

# Nachusa Grasslands Prescribed Fire Crew

## Summary Report Fall 2017 through Spring 2018



By Bill Kleiman, The Nature Conservancy May 3, 2018 Share with your colleagues

Every year we work to make our fire program better, which makes it fun. We spend days making our woodland fire breaks more clear, smooth, and wide. After every fire the crew discusses what worked and what didn't. We work to respond to their feedback. We keep improving equipment, improving training, and anything else that makes the fires safe and effective. One way to help your crew is to share this report.

The numbers:

We broke our record of burned acres at Nachusa with 2,428.

We burned a record 44 units and we assisted other agencies with fire on an additional 18 units.

We assisted partners to burn 2,594 acres, which is a record, but our partners were making us look good. Kudos to IL-DNR Russ Blogg and Brad Semel, pulling off big and effective fires at DNR sites where we sent crew to help. Damian Considine led effective fires at IL Audubon's Amboy Marsh and Gremel Sanctuary. Duane Ambroz of DNR got another fire done at White Pines State Park.

We had 26 burn days, a high number, where the weather was good, although full of north and east winds with a south wind being a rarity. We were often wearing long underwear this spring.

Importantly, our woodland fires burned vigorously enough to set back the invasive brush.

Nachusa was part of a New York Times article on prescribed fire, “Setting Fires and Restoring an American Landscape”,

<https://www.nytimes.com/2018/04/23/science/prairie-fires-nachusa-illinois.html?hpw&rref=science&action=click&pgtype=Homepage&module=well-region&region=bottom-well&WT.nav=bottom-well>

Best response I got from a colleague was Bob Hamilton of our Tallgrass Preserve in Oklahoma: “Well, the *Ruderal junk* phrase sounds a little dirty to me, but nice story!”

THE NEW YORK TIMES, TUESDAY, APRIL 24, 2018

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## Observatory

FINDINGS, EVENTS AND MORE

CREATIVE DESTRUCTION

# A Landscape Forged by Fire

North America was once a loose conversation between landscapes. Lightning might spark a fire that burned for miles, relenting only when it hit a lake or river. Remove fire, and this dialogue gets interrupted. Weedy scrub accumulates, stifling the earth.

Today, prescribed burns help sustain threatened ecosystems that have evolved with fire for millennia. One of the many teams that undertake such burns operates at Nachusa Grasslands, a preserve in Franklin Grove, Ill., operated by the Nature Conservancy.

Below, photos during and in the weeks after one of the team's burns in April 2017. *STEPH YIN*



# Fires done by Nachusa Grasslands crew from Fall 2017 to Spring 2018

Date	Unit Name	Burn boss	Acres TNC	Acres others	Temp high	Humidity low	Wind high	Crew size	Comment
12/3/2017	CCK NE	Bill	190		56	42	SSE 10	11	
3/2/2018	Stonebarn Farm SW corner	Bill	12		46	38	N 3	6	new prairie planting barely ignited
3/3/2018	Williams Wetlands	Bill	48		48	40	SE 13 with gusts	10	
3/4/2018	CCK Central to Lowden	Bill	162		50	37	SE 15	11	
3/4/2018	Sand Farm	Bill	82		50	37	SE 15	8	
3/10/2018	Dot Doug Planting	Bill	35		40	40	ESE 15	11	
3/10/2018	Nachusa fire crew safety refresher live fire exercises at Sand Farm	Bill	1		40	40	ESE 15	22	Training
3/11/2018	Senger Holland Prairie West	Bill	82		41	45	NE 9 with gusts	16	
3/11/2018	Holland Prairie center	Bill	56		41	45	NE 9 w gusts	16	
3/11/2018	CCK NW corner	Bill	27		41	45	NE 9 w gusts	5	
3/13/2018	Amboy Marsh away team	Damien C		70	39	38	NNW 10		Team: Cody, Phil, Nathaniel, and Avery
3/14/2018	Amboy Marsh and Gremel away team	Damien C		55	40	45	NW 20 w gusts 30		Team: Cody, Phil, Nathaniel, and Avery
3/15/2018	Hotchkiss	Bill	189		43	40	NNW 9 w gusts	17	
3/15/2018	Meiners Wetlands	Bill	58		43	40	NNW 9 w gusts	15	
3/15/2018	GRCA	Russ Blogg		860			N		Away team of Cody, Phil, and Kaleb
3/16/2018	Tellabs/Bennett/Didier/Dahlberg	Bill	296		43	45	E 15 w gusts	11	
3/18/2018	CCK Whitehouse	Bill	66		52	40	SW 3 variable	13	
3/18/2018	HLP	Bill	112		52	40	SW 3 variable	13	
3/18/2018	130 190 Field Day	Bill	1		52	40	SW 3 variable	13	NIU students and others
3/20/2018	Castle Rock SP Fell NP	Brad Semel		700					Bill Bowes and Phil
3/21/2018	Main Units - big Woods to Prairie Potholes	Bill	338		42	40	N 10 w gusts	13	Combining units made it bigger but easier

