



SCNRCD NEWSLETTER

VIEWES FROM THE WATERSHED

Fall, 2025

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Chairman's Column by Stephen Williams

Bogus Science

How often have you heard some agency or organization state that their position on a subject is based upon the “best available science”? How do you know if the journal articles referenced are truly peer reviewed, trustworthy science? I thought I knew until I read Dr. Berry Perryman’s article, “Bring Me the Head of Science”, in the Summer, 2025 issue of RANGE magazine. Dr. Perryman teaches range ecology at the University of Nevada-Reno. He is an educator, researcher and author. He knows of what he speaks.

He states in his article that academic publisher Wiley & Sons recently announced that it was closing 19 scientific journals. It retracted over 11,300 peer-reviewed journal articles that had been published over the previous two years. IOP Publishing (formerly Institute of Physics Publishing) found at least 900 fraudulent articles from back in 2022. Yes, outright bogus, fake, fraudulent science infiltrated at least three major scientific publishers in a significant way. As you can imagine, this disclosure threatens the credibility of science in general, not to mention the \$30 billion scientific publishing industry.

Dr. Perryman attributes this to Artificial Intelligence (AI), paper mills and greed. If a scientist needs a couple of papers published to keep his job or get promoted, you just contact a rogue representative, pay the fee (upwards of \$8,500 per article) and someone’s AI chat box will write it for you. He also stated that if you need the “right kind of science” you can buy that, too. If you are a private company, or the federal government, you can buy it, too. Science for cash!

Dr. Perryman attributes blame to our research universities, too. Universities, foundations and agencies charge a fee for administering government grants. 45-65 percent is not unheard of. The Trump Administration has placed a lower temporary charge of 11% on the National Institute of Health projects. This will mean a significant loss of revenue. It worries the Administrators of all these entities.

INSIDE THIS ISSUE

Chairman's Column	1-2
Graffiti Cattle	2
Nogales Water Festival	3-4
SC NRC D News Items	4
La Nina Watch Prediction	5
Bill Brake (New Supervisor) - Calendar	6

Dr. Perryman recommends that university presidents and regents return to the land grant mission, rather than creating ridiculous majors funded by overhead that are bad investments for the American people. Dr. Perryman feels that when universities are subsidized to the point that they have the luxury of supporting these bad investments with no accountability for it, the parents need to put a stop to it.

Science is not policy, but it should inform policy. In recent years, junk science has often been the substitute. The credibility and quality of science are suffering, and with so much bogus research and reporting out there, policy decisions will become less informed.

After finishing the Perryman article, I came across another about similar shenanigans. NOTUS, a product of the Allbritton Journalism Institute, a new journalism education organization founded by Robert Allbritton, the former publisher of Politico, reported the following regarding the landmark Make America Healthy Again (MAHA) report. The MAHA report cites multiple studies that do not exist a cited author claimed. Seven of the cited sources do not appear to exist at all.

Katherine Keyes, an epidemiologist listed in the report as the principle author of a study on anxiety in teenagers, claimed “The paper cited is not a real paper that I or my colleagues were involved with.” While the report lists it as a Journal of the American Medical Association pediatrics study, from the 176th issue of the Journal, no such study appears in that edition of JAMA. All told, seven of the citations in the report appear to be non-existent. CONTINUED on PAGE 2

CONTINUED FROM PAGE 1 Bogus Science

At least 18 of the original report's citations have been edited or completely swapped out for new references. While some of the original report's inconsistencies have been changed, a few of the new updated citations continue to misrepresent scientific studies.

Citing more than 500 studies and other sources to back up its claims those citations are rife with errors from broken links to misstated conclusions.

Bogus science is disconcerting to say the least. It makes me wonder about the veracity of the references radical environmental groups use in their lawsuits regarding natural resource issues. Be cautious about accepting such citations and references at face value.

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GRAFFITI CATTLE

A team of Japanese scientists painted zebra stripes on black cows in 2019 to keep biting flies away - and it worked. Specifically, the scientists hypothesized that painting a zebra striped pattern on domestic cattle would reduce the number of biting flies plaguing livestock. Biting flies are a more than annoying scourge for ranchers worldwide.

Their findings were that the frequency of biting flies landing on the painted cattle decreased by over 50%. Furthermore, the cattle were more relaxed since they were not reflexively fighting off so many flies.

