

# Regime Shift

What happens when the predators leave?

**H**ave you ever driven up Zion Canyon Scenic Drive in Zion National Park? Have you gotten out of your car at the massive, glowing red wall called Temple of Sinawava and ambled up the scenic walkway, big old cottonwoods at the Virgin River to your left and The Narrows closing in on you up ahead?

I remember having no worries while small Josh and Zeke raced ahead of O'B and me on the easy path 25 years ago. It was perfectly safe: lots of happy people around, no steep drop-offs, balmy weather, stunning scenery at every step.

But there was and is something crucial missing from that drop-dead beautiful canyon: cougars.

Way back in 1938, seven years before I was born, Zion Park Naturalist C.C. Presnall told us the story. He wrote, "Human use of the park was, and no doubt always will be, concentrated in Zion Canyon, causing profound changes in the delicate balance between deer and their natural predators."

Just *how* profound those changes are has recently been recorded by Drs. William Ripple, of the OSU Forest Resources Department, and Robert Beschta, retired OSU Forestry professor. In an article with the long title, "Linking a Cougar Decline, Trophic Cascade, and Catastrophic Regime Shift in Zion National Park," they tell a story of profound contrasts between two Zion National Park stream canyons: much-visited North Fork of the Virgin River (Zion Canyon) and North Creek. North Creek doesn't have a road in it. It sees the occasional hiker, not the tourist busloads of humans. Rarely visited North Creek has no common name like "Zion Canyon." But it does have cougars.

The words "trophic cascade" in the title of Ripple and Beschta's article refer to this: When cougars (predators) leave an area like Zion Canyon, populations of deer (plant consumers) increase. Young cottonwood (producers) are chewed off by the many deer and can't grow up into large trees. In Zion Canyon, few young cottonwood saplings have become grown-up trees since the 1930s when Presnall was writing. In North Creek, by contrast, where cougars abound, there are more young cottonwood trees than old ones, which is normal for stream-side forests.

But the effects don't stop there. The phrase "catastrophic regime shift" in the title of Ripple and Beschta's article means this: The Virgin River in Zion Canyon is falling apart. With few cottonwood roots holding the river's banks together, the stream is widening and deepening with every flood. Less shaded by trees, the widened stream is heated by the sun, becoming less habitable for native fish and invertebrates. The deepened stream has become isolated from its floodplain above. As a result, the floodplain's riparian (streamside) flowers and shrubs, dependent on moisture for their lushness and diversity, are replaced by bare soil and some dry-land (upland) plants. This loss of riparian flowers, rushes, and shrubs means fewer butterflies, frogs, toads and lizards.

Meanwhile, over in North Creek, none of this is happening. With humans rare and cougars common, its producers (cottonwood) are at work holding the banks together. When floods come, water jumps the banks and replenishes North Creek's riparian corridor. Water-loving rushes and cattails are 80 times as common as in Zion Canyon; wildflowers like scarlet cardinal flower and aster are several times more common; canyon tree frogs and red spotted toads hundreds of times more common; lizards three times more common, butterflies five times more common; native fish three times more common.

**T**he same story, with some different characters, took place in Yellowstone National Park. Once wolves were eliminated from Yellowstone (1926), elk increased, cottonwood forest recruitment stopped, aspen declined, beaver left, hawks and eagles had little elk carrion to eat – on and on. As Beschta, Ripple and others are now documenting, all this is now reversing with the 1995 reintroduction of wolves.

Meanwhile, Idaho's new Gov. Butch Potter is vowing to allow hunters to exterminate 60 of the 70 wolf packs that are now helping restore Idaho following the Nez Perce Tribe's guidance of wolf reintroduction there under the Endangered Species Act. Because of the Tribe's success, the Bush administration is removing endangered species protection for Northern Rockies wolves, and Potter wants cattle protection. Protected cows mow down willows and young cottonwood.

