



On The Wing

Volume 42, Number 2 **Boulder County Audubon Society Newsletter**

Mar-Apr 2012

BCAS Fourth Tuesday Programs

March 27, 7:15 p.m.

Why Grasslands Exist and How They Evolve and Change

Dr. David Buckner

Beyond the standard explanation—grasslands exist where it is too dry for trees—lie very important factors that are often overlooked. Dave will explore those factors while offering a new approach to understanding grass-dominated landscapes. He'll look at local examples and also explore how plants and animals participate in grassland dynamics.

Dr. Buckner has forty-one years of professional experience in the areas of applied plant ecology, plant taxonomy, reclamation, soils, and statistics. He is currently president of ESCO Associates. He received his Ph.D. in Plant Ecology, University of Colorado in 1977 and has written multiple papers on plant ecology.



Flowering Big Bluestem Grass—Steve Jones

April 24, 7:15 p.m.

Climate Warming and Mountain Pine Beetles

Dr. Jeff Mitton

In response to warmer temperatures, the mountain pine beetle has substantially increased its geographic range, killing trees 450 miles further north in Canada and 2,000 feet higher in elevation in the Rocky Mountains. The magnitude of the current epidemic is unprecedented, for it is already ten times larger than the second greatest epidemic.

Mountain pine beetles recently have been starting their flight season more than a month earlier than historically reported, and flying more than twice as long. In addition, the mountain pine beetle is changing from reproducing once per year to twice per year. This exponential increase in the production of beetles provides insight into the cause of the epidemic that has left many millions of trees dead from New Mexico to the Yukon Territory and from the eastern slope of the Rocky Mountains to the San Rafael Mountains in California.

Jeff Mitton is chair of the Ecology and Evolutionary Biology department at the University of Colorado. His research focuses on the evolutionary forces that influence genetic variation within and among populations. His popular column on Front Range natural history has appeared in the Boulder Daily Camera for 10 years.



Annual grants from SCFD over the past several years help to support our monthly programs and other activities.

*Program Meetings at:
Unitarian Universalist Church of Boulder, 5001
Pennsylvania Ave. (west off 55th St. between
Arapahoe and Baseline)*

Field Trips

Saturday, March 10—Spring Welcoming Hike at Sawhill Ponds. 7:30 a.m. to 11 a.m. Join leader Steve Jones for this annual spring welcoming breakfast hike. Bring something sweet, exotic, passionate, or healthy (and portable!) to pass around at potluck breakfast back by the creek. We should see some waterfowl, herons, and perhaps an osprey or two. Meet at Sawhill Ponds main parking area, west of 75th St. between Valmont and Jay Roads. Contact Steve: curlwsj@comcast.net; 303-494-2468

Saturday, April 28, 2012—Walking Tour of Carolyn Holmberg Preserve and a visit to the Birds of Prey Center at Rock Creek Farm, 8:00 to 1:00

Beginning at Stearns Lake parking area we will explore Stearns Lake and look for migrating and returning birds. We will follow the Mary Miller (the mother of Lafayette) Trail to Rock Creek Farm for a guided tour of the Birds of Prey Center. As we return to Stearns for a picnic lunch we will keep our eyes open for raptors, aquatic fowl and other interesting birds and animals. For those who have time we can take the Cradleboard Trail to the northern boundary of a wetland preserve to notice if wetland and short grass prairie ecosystems can coexist with development.

Trip limited to 15 participants. Be sure to bring water, sunscreen, hats and footwear for walking a little over 2 miles. To reserve a space, contact Petrea Mah at petreamah@comcast.net or 303-494-4121.

This trip should be especially interesting to families as we get to see the birds at the Birds of Prey Center up close and personal.

Saturday, May 5—Pella Crossing & Marlett Trails. 7:00 a.m. until about 11:00. Easy trails around six ponds. Meet at the Pella Crossing parking lot on 75th just south of Hygiene. Leader: Neal Thielen, contact gnthielen@comcast.net.

