



We Love the Flint Hills: Join Us on Valentine's Day!

On Valentine's Day, we invite you to taste of something more than chocolate: come to the **Flint Hills Discovery Center (315 S 3rd St)** for an immersion into the rich natural and human history of the region. If you've never been to Manhattan's beautiful, soaring museum, with its "Four-D" film of the Flint Hills and many interactive exhibits, now is your chance.

NFHAS will be sponsoring admissions for anyone who wants to come and learn about our amazing ecosystem. We will meet at **2 p.m. on Sunday, February 14**, in the lobby of the Discovery Center for a brief welcome and greetings. We will first experience the amphitheater film as a group: "Tallgrass Prairie: Tides of Time," approximately 15 minutes, and then you may explore two floors of exhibits on your own, or with others, including a temporary specialty exhibit, "A View From Space." (Mezzanine Gallery- a new, highly interactive, hands-on science exhibit, see the world from a satellite's perspective.) Elevators are available. If the weather is good, stepping out onto the overlook deck will provide an unusual view of our valley.

Anyone, any age may come, including children or grandchildren and guests who are not members of NFHAS! **Please RSVP by Feb. 12 - email tom.morgan@juno.com, or by phone contact Patricia Yeager 776-9593 or Cindy Jeffrey 565-3326.** February can be a bitter month here. If you are longing to see spring wild flowers blowing on the prairies or to hear a meadowlark again, please join us. The immersion film experience is unlike anything you have ever seen before on our Flint Hills, and you will be able to test your knowledge of birds, grasses, and wildlife through hands-on exhibits.

Northern Flint Hills Audubon Society,
P.O. Box 1932, Manhattan, KS 66505-1932



prairie falcon

Northern Flint Hills Audubon Society Newsletter

Vol. 44, No. 6 ~ February 2016

As I prepared this newsletter to send to the printer, I received an email from Jilll Haukos, Director of Education, Konza Prairie Biological Station, about the passing of Hoogy Hoogheem. I am so very sad to hear that our former president, long-time birder, and friend is gone. My heart aches for his family - especially Carol. Christmas bird counts are just not the same.

We will dedicate our March newsletter to Hoogy. If you have any stories about Hoogy you would like to share, please send them to me (email - cinraney@k-state.edu, or 15850 Galilee Rd., Olsburg, KS 66520)

He introduced me to my first winter wren, merlin, and vesper sparrow. I think of him every time I see a sparrow I can't identify. "Hoogy help me out here."

cindy jeffrey



Skylight plus

Pete Cohen

When in high school right after WWII I daily walked a suburban mile and a half each way, including a quarter mile cut through a narrow pond-side woods. I could've ridden a street bus most of the way, minus the woods, but I enjoyed walking, except when one of those buses passed me at street-side. I knew there were many other such machines in the world and I wondered at the time how much acrid exhaust our atmosphere could absorb before reacting.

I might've done some research on just how many buses, using how much fuel, with what efficiency (which would've been quite possible even before the Internet) and written an erudite letter to the *Times*, posing that forewarning question. Then fifty years later, in the 1990s, when the drip of such observations had puddled largely enough to make the front pages, I could've called up that letter expecting perhaps five minutes of fame for having been such a prescient teenager.

And I likely would've learned (as Wikipedia tells me now) that I was not alone. That there were considerations and concerns raised dating back to Joseph Fourier in 1824, who first applied laboratory experiments of Horace-Benedict de Saussure to the atmosphere. Then in 1838 Claude Pouillet put forth a "memoir" proposing that rays from the Sun and stars could reach Earth easier than rays emanating from Earth could get back to space. In 1859 John Tyndal, followed in 1896 by Svente Arrhenius, presented more specific evidence that water vapor, carbonic acid (CO₂), and methane could absorb more energy than oxygen or nitrogen and therefore human activities could alter and thus regulate, the temperature of the planet. Tyndal's work first appeared a few months before *The Origin of Species*, and our Chamber's Encyclopedia remarked in the 1890s that Tyndal's "materialistic tone raised keen and long-lasting controversies".

