the first ever hired at GOSP, leading and training ACE crews at FLFO, and instilling and embodying a culture of safety in all trainings and while conducting invasive plant management and restoration work.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	11
Total Hours for Youth Participants and Youth Employees	2,830

More Information

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Pacific Islands IPMT Annual Report: FY 2023



Controlled fire-promoting fountaingrass in a kipuka in the Great Crack parcel of Hawai'i Volcanoes National Park. NPS photo.

Background

The Pacific Islands Invasive Plant Management Team (PI IPMT) serves eight National Park Service (NPS) units in the Pacific: Hawai'i Volcanoes (HAVO) and Haleakalā National Parks (HALE); Kaloko-Honokōhau, Pu'uhonua O Hōnaunau, and Kalaupapa National Historical Parks; Pu'ukoholā Heiau National Historic Site (PUHO); National Park of American Samoa; and the Ala Kahakai National Historic Trail. Working with parks to address the highest priority incipient invasive species in the islands, the team provides technical, financial and logistical support for invasive species and restoration projects to help parks protect and preserve the unique biocultural resources of the Pacific Islands.

The Pacific Islands are extremely isolated, developing unique ecologies far from continents over millions of years before settlement by indigenous people who navigated the islands and brought just a handful of new species. In Hawai'i, natural introductions occurred less than once every thirty thousand years, carried by winds, ocean currents, or on the wings of birds. An average of 20 new nonnative species now become established annually, many becoming problematic. Approximately 30% of the threatened and endangered plants and birds in the U.S. exist in Hawai'i and nowhere else on earth.

By leveraging park and partner relationships, the PI IPMT helps collaboratively manage invasive plants, restore ecosystems, and prevent introduction and provides technical guidance and develops expertise to support stewardship of natural resources in Hawai'i and the Pacific Islands.

Program Highlights

Precision control of incipient fire-promoting invasive species

Many invasive grasses and trees create cascading damage to Hawaiian dry and mesic ecosystems by carrying fire through forests not adapted to burning, colonizing fire-disturbed areas, and then preventing regeneration of native trees and shrubs. PI IPMT has developed precision aerial spray techniques for rapid spot treatment of high-priority invasive grass species across the vast and rugged landscapes of the islands. In many cases, these high-priority species are capable of exploiting ecological niches at higher elevations or harsher climates than other invasive plants.

Fire-promoting species include pampasgrass (*Cortaderia jubata*) and Monterey pine (*Pinus radiata*) that can transform the open alpine habitat of Haleakalā Crater that is home to numerous endangered species. On the rugged cliffs of the crater, incipient individuals of both species are effectively controlled using cyclic aerial precision spraying. Guinea grass (*Megathyrsus maximus*) and fountaingrass (*Cenchrus setaceus*) are capable of filling in lava fields and kipukas (an area of land surrounded by younger lava flows) with acres of fine, flashy fuels that can carry fire across the coastal plains of HAVO, threatening dry 'ōhi'a woodlands and cultural sites. Since 2016, the PI IPMT keeps these species at sustainable maintenance levels over thousands of acres by conducting cyclic aerial surveys and precision spray. The team also provided technical support to PUHO to initiate fountaingrass control.



PI IPMT technician Leila Morrison controls invasive ginger in the wet forests of Kīpahulu. NPS photo.



Incipient fountaingrass along the Keauhou Trail at Hawai'i Volcanoes National Park. NPS photo.

Program Highlights (cont.)

Supporting Wet Forest Restoration for Endangered Birds in the Pacific

National parks in Hawai'i protect some of the best remaining habitat for endangered forest birds. Avian malaria threatens virtually all Hawaiian forest birds. The disease is spread by mosquitoes that are expanding their range to higher altitudes in a warming climate. In 2023, habitat restoration supported by PI IPMT complements efforts to control mosquito populations and save forest birds from extinction.

At HAVO and HALE, vegetation teams focused invasive plant control on wet forest sites in Kīpahulu and upper Kahuku to perpetuate native forest bird habitat. Removing Himalayan ginger (*Hedychium gardnerianum*) and faya tree (*Morella faya*) allows native understory plants to regenerate, which provide resources for native birds. In collaboration with the Maui Plant Extinction Prevention Program, the HALE crew planted 640 individuals of rare and endangered plant species to restore the biological diversity of these ecosystems.

Prevention of invasive species transportation from one ecosystem to another also remains a cornerstone of PI IPMT work. The team provided technical support for biosecurity and decontamination protocols to staff at the National Park of American Samoa seeking to prevent the spread of clidemia (*Clidemia hirta*) and other wet forest weeds in the course of natural and cultural resources work.

Summary of Accomplishments

Building on successes from previous years, the PI IPMT continued to effectively leverage park partnerships to address invasive species issues common across ecosystems in the Pacific Islands. By providing technical support for biosecurity, aerial precision spray, aerial survey, remote sensing and other tools, the team assisted parks in continuing to achieve effective control of the highest priority invasive species threatening native ecosystems.

The team also continued to build capacity in the NPS National Chainsaw Safety Program, adding one Master Faller and three Journeyman Fallers to the Pacific Islands cadre. These sawyers will be able to fall more complex trees and contribute to the safety and effectiveness of the team while working on invasive tree removal.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	728
Total Hours for Youth Participants and Youth Employees	28,262

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Southeast IPMT Annual Report: FY 2023



View of Appalachia's ridges and valleys from the Chadwell Gap Trail at Cumberland Gap National Historical Park. NPS photo.

Background

The Southeast Invasive Plant Management Team (SE IPMT) supports 20 national park units in seven states in Interior Region 2. The network of parks served by the SE IPMT lies within the Cumberland Plateau, Appalachian Highlands, and Piedmont physiographic provinces and includes unique ecosystems and cultural landscapes. From the cedar glades at several Civil War battlefield parks (i.e. Chickamauga & Chattanooga National Military Park (CHCH)) to the world's longest known cave system of Mammoth Cave National Park (MACA), natural and cultural resources are intertwined. Invasive plants threaten natural resources like federal and state listed plant and animal species as well as culturally significant and archaeological sites. Using an integrated and adaptive resource management strategy, the SE IPMT meets long term management goals to protect these resources.

The SE IPMT, founded in 2003, is based in Asheville, North Carolina on the Blue Ridge Parkway. The program functions as a self-contained, mobile strike team composed of field crew leader Toby Obenauer and youth crew members. Supervision of both the SE and Southeast Coast (SEC) IPMTs is the responsibility of one liaison, Lauren Serra.

Program Highlights

Protecting an Imperiled Ecosystem via Park Collaboration with IPMT, the Fire Management Zone, and Inventory & Monitoring Network

Interspersed throughout the historic battlefields of CHCH, lies fragile limestone cedar glades that harbor rare and endemic plant species. While fire historically occurred in the cedar glades, there are no records of a prescribed burn since the park's inception. In fiscal year 2023, park staff met with the SE IPMT, Appalachian Piedmont Coastal Fire Management Zone (APC), and Cumberland Piedmont Inventory and Monitoring Network (CUPN I&M) to plan coordinated rehabilitation efforts within the cultural landscapes of CHCH.

Invasive plant treatment is an important component of the overall project at CHCH. The SE IPMT crew, a SE and SEC IPMT youth crew led by the American Conservation Experience (ACE), and the Southeast Conservation Corps/Veterans Fire Corps manually and chemically treated species encroaching on the glade habitat, including the removal of Chinese privet (*Ligustrum sinense*) and the thinning of eastern red cedar (*Juniperus virginiana*). These treatments also added to the fuel load, which supported a prescribed burn conducted in March. Following fire, the ACE crew and SE IPMT returned to treat Chinese privet resprouts. The work is not done yet. The APC Fire Effects crew and CUPN I&M will continue to collect vegetation data in permanent plots to determine effectiveness of treatment, inform future adaptive management, and monitor the health of CHCH's cedar glades.



Southeast IPMT, Fire, and Cumberland Piedmont Inventory & Monitoring Network collaborate with park staff to treat imperiled cedar glades at CHCH. NPS photo.



While on incident at Dry Tortugas National Park, Southeast IPMT and Fort Necessity National Battlefield staff remove sisal hemp from Loggerhead Key. NPS photo.

Program Highlights (cont.)

Community Outreach & Training

Outreach, education, and training are essential components of the SE IPMT strategy. The crew leader provided outreach to local organizations, training community members in the science of safe and effective invasive plant treatment and native plant restoration. He trained North Carolina Cooperative Extensions members (e.g. the North Carolina Cattlemen’s Association, Master Gardeners) as well as Marshall Native Gardens, an informal volunteer group. The SE IPMT liaison participated in the joint South Carolina Invasive Pest Council/North Carolina Invasive Plant Council annual meeting and presented on how the IPMTs’ increased program capacity through collaboration with partner park projects such as the project to remove invasive plants to protect the rare North Fork heartleaf (*Hexastylis rhombiformis*) at Carl Sandburg Home National Historic Site. While on incident following Hurricane Ian at Dry Tortugas National Park, the field crew leader trained staff from Fort Necessity National Battlefield in invasive plant identification and the use of herbicides. On Loggerhead and Garden Keys, the removal of sisal hemp (*Agave sisalana*), coconut palm (*Cocos nucifera*), and West Indian almond (*Terminalia catappa*) reduced the invasive vegetation cover by 90%. Future management can be conducted by park staff because of the training they received.

Summary of Accomplishments

The SE IPMT treated approximately 40 plant species at 12 partner parks, one SEC IPMT partner park, and one Florida/Caribbean (FLC) IPMT partner park. ACE youth crews led by park staff were instrumental in treating invasive plants at SE IPMT partner parks’ Big South Fork National River and Recreation Area, Great Smoky Mountains National Park, and MACA. SE IPMT treated hemlock woolly adelgid at CHCH and participated in group projects at two additional parks in the SEC and FLC IPMT networks. The SE IPMT liaison provided technical assistance to Shiloh National Military Park, and the field crew leader instructed National Chainsaw Safety Program sawyer and working faller trainings for park staff and crew members.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	32
Total Hours for Youth Participants and Youth Employees	4,897

More Information

Lauren Serra IPMT Liaison	(803) 315-5796 lauren_serra@nps.gov
Congaree National Park 100 National Park Rd Hopkins, SC 29061	
Toby Obenauer IPMT Field Crew Leader	(404) 655-1118 toby_obenauer@nps.gov
Blue Ridge Parkway 67 Ranger Drive Asheville, NC 28805	
Shea Bruscia IPMT Data Manager	(786) 249-3005 shea_bruscia@nps.gov
18001 Old Cutler Road Suite 419 Palmetto Bay, Florida 33157	



Southeast Coast IPMT Annual Report: FY 2023



Charles Pinckney National Historic Site preserves Snee Farm, a plantation property inherited by Charles Pinckney, an author and signer of the U.S. Constitution. NPS photo.

