

Southern Illinois Interagency Habitat and Fuels Crew 2023 Stewardship Summary

Program Director: Tharran Hobson

Burn Crew Manager: Nathan Speagle

Stewardship Coordinator: Caleb Grantham

Burn Crew Members: Makenna Baxter, Danielle Cavin, Carter Wyatt

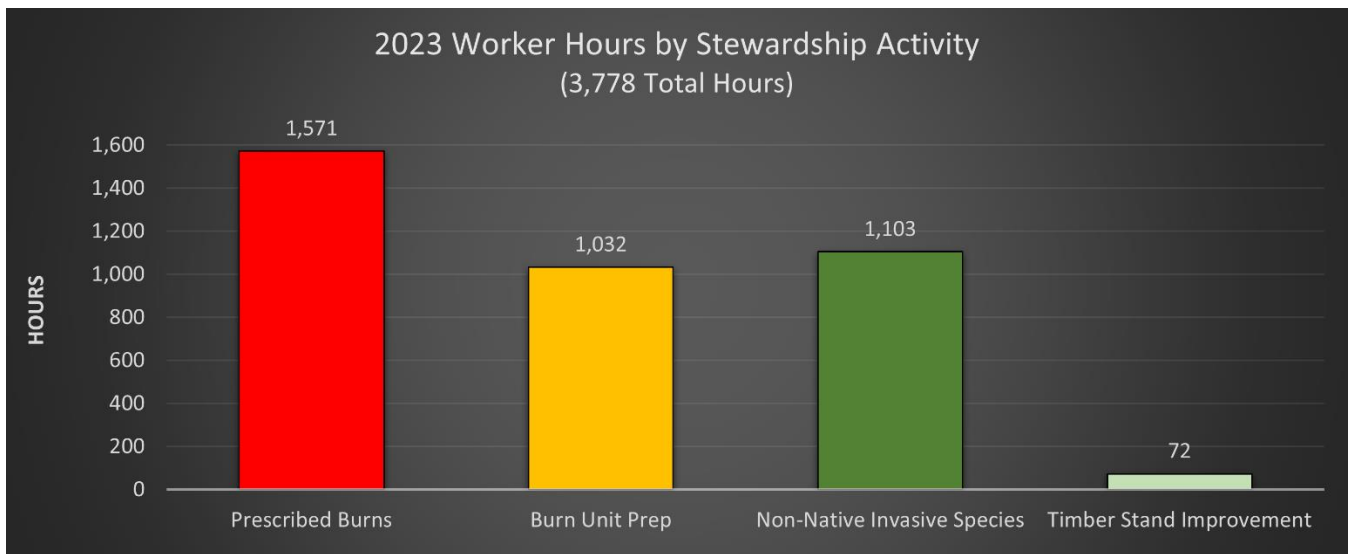
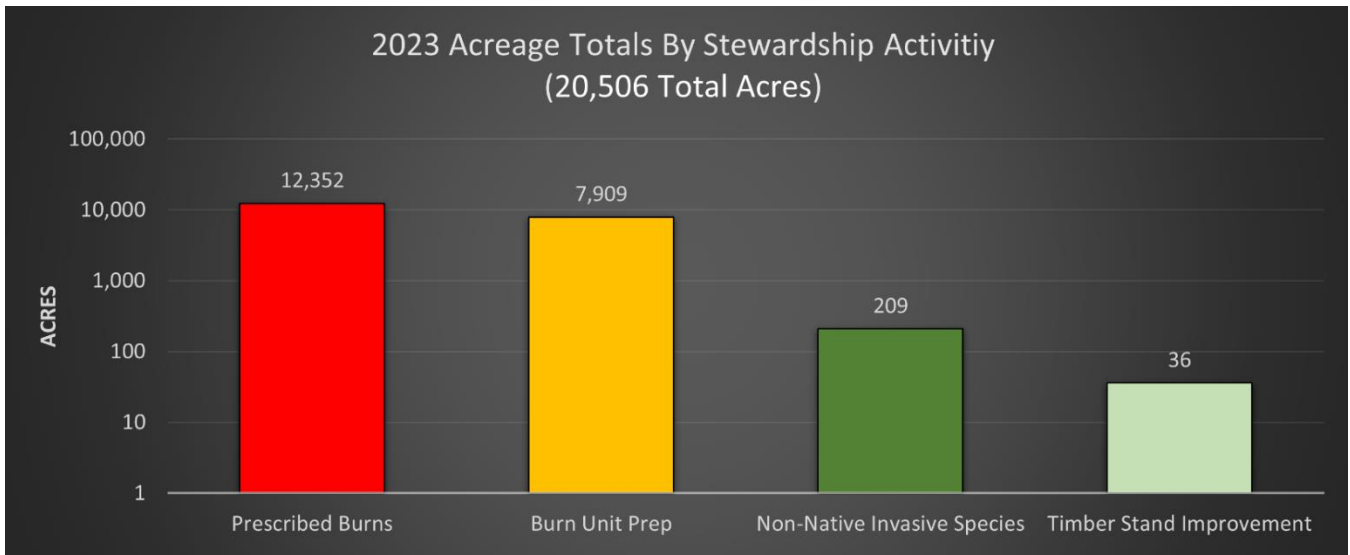
Women In Fire Fellows: Jess Donvito, Megan Gulik

Overview

The Southern Illinois Interagency Habitat and Fuels Crew (SIHFC) enjoyed another successful year of cross-boundaries fire and stewardship outcomes in our region and beyond. Following the SIHFC's best-ever accomplishments for prescribed fire in 2022, our crew nearly matched last year's total for assisted acres burned, putting us over 10,000 acres burned for four of the last five years. Though the acres impacted by fire trended slightly down, the total number of prescribed fire assists reached a new peak. These feats were the fruit of our strong regional partnerships with the Shawnee National Forest, Illinois Department of Natural Resources, Southern Illinois Prescribed Burn Association, Crab Orchard National Wildlife Refuge, and colleagues within The Nature Conservancy's (TNC) Midwest Division. Off the fireline, it was another productive year of stewarding the land and fostering the professional development of our crew.

