## Spruce Grouse Strut

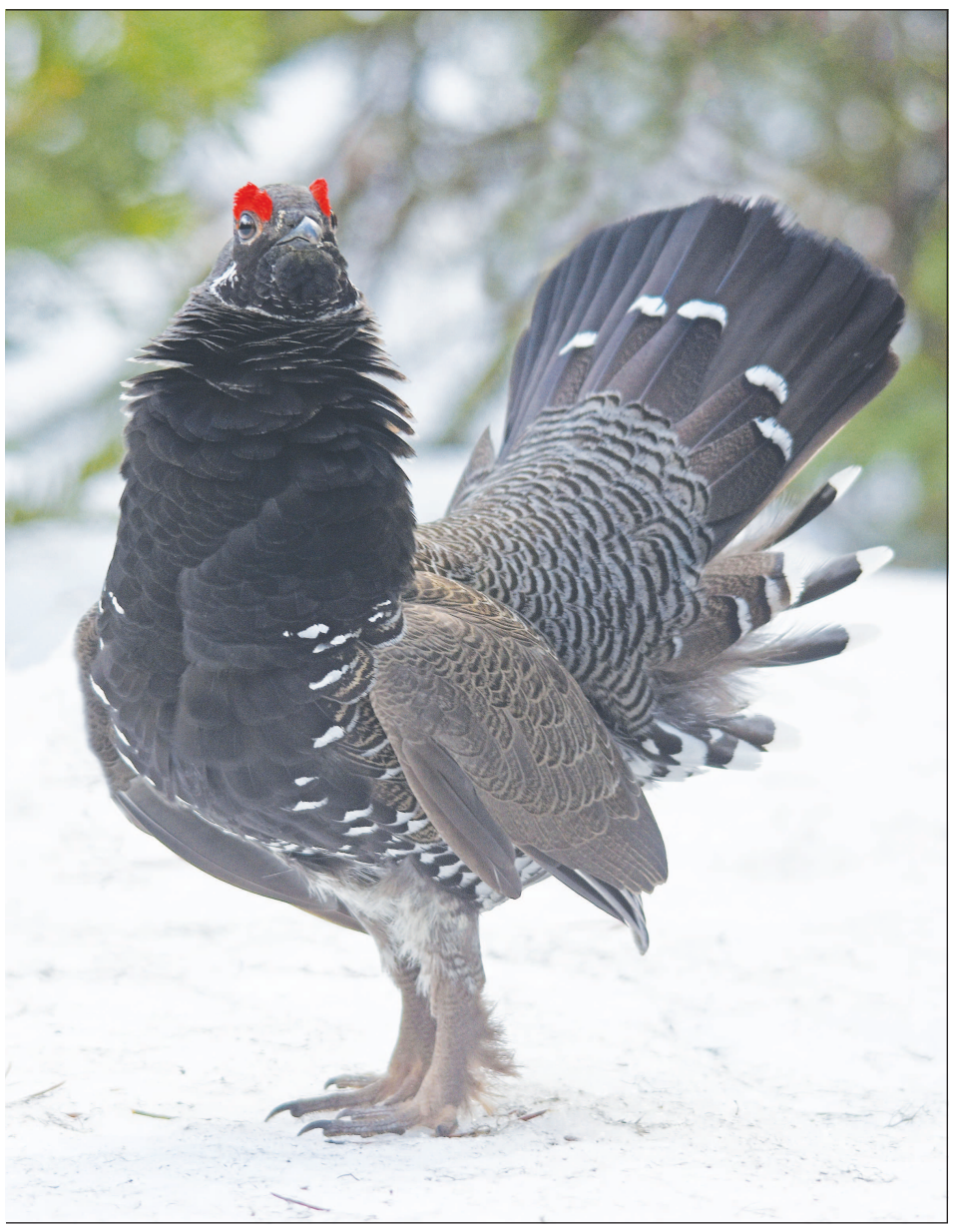

Photo by Jim Ward

Spruce grouse are a little known and quite rare bird that lives in a few areas of the Wallowa Mountains. Grouse hunters should take care to identify their targets as they look a bit similar to the other grouse species, but are illegal to shoot. In very early spring males can be found strutting at high elevations. During courtship, they will strut and make short flights — popping the backs of their wings before landing.

