

Exhibit, events focus on Zumwalt Prairie

JOSEPH — A presentation about the work and condition of The Nature Conservancy’s holdings on Zumwalt Prairie will be made in Joseph.

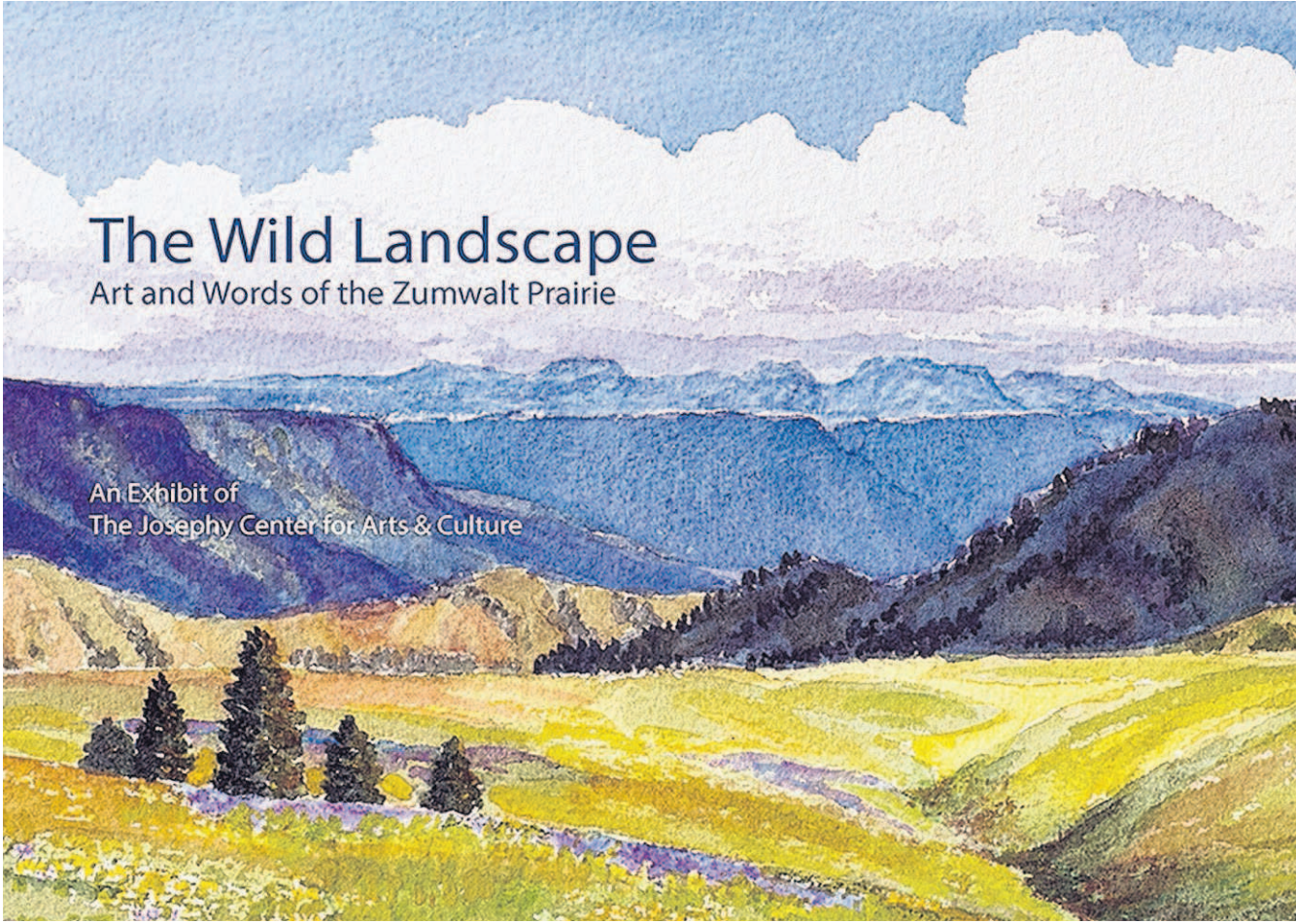
The event is in conjunction with “The Wild Landscape: Art and Words of the Zumwalt Prairie,” current exhibit at the Josephy Center for Arts and Culture. It features photos and paintings from a June gathering of artists and writers at Zumwalt Prairie. Jeff Fields, Zumwalt project manager, will make the informal presentation Tuesday, Aug. 28 at noon at the Josephy Center, 403 N. Main St., Joseph.

During his 30-year career in natural resource management, Fields has worked for both public and private organizations, including the Rogue Institute for Ecology and Economy, the University of Idaho, the U.S. Forest Service, the Weyerhaeuser Corporation, and the Government of Nepal’s Ministry of Forests (as a U.S. Peace Corps volunteer). Fields’ Nature Con-

servancy work is focused on building and leading a strong program of grassland conservation in northeastern Oregon. A majority of this effort is focused on the 275,000 acres of privately owned grasslands north of the Willowa Mountains, including Zumwalt Prairie and Clear Lake Ridge Preserves. He works to build strong conservation partnerships with governmental and private stakeholders that own or influence private grassland conservation and management.

