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Retreatment: The Key to Success



VOLUME TWO FALL ISSUE

After the crew has come and gone, leaving a trail of little blue colored stumps in their wake, you're left with an invasive free piece of property... for now. Spring and summer roll in bringing with them sunshine and monsoon rains. Your once invasive free property is now home to a few re-sprouts and you're left wondering what to do next. Well, the answer is here; a simple step by step guide to DIY retreatment.

Safety First

Before any kind of field work always make sure you have the right personal protective equipment (PPE). This includes gloves, eye protection and anything recommended on the herbicide label. Be sure to read those labels to use herbicide responsibility and make sure that the herbicide you are using is an aquatically approved formula.

Tamarisk and Russian Olive

For tamarisk or Russian olive retreatment a cut stump method is preferred. This means, cut the regrowth as close to the ground as See Retreatment Page 3

mean cutting it as close to the stump it is growing out of as possible. Garden shears or loppers are usually feasible for this if it has just grown since the last treatment season. If it is a couple of vears of regrowth then a hand saw might be preferable. As far as herbicide goes, the crews use an Imazapyr mix: 10% imazapyr, 25% MSO (methylated seed oil) and 65% water as well as blue dye to make it easier to see. It is best to spray the stump within a few minutes of cutting it to allow the plant to pull the herbicide down into the root system. If you wait too long to spray, the tree will have already begun to shut down and will not pull the herbicide down to its roots. Treating in the fall/winter or dormant season is best for the same reason. When the plant is preparing for winter it pulls nutrients downward toward the roots, whereas, in the spring/summer its sending nutrients towards its leaves and flowers.

possible and spray it with herbicide. With retreatment this might

PROGRAM COORDINATOR'S LOG

ΗI,

I hope you are enjoying the last days of autumn in the Verde or wherever you may be! The leaves have finally dropped from the cottonwoods and willows here in the Verde and the green ribbons that snake through the watershed representing our streams have turned grey for the winter. While the plants are taking their winter nap, field crews are busy improving habitat by removing invasive plants and treating re-sprouts from previous treatments. We've treated over 500 acres this fall and are well on our way to accomplishing our annual goal of 1000 acres.

I would like to thank you for supporting the efforts of VWRC throughout the year either as a landowner, grantor, partner or private donor. Your contributions have made it possible for VWRC to continue to support Veterans and Conservation Corps crews while improving the overall health of our streams.

I would also like to take the opportunity to challenge anyone who has not given during FVRG's year-end-campaign to do so NOW! This year, an anonymous donor will match all new or increased donations dollar for dollar up to \$5000! This mean your gift could potentially double. Give NOW!

Support Βу Friends of licking Verde Ríver here! Greenway

Again thank you for your support of VWRC and have a warm and happy

winter!

News you ofter know

- **Meanderland: Habitat Restoration Turns into a Classroom for Kids Page 2**
- **FVRG Volunteers Support**ing the Jail Trail Page 4
- **VWRC Annual Stakeholder Meeting Page 5**
- **New Faces at VWRC Page 6**
- **Happenings** Around the **State Page 7**
- **AlterNative Plants Page 10**
- **VWRC Calendar Page 10**

MEANDER LAND: HABITAT RESTORATION TURNS INTO A CLASS FOR KIDS!

I call it the last undeveloped curve in Cornville. If you stand high on the ridge of Sugarloaf Road and look down, you see a 2/3 of a mile curve of creek and Sara Van Marel, VWRC Crew a small house built in the 1920's sitting back on the properties upper level. There is a shelf of mesquite trees and a healthy riparian area with cottonwoods, willows and some large sycamore trees too. And of course, like most of Oak Creek there's a sizable amount of Arundo donax, and a healthy distribution of Tamarisk trees.

The Kohnen family, Stephanie, Patrick, their four kids along with their spirited Australian Shepard are thrilled to be living in such a spectacular place and were also enthusiastic landowners happy to pitch in to make the onerous task of removing invasive plants from their property possible.

First, Patrick and the kids trimmed the primitive road that removal, while The Vetraplex leads down to the riparian area making it easier for the crews to



Heart-shaped ant hill near the creeks edge.

access the plants that had to be removed.