The scientists presented their research as an alternative fly deterrent for cattle ranchers. Painting zebra stripes on cattle could reduce the use of pesticides and other chemical deterrents, which could have health benefits for humans and livestock. It is not as far-fetched as some might believe. Another study determined that zebra stripes from actual zebras repel biting flies under naturalistic conditions. It is also said that the idea that zebras evolved their striped hides to repel flies, rather than for camouflage or sexual selection, is the best supported hypothesis.

According to a study published in the Journal of Medical Entomology, infestations of the stable fly interfere with livestock feeding, reproduction and resting behavior. They also cause pain and suffering in companion animals, and disrupt human recreation to a cost of \$2.2 billion per year.

Other studies have found that biting flies reduce grazing and bedding time, and increase defensive behaviors like foot stomping, head throwing, skin twitching, and tail switching in beef, dairy and pastured cattle.

Wyoming rancher Mark Eisele, past president of the Public Lands Council, says he would not consider painting zebra stripes on his cattle, but encourages ranchers to keep an open mind about innovative techniques. As a producer, he wants to be aware of the next best thing to make his operation more efficient, productive and profitable. "If we didn't keep an open mind, we would have bypassed a lot of great techniques for production, convenience, animal comfort and human comfort all at the same time. Painted stripes probably isn't the most practical solution at the moment, but you can't rule anything out."

Genetics is becoming increasingly important in agriculture, especially with genetic technology's enormous potential and increasing accessibility. Cattle producers always are interested in optimizing their cattle through genetic engineering. Could the future of fly free cattle be selective breeding for stripes? Eisele says it would certainly be on the table. He would not rule it out.

NOGALES WATER FESTIVAL

The 11th annual Nogales Water Festival was held May 8, 2025 at Nogales High School. It was the final such festival this year in Arizona. The University of Arizona, through its Water Research Center, hosts the event. The UofA staff consisted of Lisa Townsend, Kristyn Kay, Michael Keoki Spaeth, Alexia Smith, Wyatt Ortega and Tamara Wells. The Santa Cruz NRC and the Santa Cruz NRC Ed Center (Santa Fe Ranch) were co-hosts of the event and provided monetary support.

This Water Festival is a hands on educational event that teaches grade school students about the Water Cycle. The participants learn how a watershed functions, as well as how to conserve water and use it in a sustainable manner. 357 students, from 6 grade schools, participated and were accompanied by 15 teachers. 46 Nogales High School students volunteered their time as instructors. See the group picture below:



Hopefully this exposure to the Water Cycle will spark an interest in the students to pursue further education in a natural resource field. Such a path can lead to a fulfilling career in their later years. See Festival pictures below:





SC NRC D NEWS ITEMS

NRCS (Jennifer Krentz, NRCS) Per Jennifer Krentz, the following items were discussed during the August 27 SC NRC D Board meeting:

- Team 7 Staffing Updates: Full staff level - 5. Down to 3. Alisha Phipps, Mynesha Holiday & Jennifer Krantz. Several critical vacancies have been identified but none have been filled. We don't know when we will be able to hire employees again.
- Rebecca De La Torre is the new Assistant State Conservationist (Field Operations).

Santa Cruz County Fair The SC NRC D District had a booth and the watershed display table during the Fair, September 12-14. Over 500 bags (pencil & eraser) were given out to students.

2025 Monitoring: \$5,000 was approved to have 20 transacts monitored by NRCS and Jim Koweek (Arizona Revegetation & Monitoring).

New Natural Resource Conservation (NRC) Board Update: Per Stephen Williams, he & Chris Postel (SC Clerk) attended the August 13 NRC board meeting. Deb Smith is the acting Executive Director of the Board working on items such as, budgets, minutes, funding, open meeting law, etc.

Local Work Groups (LWGs) Update: Per Stephen Williams, the LWGs are receiving more emphasis and Deb Smith wants to do LWG training in October or November. Per Bill Schock, we need to involve the Cooperators more to determine the real needs and specific projects on the ground; so, a local LWG should be done with the Cooperators first.

LA NINA WATCH PREDICTION

Is the Pacific Ocean poised to deliver a dry La Nina winter? Maybe. The Climate Prediction Center (CPC) at the National Weather Service issued a La Nina Watch recently.