3/22/2018	Williams woods	Bill	11		48	38	N 5 w gusts	13	Fire fire here. New fire breaks worked well.
3/22/2018	Carpenter	Bill	66		48	38	N 5 w gusts	13	Had escape fire into the east remnant of TCP
3/23/2018	Orland west and east	Bill	188		48	42	E 10 w gusts	17	
3/28/2018	Orland prairie	Bill	148		55	53	SSE 5	15	
3/28/2018	Hulbert E plots	Bill	2		55	53	SSE 5	5	These are fire study plots near Visitor Entrance
3/30/2018	Soderholm	Bill	121		48	42	WSW 13	13	
4/1/2018	FCCA Headwaters	Kaleb Baker		5	36	32	NW 8	6	
4/2/2018	DNR attempt to burn but too wet	Duane Ambroz		0	43	39	SSE 13	11	Bill's fault. Got all the logisics down but did not check the leaf litter, which was damp.
4/2/2018	Re-burn CCK east 100 A planting	Bill	0		43	39	SSE 13	3	I put zero on acreage as it is a reburn that did do better. The mowed first year planting will burn. After this we mowed more and burned a third time.
4/11/2018	Schafer/Bivins /E Heinkel	Bill	125		61	53	S 6	11	
4/11/2018	Orland Family	Bill		18	61	53	S 6	4	Bill led ignitions. Woods burned well.
4/11/2018	Fellows woods w Orland Panhandle	Bill	10	43	61	53	S 6	5	Cody led ignitions at the same time. Woods burned patchy.
4/12/2018	Nichols	Bill		117	68	45	NW 9 w gusts	9	
4/12/2018	Red Frank	Bill		31	68	45	NW 9 w gusts	7	