Background

The Southeast Coast Invasive Plant Management Team (SEC IPMT) serves 15 National Park Service (NPS) units in North and South Carolina, Georgia, and Alabama. Partner parks range from protected seashores and forested wilderness to urban recreational areas and cultural landscapes. Along the coast are the National Seashores from the lighthouses of Cape Hatteras (CAHA) to the sandy beaches of Cumberland Island, with historic Revolutionary and Civil War battle sites in between. Inland, the SEC IPMT serves parks like Chattahoochee River National Recreation Area in Atlanta metro area to the prehistoric settlements at Ocmulgee Mounds National Historical Park (OCMU). Congaree National Park (CONG), which encompasses one of the last remnants of intact old growth bottomland forest and designated wilderness, hosts the SEC IPMT.

The SEC IPMT began as a pilot project in 2005 and by 2010 was permanently funded through CONG's base operating budget. In 2020, the SEC IPMT's base funds were reallocated to Interior Region 2's (IR-2) Science and Natural Resources Management Division, along with personnel and oversight. Through a Letter of Understanding the program continues operations at CONG. Although funded differently than the majority of IPMTs, the SEC IPMT has similar goals for invasive plant management. The SEC IPMT is led by Lauren Serra (liaison) and Amorita Brackett (field crew leader). The SEC IPMT crew consisted of American Conservation Experience (ACE) members based at CONG and youth crews led by ACE.

Program Highlights

Invasive Plant Treatments at an Out-of-Network Park in Partnership

Reconstruction Era National Historical Park (REER) was first established as a national monument in 2017. Built around 1900 by island residents, Darrah Hall was once a center for community gatherings and recreation. It is a site within the Penn School National Historic Landmark District, a cultural and educational center that was one of the country's first schools for freed slaves and includes the Brick Baptist Church site that was built by enslaved people in 1855. In the 1960s, the Penn Center was a retreat site for Rev. Dr. Martin Luther King, Jr., where he and the Southern Christian Leadership Conference planned the March on Washington. Although REER is an out-of-network park, it falls within the geographic range of partner parks served by the SEC IPMT. Since the park's inception, the SEC IPMT has served REER. The SEC IPMT collected survey data during prior years' site visits, then returned to REER in fiscal year 23 to begin invasive plant treatments within the maritime forest that surrounds this cultural landscape. Working alongside park staff, the SEC IPMT crew treated Chinese privet (*Ligustrum sinense*), Chinese wisteria (*Wisteria sinensis*), thorny olive (*Elaeagnus pungens*), Chinese tallow (*Triadica sebifera*), and Chinaberry (*Melia azedarach*). The SEC IPMT trained park staff in invasive plant identification and the safe use of herbicides. Training of park staff and providing them experience gained through work alongside IPMT staff is invaluable. Providing these opportunities will further the rehabilitation and protection of park resources in the future.



Southeast Coast IPMT and park staff perform invasive plant treatments at out-of-network park Reconstruction Era National Historical Park. NPS photo.



Mapping common reed at Cape Hatteras National Seashore by Southeast Coast IPMT in collaboration with park staff is key to prioritizing invasive plant treatment efforts. NPS photo.

Program Highlights (cont.)

Comprehensive Mapping Captures Invasive Species in the Outer Banks

Park staff and the SEC IPMT embarked on a mapping project to gather more invasive species occurrences at CAHA, Fort Raleigh National Historic Site (FORA), and Wright Brothers National Memorial (WRBR). This included common reed (*Phragmites australis*) and rattlebox (*Sesbania punicea*) at CAHA, English ivy (*Hedera helix*) at FORA, and thorny olive at WRBR. Through a cost-share with CAHA, the North Carolina Department of Environmental Quality’s Aquatic Weed Program treated common reed in areas previously treated by the SEC IPMT. SEC IPMT crew members and ACE youth crews also treated a variety of invasive plant species at the Outer Banks parks, including a new site at Ocracoke. The youth crews led by ACE staff worked closely with SEC IPMT staff to map and treat invasive plants at Cape Lookout National Seashore, Fort Pulaski National Monument, and Horseshoe Bend National Military Park. Parks often lack up-to-date information on location and density of target invasive plant species and the ability to follow up on treatments. Mapping quantifies invasive plant populations facilitating prioritization of treatment efforts. Retreatment maintains the IPMT and parks’ investments in restoration of park lands.

Summary of Accomplishments

The SEC IPMT treated 35 invasive plant species at 12 partner parks and one out-of-network park. They also trained a Moores Creek National Battlefield intern in invasive plant treatment techniques. SEC IPMT staff joined IR-2’s IPMTs in invasive plant management at Timucuan Ecological and Historic Preserve in support of the IPMT 20-year anniversary. At CONG, the SEC IPMT coordinated a WeedWrangle(R) with Palmetto Garden Club volunteers to remove Chinese wisteria. The field crew leader was the technical supervisor for an OCMU biological technician and the liaison participated in development of the park’s Resource Stewardship Strategy. The SEC IPMT continued collaborating with the Southeast Coast Inventory and Monitoring Network and three Fire Management Zones.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	36
Total Hours for Youth Participants and Youth Employees	4,607

More Information

Lauren Serra IPMT Liaison	(803) 315-5796 lauren_serra@nps.gov
Congaree National Park 100 National Park Rd Hopkins, SC 29061	
Amorita Brackett IPMT Field crew leader	(803) 351-2756 amorita_brackett@nps.gov
Shea Bruscia IPMT Data manager	(786) 249-3005 shea_bruscia@nps.gov
18001 Old Cutler Road Suite 419 Palmetto Bay, Florida 33157	



Southwest IPMT Annual Report: FY 2023



Tonto National Monument staff and interns along with Southwest IPMT staff and the Collaborative Audubon Treatment and Inventory Squad search for stinknet in the bajada. NPS photo.

Background

The Southwest Invasive Plant Management Team (SW IPMT) of the National Park Service (NPS) serves 46 NPS units and adjacent landowners in six states throughout the southwest.

The SW IPMT's mission is: to collaborate with park staff, with other programs within the NPS, and with park neighbors, local communities and organizations, and other state and federal agencies, to restore the native ecosystems of our parks and surrounding lands. The SW IPMT assists parks and partners by serving as a regional resource to combat the invasion of invasive plant species and support the restoration of disturbed areas to functioning healthy ecosystems.

The SW IPMT supports many programs related to the international issues of invasive plants, ecosystem fragmentation, and habitat restoration. In addition to treating invasive plants, significant activities include research in control and restoration methods, production of appropriate native plant materials, and collaboration with communities and partners. The SW IPMT is working with and supports a diverse coalition of universities, land management agencies, non-profit organizations, and conservation groups to restore native plant biodiversity and the ecosystems that sustain the native flora and faunal heritage.

Program Highlights

Multi-faceted Collaborations for Treatment and Inventory at Tonto National Monument

In March, the SW IPMT partnered with American Conservation Experience (ACE) and Tucson Audubon Society for a multi-faceted treatment project at Tonto National Monument (TONT). Stinknet (*Oncosiphon piluliferum*) is an early detection species that crowds out native plants and becomes a fire hazard in summer. The SW IPMT and the Collaborative Audubon Treatment and Inventory Squad (CoATIS) took swift action to survey for and remove stinknet within the monument, including a population first discovered by Sonoran Desert Network vegetation monitoring crew days before the IPMT's arrival. The TONT Biological Science Technician and a long-time VIP assisted the IPMT in this effort. Simultaneously, an ACE crew also treated populations of red brome (*Bromus rubens*) near the cliff dwellings encompassed within TONT and along the Upper Cliff Dwellings trail.

Following this work, SW IPMT worked closely with TONT staff to outfit their program for continued treatment and surveying without IPMT assistance. Furthermore, SW IPMT has been working across agencies with the USGS toward pilot trials of Rejuvra (indaziflam) for preemergent control of red brome. This herbicide looks promising as a much-needed tool in the fight against this highly flammable invasive plant species that was largely responsible for the loss of many Saguaro cactuses in the 2019 Woodbury fire.



Southwest IPMT Crew Lead Anna Wheeler and the Tucson Audubon Society crew take a break to try sledding down a sand dune at White Sands National Park. NPS photo.

Program Highlights (cont.)

Protecting a Unique Ecosystem from Tamarisk

In September, the SW IPMT visited White Sands National Park (WNSA) for the first time in several years. The IPMT New Mexico crew lead, Anna Wheeler, with Conservation Legacy Intern Brittany Browne, and the Tucson Audubon Society crew led by Jaemin Wilson, worked alongside park staff to treat tamarisk (*Tamarix* spp.) in the riparian area at the edge of the dune field. Although the park previously removed most of the mature trees, new seedlings are encroaching from the population on the missile range. The namesake gypsum sands of WNSA are a wet dune system, with extremely shallow (1-3 feet) groundwater that stabilizes the sand and keeps it from blowing away. Tamarisk infestations are a high concern for the park, due to their water consumption, and potential to change the hydrology of the dune system.

The crew also conducted several miles of roadside African rue (*Peganum harmala*) treatments, mostly in a section of the park that staff hope to expand to visitors in the future. As with the tamarisk, this species is also spreading from the missile range and Air Force base. Greater interagency cooperation will be necessary to truly control the spread.

Summary of Accomplishments

In fiscal year 2023 the SW IPMT worked with 26 parks to treat invasive plants across approximately 112 acres and surveyed an additional 936 acres. To complete this work, the program engaged 32 youth who contributed 6,875 hours.