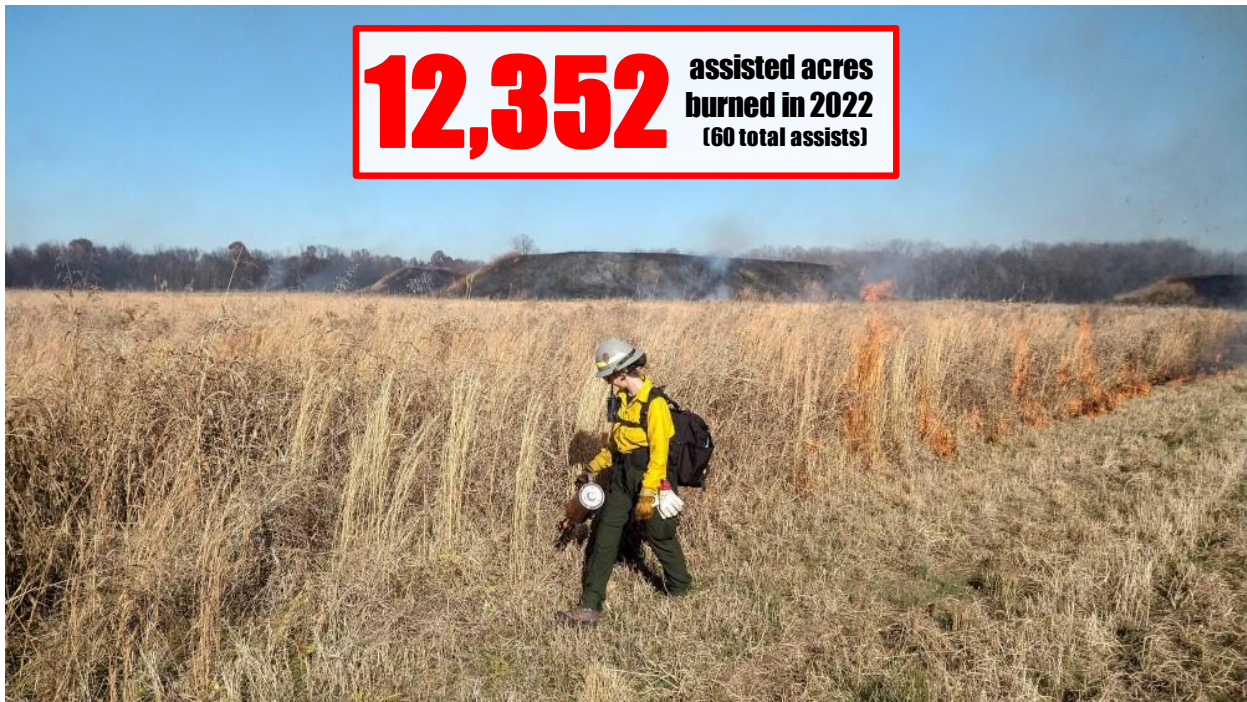


A scenic vista at Indian Point within the Garden of the Gods Wilderness Area.



Prescribed Fire

After shattering the record for assisted acres burned in 2022, the Southern Illinois Interagency Habitat and Fuels Crew followed-up with another strong performance in 2023. While falling just short of last year’s total for acres impacted by prescribed fire, our team set a new benchmark with 60 prescribed fire implementation assists in one calendar year. The spring fire season in southern Illinois was fair due to unfavorable precipitation patterns but two weeks of good conditions in Wisconsin greatly boosted the season’s productivity. Following the challenges of the COVID-19 pandemic, poor weather, and Forest Service 90-day prescribed fire standdown in the growing season/fall seasons of 2020-2022, this was our most productive late summer and fall season since 2019. Between September and December, the SIIHFC assisted the Shawnee National Forest, Illinois Department of Natural Resources, and Southern Illinois Prescribed Burn Association in the implementation of seventeen prescribed burns totaling 1,236 acres.

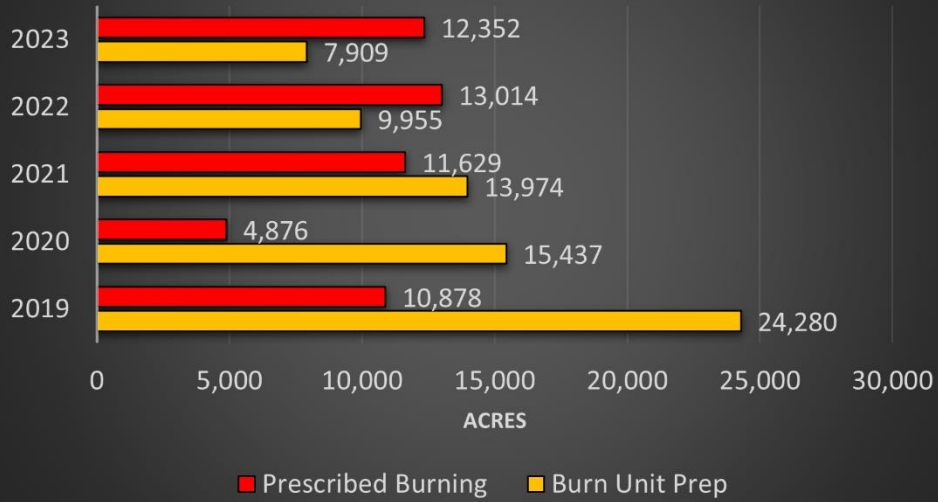


Megan lights off the prairie at Kinkaid Mounds State Historic Site. Three blackened earthen mounds from the Middle Mississippian Period, more than 700 years old, can be seen in the background.