Sunday, May 12—Join Scott Severs to see the birds at Chatfield Reservoir, which is due for a 12 ft increase in water level that will devastate cottonwood riparian wetlands. Scott is trying to get folks to recognize how significant this issue will be. For more information, contact scottesevers@gmail.com



Snowy Owl — Bird of the winter 2012

Photo by Mark Ponsor

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Alex and Gillian Brown (303-494-3042)

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Next issue deadline: (May 2012 issue) Apr 15.

Contact editor via link at: www.boulderaudubon.org/newsletter.htm

Ecosystem Symposium Explores Water Issues April 21

The 2012 Boulder County Nature Association Ecosystem Symposium, *Water: Pure and Not So Simple!* will be held on **Saturday, April 21st** in the Ramaley Auditorium on the C.U. campus and will include a complimentary lunch for participants. Free registration begins at 8:00 AM, and talks commence at 8:30.

Featured speakers:

Dr. Mark Williams, a Fellow at the Institute for Arctic and Alpine Research (INSTAAR), will address the critical importance of snow as a water resource in the Rocky Mountains.

Bob Crifasi, City of Boulder Open Space and Mountain Parks Water Resource Administrator, will discuss the negative and positive human impacts that result from the introduction of hybrid ecosystems that result from human and nonhuman agency.

Ernst Strenge, Resource Planner for Boulder County Parks and Open Space, will describe a five year feasibility study that has led to a joint restoration project with the U. S. Army Corps of Engineers on a one mile stretch of Lower Boulder Creek.

David Norris, a Professor in the Department of Integrative Physiology at C. U. Boulder, will detail the presence of chemicals in the environment that mimic or inhibit natural regulatory processes, affecting fish, wildlife and humans.

Julie Ash, an engineer and member of the Ecological Solutions and Natural Systems Group at Walsh Engineering, will discuss the benefits of healthy riparian floodplains and recent improvements in flood policy and management.

Lee Rozaklis will address "Instream Flows and Enlargement of Gross Reservoir," showing how the Gross Reservoir enlargement plan will lead to higher minimum stream flows while protecting Western Slope water resources.

Speakers will be followed by a panel discussion on the Gross Reservoir expansion, which will include Travis Bray of the Denver Water Board, James Newberry, Grand County Commissioner, Elizabeth Brown-Morgan and Drew Beckworth of Western Resources.

For more information visit www.bcna.org

– from National Audubon:

Bird Kill at Wind Facility Triggers Better Lighting Practices

News of a recent bird kill of Blackpoll Warblers and other species at a wind facility in West Virginia spread quickly through birding lists and caught the attention of the birding community in the region. Audubon staff learned of this unfortunate event and contacted the facility owner, AES Wind Generation, to investigate the causes of the incident and to work toward developing solutions that will help ensure such an incident doesn't happen again. From all indications, a combination of lighting and poor weather conditions were the primary causes of the bird kill.

AES representatives told Audubon they have taken immediate corrective actions to curtail excessive night lighting, replace equipment with preferable downward-shielded lighting fixtures, and will modify other site specifications. They will increase monitoring and take additional steps to reduce or eliminate lighting the facility during migration seasons to avert future bird kills of this type.

Now, actions need to be taken to minimize the likelihood of similar events in the future at other wind power facilities. Audubon is in discussions with AES and others



about sharing the lessons from this event with the broader wind industry and emphasizing the importance of the lighting practices in the forthcoming federal wind guidelines. We hope that, as a result, new facilities will be written to specs that incorporate lighting practices that have been shown to minimize bird mortality during migration. This is a straightforward corrective action that will significantly lessen the negative consequences to birds, while delivering carbon-limited sources of renewable energy. We will be working to help make this a standard practice across the industry. * PDF: <http://bit.ly/A4fePQ>

Grocery Certificates

Certificates are available at the monthly meetings. BCAS receives a 5% donation from the sale of King Soopers certificates and 10% from sale of Liquormart certificates, and there is no extra cost for your purchases.

Bring your checkbook to the next meeting. Denominations: King Soopers, \$100; Liquormart, \$25

Golden Eagle action at Hall Ranch

– Linda Andes-Georges

A recent report suggested that a Golden Eagle attacked mountain bikers! Well, that would be a sensational story, but it's not accurate as far as we know. According to Hall Ranch ranger/caretaker Denny Morris, in his experience the eagles have something much more prosaic in mind when they swoop over the heads of hikers and bikers in the foothills: lunch. This year at Hall, there are probably about three nesting pairs of Golden Eagles using the area of the prairie dog colony to hunt, and they are seen rather frequently.