In fiscal year 2023 the SW IPMT continued its partnership with the CoATIS that was established in 2020. The IPMT was able to fund one intern position through Ancestral Lands. This intern worked with the IPMT New Mexico crew lead. The SW IPMT was also able to fund seed collection and plant production through the Institute for Applied Ecology, as well as several crews with ACE and Ancestral Lands.



Southwest IPMT intern Brittany Browne treats Siberian elm trees at Aztec Ruins National Monument. NPS photo.

Summarized Data for 2023

Measure	Acres
Treated	XXX
Inventoried/Monitored	X,XXX
Gross Infested Area	XXX
Net Infested Area	XXX
Youth Engagement	
Total Number of Youth Participants and Youth Employees	32
Total Hours for Youth Participants and Youth Employees	6,875

More Information

Michael Turner IPMT Deputy Liaison Saguaro National Park 12661 E. Broadway Ave Tucson, Arizona 85748	(520) 400-7954 michael_turner@nps.gov
Anna Wheeler IPMT Crew Leader Petroglyph National Monument 6001 Unser Blvd NW Albuquerque NM 87120	(520) 549-7755 anna_wheeler@nps.gov



FY2023 Invasive Plant Management Team – Program Participants

Alaska IPMT

Leadership

Anna O'Brien (Liaison)
David Payer (Supervisor)

Crew (funded or funding procured by IPMT program)

Denali National Park and Preserve -
Izzy Mousseau (SCA), Katie Lee
(SCA)
Kenai Fjords National Park – Clarice
Perry (SCA),
Klondike Gold Rush National Park
and Preserve – Julianna
Tenenbaum (SCA)
Yukon -Charley River National
Preserve- Mallory Hajek (SCA)
Alaska Regional Office- Lila
Gathright (SCA), Colette Martinez
(SCA), Anya Bronowski (NPS
Seasonal)

Region/Network Support

Joel Cusick (field GPS support), Angie
Southwold (GIS lead), Lee Wilson
(budget), James Cato (Grants and
Agreements Manager), Erica
Cordeiro(Grants and Agreements Manager),
the regional office staff provide numerous
help since the AK IPMT is coordinated out of
it.

Park Support

Denali National Park and Preserve -
Wendy Mahovlic (NPS Staff and
IPMT Park Crew lead), Carl
Roland (NPS supervisor for the
program), Dave Schirokauer (NPS

supervisor for the program)

Katmai National Park and Preserve
(also covers ALAG and ANIN) -
Leslie Skora (NPS Staff and IPMT
Park Crew Lead), Sarah Moy
(NPS Seasonal and IPMT park
crewmember)

Kenai Fjords National Park -
Christina Kriedeman (NPS Staff
and IPMT Park Crew Lead),
Benjamin Pister (NPS supervisor
for the program), Kelli Palaka
(NPS Seasonal and IPMT Park
Crew Lead), Makena Desermia
(YCC and IPMT crew member),
Emily Anger (YCC and IPMT crew
member)

Glacier Bay National Park and
Preserve - Martin Hutten (NPS
Staff and IPMT coordinator)

Klondike Gold Rush National Park
and Preserve - Elaine Furbish
(NPS Staff and IPMT Park Crew
Lead)

Sitka National Historic Park – Olivia
Magni (NPS Staff and IPMT Park
coordinator)

Wrangell – St Elias National Park
and Preserve - Mark Miller (NPS
Staff and IPMT coordinator)

Yukon -Charley River National
Preserve- Danielle Knapp (NPS
Staff and IPMT coordinator), Amy
Larson (NPS Staff and IPMT
coordinator), Jeffery Rasic (NPS
Staff and IPMT coordinator), Chad
Billock (NPS Staff and IPMT
coordinator)

Partners

Alaska Association of Conservation
Districts, Soil & Water Districts
Various statewide CWMAs
SCA
Chugach National Forest
USFWS
DOT - Fairbanks Division
University of Alaska, Anchorage

Volunteers

Denali National Park and Preserve
held 2 volunteer days

Steering Committee

Alagnak / Aleutian Islands / Katmai:
Troy Hamon, Resources Lead
Bering Land Bridge: Letty Huges,
Resources Lead
Cape Krusenstern / Kobuk Valley /
Noatak (WEAR Parks): Justin
Junge, Resources Lead (Detailed)
Denali: Carl Roland, Natural
Resources Lead
Gates of the Arctic / Yukon- Charley
Rivers: Jeff Rasic, Resources
Lead
Glacier Bay: Martin Hutten,
Terrestrial Ecologist
Kenai Fjords: Ben Pistor, Resources
Lead
Klondike Gold Rush: Elaine Furbish,
Natural
Lake Clark: Buck Mangipane,
Resources Lead
Sitka: Jessica Perkins, Resources
Lead
Wrangell-St Elias: Mark Miller,
Resources Lead
Alaska Regional Office: David Payer,
Regional Wildlife Biologist
Fire: Jennifer Barns, Fuels Manager
Alaska Leadership: Grant
Hilderbrand, Regional Resource
Lead

California IPMT

Leadership

Steve Buckley (Liaison)
Brent Johnson (Supervisor)

Staff and Staffing Support

Cabrillo National Monument — Lauren
Pandoori
Channel Islands National Park – Ken
Convery, Annie Little
Crater Lake National Park – Jen Hooke,
Sean Mohren, John Cannon
Devils Postpile National Monument –
Monica Buhler
Golden Gate National Recreation Area —
Erik Grijalva, Alison Forrestel, Jeremiah
Jolley, Eric Wrubel
Lassen Volcanic National Park — Colleen
Egan, Nancy Nordensten, Tim Marsh
Lava Beds National Monument – Dave
Hays, Jessica Reid, Chris Mengel
John Muir National Historic Site – Tori Seher
Pinnacles National Park — Amelia Ryan,
Andrew Harmon
Point Reyes National Seashore — Lorraine
Parsons, Dylan Voeller, Rachel
Hendrickson, Kristen Richardson
Redwood National Park – Stassia Samuels,
Laura Julian, Emma McClure
Santa Monica Mountains National
Recreation Area — Joey Algiers, Antonio
Sanchez, Mark Mendelsohn, John
Tiszler, Tak Chipman
Whiskeytown National Recreation Area —
Laura Shaskey, Tyler Self, Chris
McCarron
Yosemite National Park — David Campbell,
Garrett Dickman, Trevor Denson, Athena
Demetry, Alisa Simonoff-Smith, Ella
Kasten

Region/Network Support

Interior Regions 8, 9,10, 12 (Lower Colorado
Basin, Columbia-Pacific Northwest,
California-Great Basin, Pacific Islands)
Office – Denise Louie (Natural Resources)

and Science Lead), Brent Johnson
(Vegetation Ecologist)
Californian Cooperative Ecosystem Studies
Unit – Ben Becker
MABO – Rachel Dell’Osso, Jason Whitehead
Fire and Aviation – Cedar Drake, Nelson
Siefkin, Eamon Engber, Anthony Sandrini
Inventory and Monitoring: (KLMN) Alice
Chung-MacCoubrey, Lauren Neel, Allison
Snyder; (SFAN) Jena Hickey, Kelsey
Songer, Alex Iwaki

Park Support

Host Park – Redwood State and National
Parks, Steve Mietz (Superintendent),
Leonel Arguello (Deputy Superintendent),
Haley Allen (Budget Analyst), Birgitta
Osborne (Admin Support), Christine
Walters (Admin Support), Liam Carey-Rand
(IT), Eric Sherman (IT), Karin Grantham
(Program Manager, Resource Management
and Science)

Partners and Cooperators

American Conservation Experience - Deanna
Stark, Michael Knapp, Chris Binder
Cabrillo National Monument Conservancy
Cabrillo National Monument Foundation
Calflora
California Botanic Garden - Naomi Fraga
(former: Rancho Santa Ana Botanic
Garden)
California Institute of Environmental Studies
California Invasive Plant Council – Doug
Johnson, Jutta Burger
California State Parks – Leah Gardner
California Wildlife Conservation Board
Golden Gate National Parks Conservancy
Great Basin Institute — Melonie Brown,
Patricia Simpson
National Park Foundation
Pinnacles National Park Foundation
Point Reyes National Seashore Association —
Nic Anderson
San Diego Urban Corps
San Francisco Public Utilities Commission
Santa Monica Mountains Fund

Sierra Institute for Community and
Environment
University of California, Davis — Alison
Colwell, Dan Potter
Yosemite Conservancy
Youth Conservation Corps

Volunteers

Point Reyes National Seashore
Association
Golden Gate National Parks
Conservancy
Yosemite Conservancy
Youth Conservation Corps

Steering Committee

Klamath Network Rep: Vacant
Pinnacles National Park, Amelia Ryan
(Ecologist)
Santa Monica Mountains National
Recreation Area, Joey Algiers
(Restoration Ecologist)
Sequoia and Kings Canyon National
Parks, Andrew Bishop (Restoration
Ecologist)
Pacific West Region, Brent Johnson
(Vegetation Ecologist)

Florida / Caribbean IPMT

Leadership

Brian Lockwood (Liaison),
Shea Bruscia (Data Manager)

Region/Network Support

Interior Region 2 South Atlantic Gulf – Mark
Frey (Branch Lead SNRMD), Kelly Irick
(Terrestrial Branch Lead)
Interior Region 2 South Atlantic Gulf
Comptroller Division – Hannah
Strotman (Budget Analyst),
Tywannia Howells (Deputy
Comptroller)
Interior Region 2 South Atlantic Gulf
Contracting Division – Will

Vazquez and Noelli Medina
(Contracting Officer)
South Florida and Caribbean Inventory and
Monitoring Network – Kim Dibble, Brooke
Shamblin,