# Forests propose fees

**By Michael Kohn**
The (Bend) Bulletin

Suggested day-use and overnight fees for a new permitting system scheduled to be set in place next summer along certain trailheads in the Central Cascades have been announced, along with a public comment period starting Wednesday.

Day-use permits on 19 trailheads in the Central Cascades are planned to cost $3 per person while overnight permit fees of $5 per person per night are proposed for 79 trailheads, according to a release from the U.S. Forest Service.

Officials at the Deschutes and Willamette national forests have been studying a variety of methods to reduce the number of hikers on certain trails in the Cascades in order to protect them from overuse. The trail permit system is expected to reduce trail widening, loss of meadow vegetation, tree damage, litter and human waste. Trail use in Central Oregon has more than doubled in the past five years amid strong population growth in Bend and surrounding communities.

In response to the growing numbers of hikers, the Forest Service decided last spring to apply a limited entry system. As part of the limited entry system within the Mount Jefferson, Mount Washington and Three Sisters Wilderness areas, the Forest Service is seeking authorization to charge a special permit fee.

While the fees would only apply to people 13 and older, everyone requires a limited entry reservation regardless of age. The special recreation permit fees will only be required from the Friday before Memorial Day to the last Friday in September in the three wilderness areas.

Special recreation permits can be ordered through the website recreation.gov. Entry reservations will include the special recreation permit fee and the processing fees charged by recreation.gov. The processing fees are currently $1 per person for day use and $6 per overnight group.

Associated Press file photo

In this 1995 photo, biologist Mark Beuttner holds a Lost River sucker taken from Southern Oregon's Upper Klamath Lake.

# Super-size bubblers could help save endangered fish

## Aeration system could help suckers in Upper Klamath Lake

**By Jes Burns**
Oregon Public Broadcasting

You'd never suspect it on a whisper-still morning, with the mountains and marsh reflecting off the water, but Upper Klamath Lake is a tough place to be a fish.

The shortnose and Lost River suckers provide a case in point. The two species of fish, which look like a big-lipped cross between a carp and cod, used to be common in this Southern Oregon lake. For millennia, they were an important traditional food source for the local tribes. The federal government considers them endangered species.

There's a population of long-lived adult suckers hanging on and continuing to reproduce, but virtually none of their offspring is surviving for longer than a year.

"The juvenile sucker, they're dying off. They're not recruiting new adults," said Mason Terry, a renewable energy professor at the Oregon Institute of Technology in Klamath Falls.

Water quality in Upper Klamath Lake is considered a significant cause of the sucker death. One of the lake's most significant water quality problems is a low dissolved oxygen issue called hypoxia.

Fish breathe oxygen out of the water, and the oxygen levels here can drop extremely low, especially in late summer. That coincides with the time juvenile suckers appear to just vanish from the lake.

When Terry learned that low oxygen levels were one of the suspected reasons the endangered suckers aren't surviving into adulthood, he had an idea.

"I thought, Why don't we do what they do in fish ponds or in your aquarium? Why don't we just try and bubble some air down in there and see what happens?" he said. "See if there's just a little boost to affect this one factor that might be a cause of their mortality."

### Sucker bubbler

Terry's renewable energy students at OIT dragged a floating solar panel raft — about as large as a single-car garage — out of the lake and onto the Rocky Point boat landing.

This was the final assembly site for a solar-powered aeration system designed by Terry.

Four 310-watt panels would run two compressors that push air — with all the oxygen it contains — down into the lake. Any power left over would go to charge the batteries, which are designed to power the compressors for 32 hours without sun.

As work on the raft wrapped up, Jennifer Berdyugin, who helped coordinate the project, inspected the work to make sure all the components were hooked up.

"All that's left to do is turn on the pump and then make sure that it's bubbling the water. So, really, the telltale will be, 'Are there bubbles or not?'" she said.

The renewable energy students dragged the solar raft back into the lake. With the push of a button the compressor came to life.

The air hose turned into an underwater sparkler as air was pushed through thousands of tiny holes.