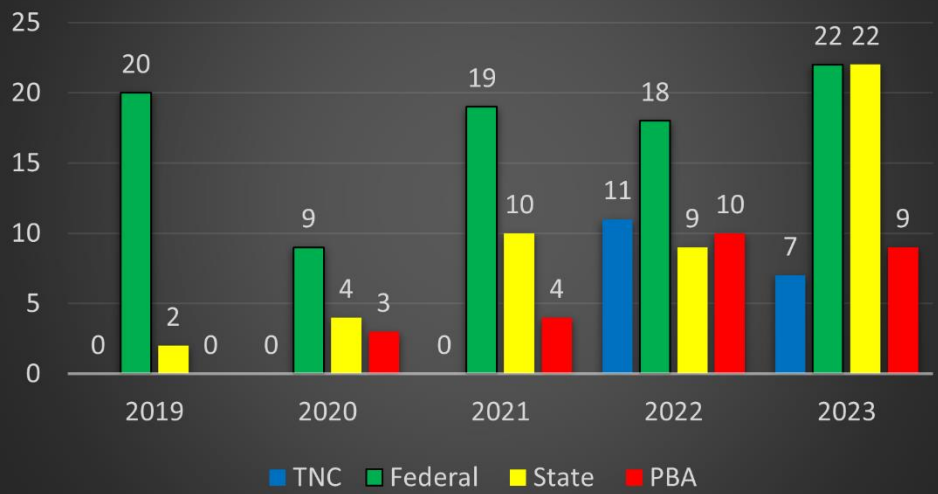
All Prescribed Burn Assists in 2023			
Date	Unit, Ownership	Acreage	Worker Hours
2/28	Sunflower, IDNR	135	16.5
2/28	Cache River, IDNR	199	16.5
3/1	Blowdown 17, USFS	95	42
3/1	Broken Handle / Koonce, USFWS / Private lands	303	8.5
3/2	Bell Smith Springs Unit 1, USFS	90	38
3/6	Wamble Mountain, USFS / Private lands	374	57
3/7	Copperhead Road, USFS	215	50
3/7	Trail of Tears State Forest Unit 2, IDNR	300	8.5
3/7	Turner, SIPBA – Private lands	18	5
3/8	Cedar Grove, USFS	335	46
3/8	Parker, SIPBA – Private lands	30	5.5
3/8	Carterville Beach North, USFWS	200	3.5
3/9	Boss Island, IDNR	438	6
3/14	Bell Smith Springs Unit 2, USFS	199	50.5
3/15	State of Illinois / Ava Cave, USFS / Private lands	1,588	62.5
3/15	Cypress Pond, IDNR	35	3.5
3/15	Cache River West Eden, IDNR	40	3.5
3/15	Star Hill Prairie, IDNR	92	10
3/19	Barker Bluff, USFS	30	13.5
3/20	Bean Ridge, USFS	568	62.5
3/20	Giant City State Park, IDNR	445	9
3/21	Kickasola, USFS / Private lands	243	33
3/28	Cedar Lake North, City of Carbondale - SIPBA	210	40

All Prescribed Burn Assists in 2023, Continued			
3/29	Lake Murphysboro, IDNR	72	8
3/29	Walker, Private lands - SIPBA	180	50
3/30	Burning Star, IDNR	310	9
3/30	Atwood Ridge, USFS	1,346	62.5
4/7	Emiquon, IL TNC	110	8
4/12	Dug Hill, USFS / Private lands	301	20
4/18	Agropelter, USFS	190	46.5
4/24	Botham North, WI TNC	190	20
4/24	Schult, WI TNC	77	16
4/25	Thomson Memorial Prairie, WI TNC / Private lands	265	40
4/26	Hemlock Draw South, WI TNC	65	38
4/27	Hemlock Draw North, WI TNC	115	36
4/28	Lulu Lake, WI TNC	25	34
5/2	Fish Lake Unit 23, WI DNR	399	21
5/2	Fish Lake Unit 26, WI DNR	193	21
5/3	Fish Lake Unit 10, WI DNR	177	27
5/3	Fish Lake Unit 15, WI DNR	326	27
5/4	Crex Meadows Unit 45, WI DNR	687	48
9/14	Oakwood Moist Soil Units, USFS	73	21
9/19	Hamilton County SFWA, IDNR	117	40
9/22	Heyen, Private lands - SIPBA	120	52.5
10/2	Heyen, Private lands – SIPBA	26	29.5
10/3	West Tract, USFS	65	36
10/3	2D Piles, USFWS	3	7.5
10/4	West Tract, USFS	50	27
10/4	2D Piles & Grass, USFWS	7	8
11/1	Norco 1, NC WRC	11	37.5
11/3	Oakwood Bottoms Unit 27, USFS	170	18
11/3	Lift Station D, USFWS	24	6
11/9	Collier Glade, IDNR	150	18
11/14	Newman, Private lands - SIPBA	38	19
11/16	Lake Murphysboro Unit 1, IDNR	85	22
11/16	Lake Murphysboro Unit 2, IDNR	75	22
11/29	Kinkaid Mounds, IDNR	81	47.5
12/13	Melton, Private lands – SIPBA	25	8.5
12/14	Hairy Hill, IDNR	135	9.5
12/15	Lesko, Private lands - SIPBA	30	17
	TOTAL	12,352	1,571

Prescribed Fire Totals 2019 - 2023



Prescribed Fire Assists 2019 - 2023 (178 Total Assists)



Burn Unit Preparation:



Left to right: Danielle, Jess, and Carter geared up for a day of snagging at the Bell Smith Botany 2 burn unit.