Park Support

Big Cypress National Preserve – William
Snyder, Courtney Angelo
Biscayne National Park – Shelby Moneysmith,
Vanessa McDonough, Amanda Bourque
Buck Island Reef National
Monument/Christiansted National Historic
Site/Salt River National Historic Park and
Ecological Reserve – Kristen Ewen
Canaveral National Seashore – Kristen Kneifl,
Jimi Sadle
DeSoto National Memorial – Wayne Boyd,
Kristen Kneifl, Jimi Sadle
Dry Tortugas National Park – Hillary Cooley
Everglades National Park – Hillary Cooley
Fort Matanzas National Monument, Castillo de
San Marcos – Kurt Foote
Gulf Islands National Seashore – Jennifer
Manis
San Juan National Historical Site – Felix Lopez
Timucuan Ecological and Historic Preserve,
Fort Caroline – Steven Kidd, Fiona
Southwell
Virgin Islands National Park – Thomas Kelly

Partners and Cooperators

Florida Fish and Wildlife Conservation – Linda
King, Dennis Giardina, Jackie Smith
Miami-Dade County – Dallas Hazelton
US Army Corps of Engineers – Jon Lane,
Jessica Spencer
South Florida Water Management District –
LeRoy Rodgers, Christina Stylianos, Manny
Porras

Steering Committee

Big Cypress National Preserve – Thomas
Forsyth (Superintendent)
Biscayne National Park – Penelope Del Bene
(Superintendent)
Buck Island Reef National Monument/

Christiansted National Historic Site/Salt
River National Historic Park and Ecological
Reserve – Angelita Alvino (Superintendent)
Canaveral National Seashore – Cinda
Waldbuesser (Superintendent)
Desoto National Memorial – Joseph Brehm
(Superintendent)
Everglades National Park/Dry Tortugas
National Park – Pedro Ramos
(Superintendent)
Fort Matanzas National Monument/Castillo de
San Marcos National Monument – Gordie
Wilson (Superintendent)
Gulf Islands National Seashore – Darrell Echols
(Superintendent)
San Juan National Historical Site- Myrna
Palfrey (Superintendent)
Timucuan Ecological and Historic Preserve/Fort
Caroline National Memorial – Chris Hughes
(Superintendent)
Virgin Islands National Park – Nigel Fields
(Superintendent)

Great Lakes IPMT

Leadership

Isaiah Messerly (Liaison), Daniel Jorgensen
(Crew Leader), Cyrus Hester (Data
Manager), Vacant (Admin Officer), David
Balzola (IT Support)

Region/Network Support

Interior Regions 3, 4, and 5 (Great Lakes/
Mississippi River Basin/ Missouri River
Basin) - Craig Young (MWR IPM
Coordinator/GL-IPMT Supervisor)

Crew

Biological Technicians: Daniel Jorgensen
(Crew Leader), Renea McNemee
Conservation Corps of MN. and IA: Branden
Herbst, and Liberty Mason

Park Crews

Mississippi National River and Recreation Area
– Neil Smarjesse
Saint Croix National Scenic Riverway – Michael
Rhoades, George Johnson, Connor Bacon,
Luke Lindsay
Pictured Rocks National Lakeshore – Theodore
Roper
Sleeping Bear Dunes National Lakeshore –
Keith Furgeson

Park Support

See Technical/Steering Committee section
Additional Contacts: Scott Weyenberg (MWR-
Fire), Chris Loudenslager (NOCO), Eric
Gabriel (IATR) Katherine Frauen (IATR),
John Arnold (KEWE), Brett English (RIRA)

Partners and Cooperators

Conservation Corps of Minnesota and Iowa
Northwood Cooperative Weed Management
Area
St. Croix Red Cedar Cooperative Weed
Management Area
Grand Portage Reservation Tribal
Council
Wild Rivers Conservancy
WisCorps

Steering Committee

Lynne Dominy, Superintendent, Apostle Islands
National Lakeshore
Scott Tucker, Superintendent, Sleeping Bear
Dunes National Lakeshore
Paul Labovitz, Superintendent, Indiana Dunes
National Park
Heather Boyd, Superintendent, Grand Portage
National Monument
Wyndeth Davis, Superintendent, Keweenaw
National Historical Park
Denice Swanke, Superintendent, Isle Royale
National Park

Technical Committee

Apostle Islands National Lakeshore –
Peggy Burkman

Grand Portage National Monument – William
Clayton
Ice Age National Scenic Trail – Dan Watson
Isle Royale National Park – Lynette Potvin
Indiana Dunes National Park – Laura Brennan
Keweenaw National Historical Park – John
Arnold
Mississippi River and Recreation Area – Neil
Smarjesse
North Country National Scenic Trail – Chris
Loudenslager
Pictured Rocks National Lakeshore –
Laura Waller
St. Croix National Scenic Riverway – Caitlin
Nagorka
Sleeping Bear Dunes National Lakeshore –
Kirk Acharya
Voyageurs National Park – Brian Harmon
MWR Fire Ecologist – Scott Weyenberg

Gulf Coast IPMT

Leadership

Dale McPherson (Liaison),
Shea Bruscia (Regional Data
Manager, Acting Liaison March-
July 2023)

Region/Network Support

Interior Region 2 South Atlantic Gulf
Science and Natural Resources
Management Division - Mark Frey
(Division Lead), Kelly Irick
(Terrestrial Branch Lead),
Christopher Barrow (Regional
GIS Coordinator)
Interior Region 2 South Atlantic Gulf
Contracting Division - Celinda
Hicks (Contracting Officer), Alison
Smith (Agreements Officer)
Interior Region 2 South Atlantic Gulf
Comptroller Division – Hannah
Strotman (Budget Analyst),
Tywannia Howells (Deputy
Comptroller)
Interior Region 2 South Atlantic Gulf

Human Resources & Workforce
Management Division – Robin
Robinson (Security Specialist),
David Jordan (Management
Analyst)
Gulf Coast Inventory and Monitoring Network
– Martha Segura (Network Coordinator),
Jane Carlson (Ecologist)

Intern Support

Conservation Legacy – Rachel Walker

Park Support

Big Thicket National Preserve Resource
Management (RM) – Whitney Howeth,
Andrew Bennett

Gulf Islands National Seashore RM – Bruce
Leutscher, Cody Haynes

Jean LaFitte National Historical Park
and Preserve RM – Guy Hughes,
David Fox

Natchez Trace Parkway RM –

Christina Smith, Deanna Boensch

Palo Alto Battlefield National Historical
Park RM – Oralia Fernandez, Daniel
Ibarra, Lee Bragg

Padre Island National Seashore RM –
Shelley Todd, Kelly Nesvacil,
Charles Sassine

San Antonio Missions National Historical
Park Facility Management – Alison
Young, Joel Osbourne, David Vekasy

Vicksburg National Military Park RM –
Rachel Davidson, Chuck Beightol

Partners and Cooperators

Conservation Legacy Stewards Individual
Placements Program - Patricia Silva, Jack
McCann, Jessica Zukowski, Krista
Hozyash

Steering Committee

Big Thicket National Preserve – Wayne
Prokopetz (Superintendent)

Gulf Islands National Seashore – Darrell Echols
(Superintendent)

Jean LaFitte National Historical Park
and Preserve – Chuck Hunt
(Superintendent)

Natchez Trace Parkway – Doug
Neighbor (Superintendent)

Palo Alto Battlefield National Historical
Park – Oralia Fernandez
(Superintendent)

Padre Island National Seashore – Eric
Brunnermann (Superintendent)

San Antonio Missions National Historical
Park – Christine Jacobs (Superintendent)

Vicksburg National Military Park – Carrie
Mardorf (Superintendent)

Heartland Network IPMT

Leadership

Vacant, Liaison

Jordan Bell, Project Manager/Data Manager

Park Project Support

Anna Vrioni, Hopewell Culture National
Historical Park

Region/Network Support

Craig Young, MWR Plant Biologist

Board of Directors

Buffalo National River – Tarona Armstrong
(Superintendent)

Effigy Mounds National Monument – Susan
Snow (Superintendent)

Hopewell Culture National Historical Park –
Vacant (Superintendent, Chair)

Hot Springs National Park – Laura Miller
(Superintendent)

Wilson's Creek National Battlefield – Sarah
Cunningham (Superintendent)

Midwest Regional Office – Li-Ming He (MWRO
Supervisory Natural Resource Manager)

Technical Committee

Arkansas Post National Memorial – Kirby
McCallie

Buffalo National River – Melissa Trenchik
Cuyahoga Valley National Park – Chris Davis
Effigy Mounds National Monument – Vacant
George Washington Carver National Monument – Chris Reed
Herbert Hoover National Historic Site – Seth Goodspeed
Homestead National Monument of America – Jesse Bolli
Hopewell Culture National Historical Park – Bret Ruby
Hot Springs National Park – Chace Holzheuser
Lincoln Boyhood National Memorial – Erin Hilligoss-Volkman
Ozark National Scenic Riverways – Victoria Grant
Pea Ridge National Military Park – Nolan Moore
Pipestone National Monument – Seth Hendriks
Tallgrass National Preserve – Darin McCullough
Wilson's Creek National Battlefield – Shawn Pearce

Lake Mead Inter-Regional IPMT

Leadership

Curt Deuser (Liaison), Corbin Gentzler (Operations Specialist), Tyler Jack (Crew Supervisor) and James Roberts (Crew Supervisor), Carlee Coleman (Data Manager through mid January 2023) and Maegan Stephenson (Data Manager, from January 2023 to current)

Crew

James Roberts, Joseph Ingram, Matthew Gorentz, Grady Workman, Maegan Stephenson, Riley Gronemeyer, Abigail Zastawny, Joshua Vogel, Jacob Pope, Caleb Dankle, Stephanie Sonnenberg, Tobias Verville and Wesley Scott.

