



The Stilt

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Newsletter of the Bridgerland Audubon Society

Bridgerland Audubon's Fall Quarterly Event

Sulfur Skies and Fake Trees:

Can We Geoengineer Our Way Out of the Greenhouse?

Tom Wigley is one of the world's leading climate scientists. Based at the National Center for Atmospheric Research, Tom Wigley is one of a handful of researchers looking seriously at "geoengineering"--the deliberate technological intervention into climate processes in order to cool the planet. Geoengineering ideas include spraying sulfur compounds into the stratosphere and brightening marine clouds with seawater droplets in order to reflect more sunlight back into space, as well as building artificial trees to capture carbon dioxide directly from the air. Could geoengineering buy us more time to reduce emissions? What are the consequences of geoengineering? Is it a last resort or part of a suite of options? Is geoengineering our "best hope" and our "worst nightmare," as one science writer puts it? Come find out.

"...the task of stabilizing the climate system at an acceptable level may be more difficult than is generally perceived, and that some form of geoengineering may be required..."
-Tom Wigley

Thursday, Nov. 4, 4:40 at the Sunburst Lounge
Taggart Student Center, USU Campus

Free and open to everyone.
Parking at the parking terrace
just north of the TSC.

Tom says this about his talk and his subject: "Geoengineering' is the deliberate technological intervention into climate processes in order to reduce or offset the effects of anthropogenic global warming. There are two different strategies: Solar Radiation Management (SRM), which seeks to reduce the amount of energy coming in from the Sun; and Carbon Dioxide Removal (CDR) which seeks to remove carbon dioxide from the atmosphere. Both are seen as complementary to the more traditional method of reducing future climate change through mitigation, i.e., by reducing the emissions of CO2 either by moving towards carbon-neutral energy sources or by capturing CO2 emissions at their sources and sequestering these in some way.

This talk will begin with a review of the state of the climate system. I will then describe modeling strategies that are used for projecting future changes. I will summarize future changes in climate and sea level that might occur in the absence of mitigation policies, and under policies directed towards avoiding dangerous

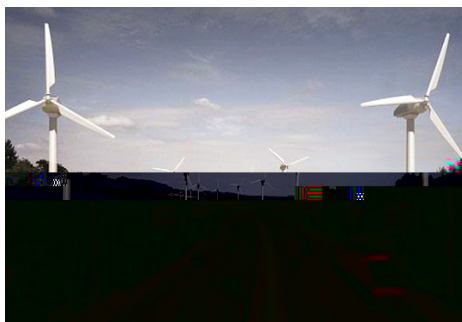
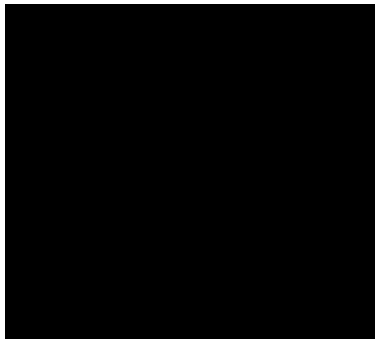
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interference with the climate system. I will argue that the task of stabilizing the climate system at an acceptable level may be more difficult than is generally perceived, and that some form of geoengineering may be required. Geoengineering should be viewed primarily as a means of giving more time to develop and implement the technologies required to stabilize the climate, not as a panacea or substitute for mitigation. I will illustrate some geoengineering scenarios using a simple climate model and show that, when geoengineering and mitigation are used in tandem, the possible detrimental effects of geoengineering are minor.”