Next the Kohnen's worked with Supervisor, to coordinate the work of three crews on the property at one time. Crew #1, the Arizona Conservation Corps (AZCC) worked to remove Tamarisk from the wash that runs through the property, while AZCC Crew #2, our retreatment crew, learned the fine art of Arundo donax/giant reed



The Vetraplex Veterans River Crew at a cleared patch of Arundo.

crew began at the opposite end of the property, plying their well like the Kohnen's are key to a honed skills, talking out large stands of giant reed, faster than thought possible.

One of the advantages of this property was the ability to burn the giant reed instead of chipping which made the work go that much faster.

The Kohnen kids observed the crews at work whenever possible. They would trek down with



Stephanie Kohnen and the kids surveying a stack of Arundo.

cameras in hand, watching from a safe distance what was happening to the beautiful riparian area, seeing the creek from certain vantage points for the first time. The kids even joined our crews for one of their education sessions to learn about endangered garter snakes.

Stephanie and the kids also quickly became favorites of the crew as well, when they would greet them with a cool drink or special baked treat at the end of a long hard day in the field.

Private landowner partnerships healthy and sustainable riparian habitat in Oak Creek.

Laura Jones Community Outreach and Development. Friends of Verde **River Greenway**

Private Landowner Fact Box!

35% of riparian land in the Verde Watershed is owned by private landowners. The rest is owned by local municipalities and **Federal Agencies.**

RETREATMENT: THE KEY TO SUCCESS! CONTINUED



Arundo Donax regrowth (left)

Russian Olive Tree Regrowth (right)

Retreatment Continued from Page 1

Arundo Donax/Giant Reed

Arundo retreatment is also a cut stump method. The main difference between treating Arundo and Tamarisk or Russian olive is the window in which herbicide will be effective. Since Arundo is a type of grass and not a type of woody vegetation, the window for herbicide to be more effective is shorter, his means that in order for the herbicide to be effective it must be sprayed immediately after it is cut. Otherwise, the plant has already started dying so it won't be able to pull the herbicide into its root system. Having a team of two and a pair of loppers usually works best for Arundo. The herbicide used on Arundo is 10% imazapyr, 50% glyphosate (round up), 10% surfactant and 30% water.

Tree of Heaven

Tree of heaven seems to be the feistiest of the four target species; therefore, the most likely culprit in your regrowth scenario. We have recently discovered that a cut stump method for tree of heaven actually helps it to proliferate. This is because of its emergency response hormones. When the tree senses that it is in danger it sends signals out to the roots so that the roots can then sprout. This is called root crowning and is the cause of the sea of waist high tree of heaven plants wherever a large tree has been removed with a cut stump method. There are a few different methods for retreating tree of heaven depending on the size of the regrowth.

The first and most straight forward is digging or pulling out the smallest trees. This is more likely to be successful when the soil is moist after a rainfall. The thing to watch out for when doing this is to be careful to get all of the roots out. If pulling them out of the ground is just breaking off the roots then it will not be an effective retreatment and you should consider the other options.

The second option for retreating tree of heaven is a basal bark treatment. This is a surface spray around the bark at the base of the tree. Basal bark treatment only works on young trees that still



have smooth bark. We have found that tree of heaven starts to get rough bark when it is about 1-2 inches in diameter.

For the bigger and more resilient tree of heaven regrowth, a hack and squirt method is recommended. This method will require a hand

Stump Cut with Herbicide Application

something similar. The idea here is to make a se-

saw, a small hatchet or



For technical assistance with initial treatment or retreatment email sara@verdewrc.org.

ries of "hacks" in the bark of the tree. These hacks should be going all the way around the tree but not touching and just deep enough to expose the cambium layer or white part of the bark. It is not necessary to stack them vertically. Then spray 100% Triclopyr into the hack. Only a very small amount of herbicide is needed for this since it is concentrated; 1 to 2 milliliters per hack.

Slash Management

The final piece of the retreatment puzzle is slash management. Hopefully, you will be dealing with small amounts of biomass or "slash" since it is a retreat and not an initial treatment. Either way taking care to manage the cut vegetation is one of the most important parts of any treatment. These target species are especially adept at re-growing. This is partially how they have become such a problem; they are able to grow in conditions that some plants can't and they are able to grow with less opportunity than many native plants. Because of this it is very important to get anything that was cut into a dry location out of the flood plain. The crews use a variety of methods including chipping up the pieces or making "habitat" piles out of the debris. Habitat piles are debris piles made out of the dead plant material that are placed out of the reach of the river in the event of an immediate flood. The material is cut into small sections (less than 3 feet long) and piled in order to give the material the opportunity to completely dry out before it is washed away. If it is washed away before it can dry out it can regrow further downstream; and that's a mean trick to play on your neighbors. If making habitat piles it is also important to cut the pieces small enough that they will not build up in the river and dam it up or change its flow.

