### TUESDAY, DECEMBER 14, 2021

FROM PAGE ONE

# DEER

Continued from Page Al

"There's a risk to getting a 'free lunch," Levi said.

# Interactions among predators

While looking specifically at the impact of predators on ungulates, Ruprecht said the study provided a unique opportunity to learn something new about carnivores.

"Generally predators are studied solely on how they influence prey, but how they influence and interact with each other was my interest," Ruprecht said.

The research showed little interaction with the other two carnivore species in the study — black bears and bobcats. Based on photos, kill site investigations and the lack of elk found in their scat, Starkey bobcats never scavenged on cougar kills.

Ruprecht said bears visited half of the cougar kill sites monitored, but only about one-third of the bear scat surveyed contained elk. No bears were found killed by cougars, leading researchers to believe there was little competition between those two predators.

"They are scavenging, but not like coyotes," Ruprecht said. "My guess is because they use so many other food sources there is less motivation to incur the risk by potentially encountering a cougar."

One of the takeaways, Ruprecht said, was why certain species do scavenge.

"There is risk involved and decisions are made under imperfect knowledge of the proximity of a cougar," he said.

In some cases the coyote knows the cougar is there, Ruprecht said.

"An animal who is starving is going to take more risk to get a meal," Ruprecht said.

# Study expands on previous Starkey research

Another reason coyotes may be more prone to scavenge is they are a pack



Jim Ward/Contributed Photo

A study looking into predator-prey interaction at the Starkey Experimental Forest and Range in Union County, conducted from 2016-2020, finds coyotes are eating the remains of elk at cougar kill sites.



U.S. Forest Service/Contributed Photo

Research at the Starkey Experimental Forest and Range in the Blue Mountains of Northeastern Oregon is looking into the predation on deer and elk. Mike Wisdom, Starkey ungulate ecology team leader with the U.S. Forest Service, suggests reducing the prey base of elk there could mean cougars switch to eating more mule deer.

animal while bears and bobcats are not.

"It's the 'many eyes, many ears' hypothesis," Ruprecht said. "They take turns scavenging and take turns keeping watch — and they communicate to alert others of a potential risk or hazard."

Levi said the study is part of a larger body of work the Oregon Department of Fish and Wildlife and the U.S. Forest Service are conducting that includes population dynamics and nutrition as well as the drastic culling of Starkey's three elk herds, through hunting and transplanting.

Mike Wisdom, Starkey ungulate ecology team leader with the Forest Service, said the predator research related to earlier studies from the 1990s and 2000s that indicated interference competition between

deer and elk.

"One species might intimidate another into being displaced," Wisdom said.

A series of analyses and publications indicated elk used the landscape in a way that met their needs while mule deer were avoiding elk. Over time, elk changed their use of the landscape, and mule deer moved to other areas elk were not using.

"It became a concern in the fact that mule deer are declining in large areas at Starkey, throughout Eastern Oregon, and across other areas of the U.S.," Wisdom said.

Increasing elk populations might be causing displacement and reduction of mule deer populations as well as reducing the carrying capacity of the landscape to support them nutritionally.

Now that the elk population is a fraction of what

forecasts population trends

it was a few years ago, Wisdom said there are a lot of different possible outcomes among the predators and prey — improved nutrition and body condition, behavioral use of the land, direct interactions and changes in predation. "Predators could dissipate

and lessen their use, particularly cougars, but if we reduce that prey base of elk there may not be a positive response — cougars may just switch to eating mule deer," Wisdom said.

Darren Clark, Starkey Wildlife Research Program leader with the Oregon Department of Fish and Wildlife, said for the last seven years the big picture has been to assess competition between elk and mule deer. Over the last three years the elk herd was reduced from 550 head to 75 to see how the mule deer respond.

According to previous work, Clark said, the forage available to the Starkey mule deer doesn't have sufficient calories to meet a doe's energetic demands during peak lactation, resulting in poor body condition.

"If deer shift habitat use, will their body condition and fawn survival increase?" Clark asked.

With the elk herds reduced by 80%, Clark said Fish and Wildlife will gather its first data set next year from fawns collared in 2021.

### a road map for growing the kid count.

### HELPING

Continued from Page Al

of Ram's life story more inspiring than Biggs

anticipated. "They were so impressed by his story that they now honor Bali's birthday to show respect for him," Biggs said.

Nshimiye has also had T-shirts made in recognition of Ram.

# Learning how to dance in the rain

The refugee camp Nshimiye has spent most of his life in is austere. It consists of thousands of 9-by-12-foot wooden shelters that families live in. Refugees receive very limited support from the Rwandan government, Biggs said.

Kiziba is one of four camps in Rwanda established by the United Nations High Commissioner for Refugees to house 17,300 Tutsi Congolese. They live in the refugee camps to protect themselves from the Hutus, who were responsible for the 1994 genocide massacre of the Tutsi Congolese. The genocidal campaign began April 6, 1994, and ended approximately 100 days later. The massacre left between 800,000 and 1 million Tutsi Congolese dead, including both of Nshimiye's grandfathers.