The team assembled two rafts that are currently anchored at a site on the lake where juvenile suckers have been found to gather.

"It's a way to provide an area for the suckers to get out of the bad water quality and at least have somewhere to hide until things get better," said U.S. Fish and Wildlife biologist Josh Rasmussen, who works on sucker conservation in the Klamath Basin.

### Aerated future

Upper Klamath Lake isn't alone in having water quality issues related to low dissolved oxygen. The chemistry of lakes worldwide has been altered by human development and agriculture — Upper Klamath included.

Ken Ashley, a lake aeration specialist at the British Columbia Institute of Technology, said the problems are only going to get worse with climate change.

"As the climate gets warmer and lakes are stratified longer, then the effects of the low oxygen are going to get magnified and there's going to be more algal problems, and more fish kills, and more taste and odor problems. And there'll be more demand to do something about it," Ashley said.

# GOATS

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Fischer, a high school sophomore, said he was excited — and surprised — when he learned this summer that Oregon's computer tag lottery had plucked his name from its digital drum.

So was his dad.

"It's such a rare opportunity to hunt mountain goats anywhere in the United States," John said.

He said he decided to have Fischer apply for an Oregon tag after learning through a hunting magazine that the state charges just $5 for nonresident youths to apply.

Some states charge about $150, he said.

The legacy of goat hunting in the Elkhorns was an added incentive, John said.

"There's such a thriving goat population up there," he said.

Three of the top 10 mountain goats taken by rifle hunters in Oregon were bagged in the Elkhorns, along with the top four harvested by archers.

John said that although he has been to Idaho several times, Fischer's goat hunt marked the family's first visit to Oregon.

John said he hired D-Mac Outfitters to guide the hunt. Although the company is based in Riddle, in Southwestern Oregon, owner Dusty McGrorty employs Lukas Huggins of Baker City for goat hunts in the Elkhorns.

(More about the connection between McGrorty and the Huggins family later.)

The Schluesslers and their guides started by driving to Marble Creek Pass, elevation 7,542, the southern terminus of the Elkhorn Crest Trail.

Fischer said the steep, boulder-strewn road, which in places more resembles a dry stream bed, is nothing like the forest roads he's accustomed to.

"We had a flat tire the first day, so I learned how to change a tire," he said.

After hiking north on the Crest Trail the group saw a group of goats in a basin far below. They focused on a particular billy.

Fischer took a long shot with his 7 mm rifle and although everyone thought he had hit the goat, the billy disappeared.

Then a dense fog set in.

The group started a 2,000-foot climb back up the ridge.

When the fog briefly cleared they saw another billy and, soon after, the same billy Fischer had fired at.

This time Fischer brought the goat down, although, as hunters before him have discovered, it wasn't easy.

Mountain goats are famously stout, and Fischer put three rounds into the animal before it dropped.

"I was amazed," he said.

When they reached the animal they saw that Fischer's first bullet had indeed grazed the billy.

The goat also had a much older scar above its right eye, and appeared blind in that eye.

McGrorty estimated the billy's age at 12.5 years.

John said the billy's green score of 51 3/4 ranks second among youth hunters in Oregon and, for that matter, in the lower 48 states.

At the top of that list, with a billy that officially scored 51 6/8, is Matea Huggins of Baker City. She killed the billy in 2009 when she was a 12-year-old seventh-grader.

Matea is Lukas Huggins' younger sister.

She bagged her billy three years before McGrorty, hunting with a bow, harvested the Oregon state record (for archery) goat in the Elkhorns.

McGrorty said he was scouting in the Elkhorns in July 2012, and camped right on the Elkhorn Crest Trail, when one morning he saw a man hiking toward him.

The man was Ed Huggins — Matea's and Lukas' dad.

McGrorty, who said he recognized the last name, having read about Matea's 2009 hunt, said the Hugginses' helped him with his 2012 hunt.

That experience solidified McGrorty's affinity not only for mountain goats but also for the Elkhorns.

And when he started guiding hunts there he turned to Lukas Huggins, who had become a good friend.

McGrorty said last month's hunt with the Schluessler family was "an awesome hunt."

John Schluessler agrees.

