

## **COUGARS**

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"Our management philosophy is to manage for the social stability of the animal. We want to promote territoriality," Beausoleil said.

WDFW's data shows that when more than 14 percent of a cougar population is harvested in a given region, the population starts to skew young, territories dissolve, and problem encounters increase. To avoid this, they split the state into 49 game management units, and each unit allows 12 percent to 16 percent of cougars to be taken. When one of those units reaches that quota, it closes, and hunters can go to an adjacent unit. It's not a perfect system: Sometimes, it can take a while to close a unit, and more cougars are killed.

At first glance, Oregon seems to be following Washington's no-conflict guidelines: On average, Oregon's hunters take less than 14 percent of the state's big cats each year. But unlike Washington and Montana, where there are dozens of game management units used to set cougar quotas, Oregon's cats are divided into just six large regions, which makes it more difficult to track regional densities.

The statewide quota for 2018 is 970 human-caused deaths — a whopping 27 per-

cent of the state's estimated 3,500 adults. Per the cougar management plan, the quota serves as a mortality cap, and not a target. The statewide quota has never been filled, but some of the game management units regularly approach theirs.

Zone A, which includes the region where the hiker was attacked, covers the North Cascades and the coast. As of Nov. 6, its humans have killed 167 of the 180 allowed  $cougars.\,ODFW\,estimates$ there were 989 cougars of all ages in Zone A in 2015. If half of those were adults, then roughly one third of adult cougars in the region were killed. Research suggests that's a number high enough to cause conflicts with humans.

Overhunting cougars can have impacts on cougars societies, too. Once thought of as loners, recent research has revealed cougars' social lives to be much more complex than previously thought.

Mark Elbroch, the director of the puma program at wildcat conservation organization Panthera, studies cougar communities. He's found the mountain lions within one male's territory function like a society: They interact non-aggressively and seem to frequently share food, a favor that's apparently returned in the future.

'You can imagine that overhunting will have huge impacts on these social networks and organizations, on the glue that holds them together as functioning groups," Elbroch said.

And anecdotally, he's seen the impacts of removing one large male from that society. After one of his study males was killed by hunters, he noticed a nearby male start to encroach on the old territory, just enough so that it crossed paths with a female and her two cubs. The female charged the strange male, and died. Her cubs lasted a little while, but eventually both died.

"One could argue that one bullet killed four mountain lions," Elbroch said.

Broman is dismissive of the "social chaos" hypothesis. He says the department has conducted its own research. and "there's no information to suggest chaos and turmoil. Death and mortality is a common occurrence, even outside of human influence."

Oregon officials may dispute the idea that their management practices lead to more problem cougars. But the state does remove more such animals than neighboring states. In 2017 there were 462 such complaints, and 175 cougars were killed. Those numbers remain fairly stable from year to year, though they've risen dramatically in the Willamette Valley.

In comparison, about 100 cougars are killed in California each year for attacking livestock. In 2016, 46 nuisance cougars were killed in Washington.

**OUTDOORS & REC** 

Hunters say the best way to combat these problem cats is to increase hunting. But unless a large number of cougars are removed over a large area, more will just move in to take their place. That's why some are calling for a return to hound hunt-

The theory is this: Hound hunters, unlike normal hunters, can be selective. If their dogs tree a cougar, the hunter can choose if it's going to be a worthwhile trophy. If the animal is small or female, the hunter can pull their dogs off the tree, and the cougar can live.

This, say hound hunting advocates, creates a population of scared cougars, who will run away as soon as they hear a human in the forest.

Laundré and Elbroch are skeptical hound hunting

leads to scared cougars, but other biologists think it's not impossible.

"Hound hunting doesn't have to be a lethal pursuit," Stoner noted. "You have the ability to pursue multiple animals over the course of a season, and can in theory select a nice tom."