Monitoring

The last part of the treatment puzzle is monitoring. This just means check out what's going on with the areas that have been treated. Are the plants growing back? Is the herbicide working? Are native plants growing in their place? Or are secondary invasives taking advantage of the open real estate? These are all questions to ask when monitoring a treatment site. Checking to see if there is now unexpected erosion especially in places with large patches of arundo is also useful. Keeping an eye on the treatment area and developing an understanding of what is going on is very useful to us. Letting us know about anything interesting or unusual would be very helpful. We can use information you have gathered while monitoring to start drawing conclusions about what is the most effective treatment and retreatment options as well as what we can do in the future to make the program more successful.

Written by Sara Van Marel Field Supervisor Friends of Verde River Greenway

FVRG VOLUNTEERS SUPPORTING THE JAIL TRAIL!

If you stop in at the Wild Rose of Historic Old Town Tea House, formally know as the Cottonwood Jail, and get an iced tea and cupcake and then want to head over to Dead Horse Ranch State Park or River Front Park, you can get in your car, head up Main Street through Old



Town Cottonwood, make a left at 10th Street, and in just a few short minutes, and 1.5 miles, you'd be there.

Or you can leave the car in the parking lot, grab your tea, and take a hike down the Jail Trail. As the arch over the parking lot in front of the Tea House says, the Jail Trail is the gateway to the Verde River. When you head down the trail, you quickly lose any sense of the bustling town you just left behind. Quickly you are surrounded by some of the Verde River Greenways native Cottonwood/



Ron Condon and Jim Quinn trail building volunteers!



Marsha Foutz, FVRG Board Member and Project Leader with Jim Mast volunteer. Willow gallery forest. Here you will find not only the beautiful trees, but birds, wildlife trails, and the river.

During two weekends in November volunteers came out with Friends of Verde River Greenway and AZ State Parks to improve the trail. Volunteers widened the trails and filled in gravel in low spots making it a more secure walking area. VWRC's Veterans River Treatment Crew from The Vetraplex, supported by funds from the Yavapai County RAC Commission is also working

in this area to remove invasive plants.

So the next time you are in town, slow down and head to the Jail Trail. It's only a .42 miles stroll down toward River Front or Dead Horse Ranch State Park where you can enjoy the native cottonwoods and willow and listen to the sounds of the many birds that make their home on our beautiful Verde River.

> Laura Jones, Friends of Verde River Greenway

Wild Rose of Historic Old Town Tea House

VWRC ANNUAL STAKEHOLDER MEETING AWARDEES!

Land Steward of the Year George Reeve, Page Springs The 2014 VWRC Stakeholders meeting held October 1, 2014 held in the Men's Lounge at the Town of Clarkdale was a great success with over 50 attendees from a broad spectrum of Verde Watershed partners.

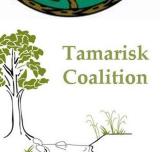
One of the highlights of the day was giving thanks to our partners that have shown the true spirit of partnership in the daily deeds they undertake for a healthy Verde Watershed. Agency partner of the Year Wade Albrecht Arizona Game & Fish







Community Partner of the Year Yavapai County Adult Probation Van Parson Jeff Hunt Clint Daugherty





Presidents Award Jamie Neilsen Tamarisk Coalition

WATERSHED FACTS

The headwaters of the Verde River are at Sullivan Lake.

The Verde Watershed is 3.7 million acres.

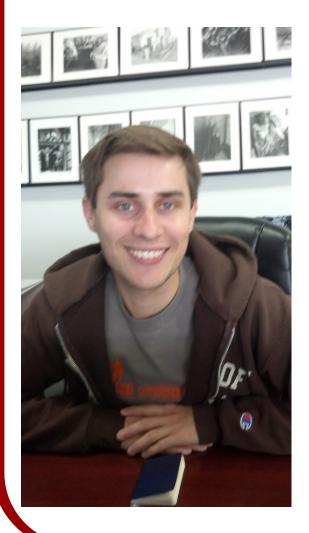
Rivers and Creek drain over 568 miles.

Page 5

WELCOME SARA AND ROBBY!