NRDC Steps Up in Fight Against the Proposed Alton Mine Near Bryce

Every year, thousands of visitors to Bryce Canyon National Park in southwestern Utah experience the park's unforgettable rock formations, panoramic views, pristine air and clear night skies. But now that Utah regulators have approved a proposed strip mine near the park, that unique visitor experience could soon become a thing of the past. The Alton Development Company has plans to strip coal from 600 acres of private lands adjacent to Bryce Canyon, producing two million tons of coal annually, and is hoping to eventually expand the project to thousands of acres of surrounding federal land in southern Utah. Local residents, conservation groups and tourists are

concerned about the potential air and noise pollution from the mine, especially in such close proximity to the national park. Several environmental groups including NRDC have appealed the state's approval of the mine's permit. A decision on the appeal by the Utah Board of Oil, Mining and Gas is expected soon. In the meantime, urge Utah Governor Gary Herbert to drop his support for the mine. The Governor's office can be e-mail at:

http://governor.utah.gov/goca/form_governor.html

Audubon Calendar

November 2010

4 Tom Wigley on sulfur skies and fake trees...See cover story for more information about this program, our second quarterly Bridgerland Audubon Society event! This will be a compelling talk about the state of the climate and how “geoengineering” may buy us more time to move to a lower-carbon economy. Tom is a leading climate scientist affiliated with the National Center for Atmospheric Research. The talk will begin at 4:40 at the Sunburst Room of the Taggart Student Center on the USU campus. Public parking is available in the parking terrace right next door. The event is free and open to the public—and to the open-minded.

6 13th Annual Stokes Nature Center Dinner and Fundraiser. This is their lucky year. Think Green! Costume prizes for “Most Green,” “Luckiest,” “Most Sustainable,” “Most Self-Powered,” and “Lucky Lady”! Tickets online at www.Logannature.org, or at Fuhriman’s Framing & Fine Art (75 S. Main, Logan), the CNR Dean’s office at USU, and at the Stokes Nature Center. This is the original dinner and auction. Don’t miss it!

11 The History and Lore of Logan Canyon. Sponsored by the Mountain West Center at Utah State University, this free program will explore stories of Logan Canyon, from Old Ephraim to the first dam on the Logan. USU Library Room 154 from 4-5 p.m. Hosted by USU’s Elaine Thatcher.

13 Birds of Antelope Island. Join us on a trip to Antelope Island State Park as we look for some of the early-winter specialties of the Great Salt Lake. The Antelope Island Causeway is the best place in the state to see rare birds like Long-tailed Ducks, all three scoter species, and rare gulls like Little Gull, Lesser Black-backed Gull, and Black-legged Kittiwake (all of which were seen in November last year). On the island itself we will look for other winter specialties like Rough-legged Hawks, and Merlins. If time and interest allow, we will continue to Garr Ranch at the south end of the island to look for songbirds. Meet at the parking lot in front of Cafe Ibis at 8 a.m.; we will carpool from there. Bring a snack or lunch and a few dollars to help cover the cost of the drivers’ gas and the \$9 per vehicle entrance fee.

December 2010

18 Mark your calendar for the 111th Logan Christmas Bird Count Watch for details in the December Stilt. For more information on our CBC or to volunteer to help, contact Bryan Dixon, 752-6830, bdixon@xmission.com.

Audubon’s Annual Birdseed Sale

Nov. 20, 9-noon.
2nd North and Landfill Road
Buy seed, have free coffee and enjoy good chat.
Charge for a 50-pound bag of sunflower seed will be \$20.
Five dollars will be added to the price for seed purchased and delivered after this date.

Support local farmers, your chapter--and the birds!



USU Sustainability Week on Tap

Events and talks will take place starting Nov. 1 on the USU campus. As of this writing, the program was not finalized but for more information go to:
<http://sustainability.usu.edu>

Utah Bioneers Evening at the Tabernacle

October 29th

Free and open to the public
from 7:00 p.m. to 9:00 p.m.

The Utah Bioneers will hold its 5th annual “Evening at the Tabernacle” on October 29th from 7:00 p.m. to 9:00 p.m. at the Tabernacle in the heart of Logan. Our “Evening at the Tabernacle” is open to the public at no cost and is produced by the Utah Bioneers Sustainability Conference which will be held on November 5-6 at the Eccles Conference Center on the campus of Utah State University. (Visit our website at: <http://bioneers.usu.edu> for more conference information.)

We are pleased to announce that through the offices of Presiding Bishop David Burton we are able to bring to Logan two of the more prominent architects and engineers in the country who have been incorporating environmentally friendly building designs and materials in their project work across the country and internationally.