In addition, reservations are being taken for the Plein Air Watercolor Workshop on the Zumwalt Prairie. Taught by Dawn Norman, the event is Saturday, Sept. 8, with a carpool departing at 8 a.m. from the Josephy Center. The cost is \$45.

The exhibit is on display through Tuesday, Sept. 11. For more about the presentation, exhibit or workshop, contact Rich Wandschneider at rich.wandschneider@gmail.com or 541-432-0505 or visit www.josephy.org.



A pair of events are being held in conjunction with “The Wild Landscape: Art and Words of the Zumwalt Prairie,” a current exhibit at Josephy Center for Arts and Culture.

Contributed photo

Restoration of Oregon river aims to help trout

By **STEPHEN HAMWAY**
The Bulletin

BEND — After decades of ranching and logging left a creek deep in the Ochoco National Forest less functional for the fish and other animals that live there, an interagency effort is under way to return it to a more natural state.

Since the end of July, Deep Creek, a tributary of the north fork of the Crooked River, has been the sight of an ambitious stream restoration project, which was spearheaded by the U.S. Forest Service and supported by a number of other public agencies, nonprofits and private companies.

Last week, workers used heavy equipment to re-grade

channels that have become improperly aligned, and trucks hauled in downed ponderosa pine trees to add more complexity to the stream.

While the creek has long had an established population of redband trout, the overall goal, according to Juan Martinez, fisheries biologist for the Paulina Ranger District in the Ochoco National Forest, is to create a series of interconnected channels that are more suitable for all species that call the creek home.

“Nature can go back to taking its course,” Martinez said.

Deep Creek is perhaps best known as a genetic stronghold for redband trout, a subspecies of native rain-

bow trout that have adapted to the arid, desert conditions of Eastern Oregon, according to the Oregon Department of Fish and Wildlife. Darek Staab, Upper Deschutes project manager for Trout Unlimited, said the Deep Creek population of redband trout is genetically distinct from other trout in the area and is better adapted to life in warmer water.

“In my mind, I see them as the fish of the future,” Staab said. “They’re going to have the genes and the adaptability, and the survival skills to be able to help as we move into more challenging times with the climate.”

However, years of degradation left the creek a more challenging place for trout

and other animals to live. Rob Tanner, assistant forest hydrologist for the Deschutes and Ochoco national forests, as well as the Crooked River National Grassland, said the area was once the site of logging camps, and loggers wanted to concentrate the creek’s flow so their camps and homesteads weren’t affected.

Consequently, the creek, which once flowed through a series of interconnected channels, was concentrated into a single straight channel near the edge of the basin. This arrangement, Tanner said, concentrated the water and caused the river to cut into the earth, gradually widening the channel and creating dramatic berms along the riverbanks.

DRONES: Keeping a watchful eye for fires

Continued from 1C

Pilots take two-hour shifts guiding the drone and aiming its camera at the landscape. The infrared camera can detect a hotspot the size of a dinner plate from more than a mile away, and those watching the video feed can communicate with firefighters on the ground to direct them to problem areas that can’t be seen in the dark.

J.D. Morton works for the Bureau of Land Management as a smokejumper out of Fairbanks, Alaska. He’s the firefighting liaison who helps get information from the ScanEagle to crews on the ground. He explained the benefits of sending the drone up after dark, drawing a circle in the dirt about 10 inches in diameter.

“Something that small in the day won’t be putting up enough smoke,” Morton said. “Three hundred acres and you’re looking for that?”

“That’s why we fly at night, because it’s a lot easier to see on the IR (infrared) camera. During the day, that size of a piece of a heat would be very, very challenging. You’d miss it, something that small.”

Insitu employees control the bird and monitor its work on computers inside a truck from the remote mountain, several miles from the fire. There’s no joystick to fly the drone, although one is used to control the camera.

“With ScanEagle, you click on the map with a mouse and tell the airplane where to go,” Casey said.

Casey said on a recent Monday night the ScanEagle found a hotspot near Chrome Ridge Road on the west side of the fire, which firefighters were sent to douse.

“Let’s put it this way, when spot fires get estab-

lished, it creates a lot of work,” Casey said. “It’s a tough firefight in the middle of the night. And these are 30-plus-day fires, a marathon, with a lot of wear and tear on firefighters.

“(With the ScanEagle) you have a nice radio alert, find the piece of heat and walk over and take care of it.”

Unmanned aircraft systems have become part of wildland firefighting only in the last few years. In 2017 federal firefighters used them on 340 wildfires in Oregon, the most missions among 12 states where they were used, according to the Department of Interior.

This year it’s reached a new level. The unmanned systems are being treated more like helicopters and airplanes, with a \$17 million, on-call contract awarded by the Department of the Interior to four companies.

One of them is Insitu, a Boeing subsidiary that developed the ScanEagle from its original use of spotting fish in the ocean some 24 years ago.

It started flying for the U.S. Marines in 2004, and since then it’s grown into a worldwide business, serving the military of over 20 countries. It has also been used in recovery efforts from Hurricane Harvey in Texas last year and other weather disasters.