He notes, "I've had one similar experience while mountain biking the Bitterbrush Trail [.] in the prairie dog town. I was on an ascent, and looked up to see a Golden Eagle stooping just in front of me, and just over my height. It continued past and made an attempt at catching a prairie dog, who might have been distracted by my presence." Obviously a brave man, Mr. Morris adds, "I've also seen on three occasions, a Golden Eagle stooping on prairie dogs as I've driven past the knob at the top of the 'Rock Garden;' [it is] my impression that the eagles are taking advantage of the distraction. " In other words, Mr. Morris's hypothesis is that when you hear wind in the primaries of a big bird going right over your head, "It's likely that a distracted prairie dog, or rabbit, was the target." Of course, if you are approaching the vicinity of a nest, you might receive some defensive diving directed your way. That would be a good time to hold a branch over your head and vamoose.

Bluebird Nestbox Monitors Needed

Combine your birding with checking the nesting success of bluebirds and other nest box users this season. Visits to the same area offer the opportunity to follow changes of wild flowers, other birds, and often other wildlife through the season. Several volunteer monitors are unable to return for the 2012 season, creating openings for new volunteers. Currently, there are openings at Betasso and Eldorado.

Monitoring requires off-trail hiking on moderate routes to check nest boxes approximately weekly from early May to late July or early August. An important part of the job is recording the status of all nests with each visit. The data needs to be entered weekly in a spreadsheet that will be transferred to a database at Cornell at the end of the season.

To volunteer, or for more information, contact Marti Oetzel, 303-543-3712 or marti@birdhike.com. Also visit <http://tiny.cc/uvoza> to learn about past seasons.

More People Means Fewer Butterflies

The Center for Biological Diversity has a list of the 10 species in the U.S that are most threatened by overpopulation. One of those is the Lange's Metalmark Butterfly. This is a report by Amy Harwood, their Overpopulation Campaign Coordinator.

The Lange's Metalmark butterfly (pictured) is a stunning insect with white-on-black dots on its wings and a red-orange center that makes it impossible to miss. There were once some 250,000; today there are almost none. The tale of this lovely butterfly's disappearance is a quiet tragedy.



Last month I went to one of the few places where the Lange's metalmark is still -- we hope -- clinging to life. The tiny Antioch Dunes National Wildlife Refuge, just outside San Francisco, was the first refuge ever set up to protect endangered species in America, including the Lange's Metalmark. It sits on the banks of the San Joaquin River, right next to several power plants and a massive pile of yard clippings and invasive weeds. It's not Eden, but it's all this butterfly has left.

In the aftermath of San Francisco's 1906 earthquake, there was a frenzy to rebuild and expand the city. Crews needed a close, easy source of bricks, and as it turned out the sand of the Antioch Dunes would do nicely. Within a few short years the dunes were devastated, and so was the refuge's naked-stemmed buckwheat, a host plant for the Lange's metalmark -- whose population predictably plummeted. In 1986, only 154 butterflies could be found, and 20 years later there were just 45. This last year, the annual count for the Lange's metalmark was at a record low.

– thanks to Kitty Brigham for the reference.



Western Bluebird, Walker Ranch – G. Oetzel

Boulder County Audubon Awards Hog Island Scholarship to Two Local Teens

Skye Lewis, 17, of Westminster and Francis Commercon, 15, of Highlands Ranch are this year's recipients of scholarships to National Audubon's Hog Island summer birding camp off the coast of Maine. Skye and Francis will attend the June 17-22 "Coastal Maine Bird Studies for Teens" camp led by Scott Weidensaul, Don Kroodsma, and other prominent ornithologists. The \$995 scholarship covers the full cost of tuition, room, and board at the camp.