One, Bill Williams, leads the architectural and engineering team constructing the massive LDS commercial redevelopment project on 20 acres in the heart of Salt Lake City known as the City Creek Center. The other, Jared Doxey, is the Director of Architecture, Engineering and Construction for all LDS meetinghouses worldwide. Under construction, or completed, are five new church meetinghouses that are working to be Silver LEED Certified. Three of those meetinghouses are 100% solar powered!

If you want to hear from two individuals who are at the very heart of cutting edge architecture and engineering, including green building, you aren't going to want to miss this presentation.

We're very fortunate to have both men keynoting our Utah Bioneers “Evening at the Tabernacle.” It's our gift to beautiful Cache Valley.

We will open our “Evening at the Tabernacle” program with exciting information about renewable energy programs the City of Logan is working on. Jeff White, Logan City Light and Power Director and Emily Malik, the city Environmental Coordinator will update our audience with these exciting new programs. You are going to be impressed with what Logan City has been working on.

The Church of Jesus Christ of Latter Day Saints incorporates green building design and materials in new and existing structures worldwide.



7th Annual UTAH BIONEERS Revolution from the Heart of Nature

Sustaining People in a
Changing Landscape
Pioneering Positive Change

October 29 | 2010
Utah Bioneers Evening at the Tabernacle

Register Today at <http://bioneers.usu.edu>

November 5-6 | 2010
Eccles Conference Center
Utah State University | Logan, Utah

From the National Conference

- Anthony Cortese - Leonardo daVinci to Higher Education: Lead us to survive and thrive
- Mary Gonzales - The Environment and its Relationship to Equity and the Economy
- Gary Hirshberg, CEO Stonyfield Farm - Win7 Economics: Restoring Natural Order as if People and the Planet Really Mattered
- John Warner - Intellectual Ecology: Green Chemistry and Biomimicry
- Gloria Feldt - Riding the Leadership Wave
- Andy Lipkis - Engaging Nature and Community to Protect and Heal
- Dr. Jane Goodall - Gombe and Beyond: The Next 50 Years
- Malika Dutt - Changing the Frame: Media, Arts and Culture as Tools for Public Dialogue
- Dr. James Hansen - Human-made Climate Change: A Moral, Political and Legal Issue
- Elizabeth Lindsey - Navigating an Ancient Future: The Compass of Traditional Ecological Knowledge
- Jessica Rimington - Mobilizing the World's Youth
- Peter Warshall - Dreaming New Mexico: An Age of Local Foodsheds and a Fair Trade State

Local Highlights

- Dr. Jim MacMahon - Predicting the Unpredictable: the National Ecological Observatory Network (NEON)
- Bryan Dixon - Responsibility for Backyard Rivers: Protecting Through Partners
- USU's Algae Renewable Energy Project at the Logan Lagoons
- Ed Stafford & Cathy Hartman - Wind Uprising: Spanish Fork Wind Farm Development
- Annette Herman - Swanner EcoCenter report
- Robert Davies - Climate Change Communications
- Youth Conservation Corps Bilingual Program
- Know Your Farmer - Know Your Food: Buy Local

...Local 2010 Bioneers award and much more!

Local Bird Spotlight

Heckle and Jeckle of Cache Valley

After Last month's Stilt article on cartoon birds brought back some fun memories of the mischievous cartoon magpies, Heckle and Jeckle. Now, looking back at these characters through the prism of a 50-year-old-birder, I see the tribe of magpies that live on my place take on the role of the cartoon characters, with me as the focus of their pranks. Paul Terry, creator of Heckle and Jeckle, probably lived with magpies too, and understood the nature of the beasts. Magpies and other members of the Corvid Family of birds, especially ravens and crows, seem to have an intelligence that gives them more of a fun-loving, human-like personality than most birds.

The Black-billed Magpie (*Pica hudsonia*) is a familiar bird around Cache Valley and much of the Western U.S. Once thought to be the same species as the nearly identical European Magpie, it is now considered a separate species probably more closely related to the Yellow-billed Magpie found in California. Its large size and characteristic white and black coloration make this an easy bird to identify and observe. Also, magpies tend to be very comfortable living around people, especially in rural, agricultural areas where their conspicuous and often times unruly behavior can sometimes make them an unwelcome member of the local avian community.