Unfortunately, that selectivity targets large toms, the exact animals many biologists say are necessary for maintaining cougar social stability. Indeed, when hound hunting was banned in Oregon, the average age of cats

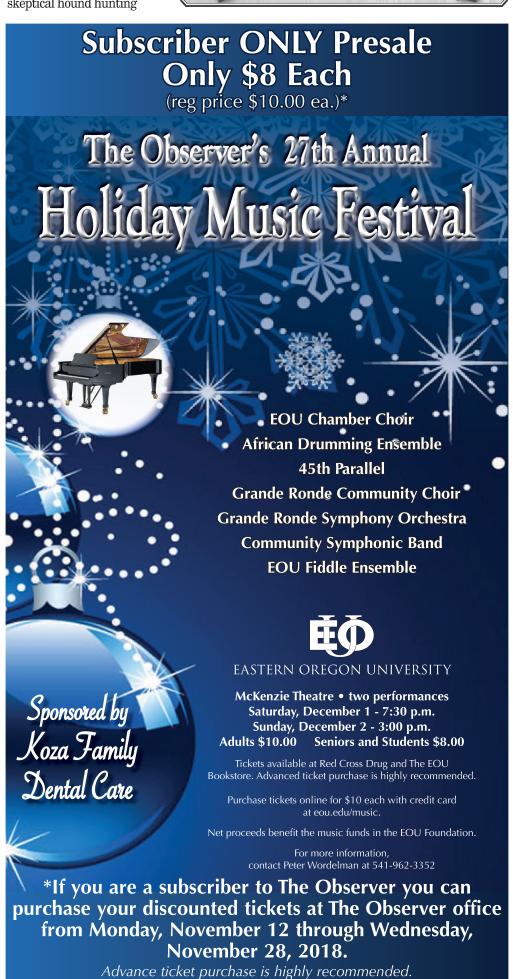
killed dropped.

In the end, biologists say it's important to remember the only way most people will ever interact with a cougar is through their livestock or

"Cougars aren't fearsome," said Laundré, who has tracked and collared more than 250 cougars. "I've never had a cat behave aggressively."

As Teddy Roosevelt noted after chasing a cougar with hounds and stabbing it to death, "He was more afraid of us than the dogs."





## Dino bone found in Painted Hills

By Elon Glucklich The (Eugene) Register Guard

Greg Retallack's four-

decade paleontology career has turned up fossilized plants and ancient soils from North America to Africa and Australia to Antarctica.

It was a 2015 trip to the tiny town of Mitchell, near Central Oregon's Painted Hills, that turned up perhaps his most interesting find of all: the fossilized toe bone of a dinosaur.

Museums across the country are full of fossilized bones and reconstructed dinosaur skeletons.

The title of a research paper Retallack and other University of Oregon researchers co-authored about the find, published last week in the Journal of Vertebrate Paleontology, highlights its significance: "First dinosaur (Ornithopoda) from early Cretaceous (Albian) of Oregon, U.S.A."

In other words, no one had found a confirmed fossilized dinosaur bone in Oregon before the discovery by Retallack, a UO earth sciences professor, plant and soil researcher and expert on evolutionary transitions.

It is believed to belong to an ornithopod, a plant-eating dinosaur thought to have lived about 103 million years ago during the Cretaceous era, the same period in which the Tyrannosaurus rex lived. It is believed to have weighed about a ton and spanned more than 20 feet in length.

"This bone was sitting out there with all the rocks. It was pretty surprising,"

Retallack said this week. "No excavation was needed. It was just sitting among the ammonites and coil fossils."

Just an inch long and less than two inches wide, the earth-toned fossil isn't much to look at. Retallack sensed almost instantly he found something significant on that summer 2015 dig in Eastern Oregon.

When he found the toe bone, he was on U.S. Bureau of Land Management property below a series of fossil-rich cliffs known as the Hudspeth Formation, an area known for turning up fossils of reptile and dolphin ancestors.

"It was in a marine rock. That is not where you would expect to find dinosaurs," Retallack said. "We have seen from these same rocks, pterosaur bones and a plesiosaur (flying and marine reptiles, respectively). That's been known for some time. But dinosaurs have been missing until now."

Confirming the discovery required three years of follow-up research and writing by Retallack and fellow UO researchers, including Edward Davis, Paleontological Collection manager at the UO Museum of National and Cultural History; Samantha Hopkins, the museum's curator of paleontology; and UO doctoral student Paul Barrett, as well as Jessica Theodor, a biological sciences professor at the University of California who was working at the UO on a research sabbatical at the time.

Retallack's expertise is

in plants and soil. It was his fellow researchers who almost instantly confirmed Retallack's suspicion when

he returned from the dig. "We looked at it and said, 'Oh yeah. This is an ornithopod toe bone," Hopkins said. Given the time period when it came from and the morphology, that's the only thing it could have been."

Retallack, Davis and a BLM official returned to the site the following spring to thoroughly document the find.

> Sometimes, the best patient care we provide is simply a human touch.



Happy Thanksgiving from our Family to Yours G Grande Ronde Hospital

