

## Valerie Bittner

complex social dynamics provide teach the young where and how to team-hunt natural prey. Stay the hell away from livestock. Why it's critical to conserve pack integrity.

As Gordon Haber wrote, any notion of management of wolves with their extraordinary intelligence, curiosity, and sentience is rationalized madness.

the call of the wolf -- emperor of the ecosystem -- signifies the presence of exceptional biodiversity. In fact, the greatest in the temperate world. Even in ranching country. Because cutting-edge science reveal that when wolves keep livestock bunched up and on the move -- cattle interact with the soil like a giant Rototiller. That way, soil opens up, rain's absorbed, bunch grass grows tall. All kinds of critters -- birds of prey, lynx, lions, otter, beaver, songbirds, trout, bison -- you name thrive. Ranchers who get it, drive their cattle the same way. Very intensive. But, worth it for the land.

Wolves even combat the nasty effects of global warming. For instance. Super-threatened grizzly are losing pine-nuts to climate change. As wolves keep elk and deer on the move, berries -- their secondary food -- are spared.

Wolves are the resistance fighters for the geography-of-hope. On a practical level, the travel a.k.a. dispersal routes, often more than a thousand miles long, tell us how prime habitat connect to ecosystems. That is, ecosystems still intact.

The cutting edge science conclusions of conservation biology geneticists Dr. Bradley Bergstrom (author of "The Northern Rocky Mountains Gray Wolf Is Not Yet Recovered"), et al. reveal that the meta-population standard must be premised on one that is "ecologically effective." That translates to at least fifty breeding pairs, or at least five thousand souls dispersing over the Rockies. Will take Yea mark that much territory. No question. As the science evolves, the wolves' recovery standard must change with it.

Supplemental Science Based Commentary:

HISTORY SCIENCE INNOVATION ARTS & CULTURE TRAVEL

SMARTNEWS Keeping you current

Killing Wolves Actually Leads to More Livestock Deaths

On the surface, killing wolves that kill sheep and cattle seems like a way to control predation, but the data paints a not-so-simple picture

image:

[https://thumbs-prod.si-cdn.com/wm0byW4YCLkQWBKHE3rKSIEILHQ=/800x600/filters:no\\_upscale\(\)/https://public-media.si-cdn.com/filer/c1/fa/c1fa2f17-9270-4bfe-be79-3ab32f710752/42-35089789](https://thumbs-prod.si-cdn.com/wm0byW4YCLkQWBKHE3rKSIEILHQ=/800x600/filters:no_upscale()/https://public-media.si-cdn.com/filer/c1/fa/c1fa2f17-9270-4bfe-be79-3ab32f710752/42-35089789)

Wolf hunt in 1930 (Kirk Vintage Stock/Corbis)

By Marissa Fessenden

SMITHSONIAN.COM

DECEMBER 12, 2014

29301371

When predators clash with humans, debate grows fierce. Wolves, heralded as iconic North American animals, also draw the ire of ranchers who have to deal with the ones that kill their livestock. Wolf hunts are one way of dealing with animals that inevitably cross human-drawn lines, but—as the authors of a new study observe—there isn't much research that looks into whether those hunts actually reduce livestock deaths.

RELATED CONTENT

• Rare Wolf or Common Coyote? It Shouldn't Matter, But It Does

The answer to that question might seem intuitive, but the new findings run counter to that expectation: Washington State University researchers found that when wolves were killed one year, more livestock were killed by wolves in the next. They published their research in PLOS One.

The researchers looked at the number of wolves killed as well as the number of cattle and sheep killed by wolves (called depredation) over a period of 25 years in Montana and 17 years in Idaho and Wyoming. (Wolf hunts are currently allowed in Alaska, Idaho, Montana and Minnesota but on hold in Wyoming.) For each wolf killed the previous year, the odds of depredation increased by 4 percent for sheep and 5 to 6 percent for cattle.

Of course, when many wolves are killed, that story changes. When more than 25 percent of wolves in the area were killed, livestock kills also went down. However, the researchers point out that 25 percent is the magic number because it exceeds the rate of wolf population growth. At that rate of wolf killing, all the wolves would quickly disappear.