Skye is a junior at Westminster High School and an active participant in the Boulder County Audubon teen naturalist group. She has banded barn swallows for an ongoing study at the University of Colorado and plans to attend the University and major in ecology. In her scholarship application, she wrote that she looks forward to the opportunity to observe nesting puffins, learn about Hog Island's long history, and meet ornithologists and students from the East Coast.

Francis has worked as a volunteer field worker for the Colorado Breeding Bird Atlas II project, completing 14 atlas blocks in partnership with his mother, Joyce. For several years he has banded birds at the Rocky Mountain Bird Observatory banding station, where he also helps to mentor younger banders. In his application Francis wrote of looking forward to "the opportunity to meet some of my fondest authors and scientists" and using wisdom gained from his experience to someday "add further to the advancement of ornithology."

BCAS member contributions to our annual species of concern-a-thon made these scholarships possible. Thank you all! Skye and Francis will present highlights of their camp experience in a fall newsletter article and at the September monthly meeting.

— Mary Balzer, Joan Dawson, Steve Jones, and Maureen Lawry, BCAS scholarship committee



Atlantic Puffin—G. Oetzel

Global Warming and Colder Winters

It seems very strange that global warming could cause some regions to have colder winters. However, a new study explains the processes that can link warmer-than-average summers to harsh winter weather, such as Europe is currently experiencing.

An article in *Environmental Research Letters*¹ explains the link. A close look at climate data from 1988 through 2010, including the extent of land and sea respectively covered by snow and ice, helps explain how global warming drives regional cooling. The researchers combined climate and weather data from a variety of sources to estimate Eurasian snow cover, and then they speculated about how that factor might have influenced winter weather elsewhere in the Northern Hemisphere.

With the Arctic warming in recent decades, there has been widespread melting of sea ice. The open water in the Arctic Ocean has led to more evaporation and moister overlying atmosphere. Previous studies have linked warmer-than-average summer months to increased cloudiness over the ocean during the following autumn. That, in turn, triggers increased snow coverage in Siberia as winter approaches. As it turns out, the researchers found, snow cover in October has the largest effect on climate in subsequent months.

Widespread autumn snow cover in Siberia strengthens a semi permanent high-pressure system called the Siberian high, which reinforces a climate phenomenon called the Arctic Oscillation and steers frigid air southward to midlatitude regions throughout the winter.

These analyses suggest that other climate cycles—the El Niño-Southern Oscillation, the Pacific Decadal Oscillation, and the Atlantic multidecadal oscillation—don't explain the regional cooling trends seen in the Northern Hemisphere during the past couple of decades as well as the trends in Siberian snow cover do. In turn, better accounts of snow-cover variation may lead to better tools for winter-weather forecasts.

1. Environmental Research Letters 7,1,14007, 2012 <http://bit.ly/wjZpED>
2. Summary in *ScienceNow*: <http://bit.ly/xoWf9X>

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BOULDER COUNTY WILDLIFE INVENTORY, SEPTEMBER AND OCTOBER 2011

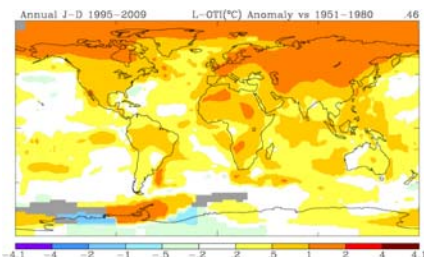
Gillian and Alex Brown, 4560 Darley Avenue, Boulder, CO 80305.

September 2011 saw a respectable total of 158 bird species reported with several rarities. Fall shorebird migration was strong with **Black-bellied Plover**, **Sanderling**, **Stilt Sandpiper** and **Red Phalarope** being new species for the year. **Sabine's Gull** has become a fairly regular fall visitor and at least two birds were reported this September. Three types of tern were observed; **Black Tern** and **Caspian Tern** were new for the year being seen along with **Common Terns**. Interestingly, our commonest tern historically has been **Forster's Tern** and this bird was not reported in September and has been seen in very low numbers all summer. A **Flammulated Owl** was seen and heard in Lafayette; this unusual small owl is more commonly reported in the foothills. **Eastern Screech Owl** was also a new sighting for the year. Both **Chestnut-collared** and **McCown's Longspurs** were reported in the grasslands to the south of Boulder. These are only the fifth reports of both these species since the wildlife inventory began in 1979. All of those reports except one have been since 2005. The increased occurrence of these two species is an indication of the successful management of this short grass prairie habitat. Fall warbler migration was present but unremarkable. Both **Nashville Warbler** and **Townsend's Warbler** are among the warbler species more commonly seen in the fall than in the spring.