Magpies are omnivorous and have a widely variable diet that includes insects, small mammals, carrion, fruit and seeds. They are also very opportunistic foragers and have even been reported to consume flesh from the wounds of living animals. They do use bird seed put out in bird feeders and especially love suet. Many birders detest magpies as they often drive

other birds away from feeders. They have also been observed preying on eggs and young birds from unprotected nests. I know from personal experience, that they also eat chicken eggs, but have never witnessed a magpie actually break a chicken egg. They will also help themselves to Meow Mix™ and Alpo™ too.

Black-billed magpies appear to mate for life, but can take on a different mate if one of the pair dies. For people living in the West that have any disposition towards observing the natural world, the magpie nest is a familiar site in hedge rows and other trees surrounded by open land. Nests that are not disturbed are often reused from year to year and can reach up to 4 feet in depth where they have been rebuilt for many years. Anyone that has tried to dismantle a magpie nest can appreciate the durability and security that these structures provide for the nestlings. Abandoned nests are occasionally used by other species such as owls and hawks.

I have two active nest sites on my small farm, and watch each year as the magpies go through the business of courtship, nest repair, egg laying and incubation. The young magpies, often three or four from each nest, begin fledging in late May. At that point forget about any peace and quite as the young pies bumble around the yard screaming for food – *Yak, Yak, Yak, Yak* and the parents, working their amazingly long tails off, try to feed and protect their young. Our dogs and cats are constantly being mobbed during this time and often start exhibiting signs of stress, going out of their way to avoid anything that is black and white. As the juveniles mature they begin grouping into small flocks. I watch as they try to hang out and find new nesting sites and territories, but are mostly driven out by

the adults who have already established territories and built nests. I do have a sizable contingent of magpies, probably extended family groups, that hang out with me all winter, helping themselves to whatever they can and roosting in spruce trees and outbuildings during the long winter nights.

Twenty species of magpies occur across North America, northern Africa and Eurasia. It seems that their conspicuous, gregarious, often times raucous behavior is fairly ubiquitous across the different species. This, along with their tendency to live among people, has led to a lot of magpie myth and symbolism throughout human history. They are generally considered symbols of good fortune, but sometimes not. I was fascinated by all of the lore surrounding this bird well as other Corvids. If you want to check out some magpie myths, <http://www.wisdomportal.com/Magpie.html>, is a fun internet site. YouTube also has some fun video of magpies talking and engaging in other unusual behavior. I remember as a youth, living in Rifle, Colorado, knowing a friendly, talking magpie that used to hang around town looking for handouts.

Whether you love them or hate them, magpies are a part of the landscape here in our valley. Despite the fact that they drive me crazy on occasion, I find magpies interesting birds and enjoy living with them and watching their antics. Every now and then I come around a corner, freeze and find myself locked eye to eye with one of the resident pies and see the twinkle in its eye. Is it Heckle or Jeckle and what prank it is thinking up now?

—Bill Masslich

Welcome to BAS

New Members

Elisabeth Laron
Kim Bodrero
A.J. Butler
Ralph Roylance

Rejoining Members

Dr. E.H. Berry Laughlin
G.W. Beus
Richard & Virginia Ratliff
Marjorie Simard

Renewing Members

Edward & Deborah Evans	Dianne Morris-Masten
Rebecca Huffman	Pam Riley
Thomas Hull	Earl Sullivan
Patsy Palacios	David Wallace
D. Reeder	Hillary White
Shirley L. Rees	

Bridgerland Audubon contacts

Trustees

2008-2011 Jim Cane, 713-4668; William Masslich, 753-1759; Richard Mueller, 752-5637

2009-2012 Ron Goede, 752-9650; Frank Howe, 787-1859; Robert Schmidt, 755-9262; Bret Selman, 257-5260

2010-2013 Chris Cokinos, 245-7769; Jack Greene, 563-6816; Reinhard Jockel; Ryan O'Donnell, 232-8146