Prescribed Burn Unit Preparation in 2023 (All units located in Illinois)		
Unit, Ownership	Acreage	Worker Hours
Bell Smith Botany Unit 1, USFS	90	28
Bell Smit Botany Unit 2, USFS	199	62
Cave Hill, USFS	1,280	6
Clayton Hollow, USFS	418	28
Copperous Branch, USFS	1,200	16
Cretaceous Hills Botany, USFS	250	72
Crazy Chain, USFS	500	52
Dean East, USFS	671	112.5
Fountain Bluff Botany, USFS	160	25.5
Giant City Unit 6, IDNR	200	40.5
Gibbons Creek, IDNR	125	16
Lake Glendale, USFS	25	15
Lake Murphysboro, IDNR	75	6
Little Cache, USFS	490	58
Page, USFS / Private Lands	438	101.5
Pine Hollow, USFS / Private lands	1,167	269.5
Teal Pond, USFS	621	123.5
TOTAL	7,909	1,032

Collaboration in Fire

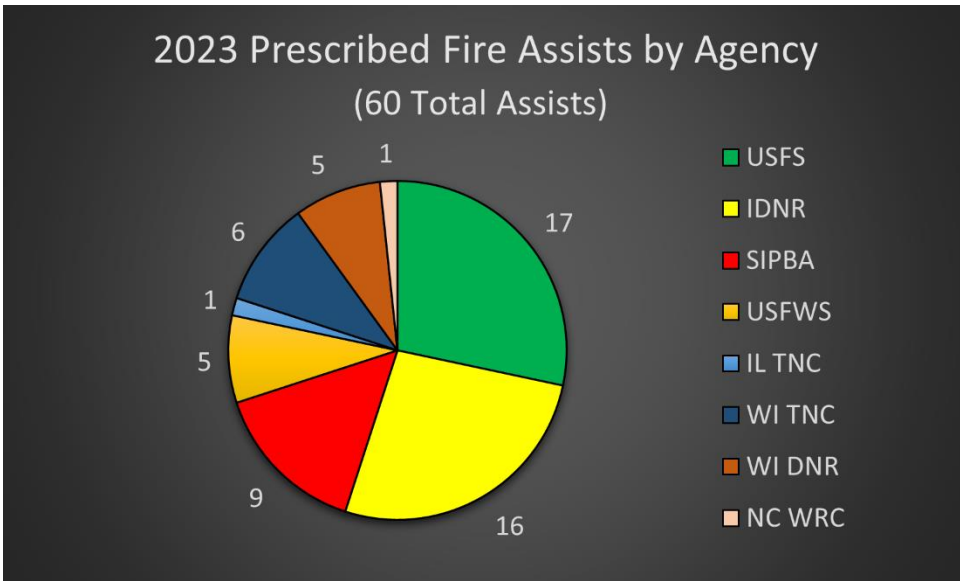
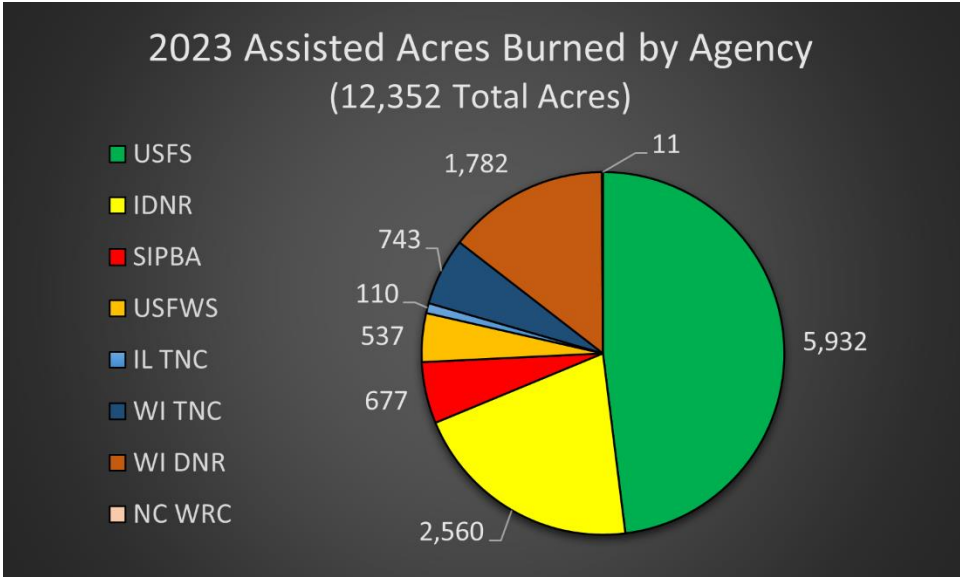
As a crew that specializes in cross-boundary fire and stewardship work, collaboration is the very foundation on which the SIIHFC stands. We boost the capacity of our local agency partners and Midwest Division counterparts by providing supplementary personnel, equipment, and expertise in achieving individual and collective natural resource management objectives. Those collaborative efforts shine the brightest in our prescribed fire work, as demonstrated by our second highest total for assisted acres burned, and new records for annual prescribed fire assists and the number of burns in which our Women In Fire fellows participated.