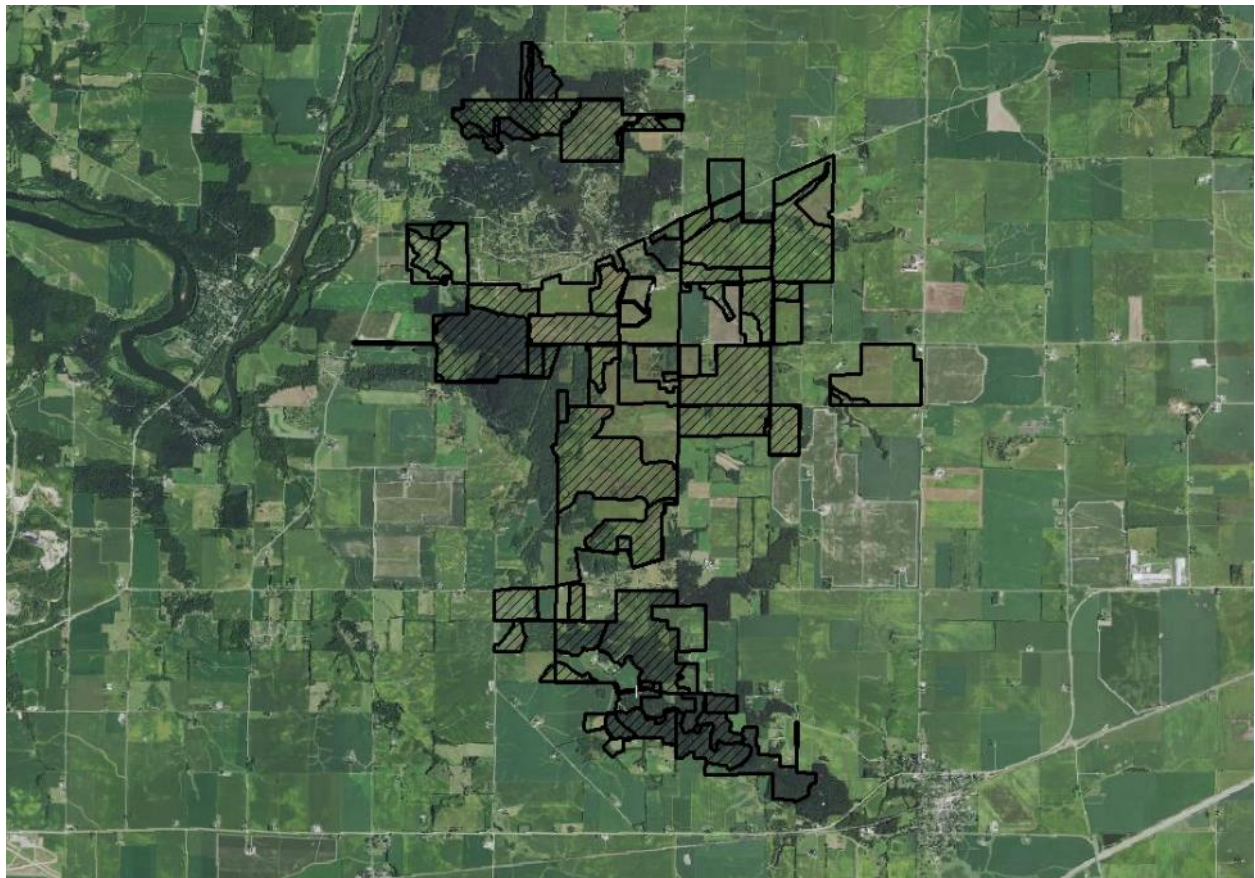
4/17/2018	DNR Naylor Rd planting	Bill		24	46	47	N 7	6	Half of this was burned with a neighbor mowing accidently started the prairie on fire on March 30.
4/17/2018	Lowden Rd fenceline by VC	Bill	2		46	47	N 7	5	Small but a challenge
4/22/2018	DNR FCNA South units. NP	Russ Blogg		138	61	23	E 14 w gusts	12	
4/22/2018	DNR FCNA South units. Kelly/Hurd	Russ Blogg		58	61	23	E 14 w gusts	12	
4/22/2018	DNR FCNA South units. Little NP w Franklin Creek Drive on S bound	Russ Blogg		20	61	23	E 14 w gusts	12	
4/23/2018	DNR FCNA North units. East of Twist, north of creek	Russ Blogg		238	66	29	NE 12	12	Lots of perimeter degraded habitat with oak woods interior
4/23/2018	DNR FCNA North units. West of Twist, north of creek	Russ Blogg		62	66	29	NE 12	12	
4/25/2018	MCCD. 2 units	Jeff Murray		95	62	35	N 10	8	Away team Bill and Phil
4/26/2018	White Pines SP	Duane Ambroz		41	67	28	SW 7		Away team of Phil, Avery, Nathaniel, Bill Bowes, Colton Youngren
4/26/2018	FCNA SW of Mill	Russ Blogg		19	67	28	SW 7	7	
<b>Total acres</b>			<b>2,428</b>	<b>2,594</b>			Average crew size:	10.73	Average crew size at Nachusa