Region Support

Interior Regions 8, 9, 10, 12 (Lower Colorado Basin, Columbia-Pacific Northwest, California-Great Basin, Pacific Islands) Office – Denise Louie, Brent Johnson
Interior Regions 6, 7, and 8 Office - John Mack

Lake Mead NRA Host Park Support

Mark Sappington (Resource Management and Interp Division Chief), Kim James (IPMT Admin Support) Wendy Foster, Brad Morris and Tyler Halfpenny (Administrative Support), Scott Briggs (Budget Officer/IPMT Agreements Support), Justin Pattison (Deputy Superintendent), Marcus Foster (IT Support)

Park Support

Arches National Park and Canyonlands National Park (Southeast Utah Group): Liz Ballenger and Kelli Quinn.
Joshua Tree National Park: Jay Goodwin, Yoselyn Ayala and Jane Rodgers
Death Valley National Park: Ian Torrence, Carol Fields and Mark Sappington
Bryce Canyon National Park: Eric Vasquez and Brett Cockrell
Capitol Reef National Park: Morgan Wehtje, Jim Roche, Joseph Ceradini and Rachel Pober
Great Basin National Park: Meg Horner and Bryan Hamilton
Mojave National Preserve: Andrew Kaiser, Debra Hughson and Morgan Conley
Zion National Park: Darrin Gobble, Rebecca Lieberg, and Cassity Bromley
Lake Mead NRA: RM Staff Carrie Norman, Matt D'Ambrosi, and Kelly Wallace; Fire Program Staff: Tiege Downes and Jeremie Gamiao
Parashant National Monument: Jennifer Fox and Ben Roberts
Pipe Spring National Monument: Brian Black
Manzanar National Historic Site: Jeff Burton and Dave Goto

Tule Springs Fossil Beds National Monument
(not official partner): Erin Eichenberg and
Derek Carter

Organ Pipe Cactus NM (not official partner):
Jeanne Taylor and Scott Stonum

Partners and Cooperators

Bureau of Land Management:

Southern NV District: Tarl Norman, JJ
Smith, Sean McEldery, Tomas
Gonzalez, Frank Rice, Lillian Setters
and Tyler Hecht.

Battle Mountain District: Robert
Burdick and John McNelly

Elko District: Kyle Martin

California Ridgecrest District: Priscilla
Watson-Wynn, Thomas Bickaaskas,
Alex Neibergs and Marty Dickes

Winnemucca District: Michael
McCampbell and TJ (Local Rancher)

US Fish and Wildlife Service:

Southwest Arizona Complex: Elaine Johnson
AZ ISST: Bethany Derango

Cibola NWR: Ryan Woody and Kenneth
Carver

USFWS Desert Complex Office: Christa
Weise

Desert NWR: June Chiu

Ash Meadows NWR: Michael Bowers and
Leah Simantel

US Forest Service:

Spring Mountains NRA: Juliet Wallis,
Kathryn Gulley and Deborah Macneill
Coconino NF: Andy Pigg, Amanda
Roesch, Katherine Landry, and Janie
Agyagos

Bureau of Reclamation:

Lower Colorado River MSCP Program:
Nathan Lennon, Laken Anderson, John
Swatzell, and Jeremy Brooks.

LCR RMO: Andrew Truitt and Michael
Boyles

Clark County, Nevada Desert Conservation
Program – Riparian River Reserves: Caryn
Wright; Boulder City Conservation
Easement: Stefanie Ferrazzano and Sara
Carrizal

Clark County Wetlands Park and Nature
Preserve – Elizabeth Bickmore and Ben
Jurand

Nevada Department Of Wildlife: Anthony
Miller

Nevada Department of Agriculture: Jake
Dick

Maricopa County Parks, Arizona: Juanita
Armstrong-Ullberg and Darci Kinsman

Yuma Marine Corp Air Station, AZ:
Robert Law

Southern Nevada Inter-Agency
Restoration Team (SNRT)

Virgin River Coalition (VRC)

Eastern Nevada Landscape Coalition
(ENLC)

Southern NV CWMA

Pahrnagut Valley CWMA

Mid-Atlantic IPMT

Leadership

Emily Booth (Liaison), Nathan Wender
(Team Leader), Anthony John (Field
Leader/Data Manager)

Crew

Marcus Jernigan, Trevor Mount, Emily
Woodard

Region Support

Interior Region 1 (North Atlantic
Appalachian) Office – Casey Reese,
Supervisor (Regional IPM Coordinator),
Stacey Moore Lacey (Budget Analyst),
Tamika Tucker (Human Resource
Specialist)

Inventory & Monitoring – Stephanie
Perles (Ecologist, Eastern Rivers and
Mountains I&M Network), Kate Miller
(Quantitative Ecologist, Northeast
Temperate Network), Marietta
Shattelroe (NETN Biological Science
Technician), Camilla Seirup (NETN
Biological Technician)

Park Support

Host Park – Shenandoah National Park – Patrick Kenney (Superintendent), Jim Schaberl (Chief of Natural and Cultural Resources), Jake Hughes (Biologist – Invasive Plants/Restoration), Jason Ferguson (IT Specialist)

Appalachian National Scenic Trail – James Von Haden (Integrated Resources Program Manager)

Appomattox Courthouse National Historical Park – Brian Eick (Natural Resources Program Manager) and Jim Bailey (Supervisory Park Ranger)

Assateague Island National Seashore – Bill Hulslander (Chief of Resource Management), Jonathan Chase (Lead Biological Science Technician)

Booker T. Washington National Monument – Timothy Sims (Chief of Interpretation and Natural Resources) and Jim Bailey (Supervisory Park Ranger)

Cedar Creek and Belle Grove National Historical Park – Karen Beck-Herzog (Site Manager), Jon Beck (Safety & Occupational Health Manager)

Colonial National Historical Park – Dorothy Geyer (Natural Resource Manager)

Fort Monroe – Jim Courson (Chief of Maintenance)

Fredericksburg and Spotsylvania County Battlefields Memorial National Military Park – Sara Strickland (Natural Resource Program Manager)

Gettysburg National Military Park and Eisenhower National Historic site – Zach Bolitho (Chief of Resource Stewardship and Planning), Christopher Davis (Ecologist), Dafna Reiner (Biologist)

George Washington Birthplace National Monument and Thomas Stone National Historic Site – Melissa Cobern

(Superintendent), Elizabeth Ottarson (Chief Ranger), Brian Wrabley (Maintenance Worker)

Hampton National Historic Site and Fort McHenry National Monument and Historic Shrine – James Hogan (Horticulturalist)

Hopewell Furnace National Historic Site and Valley Forge National Historical Park – Amy Ruhe (Chief of Planning and Resource Management), Kate Jensen (Ecologist and IPM Manager)

New River Gorge National River, Bluestone National Scenic River, and Gauley River National Recreation Area – Bryan Wender (Chief of Natural Resources), Doug Manning (Biologist), Katie Kull (Biological Science Technician)

Petersburg National Battlefield – Lewis Rogers (Superintendent)

Richmond National Battlefield Park – Kristen Allen (Resource Manager)

Partners and Cooperators

Appalachian Trail Conservancy
Blue Ridge PRISM
Smithsonian Conservation Biology Institute
Potomac Appalachian Trail Club
Town of Elkton, VA
Town of Shenandoah, VA

Volunteers

PATC, Rob Lamar

National Capital Region IPMT

Leadership

Alex Voznitza (Liaison), Nate Finney (Team Leader), Micheal Inlow (Crew Lead)

Crew

Amy Fowler, Stephanie Lamb (NPS), Jael Espinoza, Matthew McClanahan, Micki Greenberg, Veronica Mucciarone, Yvonne Ng (Conservation Legacy)

Region Support

National Capital Region – Pat Campbell (Chief of Natural Resources and Science)
National Capital Region – Diane Pavek (Research and T&E Coordinator)
National Capital Region – Elizabeth Matthews (Regional I&M Program Manager)
National Capital Region – Dorothy Borowy (Ecologist, Regional IPM Coordinator)

Park Support

Antietam National Battlefield – Joe Calzarette (Natural Resources Program Manager), Jane Custer (Chief, Resource Management)
Catoctin Mountain Park – Lindsey Donaldson (Chief, Resource Management),
Chesapeake and Ohio Canal National Historical Park – Andrew Landsman (Natural Resources Program Manager), Layne Strickler (Biological Science Technician), Sarah Brown (Biological Science Technician), Angela Moxley (American Conservation Experience)
George Washington Memorial Parkway – Brent Steury (Natural Resources Program Manager), Mireya Stirzaker (Biologist)
Harpers Ferry National Historical Park – Eric Kelley (Natural Resource Specialist), Darlene Hassler (Cultural Resources Management Specialist)
Manassas National Battlefield Park – Bryan Gorsira (Natural Resources Program Manager), Wayne Heideman (Biologist)
Monocacy National Battlefield – Alex Vindas Cruz (Chief, Resource Management), Allison Radin (Biological Science Technician)
National Capital Parks - East – Mikaila Milton (Biologist), Lara Hannon (Natural Resources and Environmental Compliance Program Manager)
National Mall and Memorial Parks – Leslie Frattaroli (Natural Resource Specialist), Brittany Grouge (Environmental Compliance

Program Manager), Catherine Dewey (Chief, Resource Management)
Prince William Forest Park – Gregg Kneipp (Chief, Resource Management), Kristen Shelton (Biologist)
Rock Creek Park – Nick Bartolomeo (Chief, Resource Management), Ana Chuquin (Botanist)
Wolf Trap National Park for the Performing Arts – Edgar Deskins (Integrated Resource Program Manager)

Partners and Cooperators

Virginia Department of Conservation and Recreation – Michael Lott (Crow's Nest Manager/Northern Region Steward)
NCR-PRISM – Sara Tangren (NCR-PRISM Coordinator), Damien Ossi (DOEE, Wildlife Biologist), Patricia Pearl Greenberg (Fairfax County, Community and Urban Forest Coordinator), Ryan Colliton (Montgomery County Department of Parks, Principal Natural Resources Specialist), Mary Travaglini (Montgomery County, Organic Lawn and Landscape Program Manager), Corinne Stephens (Montgomery County, Senior Natural Resources Specialist), Jorge Bogantes Montero (Anacostia Watershed Society, Natural Resource Specialist), Jeanne Braha (Rock Creek Conservancy, Executive Director), Ashley Triplett-Peltzman (Rock Creek Conservancy, Program Director), Jennifer Soles (Arlington County Department of Parks and Recreation, Natural Resource Specialist), Alonso Abugattas (Arlington County Department of Parks and Recreation, Natural Resources Manager)
Appalachian Conservation Corps – Maddie Interdonato (IP Program Manager)
Weed Warrior Volunteer – Glenn Tobin
Accokeek Foundation – Risharda Harley