The company has logged more than 1 million flight hours with drones.

At any one time, 20 of the ScanEagles are flying somewhere around the globe, said company spokesperson Monica Golden.

The ScanEagle can be seen in use by the U.S. Navy in the 2013 movie “Captain Phillips,” a true story starring Tom Hanks about Somali pirates taking over a

ship in a four-day siege.

Golden said the company first flew a ScanEagle on a fire in 2015 in its proving ground stages. But it became intimately involved with the Eagle Creek Fire in the Columbia River Gorge in 2017.

That fire started on the Oregon side of the gorge, then jumped the river not far from Insitu’s headquarters in Bingen.

“Some of our employees were being evacuated. We said, ‘How can we help?’” Golden said.

The same geospatial maps that ScanEagle spit out at Eagle Creek are produced for the Taylor Creek Fire, and they’re ready for fire managers within a couple of hours of the drone landing, making planning more efficient.

“Previously they’d get information from the last flight of the day before,” Golden said. “That’s all they had to work with at the 6 a.m. meeting. That info is eight or 12 hours old. The fire could have done all kinds of things. We can give them up-to-the minute info.”

The ScanEagle has a 1.9-horsepower, two-stroke gas engine, and can hit 92 mph.

When crisscrossing a fire, it cruises at 50 or 55 mph, Allen said.

Casey said there was a lot of resistance to using unmanned systems in firefighting, as unsanctioned private copter-style drones have grounded aircraft by flying too close.

It happened just north of Grants Pass in July 2016, when a hobby drone kept an Oregon Department of Forestry helicopter from dumping water on a fire alongside Interstate 5.

The Federal Aviation Administration has had

to update is regulations to adapt to drones.

“Even last year, if you were at a regional briefing, you would have heard concerns from the aviation community about integrating drones and pilots on the same landscape,” Casey said.

Airports near wildfires, such as the Grants Pass Airport in Merlin, have temporary flight restrictions — closed airspace areas — keeping other pilots from colliding with wildfire aircraft, including unmanned systems.

Casey added that two other smaller copter-style drones, with 4-foot wingspans, have been used on the Taylor Creek to drop incendiary “pingpong balls” to light backfires. Casey said it’s the first fire this has been done on.

“It’s the perfect size, perfect tool,” he said. “It’s been helping with burnouts along Galice Road and Bear Camp Road.”

Casey was unable to provide a per-hour flight cost for using a drone on the fires, but said it would take an additional 1.5 helicopters to “do the same thing.”

With the cost of fuel, fuel trucks and associated costs for flying helicopters, flying the drone is significantly cheaper than the cost of flying helicopters on wildfires, Casey said.

He said the success of the unmanned flights has brought assurance to the aviation community “even though it took them a while to realize we have this incredible tool.”

“We’re now as grateful as we could be to have the eyes in the sky, seeing through the smoke,” Casey said. “You have a tireless friend in the sky that has your back.”

BLOOMIN’ BLUES



Photo by Bruce Barnes

Blazing Star, *Mentzelia laevicaulis*

Blazing Star fond of the parched late summer

Name: Blazing Star
Scientific name: *Mentzelia laevicaulis*
This plant grows from British Columbia to California, and east to Montana to Colorado. It is neither rare nor common around here, but three weeks ago was only the fourth time I’d seen it. The first three times there were only one or two plants, but this time I came to a quick stop and stared. Along the road was a row of nearly a dozen huge plants in full bloom, only 20 minutes from Pendleton.

The plant is generally 1 to 3 feet high, with branching stems that are somewhat white. The leaves have wavy and rough surfaces, up to about 6 inches long, with a prominent midrib and rounded lobes along the edges.

The flowers are quite showy, the size of a fist, and bright yellow, the kind of flowers that draw your attention immediately. The 5 yellow petals spread out flat when fully open, and a crowded tuft of yellow stamens nearly as long as the petals fills the center of the flower.

Blazing Star is found across its range in desert valleys and lower mountains. It obviously likes dry climates, given that nearly everything else around here is fried. There are only three species of *Mentzelia* in northeast Oregon, and 68 species in the western half of the U.S., most of them being in arid locations.

The genus name *Mentzelia* is for a German botanist, Christian Mentzel, who lived in the 17th century. *Laevicaulis* is from the Latin *laevi* meaning “smooth” and *caulis* for “stem,” so the name *laevicaulis* describes smooth stems. In spite of having smooth stems, this species has leaves that are thick, leathery, and feel like really coarse sandpaper.

Medicinal uses by Indian tribes scattered across the West included treatment of rheumatism and arthritis, earaches, fevers, mumps, measles, smallpox, bruising, stomachaches, and skin diseases. One tribe fried the seeds for gravy.

Where to find: I’ve seen it along Interstate 82 northbound just before the Umattilla exit, and also between Richland, Oregon, and Halfway. Closer to Pendleton, drive north from Athena on LaMar Gulch Road. Continue north on it to LaMar Gulch itself and up the grade beyond the bridge. If the plants are still blooming, you will spot the bright yellow flowers on bushy plants along the right side of the road.