<b># fire we assisted on partner lands</b>	<b>18</b>
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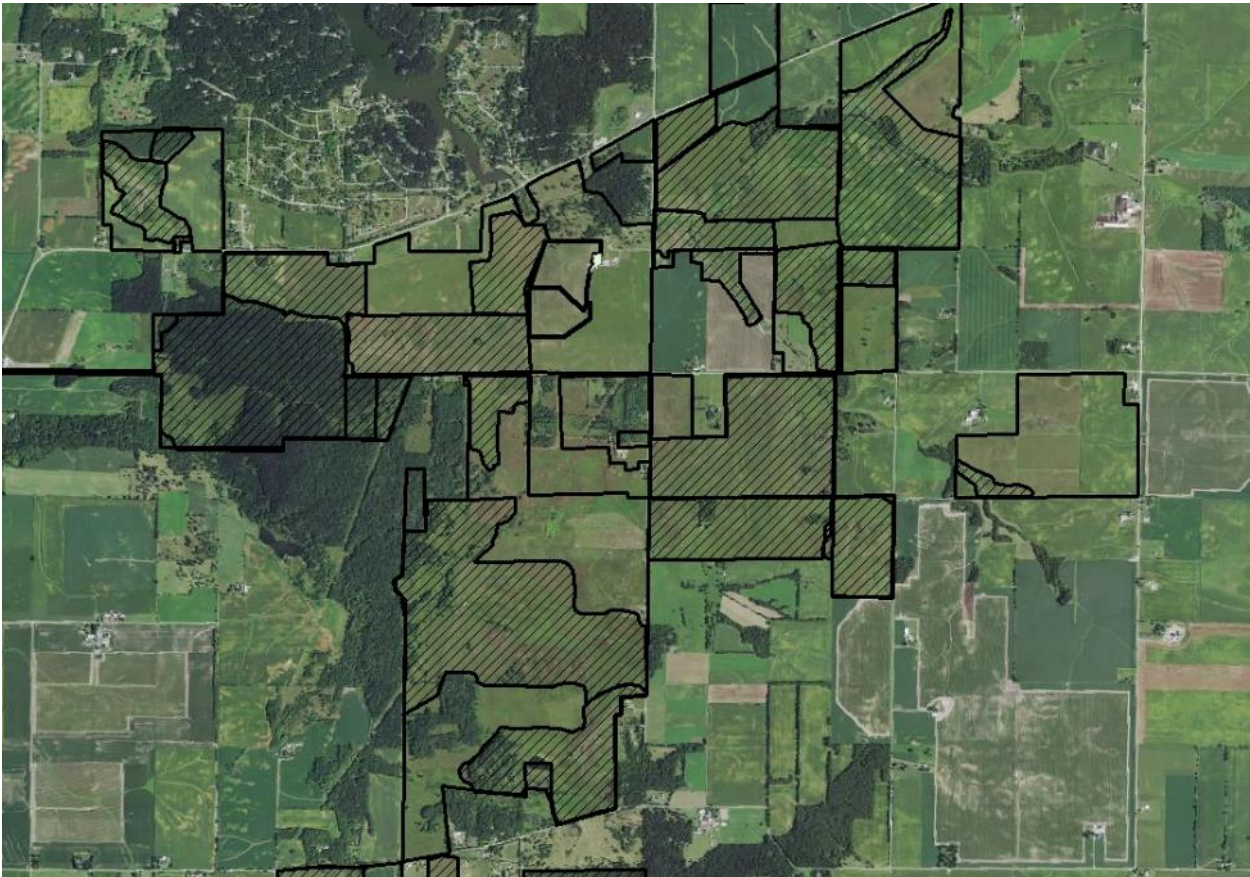


<b>Total TNC Nachusa land burned</b>	<b>2,428</b>
Total burn units	44
Burn units at Nachusa	26
Average burn unit size at NG (does not include little training fire or Hulbert plots)	106
Number of burn days	26

Map showing all fires done with hatch marks. Includes DNR's Franklin Creek Natural Area and a few neighbors