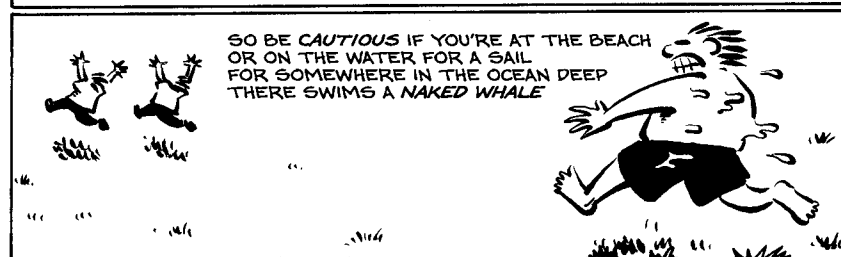
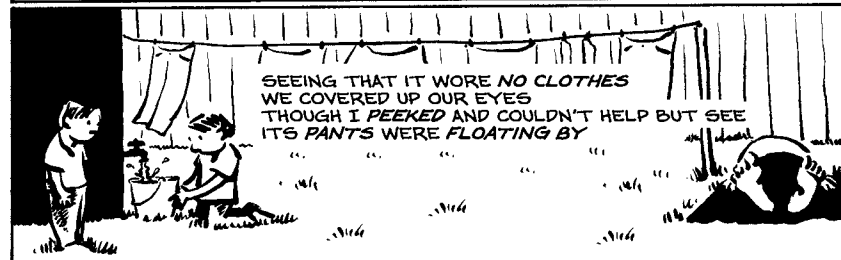
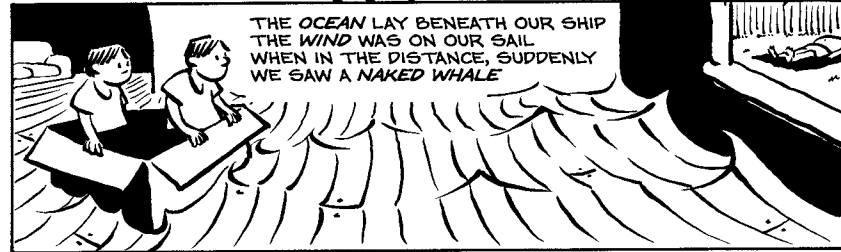
This is how we dismantle the world.

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**North Creek doesn't have humans, but it does have cougars.**

## How to Be Happy "the indecent sea" drawn by Shannon Wheeler written by Matt Speer



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## LETTERS TO THE EDITOR

### URGE TO SURGE

I've been overwhelmed by a fantasy of late. In a nutshell, here it is: At 10 am on a sunny Saturday in early May 2007, people begin peacefully marching from at least 100 meeting points about this great city. At the same time, all the buses are re-routed, headed in the same direction. Where? To Autzen Stadium, of course, for "The Surge Against the War."

By noon, at least 50,000 people have gathered in peaceful, orderly fashion. The parking lot includes tents and tables from all the schools, all the social and political action organizations and all the churches, each with its own agenda, all under the big blue banner declaring "Surge Against the War."

Those present will be in blue T-shirts, the purchase of which will pay for the event. We will be treated to a four-hour presentation, including examples of the best speech-making and music that this sometimes-great land has to offer. Think about it, people: What presidential candidates, what musicians, what healers or spokespeople or leaders would care to donate their time to such an event? Of course, all who are worth a notice will want to come.

This event will be a prototype for every community in the land. Throughout the summer and into the fall, The Surge Against the War will build in momentum. The agendas will become clear. Eugene will acquire another important little footnote in history. Of infinite more import, though, once again We the People, in seeing our numbers face to face, will grow empowered. And when we declare, the world will have to listen.

Stay tuned, people. Volunteers are stepping up. At least 50,000 are needed in this little town alone. A lot of real work remains to be done before that one day, a Saturday in May. After that, the dream will continue.

Surge!

Scott Landfield  
Eugene

### DRINKING WORDS

Last night (1/23) two friends and I "celebrated" the State of the Union address by

playing a drinking game based on what our illustrious leader said. I found this highly amusing and finished off a third of a bottle of tequila myself (I groaned every time my friend called out "Reference to something that doesn't exist!" Apparently, Iraq is a drinking word as well). I realized in my drunken stupor that politics is probably the best comedy we have at the moment, and even Carlos Mencia can't compete with the talking heads on C-SPAN.

I can't help but laugh every time I see some article or letter lamenting the failures of the U.S. government or its myriad adventures around the globe. When will you people learn that the only thing government does well is propagate itself? Your representatives do not represent you; they simply fill their wallets from your coffers and pass the savings on to their friends. Social programs are nothing but a sham to launder money into personal pet projects. The war in Iraq will continue no matter who is in office. Babies will continue to be enslaved from the moment they exit the birth canal. The countless means of theft from the American people will never stop.

There is a solution, though, no matter how much we may enjoy this "monarchic" comedy. Ignore them. Stop giving them money. Stop wasting your life griping about the failures of your "representatives" or writing letters to them to that effect (as if that will actually accomplish something...). The people in government will always act in their own best interest; you should too. Let's get rid of this system and get back to our lives.

Bonus question: Who can tell me why corporations have so much power? Here's a hint: It has to do with the "laws" that make a corporation possible in the first place.

Justin Bengtson  
Eugene

### SMITH'S PROUD VOTES

It seems to be back to business as usual for Gordon Smith. I thought that after his evening speech before a bunch of empty chairs expressing his displeasure with the conduct of the debacle in Iraq, maybe he was beginning to realize why he was elected to