Those numbers might seem like a straightforward argument against wolf hunts, but the story gets more complicated. The researchers don't know exactly why the statistics shake out this way. The lead author of the study, WSU biologist Rob Wielgus, explains one hypothesis in Rich Landers' blog for The Spokesman-Review:

Wielgus said wolf killings likely disrupt the social cohesion of the pack. While an intact breeding pair will keep young offspring from mating, disruption can set sexually mature wolves free to breed, leading to an increase in breeding pairs. As they have pups, they become bound to one place and can't hunt deer and elk as freely. Occasionally, they turn to livestock.

The inspiration for this explanation is that approximately 5 percent increase in depredation matched up with a 5 percent increase in breeding pairs for each wolf killed, reports ABC News. Similar research livestock killed by bears and cougars also backs it up.

Seattle-based KUOW reports that a better strategy might be to use non-lethal control measures like guard dogs, light and sounds that deter wolves. "It really underscores the need to prevent conflict between wolves and livestock in the first place," Chase Gunnell, of the advocacy group Conservation Northwest, told reporter Courtney Flatt.

Read more: <https://www.smithsonianmag.com/smart-news/killing-wolves-actually-leads-more-livestock-death-180953605/#eBsDC95Pt1zJiZel.99>

Give the gift of Smithsonian magazine for only \$12! <http://bit.ly/1cGUjGv>

Follow us: @SmithsonianMag on Twitter

Low Stress Methods for Moving and Herding Cattle on Pastures, Paddocks, and large Feedlot Pens

by Temple Grandin

Jennifer Lanier and Mark Deesing

Department of Animal Sciences,

Colorado State University

Fort Collins, Colorado 80523

(Updated May 2019)

Bud Williams is a well known cattle handling expert from Alberta, Canada, who for many years has practiced and taught low stress methods for moving cattle. For those who know of Bud Williams and have watched him move cattle, or who have attended one of his many clinics held throughout Canada and the U.S., it is clear that these methods really work. What Bud does has been called magic. However, many people try these methods and become frustrated and give up because they can not make them work. It is our opinion that the problem results from instructions that are not clear.

It is the job of animal behaviorists to interpret animal behavior and translate in clear language the cause of behaviors and the underlying motivations for them. For years, we have been interested in the Bud Williams method for moving cattle because low stress methods of handling cattle are known to improve both productivity and welfare. For example in a cow-calf operation, when the animals are being moved from pastures into corrals, or in pasture rotation movements, cows that get excited and run wildly when being driven can lose their calves, or the calves can get stressed and will gain less weight. Wild, uncontrolled movement of cattle causes stress in the animals, wear and tear on equipment or fences, and a greater incidence of injuries to both handlers and cattle. Slow, calm movement of cattle in feedlots can also lower stress, reduce sickness, and enable cattle to get back on feed faster. Cattle that run wildly down alleys into the processing area become stressed prior to the stress imposed by rest raint for normal husbandry procedures. In order to lower stress and improve productivity, calm, quiet handling of cattle in all aspects of management is very important.

The Bud Williams methods of calm, slow movement of cattle on pastures can be defined as a stimulus-response relationship. In cattle that have had no previous experience with herding, the "stimulus" is a person who simulates predator "stalking behavior", which elicits predatory "avoidance behavior" in the cattle. The "stalking" behavior simulated by the person is similar to the behavior of a predator such as a lion or a wolf. First, the predator locates the herd. Then it begins a slow survey of the herd by walking in a circular direction around the herd looking for weak or old animals. The behavior of the predator circling the herd causes anxiety in the animals. The cattle become uneasy over an impending attack by the predator and begin to loosely bunch together. This is an instinctual HARD WIRED behavior that is wired into the animal's brain. This uneasiness and slight anxiety comes before the fear and flight elicited by an actual attack. It is important to remember before attempting to use these methods that it is anxiety that makes this technique work and not fear. When the method is first used it triggers instinctual bunching behavior. The more a person works with the cattle, the calmer they become and instinctual bunching behavior is gradually replaced with calm learned behavior.

Interpretive Comments

Bunching cattle means of course that the rancher receiving so much beneficial use of precious public lands is obligated to be an integral part of the solution to reducing predator-prey conflict. Valerie Bittner Esq.

A corollary benefit is that the bunching of cattle acts like a giant rototiller opening up openings in the soil for natural re-seeding. Valerie Bittner, Esq.

eals  
rds

r

rs to

.jpg

nts

:k

r

nt

ior

ing

on

en

ave

i  
oved

ts

t  
as a

is

al

ier,