Being located at the very southern end of the Midwest has proven fortuitous in growing our impacts in prescribed fire and making collective contributions to TNC's ambitious 2030 Goals with our Midwest Division colleagues. This was the second year that the SIIHFC followed the spring prescribed fire window north to Wisconsin. The crew deployed on two multi-day excursions in late April and early May, assisting with eleven prescribed burns on TNC, private, and Wisconsin Department of Natural Resources (WDNR) lands totaling 2,525 acres. The crew's assists in May were of great significance as it was the first time TNC and the WDNR burned together in northwest Wisconsin, in addition to fulfilling important deliverables for a joint Landscape Scale Restoration grant that the two agencies received from the U.S. Forest Service. Having the SIIHFC available during this time allowed TNC Wisconsin to retain their fire staff for completing high priority burns in other parts of the state. This interdivisional collaboration is now an integral part of our work in meeting fire management goals, growing capacity, and building relationships within the Midwest Division.



8 agency and business unit collaborators in prescribed fire

Left to right: Nathan, Jess, Danielle, and Carter prepare for briefing while burning with the Wisconsin Department of Natural Resources in May. (Photo courtesy of John Schwingel)

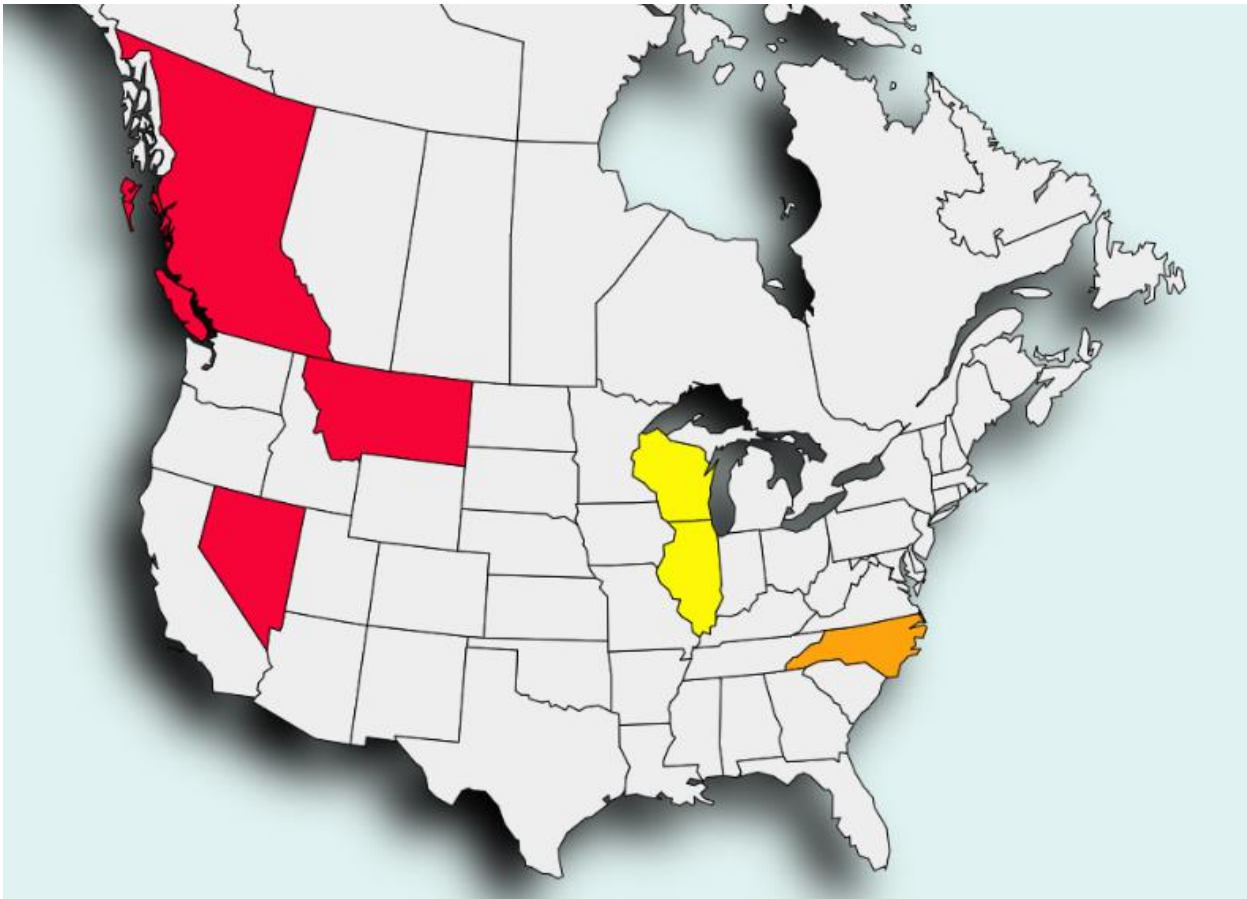


Wildfire Suppression

The SIIHFC believes that having a well-rounded experience and firm understanding of wildfire suppression better prepares fire practitioners for prescribed fire operations. While our crew assists agency partners with low-complexity wildfire suppression in southern Illinois, we encourage participation in fire assignments with the U.S. Forest Service, Illinois Department of Natural Resources, and others during the summer wildfire season. These assignments allow our crew to gain experience on larger and more complex incidents, learn new tactics and techniques, work on their National Wildfire Coordinating Group (NWCG) position task books, and network with fire practitioners from around the country. In the summer of 2023, our crew members assisted engine crews in British Columbia and Nevada, and hand crews in Montana. Additionally, SIIHFC staff that attended the Southern Blue Ridge TREC were called upon to pivot their focus from prescribed fire to wildfire suppression as prolonged drought and unseasonable fire weather resulted in a burst of wildfires across the Carolinas during the event.