October 2011 was a poorly reported month with only 112 bird species observed. Grebes were reported in large numbers with a **Red-necked Grebe** being a new sighting for the year. Late October and November is prime time for observing loons and diving ducks. A **Pacific Loon** and a **Surf Scoter** were good additions to this year's list. A **Sabine's Gull** was seen on Lagerman Reservoir on the 1st October. An **Arctic Tern**, only the second report for Boulder County although there have been past reports from Union Reservoir in Weld County, stayed on Boulder Reservoir from the 18th October onwards and drew observers from all over the state. This is one of our less usual tern species. **Blue-headed Vireo** was reported for the fourth time in the wildlife inventory and was last seen in 2003. This eastern bird was one of the three vireo species (Plumbeous, Cassin's and Blue-headed) split from Solitary Vireo in 1997 and is the least usual of the three in Colorado. A **Field Sparrow** seen at Walden Ponds was a new species for the year. **Common Grackles** were reported in huge numbers in October with more than twelve thousand of these birds present in the county before migrating southwards. A **Hammond's Flycatcher** observed on October 8th in Boulder seems extremely late for this species. **Red-headed Woodpecker** was a good sighting for the month.

CONTRIBUTORS TO THE SEPTEMBER AND OCTOBER 2011 INVENTORIES

Kat Bradley-Bennett, Kitty Brigham, Alex & Gillian Brown, Dave Cameron, Alex Crux, Todd Deininger, Lisa Edwards, Doug Faulkner, Ted Floyd, Steve Frye, Peter Gent, Laurens Halsey, Paula Hansley, Thomas Heinrich, Dave Hyde, Steve Jones, Bill Kaempfer, Loch Kilpatrick, Chishun Kwong, Norm Lewis, Marcia Marvin, Daniel Maynard, Mark Miller, Steve Miodinow, Gene and Lynn Monroe, Nick Moore, Heather Morris, Rudi Nussli, Christian Nunes, Jessi Oberbeck, Mark Obmascik, Laura Osborn, Nathan Pieplow, Peter Plage, Joe Roller, Ira Sanders, Bill Schmoker, Tim Smart, Dix Smith, Debra Sparr, Cheryl Teuton, Art Wainwright, David J Waltman, Cole Wild, Wild Bird Center.



131 years of global warming in 26 seconds — nice video from Center for Biological Diversity (<http://tiny.cc/fj0sg>)

Warming Maps from Chris Close (<http://tiny.cc/rqoq5>)

You Too Can Be a Hermit

It is an option! You can choose to become a local lifetime member and never have to speak with us again. There is a cost of course (\$300 - but if you are still young, this could become a very good deal indeed).

Or you can do something vastly more interesting: become a lifetime member and fully participate in the life of your chapter, enriching our programs and your own social, educational and volunteer activities at the same time.

Last August the Boulder County Audubon Board agreed to create a special local membership category for those of us who like the fidelity concept. Admittedly, it also applies to those who are a bit absent-minded and can't remember if they renewed or not (you'll never have to think about it again). Or it can help those who have suddenly decided that they really want to support one of our programs in a big way, and donate accordingly and generously.

You may be in your own category-no matter. If you'd like to renew for your lifetime (you can choose electronic or paper copies of the newsletter, though we highly recommend the former because of its color and extra material), please let us know. You can decide for yourself whether you'd like to be a hermit-or a special patron.

— Linda Andes-Georges

The Traveling Birder

by J.D.Birchmeier

In November 2011, I traveled for the fourth year to the Rio Grande Bird Fest in Harlingen, Texas. The birds of the lower Rio Grande Valley are pretty unique in the United States. All the participants in a Big Year stop there a couple of times to look for the Mexican immigrants that fly over, rather than wade across. The first year I went, I had ten lifers before leaving the parking lot at Bentsen State Park, and I had missed two! Needless to say, your first visit can be very productive, even without striving for the rarities.