Steering Committee

Antietam National Battlefield – Joe Calzarette
Catoctin Mountain Park – Lindsey Donaldson
Chesapeake and Ohio Canal National
Historical Park – Andrew Landsman
George Washington Memorial Parkway –
Mireya Stirzaker
Harpers Ferry National Historical Park –
Eric Kelley
Manassas National Battlefield Park – Bryan
Gorsira
Monocacy National Battlefield– Alex Vindas
Cruz
National Capital Parks-East – Lara Hannon
National Mall and Memorial Parks – Catherine
Dewey
Prince William Forest Park –
Gregg Kneipp
Rock Creek Park – Nick
Bartolomeo
Wolf Trap National Park for the Performing
Arts – Edgar Deskins
NCR IPMT Liaison - Alex Voznitza
NCR Chief of Natural Resources and
Science – Pat Campbell
NCR Ecologist/ Integrated Pest
Management Specialist – Dorothy
Borowy
NCR Research Coordinator – Diane Pavsek
NCR Inventory & Monitoring Network
Program Manager – Elizabeth Matthews

North Coast / Cascades Network IPMT

Leadership

Cheryl Decker and Gilbert Moreno (Liaison)
Sophie Wilhoit (Crew Lead and Data
Manager –OLYM)
Collin McAvinchey (Crew Lead--OLYM)

Crew

Samantha Fischbein, Natalie Steffens, Jon
Clevenger, Kaitlyn Viada — (Seasonal
staff)

Region/Network Support

Interior Regions 8, 9,10, 12 (Lower
Colorado Basin, Columbia-Pacific
Northwest, California-Great Basin,
Pacific Islands) Office – Denise Louie,
Irina Irvine, Brent Johnson

Park Support

Host Parks:
North Cascades National Park – Don
Striker (Superintendent), Ashley
Rawhouser (Chief of Resource
Management) through February 2023.
Olympic National Park – Sula Jacobs
(Superintendent), Jerald Weaver (Chief of
Resource Management); Janet Coles
(Vegetation Branch Chief)

Partners and Cooperators

Clallam County Noxious Weed Control
Island County Noxious Weed Control
San Juan County Noxious Weed Control
Skagit County Noxious Weed Control
Olympic Peninsula Knotweed Working Group
(CWMA)
Skagit CWMA
Washington State Extension Service
The Nature Conservancy, Mount Vernon office
Whidbey Island Poison Hemlock Working
Group
Trust Board of Ebey's Landing National
Historical Reserve
Washington State Parks
Pacific Northwest Invasive Plant Council
Skagit Fisheries Enhancement Group
Quileute Nation
Pacific Rim Institute
Center for Natural Lands Management
North Sound Prairie Working Group

Steering Committee

Olympic National Park – Janet Coles
North Cascades National Park – Stacy
McDonough
Mount Rainier National Park – Beth Fallon, Kim
Popek
Lewis and Clark National Historical Park –

Carla Cole, Kayla Fermin
San Juan Island National Historical Park;
Ebey's Landing National Historical Reserve
– Sara Dolan

Northeast IPMT

Leadership

Emily Booth (Liaison), Nicholas Stevenson
(Team Leader)

Crew

James Reiners

Region/Network Support

Interior Region 1 (North Atlantic
Appalachian) Office – Casey Reese,
(NER IPM Coordinator), Stacey Moore
Lacey (Budget Analyst), Tamika Tucker
(Human Resource Specialist)

Inventory & Monitoring – Stephanie
Perles (Ecologist, Eastern Rivers and
Mountains I&M Network), Kate Miller
(Quantitative Ecologist, Northeast
Temperate Network), Marietta
Shattelroe (NETN Biological Science
Technician), Camilla Seirup (NETN
Biological Technician)

Fire Management – Bill Crolly (Mid-
Atlantic FMO), Matt Boss (Fire
Operations Specialist), Michael
Grismer (Fire Operations)

Park Support

Host Park: Delaware Water Gap National
Recreation Area, host park – Eamon
Leighty (Deputy Superintendent), Kara
Deutsch (Chief of Resource
Management and Science) and Larry
Hilaire (Wildlife Biologist), Patty Stiner
(IT Specialist), Stacy Joergle-Gildea
(Computer Assistant)
Acadia National Park – Jesse Wheeler
(Vegetation Program Manager)
Boston Harbor Islands National Recreation
Area - Marc Albert (Integrated Resource

Management Program Manager), Maria
Delaundreau (Biologist), Rachel Vincent
(Biological Science Technician)
Cape Cod National Seashore - Stephen M.
Smith (Plant Ecologist)
Fire Island National Seashore - Jordan
Raphael (Biologist), Kelsey Taylor
(Biological Science Technician)
First State National Historic Park - Sonja
Bookout (Natural Resource Manager)
Frederick Law Olmsted National Historic Site
– Aaron Erzinger (Gardener)
Minuteman National Historic Park -
Margie Coffin-Brown (Resource
Program Manager/Landscape
Architect), Kiah Walker (Biologist)
Morristown National Historical Park – Robert
Masson (Biologist)
National Parks of Western Pennsylvania
(Allegheny Portage Railroad NHS,
Johnstown Flood N MEM, Flight 93 N
MEM, Friendship Hill NHS, Fort Necessity
NB) – Colleen Curry (Chief of Resource
Management), Brenda Wasler (Natural
Resource Manager), Joseph Lyon
(Biological Science Technician)
Paterson Great Falls National Historic Park –
Darren Boch (Superintendent) and Tyler
Stone (Maintenance Worker)
Sagamore Hill National Historic Site – Gavin
Gardner (Resource Program Manager)
Saint-Gaudens National Historic Site - Steve
Mortillo (Integrated Resources Program
Lead), Rainey McKenna (Visitor
Experience and Resource Stewardship
Program Manager)
Sagamore Hill National Historic Site – Erin
Whittaker (Chief of Interpretation, Visitor
Services, and Natural Resources), Scott
Gurney (Park Ranger), and Kevan
Keegan (Chief of Preservation and
Maintenance)
Saratoga National Historic Park – Leslie
Morlock (Superintendent) & Linda White
(Biological Technician)
Saugus Iron Works National Historic Site -
Bill Fuchs (Biological Technician)

Upper Delaware Scenic and Recreational River - Don Hamilton (Natural Resources Program Manager), Michelle Stevens (Biologist), Andrew Weber (Ecologist)

(Natural Resource Program Manager)

Partners and Cooperators

Appalachian National Scenic Trail – Marian Orlousky (Appalachian Trail Conservancy (ATC))
CU Maurice River (partner organization of the Maurice National Wild and Scenic River)
Morristown National Historical Park - New Jersey Invasive Species Strike Team

Northern Rocky Mountain IPMT

Leadership

Michael Reeves (Liaison)
Matt Rothrock (Colorado National Monument Team Leader)
Andrew Ringholz (Yellowstone National Park Team Leader)
Arley Canfield (Glacier National Park Team Leader)

Crew

Liam Haley (GLAC biotech)
Vacant (YELL biotech)
Jesse Sanzo (COLM biotech)
Vacant (MCC intern)
Vacant (MCC Intern)
Vacant (MCC Intern)

Northern Great Plains IPMT

Leadership

Vacant (Liaison)

Region/Network Support

Interior Regions 3, 4, and 5 (Great Lakes/ Mississippi River Basin/ Missouri River Basin) – Li Ming He, supervisor (Natural Resource Program Manager)

Regional Support

Interior Regions 6, 7, and 8 Office –
John Mack (Biological Resources Lead)
Brandie MacIntyre (Program Administrative Assistant)
Deborah England (Budget Analyst)

Park Support

Host Parks - Badlands National Park and Theodore Roosevelt National Park

Park Support

Host Parks - Colorado National Monument, Glacier National Park, and Yellowstone National Park
Bear Paw National Battlefield – Jimmer Stevenson (Maintenance Foreman)
Bent's Old Fort NHS - Adam Heberlie (Biological Science Technician)
Big Hole National Battlefield – Jimmer Stevenson (Maintenance Foreman)
Bighorn Canyon National Recreation Area – Ryan Felkins (Park Biologist)
Black Canyon of the Gunnison NP – Danguole Bockus (Park Biologist)
Capulin Volcano NM – Oliver Anderson (Biological Science Technician)
City of Rocks National Reserve – Austin Zollinger (Resource Program Manager)

Partners and Cooperators

Northern Great Plains I&M Network
Montana Conservation Corps

Steering Committee

Badlands National Park – Milt Harr (Natural Resource Program Manager)
Midwest Region IPMT Program Manager – Craig Young (Biologist)
Theodore Roosevelt National Park – Blake McCann (Natural Resource Program Manager)
Northern Great Plains Fire Management – Dan Swanson (Fire Ecologist)
Wind Cave National Park – Greg Schroeder

Colorado National Monument – Jessica Resnik (Chief, Integrated Resource Management)
Craters of the Moon National Monument and Preserve – Linda Manning (Chief, Integrated Resource Management)
Curecanti National Recreation Area – Danguole Bockus (Park Biologist)
Dinosaur National Monument – Emily Spencer (Natural Resource Specialist)
Florissant Fossil Beds National Monument – Katherine Jervik (Vegetation Coordinator)
Fossil Butte National Monument – Arvid Aase (Museum Curator)
Glacier National Park – Dawn LaFleur (IPM Biologist)
Golden Spike National Historic Site – Brandon Flint (Park Superintendent)
Grant–Kohrs Ranch National Historic Site – Dave Wyrick ()
Grand Teton National Park – Laura Jones (Vegetation Biologist)
Great Sand Dunes National Park – Dewane Mosher (Park Biologist)
Hagerman Fossil Beds National Monument – Linda Manning (Chief, Integrated Resource Management)
John D. Rockefeller Memorial Parkway – Laura Jones (Vegetation Biologist)
Little Bighorn National Battlefield – Dustin Sene (Park Superintendent), Mariane Doane (Biologist)
Minidoka National Historic Site – Linda Manning (Chief, Integrated Resource Management)
Rocky Mountain National Park – Jim Bromberg (Vegetation Ecologist)
Sand Creek Massacre National Historic Site – Adam Heberlie (Biological Science Technician)
Yellowstone National Park – Sue Mills (RM Biologist), Steven Bekedam (Veg Branch Chief)