The 2023 Illinois Interagency Type II Initial Attack Hand Crew while serving on the Tin Soldier Complex in Montana.



A map of states and provinces assisted with wildland fire activities in 2023 (created with paintmaps.com): **YELLOW** = Prescribed fire; **ORANGE** = Prescribed fire and wildfire suppression; **RED** = Wildfire suppression

Women In Fire

The Southern Illinois Program and Shawnee National Forest's joint Women In Fire Fellowship initiative continues to infuse diversity into the wildland fire workforce. The fellowship saw another major milestone in 2023 as additional funding from the U.S. Forest Service expanded the fellowship from a one-year program to two years. This extra year provides more opportunity for experience in prescribed fire and wildfire suppression, a more robust training schedule, exposure to other stewardship activities, and resume building to aid the fellows in competing for Fire and Aviation Management (FAM) jobs with the Forest Service and similar agencies. Highlights for the Women In Fire Fellowship in 2023 include:

- The fellows participated in a record 41 prescribed burns in Illinois, Wisconsin, and North Carolina.
- Jess' tenure with the fellowship was extended through December 2024.
- Danielle and Jess were certified as Wilderness First Responders in January.
- Danielle participated in a 14-day fire assignment with Shawnee Engine 621 in British Columbia, Canada on the St. Mary's River and Lladnar Creek Fires.
- Jess participated in a 14-day fire assignment with the Illinois Interagency Type II Initial Attack Hand Crew on the Tin Soldier Complex in Montana.
- Megan Gulik was onboarded as the newest first-year fellow in October.
- Danielle gained valuable experience and training as the first fellow to complete a second year with the fellowship. Her development and contributions to the crew earned her a permanent Burn Crew Member position with the Southern Illinois Interagency Habitat and Fuels Crew in September.
- Jess attended the Southern Blue Ridge TRES in Pickens, South Carolina as a Firefighter Type 1 trainee in November. Gaining experience and training on prescribed fire in the southern Appalachians and wildfire suppression on the Poplar Drive Fire in Henderson County, North Carolina.



Jess (left) and Danielle (right) enjoy a beautiful fall day while scouting a burn unit from a boat in South Carolina.

Fire Training

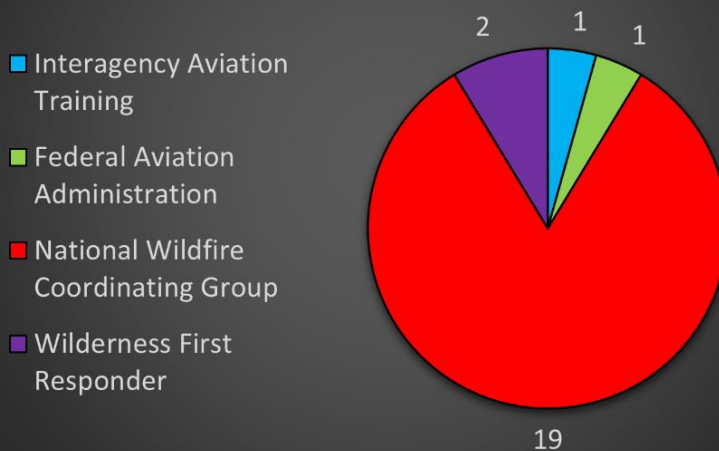
Formal classroom trainings are a vital part of growing and maintaining fireline qualifications, fostering our crew's professional development, and building programmatic capacity for wildland fire activities. This year our crew completed an impressive 23 nationally accredited courses and participated in highly valuable wildland fire workshops and training exchanges. Training highlights in 2023 include:

- In February, Caleb attended the Belize Wildfire Suppression Workshop in Big Falls, Belize where he was certified as a Firefighter Type 1 (FFT1) and Incident Commander Type 5 (ICT5). This workshop is a collaboration between the Toledo Institute for Development and Environment (TIDE), Dos Fuegos Fire Management, and TNC.
- In August, Caleb, Danielle, and Nathan attended the inaugural Northeast/Midwest Prescribed Fire Science and Management Workshop in Madison, Wisconsin. This workshop included three days of presentations and panel discussions on prescribed fire administration, ecology, management, and science, with opportunities for networking with fire practitioners from around the country.
- In November, Danielle, Jess, and Nathan attended the Southern Blue Ridge Prescribed Fire Training Exchange (TRES) in Pickens, South Carolina. This event provided opportunities for learning about the fire history, ecology, and techniques of the southern Appalachian Mountains, serving in trainee roles towards NWCG position task books, mentoring others, and networking. Danielle and Jess attended as FFT1 trainees, while Nathan held trainee roles of Firing Boss (FIRB) and Engine Boss (ENGB) in addition to being a mentor for FFT1 and Faller 2/3 (FAL2/3).