"It was just a super experience for my family," he said. "Just fantastic."

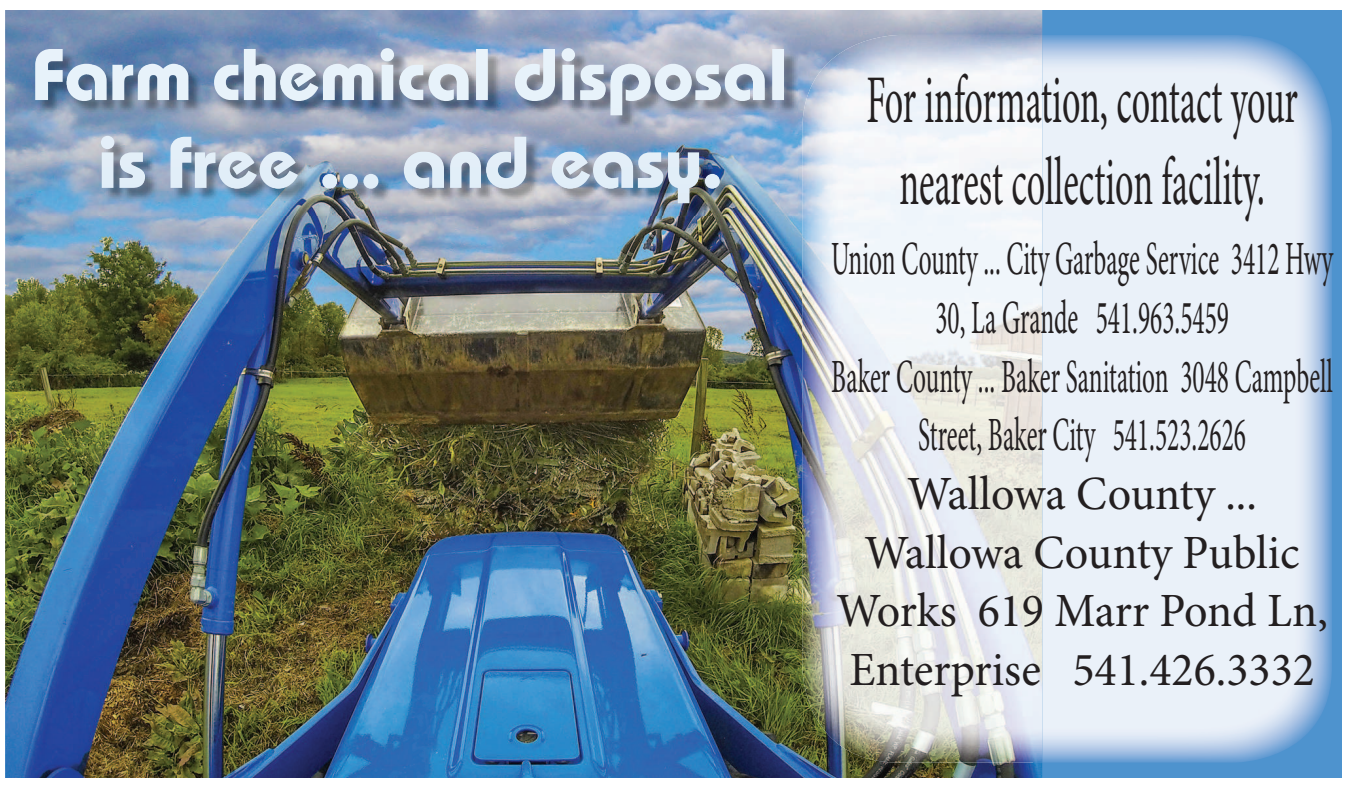
John said he was enamored with the Elkhorns, with Oregon and with the expanses of public land open to hunting.

"I think we're all just blessed to have this plethora of public land for everybody to use," he said.

He was also impressed by the hospitality of everyone his family met, including biologists from the Oregon Department of Fish and Wildlife's Baker City office.

"Everybody was super helpful," he said.

As for Fischer, his first, and only, mountain goat hunt in Oregon will be hard to top.

"It was really tiring, but that just made it that much better," he said. "I'll remember this forever."

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