Partners and Cooperators

American Conservation Experience – Kean Ruane

Montana Conservation Corps – Amanda Pfaff, Angela Davis, Bryan Wilson
University of Montana, Marilyn Marler
Colorado Natural Heritage Program, Colorado State University, Tom Baldvins
U.S. Geological Survey, Dr. Amy Symstad
Box Elder County, UT Noxious Weed Control
Utah Conservation Corps

Steering Committee

Bear Paw National Battlefield – Kathryn (Katy) Matthews
Black Canyon of the Gunnison NP – Danguole Bockus
Colorado National Monument – Jessica Resnik
Glacier National Park – Dawn LaFleur
Grand Teton National Park – Jeanine Foley
Grant–Kohrs Ranch National Historic Site – Dave Wyrick
Hagerman Fossil Beds National Monument – Linda Manning
Sand Creek Massacre National Historic Site – Adam Heberlie
Yellowstone National Park – Steven Bekedam
NRM IPMT Liaison – Michael Reeves
Regional Biological Resources Program
Lead – John Mack

Pacific Islands IPMT

Leadership

Jeremy Gooding (Liaison), Sierra McDaniel (Lead, Natural Resources Management, Hawai'i Volcanoes National Park), Dr. Rhonda Loh (Superintendent, Hawai'i Volcanoes National Park), Stacey Torigoe (Ecologist, Hawai'i Volcanoes National Park), Woody Mallinson (Natural Resource Program Manager, Haleakalā National Park)

Crews (Parks and Partners)

Hawai'i Volcanoes National Park Natural Resources Management: Jon Maka'ike and Dwayne Montoya-Aiona, Crew Leads and the entire NRM Crew

Haleakalā National Park Vegetation

Management: Adam O'Neill, Biological Science Technician, Andrew DellaVilla, Biological Science Technician

Data Manager: Leila Morrison (HALE), Danny Duda (HAVO, Pacific Cooperative Studies Unit).

Partner Parks - Resource Management Staff and Leads at Kalaupapa National Historical Park, Kaloko-Honokōhau National Historic Park, Pu'uhonua o Hōnaunau National Historic Park, & Pu'ukohōlā Heiau National Historic Site

Big Island Invasive Species Committee (BIISC) Forest Response Team

Friends of Hawai'i Volcanoes National Park - Guardians of the Trail

Hawai'i Volcanoes National Park Youth Rangers

Hawaiian Ocean View Estates (HOVE) Community Association

Region/Network Support

Interior Regions 8 ,9,10, 12 (Lower Colorado Basin, Columbia-Pacific Northwest, California-Great Basin, Pacific Islands) Office – Denise Louie (Natural Resources and Science Lead), Brent Johnson (Vegetation Ecologist & IPM Coordinator), Pacific Islands Office – Melia Lane-Kamahele (Manager)

Park Support

Haleakalā National Park – Awapuhi Dancil & David Rummel

Hawai'i Volcanoes National Park – Hoku Awong

Partners and Cooperators

Partner Parks - Haleakalā National Park, Hawai'i Volcanoes National Park, Kalaupapa National Historical Park, Kaloko-Honokōhau National Historic Park, Pu'uhonua o Hōnaunau National Historic Park, Pu'ukoholā National Historic Site
Associate Parks - Alakahakai National Historic Trail

University of Hawai'i at Mānoa (UHM) – Dr. Paul Krushelnycky, Researcher, Department of Plant and Environmental Protection Sciences.

University of Hawai'i, Hilo (UHH) – Dr. Ryan Perroy, Associate Professor, Geography and Environmental Science. Spatial Data Analysis and Visualization Lab (SDAV)

University of Hawai'i at Mānoa, College of Tropical Agriculture and Human Resources (UH CTAHR)

University of Hawai'i, Mānoa (UHM) – Dr. Shaya Hornarvar, Director/Associate Specialist, Pacific Cooperative Studies Unit
University of Florida (UFL) – Dr. James Leary, Assistant Professor, Center for Aquatic and Invasive Plants

Haleakalā Ranch

KUPU – See: <https://www.kupuhawaii.org/>
Plant Extinction Prevention Program (PEPP), Hawai'i – Hank Oppenheimer (Maui Nui PEPP Coordinator)

Hawaii Wildfire Management Organization (HWMO) – See:

<https://www.hawaiiwildfire.org>

East Maui Watershed Partnership (EMWP)- Hawai'i Department of Land and Natural Resources, Haleakalā Ranch, County of Maui Department of Water Supply, The Nature Conservancy Hawai'i, East Maui Irrigation, University of Hawai'i PCSU, Haleakalā National Park

Three Mountain Alliance – University of Hawai'i PCSU, Hawai'i Department of Public Safety, Hawai'i Department of Land and Natural Resources, Kamehameha Schools, National Park Service, The Nature Conservancy, US Fish and Wildlife Service, USDA Forest Service, US Geological Survey, USDA Natural Resources Conservation Service

Volunteers

Friends of Hawai'i Volcanoes National Park Stewardship at the Summit Volunteer Program
Friends of Haleakalā National Park, Ron Nagata Ohana

Steering Committees

Maui Nui (Islands of Maui, Molokai, Lanai, & Kahoolawe) - Liaison Pacific Islands IPMT, Natural Resource Program Manager Haleakalā National Park (Mallinson), Manager Molokai Invasive Species Committee, Resources Management Lead Kalaupapa National Historical Park (Linh Anh Cat), relevant subject experts as appropriate

Island of Hawai'i (Big Island): Resources Management Chief, Park Ecologist, and Pest Control Workers from Hawai'i Volcanoes National Park, Resources Management Leads Kaloko-Honokōhau and Pu'uhonua o Hōnaunau National Historical Parks, Jackson Letchworth (KAHO), Staff at Pu'ukoholā National Historic Site, subject experts as appropriate

Southeast IPMT

Leadership

Lauren Serra (Liaison), Toby Obenauer (Crew Leader), Shea Bruscia (Data Manager, Florida Caribbean IPMT)

Crew

Jonica Herzek, Kylee Jackson, CARL – Erin Gallagher (cont. FY22 American Conservation Experience)

Region/Network Support

Interior Region 2 South Atlantic Gulf – Mark Frey (Lead, Science and Natural Resources Management), Kelly Irick (Terrestrial Branch Lead, Science and Natural Resources Management), Amorita Brackett (Southeast Coast IPMT), Brian Lockwood (Florida Caribbean IPMT), Dale McPherson (Gulf Coast IPMT), Josue Urbaez (IT Specialist), Hannah Strotman (Budget Analyst), Brian Straka (Leads Grants Management Officer)
Inventory & Monitoring Network - Brian Witcher (Appalachian Highlands Program Manager), Evan Raskin (Appalachian Highlands

Assistant Data Manager/Biologist), Steven Thomas (Cumberland Piedmont Program Manager), Clare Bledsoe (Cumberland Piedmont Biologist), Bill Moore (Cumberland Piedmont Ecologist)

Fire Management – Alex Scronce (Wildland Fire Operations Specialist, KIMO), Travis Neppl (Deputy Regional Fire Management Officer), Rob Klein (Regional Fire Ecologist), Chris Corrigan (APC Zone Fire Planner)

Safety – Joe Jacobs (Occupational Safety & Health Manager), Tim Akers (BLRI/ANJO/GUCO/CARL Safety Manager)

Park Support

Host Park - Blue Ridge Parkway – Bambi Teague (Supervisory Biologist), Chris Ulrey (Plant Ecologist), Alexa Viets (Chief of Resource Management and Interpretation), Tracy Swartout (Superintendent), Lillian McElrath, Andy Otten (Landscape Architect-Project Specialist, Denver Service Center-Transportation)

Abraham Lincoln Birthplace National Historical Park – Jennifer Jones (Interpretation), Stacy Humphreys (Chief of Interpretation and Resources Management), Scott Powell (Acting Superintendent)

Andrew Johnson National Historic Site – Josh Hines (Supervisory Facility Operations Specialist), Kendra Hinkle (Maintenance Staff), Aaron Shandor (Superintendent)

Appalachian National Scenic Trail

Big South Fork National River & Recreation Area / Obed Wild & Scenic River – Marie Tackett (Botanist), Thomas Blount (Chief of Resource Management), Niki Nicholas (Superintendent), American Conservation Experience

Carl Sandburg Home National Historic Site – Wylie Paxton (Biological Technician), John McDade (Program Manager, Resources and Facilities Management), Polly Angelakis (Superintendent), Jeffrey Harris (Maintenance), Wesley (Haywood Community College Intern)

Chickamauga & Chattanooga National Military

Park – Julia Poland (Chief of Resource Management), Abbey Vander Sluice (Museum Curator), Brad Bennett (Superintendent), Billy Tyler (FMSS/Fleet), American Conservation Experience
 Cumberland Gap National Historical Park – Jenny Beeler (Biologist), Charles Sellers (Superintendent), Amy Settles (Biological Science Technician)
 Fort Donelson National Battlefield – Brian McCutchen (Superintendent), William Fields (Chief Ranger), Marcus Johnson (SHIL, Natural Resource Specialist)
 Great Smoky Mountains National Park – Jesse Webster (Forester, Resource Management and Science), Cassius Cash (Superintendent), American Conservation Experience
 Guilford Courthouse National Military Park – Vicki Boyce (Maintenance), Mike Lewter (Maintenance Supervisor), Aaron LaRocca (Superintendent)
 Little River Canyon National Preserve / Russell Cave National Monument – Mary Shew (Resources Management Specialist), Shawn Waddell (Biological Science Technician), Steve Black (Superintendent)
 Mammoth Cave National Park – Tim Pinion (Chief of Science and Resources Management), Brice Leech (Natural Resources Specialist), Barclay Trimble (Superintendent), American Conservation Experience
 Shiloh National Military Park – Marcus Johnson (Natural Resource Specialist), Stacy Allen (Chief Ranger), Catherine Bragaw (Superintendent)
 Southern Campaign of the American Revolution Parks Group - Cowpens National Battlefield / Kings Mountain National Military Park / Ninety Six National Historic Site - Diana Bramble (Superintendent, COWP/KIMO), Joshua Manley (Superintendent (NISI), Grey Wood and George McCarty (Maintenance, NISI)
 Stones River National Battlefield – Brenda Pennington (Superintendent), Randy