Caleb (right) and one of his Belizean mentors, Mario (left), on the fireline at the Belize Wildfire Suppression Workshop.
(Photo courtesy of David Printiss)

Nationally Accredited Fire and Aviation Management Courses Completed by Agency



Breakdown of Trainings Completed in 2023:

Carter

- **A-110** *Aviation Transportation of Hazardous Materials* (Interagency Aviation Training)
- **Part 107** *FAA Remote Pilot Certification* (Federal Aviation Administration)
- **RT-130** *Wildland Fire Safety Training Annual Refresher* (National Wildfire Coordinating Group)
- **S-219** *Firing Operations and Devices* (National Wildfire Coordinating Group)
- **S-271** *Helicopter Crewmember* (National Wildfire Coordinating Group)

Caleb

- **RT-130** *Wildland Fire Safety Training Annual Refresher* (National Wildfire Coordinating Group)

Danielle

- **RT-130** *Wildland Fire Safety Training Annual Refresher* (National Wildfire Coordinating Group)
- **S-219** *Firing Operation and Devices* (National Wildfire Coordinating Group)
- **S-270** *Basic Air Operations* (National Wildfire Coordinating Group)
- **Wilderness First Responder** re-certification (Wilderness Medical Associates)

Jessica

- **L-180** *Human Factors in the Wildland Fire Service* (National Wildfire Coordinating Group)
- **S-110** *Basic Wildland Fire Orientation*
- **S-131** *Firefighter Type 1* (National Wildfire Coordinating Group)
- **S-211** *Portable Pumps and Water Use* (National Wildfire Coordinating Group)
- **S-212** *Wildland Fire Chainsaws* (National Wildfire Coordinating Group)
- **S-260** *Interagency Business Management* (National Wildfire Coordinating Group)
- **RT-130** *Wildland Fire Safety Training Annual Refresher* (National Wildfire Coordinating Group)
- **Wilderness First Responder** re-certification (Wilderness Medical Associates)

Makenna

- **RT-130** *Wildland Fire Safety Training Annual Refresher* (National Wildfire Coordinating Group)
- **S-260** *Interagency Business Management* (National Wildfire Coordinating Group)
- **S-271** *Helicopter Crewmember* (National Wildfire Coordinating Group)

Megan

- **RT-130** *Wildland Fire Safety Training Annual Refresher* (National Wildfire Coordinating Group)

Nathan

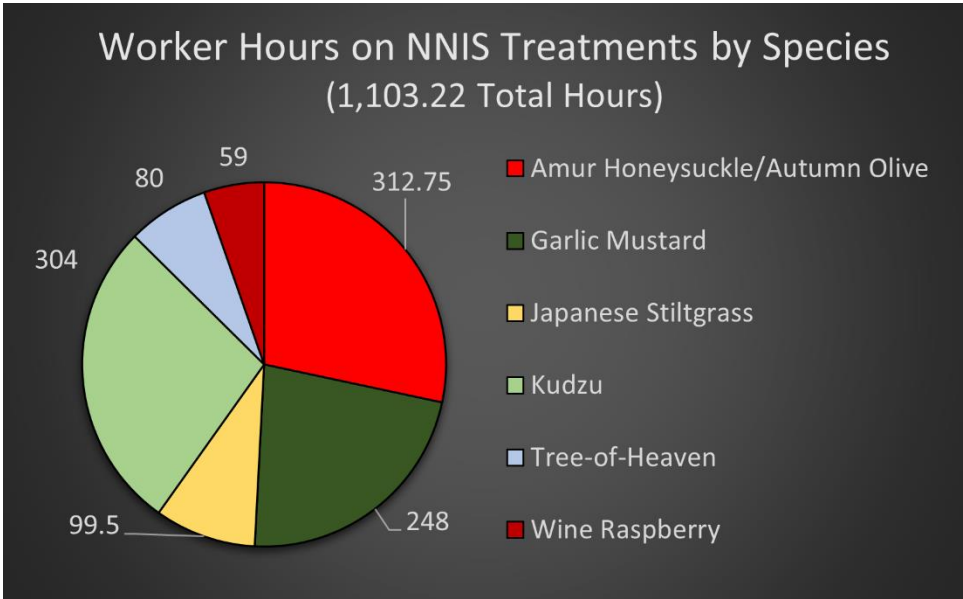
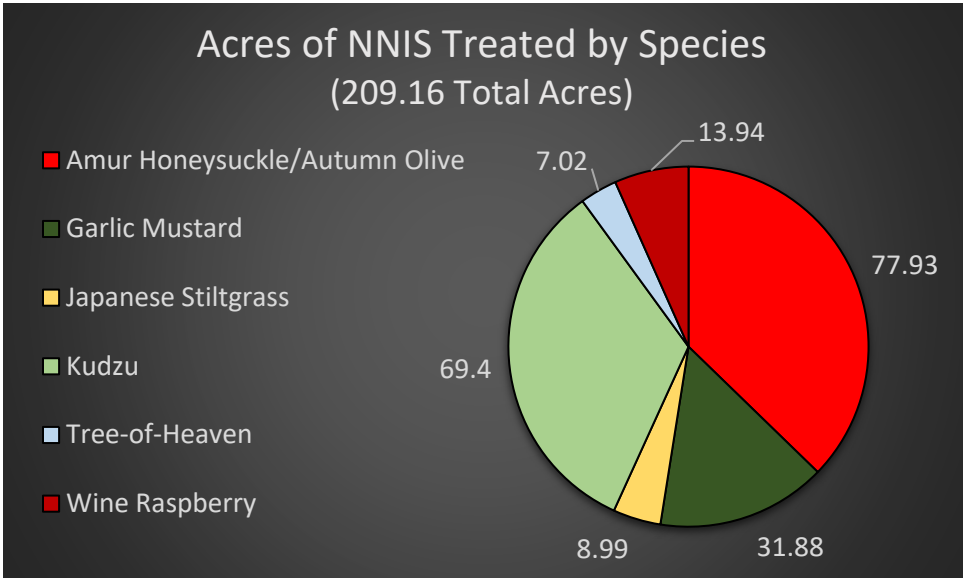
- **RT-130** *Wildland Fire Safety Training Annual Refresher* (National Wildfire Coordinating Group)