The Rio Grande Bird Fest <http://www.rgvbirdfest.com/> is a reasonably priced festival; registration and one field trip a day will cost about \$300 for Wednesday thru Sunday. You get a welcoming reception (not to be missed, free drinks and food catered by the local culinary students), an afternoon reception every day with wine and snacks, a couple of talks and a tough quiz show on Saturday night, and a vendor area with all the major optics companies. They have a Big Sit on Saturday outside – a great opportunity to try out some of the vendors' spotting scopes and bins. The town is of decent size, has several of the decent chain restaurants, and some city parks that are designed for birding. The local Country Inn has a hot breakfast starting at 4:30 in the morning, then a free shuttle to the Memorial Center for the field trips (not bad for \$70/night). Most field trips are done at noonish, so if you don't have anything to do, ask around and form a small group and go out on your own. The attending birders range from "advanced beginners" to national experts. The speakers are of national reputation: Pete Dunne, Kevin Karlson, Greg Miller, Bill Clark, Jon Dunn.

My emphasis was on the birds I had never seen, so I went with Bill Clark on Wednesday in search of raptors – Zone Tailed Hawk, in particular. We went all over the Valley, finally finding one at Anzuladas Park, along with a lifer Carolina Chickadee. That afternoon, I went to South Padre Island Bird Viewing Center for shore/marsh birds and along the coast at Laguna Madre for shorebirds. I saw a nice covey of Bobwhite at Laguna, a couple of coyotes, and several deer – it turns out that the drought in Texas had made water a priority for the animals and they were lacking caution.

Thursday, it was climb in the bus and go to Norias, the southernmost division of the King Ranch, extending from the shore to the highway 15 miles inland. We tried for about 2 hours to call a ferruginous pygmy owl out into the open in three different spots, succeeding for about 10 birders on the bus, none of them me. We wound up with about 60 species. In the afternoon, I went to Estero Llano Grande State Park – a rose-throated Becard had been seen, and I wandered around for a couple of hours without success.

Friday, south of Brownsville to a Nature Conservancy site on the river, passing through the border fence on the way. If the American taxpayer ever saw this waste of money– there were openings in the fence for roads all over the place! The fence would be built in 20 foot long lengths in between 2 adjacent roads! Anyway, I got a lifer Hermit Thrush and saw a flock of 40 wood storks, one swallowing an 8-inch fish. We wound up with a solid 85 species from this trip, since we went out to Boca Chica on the coast for shorebirds. In the afternoon, I went back to Estero to try for the Becard again, and failed, again.

Saturday, off to Weslaco on the bus trip – Valley Nature center, Estero again, and a couple of other places. The variety of habitats is a goldmine of species, and we found over 110 for the morning, missing the Becard. I got to bird with Greg Miller, one of the original "Big Year" book birders (the computer geek). In the afternoon, I went to Laguna Atascosa NWR to scope the lake (turned out to help participate in the beginner birding class, which was there), then go along the coast again. You know – the osprey were dropping fish all over the place – I passed over a half dozen on the road.

Sunday was the chase van – they go out on the last day to find all the rare birds that were seen all week. I had given up on the Becard after three tries, so I opted for the South Padre Island chase van. There were 4 of us, including 2 leaders, and that proved to be a great choice, as the bushes around the Convention Center hosted lifer Magnolia Warbler and Chestnut-sided Warbler. A Clapper Rail was walking on a mud flat near the boardwalk, and a Fish Crow flew over. Later, we stopped at a neighborhood park and I got a great view of a Clay-colored Thrush at a drip and an Olive-sided Sparrow out in the open for a change. From 6 AM until 12:30, and 127 species for the group of 4 – power birding!

On the way home Monday, I wanted to go to Bosque del Apache NWR for the snow geese, but a little reading about birding areas of New Mexico led me to go up the valley at Animas Creek, NM for a Bridled Titmouse. I spotted a group of mixed sparrows, three of which proved to be lifer Rufous-crowned Sparrows. About a half mile further on, I was watching more birds in a flock, when that lifer Bridled Titmouse actually flew over the car and landed 30 feet away in a shrub. Then, I went to Bosque del Apache to watch the Snow geese and Sandhill Cranes. Something excited the geese, and about 10,000 took off, circled around, and landed again. Thrilling sight!