Anderson (Facilities and Natural Resources Manager), Philip Knecht (Biological Science Technician)

Out-Of-Network Park Support

Chattahoochee River National Recreation Area – Allyson Read (Biologist), Beth Wheeler (Chief of Planning, Resources and Education)

Fort Necessity National Battlefield – Kevin Brown

Partners and Cooperators

American Conservation Experience
 Appalachian Trail Conservancy
 Arboretum at Chapel Hill
 Federal Highways Administration – NPS Denver Service Center
 Madison County Master Gardeners Association
 North Carolina Cattleman Association
 North Carolina Department of Agriculture and Consumer Services - Madison County Cooperative Extension
 North Carolina Forestry Commission
 North Carolina Invasive Plant Council
 North Carolina Native Plant Society
 Shelton Laurel Community Center
 South Carolina Cogongrass Taskforce
 South Carolina Department of Natural Resources, Heritage Trust Program
 South Carolina Invasive Pest Council
 South Carolina Native Plant Society
 Southeastern Grasslands Initiative
 Marshall Native Gardens, NC
 USDA APHIS – Columbia, SC
 USDA National Forests of NC
 Western Carolina University - Cullowee Conference

Volunteers

N/A

Steering Committee

Big South Fork National River & Recreation Area / Obed Wild & Scenic River – Marie Tackett
 Chickamauga & Chattanooga National Military

Park – Julia Poland
Cowpens National Battlefield / Kings Mountain
National Military Park – Diana Bramble
Cumberland Gap National Historical Park –
Jenny Beeler
Little River Canyon National Preserve / Russell
Cave National Monument – Mary Shew

Southeast Coast IPMT

Leadership

Lauren Serra (Liaison), Amorita Brackett (Crew
Leader), Shea Bruscia (Data Manager,
Florida Caribbean IPMT)

Crew

Charity Hall, Alexander Mercer (American
Conservation Experience)

Region/Network Support

Interior Region 2 South Atlantic Gulf – Mark
Frey (Lead, Science and Natural Resources
Management), Kelly Irick (Terrestrial Branch
Lead, Science and Natural Resources
Management), Toby Obenauer (Southeast
IPMT), Brian Lockwood (Florida Caribbean
IPMT), Dale McPherson and Rachel Walker
(Gulf Coast IPMT), Christopher Barrow
(Geographer/GIS Coordinator), Welles Tisdale
(GIS Specialist), Hannah Strotman (Budget
Analyst), Kelly Cunningham (Administrative
Officer, KEMO), Alison Smith (Financial
Assistance Agreement Officer)

Inventory & Monitoring Network, Southeast
Coast - Brian Gregory (Program
Manager/Aquatic Ecologist), Forbes Boyles
(Botanist), Michael Parrish (Wildlife
Biologist)

Fire Management – Matt Wood (Fire Ecologist)
and the Appalachian/Piedmont/Coastal Fire
Management Zone Fire Effects Crew, Rob
Klein (Regional Fire Ecologist), Alex
Scronce (Interior Region 2, Forestry
Technician)

Safety – Joe Jacobs (Occupational Safety &
Health Manager), Steve Akins (IR2 Zone 7

Health and Safety Manager), Chad Thomas
(Safety Officer - CUIS, FOFR, FOPU)

Park Support

Host Park - Congaree National Park – Greg
Hauburger (Superintendent), David Shelley
(Chief of Resource Stewardship and
Science), Theresa Yednock (Biological
Science Technician), Laura Tyler
(Administrative Officer), Alice DaRosa
(Administrative Support Assistant), Charles
Aznive (Chief of Maintenance), Jonathan
Manchester (Interpretation Park Ranger),
Jason Johnson (Chief Ranger), Emery and
Crew (American Conservation Experience)

Cape Hatteras National Seashore / Fort
Raleigh National Historic Site / Wright
Brothers National Monument – Dave Hallac
(Superintendent), Meaghan Johnson (Chief
of Resource Management and Science),
Michelle Tongue (Deputy Chief of Resource
Management and Science), Amy Thompson
(Biological Science Technician), Megan
Baker, Michael Gosselin and Ashlee Keiper-
Kintz (Seasonal Staff), Michael Flynn
(Physical Scientist), Kegan Kleeschulte
(GIS), Maintenance Staff (Facilities
Management), Stephen Holdsworth – Crew
Leader, Ian Murray, Bug Johnson, Christina
Thompson, Emily Elizabeth, Ella
Stockbauer, Jared Miller, Felicity Sekela,
Kraig Irish, Austin Weeks, Mae Walker and
Marvin Hagen (American Conservation
Experience)

Cape Lookout National Seashore – Jeff West
(Superintendent), Jon Altman (Biologist),
Karen Altman (Biological Science
Technician), Stephen Holdsworth – Crew
Leader, Kelsey Orr, Nick Fabrizio, Genna
Province and Austin Weeks (American
Conservation Experience)

Chattahoochee River National Recreation Area
– Allyson Read (Biologist), Beth Wheeler
(Chief of Planning, Resources and
Education), Ann Honious (Superintendent)

Cumberland Island National Seashore / Fort
Frederica National Monument – Doug

Hoffman (Biologist), Michael Seibert (Chief of Resources), Gary Ingram (Superintendent), Steve Theus (Deputy Superintendent)

Fort Pulaski National Monument – Melissa Memory (Superintendent), Candice Wyatt (Biological Science Technician), Emily Forlenza (Facility Manager), Stephen Holdsworth – Crew Leader, Will Parson, Alexa Parry, Rachel Verhoef and Angel Kepner (American Conservation Experience)

Fort Sumter and Fort Moultrie National Historical Park / Charles Pinckney National Historic Site – Tracy Stakely (Superintendent), Kate Funk (Curator), Krista Pollett (Historian)

Horseshoe Bend National Military Park – Barbara Tagger (Superintendent), Brian Robinson, Stetson Handshy and Steve Crowder (Maintenance), Amanda Gardner – Crew Leader, Jed Hunter, Madison "Rex" McCown, Jeffrey Ha and James Jones (American Conservation Experience)

Kennesaw Mountain National Battlefield Park – Patrick Gamman (Superintendent), Carlos Hurston (Facility Manager), Michael Christman (Maintenance), Anthony Winegar (Chief Ranger), Ladrack Downie (Facility Manager)

Moore's Creek National Battlefield – Matthew Woods (Superintendent), Jason Collins (Chief of Interpretation), Hayley Zemeski (Conservation Legacy Intern)

Ocmulgee Mounds National Historical Park – Carla Beasley (Superintendent), Christina Valdes (Biological Science Technician), Greg Luna (Integrated Resources Manager/Archeologist)

Out-Of-Network Park Support

Reconstruction Era National Historical Park – Scott Teodorski (Superintendent), Nathan Betcher (Historian), Michael Trevino (Facility Manager), Sean Daly (Maintenance)

Partners and Cooperators

American Conservation Experience
Georgia Forestry Commission, Forest Health
Kennesaw Mountain Trail Club
North American Invasive Species Management Association
North Carolina Coastal Federation - Phragmites Work Group
North Carolina Department of Environmental Quality, Aquatic Weed Control Program
North Carolina Department of Transportation
North Carolina Invasive Plant Council
North Carolina State University, College of Natural Resources
Old-Growth Bottomland Forest Research and Education Center
Palmetto Garden Club, Garden Club of America – Weed Wrangle
Penn Center
South Carolina Association of Naturalists
South Carolina Department of Natural Resources, Heritage Trust Program
South Carolina Department of Parks, Recreation & Tourism
South Carolina Invasive Pest Council
South Carolina Native Plant Society

Volunteers

Congaree National Park – Ada McIver, Mardie Faucette, Helen Taylor, Susan Owen and Elizabeth Beal (Palmetto Garden Club)
Kennesaw Mountain National Battlefield Park – Danny Leigh (Kennesaw Mountain Trail Club)

Steering Committee

Chattahoochee River National Recreation Area – Ann Honious
Congaree National Park – Greg Hauburger
Cumberland Island National Seashore / Fort Frederica National Monument – Michael Seibert
Fort Pulaski National Monument – Melissa Memory
Moore's Creek National Battlefield – Matthew Woods

Southwest IPMT

Leadership

John Mack (acting Liaison), Michael Turner (Deputy Liaison, Crew Lead, GIS), Anna Wheeler (Crew Leader/GIS)

Crew

American Conservation Experience, Southwest Conservation Corps (Conservation Legacy and Ancestral Lands Programs), Tucson Audubon Society CoATIS Crew, Student Conservation Association Intern(s)

Regional/Network Support

Interior Regions 6, 7, and 8 Office John Mack, supervisor (Natural Resources Division, Biological Resource Program Manager), Adam Strong (IPM Coordinator)

Park Support

Host Park 1 – Desert Research Learning Center/Sonoran Desert Inventory and Monitoring Program – Andy Hubbard (Program Manager)
Host Park 2 – Petroglyph National Monument (Nancy Hendricks, Superintendent)

Partners and Cooperators

US National Park Service, Inventory and Monitoring Program (Federal)
Borderlands Restoration

Institute for Applied Ecology–Southwest Program

US Fish and Wildlife Service

US Forest Service

Bureau of Land Management

US Geological Survey

University of Nevada, Las Vegas

American Conservation Experience

Southwest Conservation Corps

Pueblo of Santa Ana Garden Center

National Phenology Network

USDA Forest Service's Human Health and Ecological Risk Assessments for commonly used Herbicides and Pesticides

Weed Research and Information Center

Sonoran Desert Museum

Tucson Audubon Society

Southwest Vegetation Management Assoc.

Southwest Seed Partnership

Steering Committee

Vacant

Jeffery Conn (SAGU)

Grenade Fielder (LAMR)

Jeannine McElveen (PEFO)

Sarah Milligan (BAND)

Alternates

Paul Morley (MEVE)

Christopher Ryan (AMIS)

Mike Medrano (TAMU)

At Large

Jason Mateljak (SOPN)

John Mack (IMR)