Innocent and his twin sister were born in Kiziba, the first of seven siblings. Their family lives in two of the small shelters because of so many children.

The Tutsi Congolese stay in camps when they can, to protect themselves from random shootings by the Hutus. "Tutsi people are still killed just for no reason, still they always smile," Nshimiye told Biggs in one of his emails.

Nshimiye manages to see the bright side of having to live in a camp with austere conditions in an environment where one's life is at risk the moment they leave.

One reason he said is the attitude of the camp's residents.

"This life of living in camp inspires me to have much love instead of having much depression or aloneness," he told Biggs.

She said Nshimiye does not seem to be resentful of the life he has had to endure in a refugee camp.

"Life isn't waiting for the storms to pass; it's learning how to dance in the rain," Nshimiye wrote in a message to Biggs.

Motivated by his friends, family and Biggs, Nshimiye is now pursuing a degree from the online school University of the People. He is doing so with major help from Biggs, who bought him a laptop and is helping him pay his tuition and other expenses. He has to leave his refugee camp to study online in order to get access to electricity to operate his laptop.

Biggs said she will not be able to continue helping Nshimiye at the level she is now and is encouraging others to assist her. She said that anyone who is interested in contributing to supporting Nshimiye should email her at novelsbyterrie@gmail.com.

"His whole life will be so changed by being able to go ahead and get his education," Biggs said. "I think he will do big things for his country."



Careers that make a difference

### Continued from Page A1

POPULATION

number of children per woman, there aren't enough babies to replace the population. Now, women in Oregon are expected to have, on average, 1.4 children. They must have at least 2.1, on average, to replace themselves and the father.

Gemmill listed an assortment of factors potentially contributing to the decline in birth rates nationally and in Oregon over the last 10 years.

One contributor is a dramatic fall in teen pregnancies. Birth rates among Oregon girls and women ages 15 to 19 dropped nearly two-thirds from 2005 to 2019 — the ninth-largest relative drop of any state. Births are down for women 20 to 24 too, accounting for about 17% of all births last year, compared to 22% of all births a decade ago.

Another possible explanation for the fall in births among teens and adults, Gemmill said, is the widespread use of contraceptives in the state. Oregon is first in the nation in contraceptive use among women at risk of pregnancy, with eight in 10 sexually active women younger than 50 using some form of contraception, federal data show.

Gemmill said there have also been less easily mea-

There's more of a sense of despair about the future of the world among young people, she said, along with more financial barriers to raising kids.

sured changes in society.

"Things are just getting worse," she said.

And there is less of a stigma around not having children.

"It's now acceptable for people to say they don't want kids," Gemmill said.

But the million-dollar question for Gemmill is whether the drop in births is permanent. The fact that women are having fewer kids doesn't mean they won't have kids at all. The experience in Europe, which has demographic patterns a few decades ahead of those in the United States, indicates there could be a rebound, Gemmill said.

But it could be decades before it's clear if that happens. In the meantime, Oregon will continue to rely on people migrating into the state to increase its population and workforce.

#### Migration

If it weren't for people moving to the state, Oregon's economy would be in a tough spot.

"In the long run, without migration, Oregon's population will decline," said Kanhaiya Vaidya, a demographer with the Oregon Office of Economic Analysis who for the state. Kid count.

The declining birth rate has outpaced Vaidya's past forecasts. Five years ago, Vaidya said by 2040 more people would die than are born in Oregon. Before the pandemic, he revised his forecasts to say it would happen by around 2027 or 2028.

Vaidya said he isn't particularly worried about the declining birth rates in Oregon.

In a worst-case scenario, there could be an imbalance in the economy, with a lot of elderly Oregonians needing services that the workforce simply cannot meet. For that to happen, there would have to be an economic downturn long enough to reverse the trend of working-age people moving to Oregon, Vaidya said.

Duy, the University of Oregon economics professor, said that, indeed, with current trends, there could be greater constraints on economic growth and smaller labor force growth in the future. If it's hard to find workers, then companies will either increase their productivity per employee or look for alternatives to Oregon, he said.

Interestingly, migration among working adults appears to have put Washington way ahead of Oregon in its child population and perhaps could serve as Kiu Coulli.

Washington began 2010 with about 67,500 more children than a decade earlier, and it began 2020 with nearly 100,000 more children than the decade before.

There's a straightforward explanation, said University of Washington demography professor Sara Curran.

In essence, tech companies — Seattle-based Amazon, in particular — have over the last two decades gone on a hiring frenzy, drawing thousands of people a month, at times.

Usually hiring younger people who are nimble and able to move states, those people are now older and having children.

"That cohort is settling down," Curran said, "and reproducing." Work with people with disabilities!



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