Based on current conditions and long range weather modeling, there are implications that “a brief period of La Nina conditions is favored in the fall and early winter of 2025-26, shaking up the current neutral conditions being observed in the Pacific Ocean.

Does this mean a La Nina winter, with warmer temperatures, lower snowpack, and increased chances of drought, is on the way? Renown Wyoming meteorologist Don Day thinks people need to consume their weather reports more carefully. “A La Nina Watch doesn’t necessarily mean a full-fledged La Nina winter, but it’s being interpreted that way by people who don’t know any better,” he said. “They put this out, everyone gloms onto it, and then everybody’s hair is on fire, but it isn’t a slam dunk situation.”

El Nino and La Nina are opposite phases of the same weather patterns in the Pacific Ocean. El Nino is fast and furious, with weaker ocean surface winds that spread warmer water, while La Nina persists with stronger surface winds that spread cooler water. The intensity of previous winters has been determined by the dominance of El Nino and La Nina, the ever changing climate patterns influenced by the water temperatures of the Pacific Ocean, known as the El Nino-Southern Oscillation (ENSO).

El Nino tends to bring warm, wet weather, while La Nina tends to dry things out. The implications of either system are enormous on everything from the agriculture industry to the intensity of wildfires. Currently, the Pacific Ocean is ENSO-neutral. Neither pattern is dominant. “Will there be a short lived La Nina-like episode this fall? Yes, but it’s not going to change anything in terms of what our long range forecasts have been talking about,” he said.

Day is taking the La Nina Watch for what it is: a watch, rather than a warning. While the Pacific Ocean is developing conditions similar to a La Nina, Day believes it’s too little and too late to impact long-range forecasts. “Timing plays a huge role in determining how the winter season will go,” he said. “You’ve got to have multiple months of the temperature anomaly, more than a half degree Centigrade below the average, for a La Nina to be really impactful.” If there are any impacts, Day anticipates they’ll be short-term. Ironically, despite the La Nina Watch they issued, the CPC would agree with that assessment. “Their report says most models favor ENSO-neutral status to prevail though the fall and winter of 2025 and 2026,” said Day. “They’re not predicting a full-fledged La Nina, which is basically saying the same thing I’m saying. But they’ve issued a La Nina Watch, so go figure.”

Day’s message to anyone concerned about the La Nina Watch isn’t that they shouldn’t read into it too much. If anything, many people aren’t reading enough into it. “The statistical probability of full-fledged La Nina between October and December is less than 60%,” he said. “That drops to less than 50% for December, January, February, and then it decreases to less than 40% for January, February, March.” Those statistics support Day’s assessment that whatever is happening in the Pacific Ocean will be short term.

“Yes, we may go into a brief, colder La Nina-like status this fall, but it’s not likely to carry forward into winter,” Day said. “This is one of the situations where if the dam breaks, everyone’s going to think it’s going to be a La Nina winter. I don’t think so. A lot of people don’t think so. If you read the advisory, they don’t think so.”

Day will be ready to update his long-range forecast as needed. However, he does not anticipate that he will need to, “Based on what we are seeing, I am not expecting a La Nina winter,” he said. “That’s the difference between a watch and a warning.”

Bill Brake - New SCNRCD Supervisor

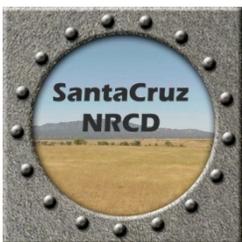
The Santa Cruz NRC D is pleased to announce that Bill Brake of the Rose Tree Ranch in Elgin was recently approved to fill a position on our Board.

Bill grew up on the Rail X Ranch, studied range management at the University of Arizona, and has a life time of ranching experience. He has owned ranches in Greenlee, Navajo, and Gila counties before acquiring the Rose Tree. He is past president of the Arizona Cattle Growers Association, served on the Arizona Game and Fish Commission, and is currently chairman of the Arizona BLM Resource Advisory Council.

Welcome to the Santa Cruz NRC D Board of Supervisors, Bill.

Calendar of Activities/Events

- Santa Cruz Quarterly meeting on November 5, 2025 at Wild Horse Restaurant, Patagonia, AZ.



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