Sara Van Marel

Sara attended college in Bemidji, Minnesota earning a degree in Social Studies in 2010. After graduation she joined the world of Conservation Corps first working for SAGA in Juneau, Alaska and then the Coconino Rural Environment Corps in Flagstaff. In that time she has done everything from wilderness trail building to chainsaw forest thinning. It quickly became clear that removing invasives, first in Escalante, UT and then in the Verde Valley was where her interest lies. Sara is the field supervisor for the Friends of the Verde River Greenway putting that love of chainsaws and distain of invasives to good use.





Robby Bryson

Born and raised in San Diego, County Robby attended Western Washington University, in Bellingham, Washington. He graduated from Huxley College of the Environment with a degree in Natural Resource Management and minors in GIS and Economics in 2013.

He has worked for Olympic and North Cascades National Parks, the Tulalip Tribes, and Whatcom County doing fieldwork, GIS, and environmental planning. He's now an AmeriCorps Member serving with of Friends of Verde River Greenway Field Data Coordinator.

WELCOME ROBBY AND SARA TO THE FVRG/VWRC TEAM!

HAPPENINGS AROUND THE WATERSHED, STATE, BASIN

Grant Awards

Friends of Verde River Greenway (FVRG) has received a \$240,000 grant through The Walton Family Foundation to promote efforts in geo-tourism and river recreation throughout the Verde Valley.

A portion of the grant will go to support the Town of Camp Verde to develop a River Recreation Master Plan Through this grant the town with AZ State Parks will develop a joint plan for contiguous AZ State Parks and Town of Camp Verde lands in the lower Verde Valley.

This grant to the Sedona/Verde Valley Tourism Council will be used to develop and implement a strategic plan for outdoor recreation tourism including marketing and branding. The project requires a commitment from local municipalities including, Clarkdale, Cottonwood, Camp Verde, Jerome and Sedona, along with the AZ Department of Tourism and the Verde Valley Regional Economic Organization will partner with NAU and the National Geographic Society Welcome to the VWRC Steering Committee

Dorothy Baxter Prescott National Forest

Kris Thiel Prescott National Forest

Mary Ontiveros National Parks Service

Save these Dates for VWRC

Tamarisk Coalition Annual Meeting Advancing Riparian Restoration in the West February 10th, 2015 to February 12th, 2015 Albuquerque, NM Visit www.tamariskcoalition.org for details

River Network: River Rally May 1st to May 4th, 2015 Santa Ana Pueblo, NM Visit www.rivernetwork.org for details

Special thanks to the private landowners and organizations that joined FVRG and VWRC Partners in improving habitat in the Verde Watershed this quarter.

- John & Nancy Allen
- Fradenburg Family Trust
- Perkins Ranch

Thanks for improving wildlife habitat in the Verde Watershed!!



Friends of Verde River Greenway (FVRG) and the Verde Watershed Restoration Coalition (VWRC) say thank you to the private foundations, federal and state agencies and individuals that provide funding for our programs. If you would like to join them and support our work, please go on-line or click below...

Support	PH
Friends of	By
Verde Ríver	Clicking
Greenway	here!

Page 9

Special Thanks to VWRC & FVRG Volunteers!!!

Marsha Foutz George Reeve Chip Norton Chris Jensen Mal Otterman Duane Edwards Martin Ball Hank Dingemann Jim Quinn Joan Otterson Harry Sweet Earl Poucher Becky Brassfield Kimberly Poucher Kipian Horcos Jim Kreunen Jodi Allen Theresa Hughes Ron Condon Shannon Shaw Sarah Sonrenbery Mick Emerson Lo Modric Tony Gioia Prescott College Ecology Class Krystina Karczewski Martin Yassi Hugh Taylor Jeremy Mc Murtry

VWRC Steering Committee Members

Friends of Verde River Greenway-Chip Norton The Nature Conservancy- Kim Schonek Coconino National Forest- Laura Moser Arizona State Parks-Steven "Max" Castillo Arizona Game and Fish Department-Wade Albrecht Salt River Project-Heather English National Park Service-Tina Greenwalt Natural Resource Conservation District-Chris Jensen USFWS (Partners for Fish & Wildlife)-Kris Randall Tamarisk Coalition-Jamie Nielson Yavapai-Apache Nation-Fred Sanchez Prescott National Forest-Kris Theil & Dorothy Baxter

Staff: Anna Schrenk, Laurie Parker, Laura Jones and AmeriCorps Member Robby Bryson

Volunteer with VWRC!