Global Warming Discussions in the News

The perceived economic effects of mitigating global warming have produced widespread reactions of denial and fear. These are nicely encapsulated by a quote from Roger Pielke, professor in the Environmental Studies Program at the University of Colorado. [1]

The iron law of climate policy: When policies on emissions reductions collide with policies focused on economic growth, economic growth will win out every time. Climate policies should flow with the current of public opinion rather than against it, and efforts to sell the public on policies that will create short-term economic discomfort cannot succeed if that discomfort is perceived to be too great. Calls for asceticism and sacrifice are a nonstarter.

An opinion piece by 16 scientists in the Wall Street Journal on January 27 prompted the most recent exchange. [2] They claim in this piece that "the oft-repeated claim that nearly all scientists demand that something dramatic be done to stop global warming is not true." They also claim a "lack of global warming for well over 10 years now."

This piece prompted a response from 38 scientists on February 1: [3]

Do you consult your dentist about your heart condition? In science, as in any area, reputations are based on knowledge and expertise in a field and on published, peer-reviewed work. If you need surgery, you want a highly experienced expert in the field who has done a large number of the proposed operations.

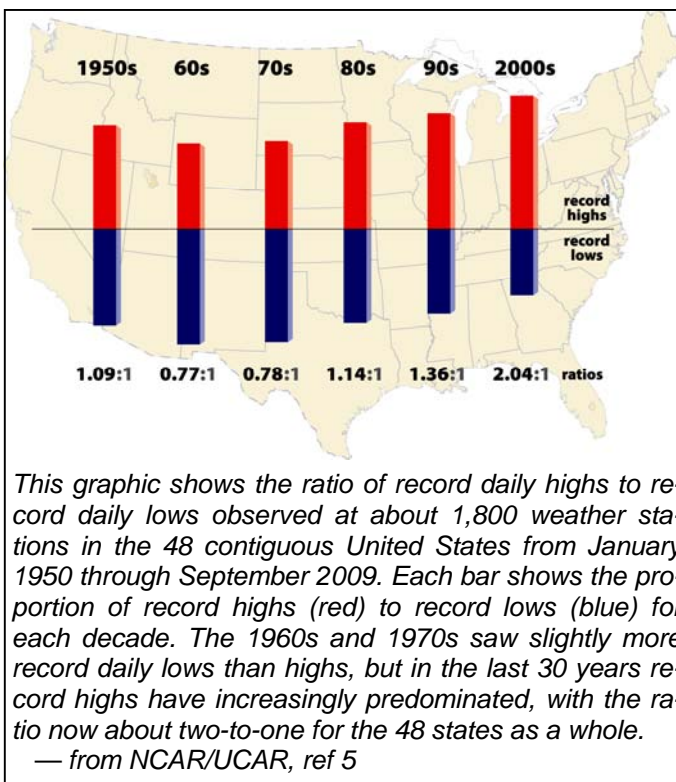
You published "No Need to Panic About Global Warming" (op-ed, Jan. 27) on climate change by the climate-science equivalent of dentists practicing cardiology. While accomplished in their own fields, most of these authors have no expertise in climate science. The few authors who have such expertise are known to have extreme views that are out of step with nearly every other climate expert. This happens in nearly every field of science. For example, there is a retrovirus expert who does not accept that HIV causes AIDS. And it is instructive to recall that a few scientists continued to state that smoking did not cause cancer, long after that was settled science.

They also point out that the long-term warming trend has not abated in the past decade. Observations show

beyond question that our planet is getting warmer, and the past decade is no exception. According to Peter Frumhoff, of the Union of Concerned Scientists, [4]

To take just one example, the authors claim there has been a "lack of warming" for 10 years. Here's what we know: 2011 was the 35th year in a row in which global temperatures were above the historical average and 2010 and 2005 were the warmest years on record. Over the past decade, record high temperatures outpaced record lows by more than two to one across the continental United States, a marked increase from previous decades.