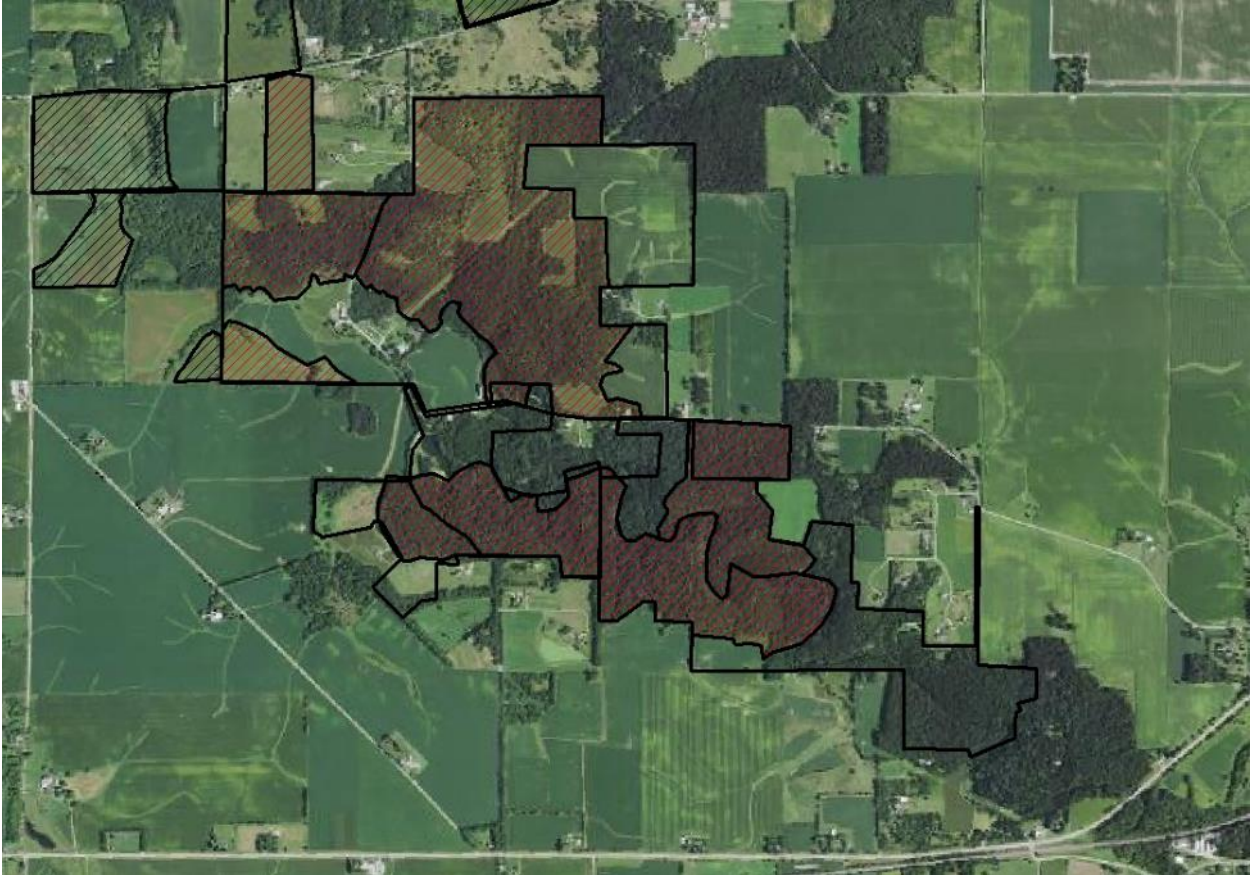


Closer view of same map as above.





Same map again, but showing DNR's Franklin Creek Natural Area with red hatch marks. You can see Meiners Wetlands and a neighbor.





An example of healthy oak savanna that has had repeated low intensity fires for a quarter century. A mature white oak in foreground. The ground layer is populated by flowers and grasses. The shrub layer is open. The trees behind are young oaks that are enjoying all that sunshine.



A red headed woodpecker, a poster child for oak woods. These woodpeckers act like flycatchers, leaping off the trees to capture flying insects with their beak and tongue. They depend on the open structure of an oak woods. Red headed woodpecker populations have plummeted nationally as their open oak woods habitat has shrunk.





An example of un-healthy habitat. Exposed soil is the main ground “cover”, making this ground prone to erosion. The thicket of shrubs are invasive honeysuckle, brought to North America a century back and now haunts many woods, turning them dark with shade. Oaks don’t grow here. Prairie does not grow here. This is junk habitat, so common on our landscape that we take it as the normal.





Avery Parmiter, who was on our hired crew spring to fall last year, and will again be with us this year.





Tyler Pellegrini, our “Rookie of the Year” went from military service to NIU for his bachelors. This spring, he took a fire course that Nachusa hosts with NIU. After the training, Tyler showed up for his first fire having spent hundreds of dollars to buy fire clothes, helmet and radio pack. We knew we had a keeper.





The crew getting ready to do the test ignition. The wind is blowing from left towards the right, towards the crew. They will light a back-burn, and not let the fire get into the unburned prairie on the right side of that fire break. One crew will ignite walking away from your perspective and have those three vehicles with water sprayers to support them. The other crew will ignite towards you and their water sprayers are not shown. On right is Ron Deters who led crews several times the last two seasons.



Another test fire before an ignition start on a different fire. Watching to see how it will burn. Pondering if everyone is set.





Phil Nagorny toasts us after a long day of fire. We do reviews after each fire in the field, and then often end the day in our headquarters with pizza or chili or a stew, and a beverage. Phil has been with our hired crew for over two years. He just earned his bachelor's degree, has a ton of fire experience and fire coursework. He became our best sawyer and a solid equipment operator. This summer he moves on to wildfire work with the US Fish and Wildlife Service. Keep one foot in the black, my friend.





The fire crew after a day of fire on a warm early December day.



A fire at twilight.