Please contact Laurie Parker from FVRG at admin@verderivergreenway.org

VWRC Map & Monitor property for invasive plants.

No experience necessary!

VWRC Sub-Committees

Outreach, Education and Engagement Co-coordinators: Steve Estes and Laura Jones

Members: Max Castillo, Chip Norton, Anna Schrenk, Jamie Nielsen, Tahnee Robertson, Lynda Zanolli, Laurie Parker, Mary Ontiveros, Dorothy Baxter

Research and Monitoring

Co-coordinators: Kim Schonek and Ruth Valencia **Members:** Laura Moser, Chip Norton, Jamie Nielsen, Max Castillo, Anna Schrenk, Kris Randall, Robby Bryson

Planning and Implementation

Co-coordinators: Anna Schrenk and Laura Moser

Members: Chris Jensen, Kim Schonek, Chip Norton, Ruth Valencia , Sara Van Merel, Robby Bryson

Sustainable Funding

Co-coordinators: Jamie Nielson and Chip Norton **Members:** Anna Schrenk, Wade Albrecht, Laura Jones, Kristin Jespersen, Kris Theil, Jenise Nyquist

Facilitators: Tahnee Robertson and Larry Fisher

ALTERNATIVE PLANT OF THE QUARTER

Native Plants of the Verde Valley Get to Know: netleaf hackberry (Celtis laevigata)

The slow-growing netleaf hackberry is a hardy, native tree species found throughout the Verde Valley. Netleaf hackberry is a member of the Elm Family. Living up to 150 years, this tree has a spreading crown and dark green leaves. Hackberry provides shade and shelter as an ornamental, and its fruits are eaten by many different species of birds. Once established, netleaf hackberry can survive heat, drought, and wind, and urban (sidewalk/streetside) growing conditions. Archaeological research confirms a long history of use by humans.

What it looks like

A small tree or large shrub growing to 30 feet tall.

- Gray bark, ridged on the trunk (described as "gray with corky ridges"), smooth on the twigs.
- Leaves up to 3 inches long with smooth margins (edges), sometimes with a few teeth closer to the tip of the leaf. The upper surface of the leaf is rough to the touch and darker green than the lower surface. Leaf veins are light yellow on the underside of the leaf.
- Where the leaf connects to the stem, one side is larger than the other. This asymmetric base gives the leaves a "lopsided" look.

1-4 inconspicuous flowers in leaf axils, late winter - spring. Round, red or orange fruit is 1/4 inch in diameter.

No thorns or spines.

VWRC CALENDAR OF EVENTS

JANUARY

Tuesday, January 27, 10:00—12:00 noon Sustainable Funding Meeting Where: Yavapai County Board of Supervisors Meeting Room, Tuesday, January 27, 2015 1-3 PM Steering Committee Meeting Where: Yavapai County Board of Supervisors Meeting Room, Wednesday, January 21, 2015 9:00—11:0 AM Outreach, Education & Engagement Sub-Committee Mtg. Where: Cottonwood Middle School FEBRUARY Tuesday, February 18, 2015 9:00—110:00 AM Outreach, Education & Engagement Sub-Committee Mtg.

Where: Cottonwood Middle School

Tuesday, February 24, 2015 9:00 AM-5:00 PM

VWRC Strategic Planning Workshop All Day Event Where: TBA

MARCH

Tuesday, March 18, 2015 9:00 —110:00 AM Outreach, Education & Engagement Sub-Committee Mtg. Where: Cottonwood Middle School Tuesday, March 24, 2015 10:00 AM—12Noon Sustainable Funding Subcommittee Meeting Where: County Supervisors Room, Yavapai County Building Tuesday, March 24, 20151—3 PM Steering Committee



FVRG Board of Directors

Executive Committee

Chip Norton — President Tony Gioia — Vice President Harry Sweet— Treasurer Peggy Chaikin— Secretary

Board Members Marsha Foutz Bob Rothrock, Steven "Max" Castillo, Kim Schonek, Denise Lerette

> FVRG and VWRC P.O. Box 2535 Cottonwood, AZ 86326

Visit our office in "Old Town" at: 903 N. Main Street. Suite B Cottonwood, AZ 86326 (upstairs above the Red Rooster Restaurant)

Call us: 928-301-4934

For additional event info visit verderivergreenway.org