An NCAR/UCAR website reports the results of a study that shows the warming trend in terms of the ratio of record high temperatures to record lows observed in the U.S. since 1950. [5] This is illustrated by the graphic below and the paragraphs on the top of page 9.



— continued on page 9

Become a Supporting Member of Boulder Audubon

We get very little return from National Audubon dues and have to rely primarily on local funding to support Boulder County Audubon society activities. Supporting memberships are just \$20 annually. You can join online or download a printable form to send with your check. Visit <http://www.boulderaudubon.org/about.htm#membership>.

Paper copies of the Nov-Dec, Jan-Feb, and Mar-Apr issues of *On the Wing* are mailed only to BCAS Supporting Members who request them. The electronic edition, available online, has color pictures and usually includes extra articles.

–NCAR/UCAR continued from page 8

A record daily high means that temperatures were warmer on a given day than on that same date throughout a weather station's history. The authors used a quality control process to ensure the reliability of data from thousands of weather stations across the country, while looking at data over the past six decades to capture longer-term trends.

This decade's warming was more pronounced in the western United States, where the ratio was more than two to one, than in the eastern United States, where the ratio was about one-and-a-half to one.

The study also found that the two-to-one ratio across the country as a whole could be attributed more to a comparatively small number of record lows than to a large number of record highs. This indicates that much of the nation's warming is occurring at night, when temperatures are dipping less often to record lows. This finding is consistent with years of climate model research showing that higher overnight lows should be expected with climate change.

I'll conclude with another quote from Roger Pielke.

Pretty much everyone — even cap-and-trade advocates — agrees that innovation in energy technology must be at the center of any effort to accelerate decarbonization of the global economy. However, if we do not have all the technologies we need to quickly accelerate rates of decarbonization, then the only other driver of emissions reduction is a reduction in GDP. Yet if reducing GDP is not politically possible, then what necessarily must give way is the commitment to reducing emissions. That logic says emissions will continue to rise even in the presence of a cap-and-trade program if technologies are not ready at scale to rapidly accelerate decarbonization. To think that politicians are going to willingly impose discomfort or pain on their constituents is fanciful at best.

– G. Oetzel

References

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Climate-Change Education Campaign

It appears that climate-change education has become the new evolution, with a well-organized campaign by several interest groups to "teach the controversy". The National Center for Science Education (NSCE), in Oakland, CA, has announced that it is going to take on climate education as well.

After hearing an increasing number of anecdotes about K-12 teachers being challenged about how they taught climate science, NSCE director Eugenie Scott says that she sees parallels between the evolution and climate debates.

A survey in September of K-12 teachers by the National Science Teachers Association suggested that attacks on climate education are not rare. NSTA found that over half of the respondents reported having encountered global warming skepticism from parents, and 26% had encountered it from administrators.

A Feb 15 article in the New York Times describes documents from a nonprofit organization in Chicago, called the Heartland Institute, which plans to promote a curriculum that would cast doubt on the scientific finding that emissions endanger the long-term welfare of the planet.

The Heartland documents say that it expects to raise \$7.7 million this year. This underscores the NSCE concerns that the forces arrayed against climate science are more numerous and better funded than creationism supporters. In addition, they are better able to get their message displayed in mainstream media than creationism supporters.

Government organizations such as the National Oceanic and Atmospheric Administration (NOAA), spurred by the 2007 America COMPETES Act, have already been making an increasing number of training programs available for teachers to learn about climate change from NOAA experts. Climate education, says Frank Niepold, education lead of NOAA's Climate Program Office, is "core stuff, not just a fashionable blip." For science education to work, it has to be to be relevant, he says, and "you can't miss this topic. The student body wants to know." Adds National Ocean Service education chief Peg Steffen, "If teachers feel pressure, it's from inquisitive students."

Education Advocates Enter the Climate Tempest
Science Insider: <http://bit.ly/wrWwD0>

Leak Offers Glimpse of Campaign Against Climate Science—New York Times about Heartland Institute:
<http://nyti.ms/xGVQRt>

NOAA education: <http://bit.ly/zStw8o>