**Crew who participated in Fall 2017 to Spring 2018 prescribed fires**

(Let me know if I missed you)

<b><u>First name</u></b>	<b><u>Last Name</u></b>	<b><u># of fires</u></b>	<b><u>Comments</u></b>
Duane	Ambroz	1	Burn boss for DNR
John	Ayers	2	
Greg	Baker		Photographer
Kaleb	Baker	8	Burn boss for FCCA, line boss for Nachusa
Russell	Blogg	3	Burn boss for DNR

Bill	Bowes	11	Mentored various trainees, and helped with fire training
Bernie	Buchholz	3	
Mike	Carr	4	
Jeff	Cologna	6	
Damian	Considine	7	MRCP fire leader
Cody	Considine	22	Line boss and away team leader
David	Crites	10	A busy guy getting in ten fires.
Ron	Deters	17	Line boss
Gwen	Deters	14	
Chantalle	Edmunds	6	Mentored trainees
Anna	Farrell	3	Also a researcher here w NIU
Jessica	Fliginger	6	
Dick	Gambrel	11	Fire scout
Joseph	Grajek-Yahn	1	
Sheryl	Hosler	4	Also a researcher here w NIU
Dee	Hudson		Photographer
Nathan	Huff	1	
Greg	Hunter	3	MRCP fire leader
Leah	Kleiman	28	Volunteer fire crew most fires this year
Bill	Kleiman	37	Burn boss 395 in career
Susan	Kleiman	14	Line boss. Made many dinners for tired fire crews
Travis	Kuntzelman	1	Line boss
Dave	Lawson	1	
Mark	Leichty	2	
Jim	McPherson	1	
Al	Meier	1	
Paul	Mellon	4	
Phil	Nagorny	34	Line boss many times. Prepped equipment and many fire breaks. Taught chainsaw safety refresher. Heading off this summer for a wildfire crew. Thank you, Phil!
Matt	Nissenbaum	5	
Don	Panozzo	7	
Avery	Parmiter	27	Stalwart Crew also prepping equipment
Tyler	Pelligrini	12	Rookie of the year!
Joe	Richardson	21	Lots of fire. Thanks Joe! Mentored trainees
Phil	Rudolph		Photographer
Paul	Say	9	Line boss first time this year
Kevin	Scheiwiller	1	



			Burn boss for DNR leading large and complex fires. Recognized this year by the IL Prescribed Fire Council with the Leadership Award.
Brad	Semel	1	
Paul	Soderholm	1	Celebrating their gift of land with a fire.
Nick	Steijn	5	Also a researcher here w NIU
Paul	Swanson	5	
Tony	Tang		Photographer
John	Vanek	2	Also a researcher here w NIU
Bryon	Walters	3	
Beth	Weber	2	
Nathaniel	Weickert	30	Stalwart Crew also prepping equipment
Orem	Wilder	1	
Hayden	Wurtz	4	Working again this summer on a wildfire crew
Colton	Youngren	1	Polo Fire Department
TOTAL CREW		49	

The Nachusa fire fleet. On left is tender truck with 400 gallon tank to fill the other units in the field. The UTVs we love for their mobility. The pickups get used too. If it has wheels why not put a pumper in it? This redundancy in water spray power allows us to go faster, have few escapes, and get a lot of fire work done.





Our annual pack test is two miles with 24 pounds in under 30 minutes.





An example of how to turn a crop field into an oak savanna. In 1995 we planted a prairie and then the squirrels buried acorns in the prairie. This has had nearly annual fire and you see the oaks are shrubby and healthy. A few are getting big enough to become trees. Oaks do fine with frequent fires. The trail there is from bison.



I caught a ride down to the Illinois Prescribed Fire Council symposium with these characters from Byron Forest Preserve: Lauren, Russ, Todd driving.





At the Fire Council symposium we recognized IL DNR's Brad Semel with our Leadership Award.



Kaleb Baker, Paul Say and Leah Kleiman





A tractor powered leaf blower. This blows leaves from woodland fire breaks. It also disperses hay raked prairie windrows.





This fire on Big Jump Prairie burned quietly for a few hours after sunset and the night humidity extinguished it.



Dave Crites and Mike Carr



Dick Gambrel





Jeff Cologna





Hayden Wurtz



We store our pumper units (water sprayers) on pallet racks. The pumps are freeze protected with RV antifreeze pumped through them. Gas stabilizer added.



We also use these home made carts to store pumps. They are good for repairing a pump too.





Spraying a water “wet line” with the ignition torch following along a mowed fire break.



We grind stumps on fire breaks to get rid of bumps which damage water laden UTVs.





This photo is to show the size of this backing fire in this oak savanna. This slow moving heat will set back brush and support oaks, grasses, and flowers.





A before photo at the Orland family property. A big oak is behind this wall of invasive honeysuckle.





After brush mowing for 20 minutes.



Thanks for reading our report. I appreciate feedback. – Bill Kleiman [bkleiman@tnc.org](mailto:bkleiman@tnc.org)