Non-Native Invasive Species and Timber Management

When not engaged in wildland fire activities, the SIHFC works tirelessly to restore native plant communities by eradicating exotic plants and thinning forest stands to meet ecological and silvicultural management objectives. Being at a unique geographic convergence point in the United States has subjected southern Illinois to a relentless siege from a diverse and ever-growing list of invasive plants from all directions. Further complicating the region's restoration efforts in oak-hickory dominant forests is the abundance of shade-tolerant tree species like maple and American beech in the understory and midstory due to decades of fire suppression. While prescribed fire is essential for oak-hickory regeneration and ecosystem maintenance, mechanical thinning treatments are necessary for restoring forest stand structure and species composition.



Caleb uses a UTV-mounted high-volume pump to apply herbicide in a large gully overrun with kudzu near Cedar Lake.



Breakdown of NNIS and Timber Treatments:

Amur Honeysuckle and Autumn Olive: Cut-Stump and Foliar Applications		
Unit, Ownership	Acreage	Worker Hours
Garden of the Gods, USFS	8	65.5
Johnson Creek, USFS	5.5	34
Parbuckle, USFS	64.43	213.25
TOTAL	77.93	312.75

Garlic Mustard: Foliar Application and Hand Pulling		
Unit, Ownership	Acreage	Worker Hours
Ava Cave, USFS	3.94	48.5
Buttermilk Hill, USFS	5.68	79
Double Branch, USFS	4	12
Fink Sandstone, USFS	8.78	23
Bell Smith Springs, USFS	0.02	2.5
Simpson Barrens, USFS	1.56	5
LaRue Pine Hills, USFS	3.99	33.5
Garden of the Gods, USFS	1.58	10
Lusk Creek East, USFS	2.23	30
Lusk Creek West, USFS	0.1	4.5
TOTAL	31.88	248

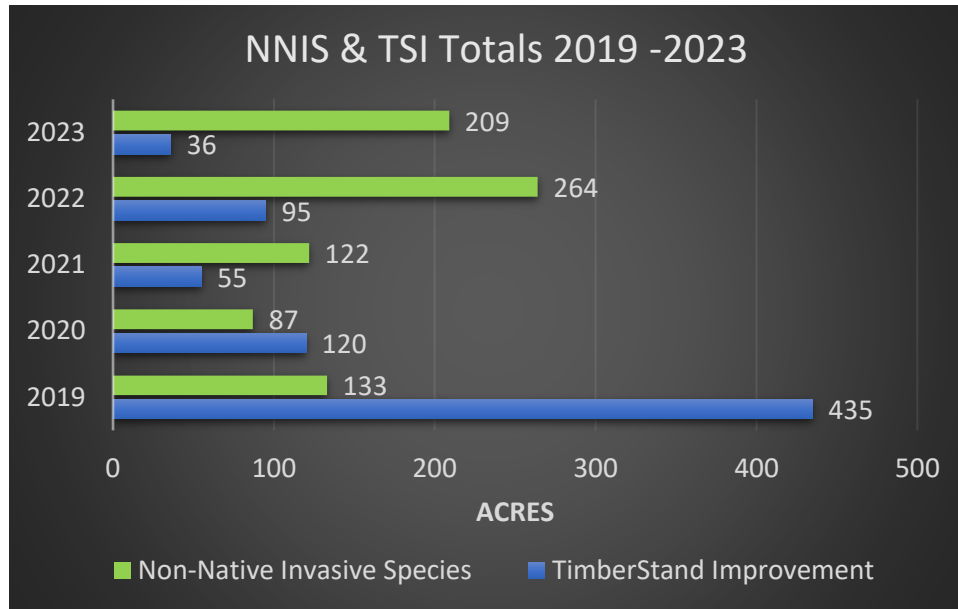
Japanese Stiltgrass: Foliar Application		
Unit, Ownership	Acreage	Worker Hours
Cretaceous Hills Seep Springs, USFS	8.99	99.5
TOTAL	8.99	99.5

Kudzu: Cut-Stump and Foliar Applications		
Unit, Ownership	Acreage	Worker Hours
Cedar Lake, USFS	37	148
Poco Cemetery, USFS	31.5	149
White Tract, USFS	0.9	7
TOTAL	69.4	304

Tree-of-Heaven: Foliar & Hack-and-Squirt Applications		
Unit, Ownership	Acreage	Worker Hours
Buttermilk Hill, USFS	4.05	22
Equalizer, USFS	1.06	13
Gum Ridge Repeater, USFS	1.09	24
Waterfall Trailhead, USFS	0.82	21
TOTAL	7.02	80

Wineberry: Foliar Application		
Unit, Ownership	Acreage	Worker Hours
Buttermilk Hill, USFS	13.94	59
TOTAL	13.94	59

Timber Stand Improvement (TSI)		
Unit, Ownership	Acreage	Worker Hours
Hootenanny, USFS	36	72.75
TOTAL	36	72.75



Legend

- IDNR - Illinois Department of Natural Resources
- NC WRC - North Carolina Wildlife Resources Commission
- SIPBA - Southern Illinois Prescribed Burn Association
- USFS - U.S. Forest Service
- USFWS - U. S. Fish and Wildlife Service
- WI DNR - Wisconsin Department of Natural Resources