Bridgerland Audubon Contacts

President Val Grant, 752-7572, biores@mtwest.net
Vice Pres. Open:
Secretary Open:
Treasurer Jennifer Hoffmann, 713-4935, jennifer.hoffmann@comcast.net
Asst. Treasurer Susan Drown
Outings Reinhard Jockel, birderjockel@gmail.com
Conservation Richard Mueller, 752-5637, rmueller@biology.usu.edu
Education Jack Greene, 563-6816, jackisgreene@yahoo.com
Newsletter Chris Cokinos, 245-7769, chris.cokinos@usu.edu
Circulation Susan Durham, 752-5637, sdurham@cc.usu.edu
Sanctuary Jim Cane, 713-4668, jimcane@cc.usu.edu
Hotline Nancy Williams, 752-4780, nanwill@cc.usu.edu
Webmaster Ryan O'Donnell, 232-8146, ryan@biology.usu.edu
Webhost www.xmission.com

Membership in the Bridgerland Audubon Society includes a subscription to *The Stilt*, as well as *Audubon* magazine. The editor of *The Stilt* invites submissions, due on the 10th of each month. Send to chris.cokinos@usu.edu.

National Audubon Society Chapter Membership Application

Yes. I'd like to contribute to Audubon and receive the Bridgerland Audubon newsletter, *The Stilt*, and the *National AUDUBON* magazine, as a:

_____ **New** member of the National Audubon Society and Bridgerland Audubon.

My check for \$20 is enclosed (this is a special first-year rate).

Name _____

Address _____

City _____ State _____ ZIP _____



Please send all checks payable to National Audubon Society with this card to:
 National Audubon Society
 PO Box 422250
 Palm Coast, FL 32142-2250
 Membership Source Code: COZW520Z

National Audubon occasionally makes its membership list available to selected organizations. To have your name omitted from this, please check this box.

Note to new National Audubon members: To get on *The Stilt* newsletter mailing list without the usual 8-week delay, contact Susan Durham, 752-5637, sdurham@cc.usu.edu.

Prefer the local newsletter only? Send \$20 (make checks payable to Bridgerland Audubon Society) and this form to: Bridgerland Audubon Society, PO Box 3501, Logan, UT 84323-3501 for a subscription to *The Stilt*.



The *Stilt*

Newsletter of the Bridgerland Audubon Society

P.O. Box 3501

Logan, Utah 84323-3501

Email: birdnerdut@gmail.com

Visit our website: <http://www.bridgerlandaudubon.org>

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Teton Splendor

You may have heard of Audubon International, a separate entity from National Audubon, which works with golf courses to make them more wildlife/bird friendly. Bridgerland Audubon came close to launching International Audubon as we assembled for our fall migration to the Grand Teton National Park to view what is arguably the most stunning fall scenery and wildlife spectacles on the North American continent.

Seven countries were represented in our motley crew of USU students and BAS regulars- Mongolia, China, Venezuela, France, Italy, and Guatemala, along with 8 U.S. citizens. Many were quite new to our country, and most had never visited the Tetons, nor knew of Audubon. So it was a steep learning curve for many, including a bit of tutoring on the English language.

But as the magic of fall splendor, moose to touch (but we didn't dare!), plenty of additional large ungulates strutting their stuff, and black bears feasting on hawthorn, chokecherry, rose hips, and service berry, their hearts were stolen! To this, we tacked on superlative hikes to Hidden Falls in Cascade Canyon, Granite Canyon, and a visit to the Teton Science School Murie Museum and new park visitor center, all of which were well received. We only lost one experienced BAS attendee and hiker, but rediscovered him later in the day to his chagrin and to sooth our anxiety.

The birding was less spectacular, but all comers were appreciated. No surprises and we missed seeing Reinhard's goshawk which was our bird of the fieldtrip last year. Many new friendships were formed which we hope to continue, and I received a lovely gift from the Mongolian representative on the Steppe wildflowers and grasses of her country. May the cultural and biological exchange continue!

— Jack Greene