At the turn of the century Gustaf Ekholm pointed out that (the then) present rates of burning coal could double the concentration of CO₂ and cause "a very obvious rise in the mean temperature

of the Earth...could regulate the future climate to prevent the arrival of a new ice age". In 1917 Alexander Graham Bell warned against the unchecked burning of fossil fuels and suggested more use of the Sun.

Now, nearly 100 years later, at December's 2015 United Nations Climate Change Conference representatives from 195 countries have agreed that emissions must not be allowed to cause our temperature to rise over 2° C., or 3.56° F., by 2100--or else. Since the Earth doesn't function consistently, 1° C. or 1.78° F. would be considered to be within normal variation. Low-lying island nations, and drought-prone inland ones, had argued for a 1.5° C., or 2.67° F. goal. *Goal* seems to me the operative word, for the challenges of getting the science, politics, economics, and hands-on possibilities to line up seem bedazzling. Yet, because 2016 is a leap year, there'll be an extra day this year to address the situation.

Ahead this month in the night sky, among the planets only Jupiter will be prominent, rising a couple hours after dark in Leo, and gradually earlier, to career through the nights as the brightest object aloft, except for the Moon. Mars, though, will rise in Libra after midnight and gradually grow more noticeable. Venus and Mercury, both in Sagittarius, will be brief creatures of the dawn, low in the SE, neighboring the Moon on the 6th.

Meanwhile the bright winter stars of winter will still be on full display, shifting westward with Aldebaran, Taurus' red eye, leading Capella in Auriga (more to the north) and Orion's array (more to the south), which in turn are followed by the brightest star, Sirius, in the Big Dog, and north of it, Procyon, sparkling as almost the only star of the Little Dog, and north of it the long assembly of Gemini with the twin stars Castor (above) and Pollux at the trailing end. On the 26th the Moon will help identify Virgo's main star, Spica, by appearing to its left at mid-evening. Arcturus, the anchoring star of Bootes, rising later, rather halfway between Spica and Alkaid at the end of the Big Dipper's handle, will have to declare itself essentially alone.

The Chinese Year of the Monkey begins the 8th. The Chinese calendar is based on Moon cycles, and the Moon will be new at 8a39, and full the 22nd at 12p20.

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Breaking Ice

Dru Clarke



Chores in winter are complicated by ice that forms in the water tanks overnight. There are eight separate ones, each to accommodate one stallion or a flock, fold or herd of animals. Usually breaking a hole to create a small, open pool where a muzzle or beak can suck up the frigid liquid suffices. The rim ice from previous days, lays down strata that melt together and float like a berg in the tank. Blown hay and grain, an occasional feather or hair,

are embedded in it, like fossils in amber, and could, if the ice were preserved, inform future generations or what life was like on this small parcel of land.



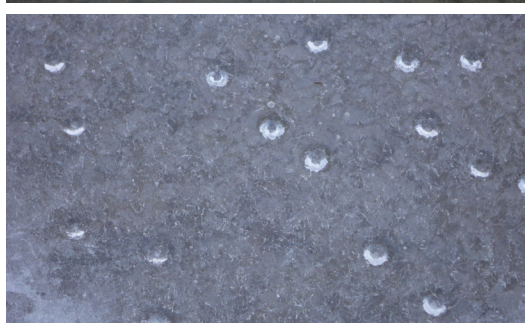
Ice – surprisingly considered a true mineral due to its specific chemical composition and structure – is a rigid hexagonal latticework of water molecules whose polarity allows them to cling to one another, or, at least, “hold hands.” (The two hydrogens and one oxygen atom are configured to resemble Mickey Mouse.) When water’s temperature drops to 32 degrees Fahrenheit (0 degrees Celsius), it becomes the solid we call ice. Ice floats on liquid water because its specific gravity (density) is 0.9, while pure water’s is 1.0. Sea water, because of the salt content, has a lower freezing temperature than fresh water. Surface ice on polar seas is fresh; the salty water, being more dense, sinks beneath it. Interestingly, water is most dense at 39 degrees Fahrenheit, a temperature seven degrees above freezing, so most deep ponds and lakes don’t freeze all the way to the bottom. Aquatic life should be grateful for this.



Our north creek has been partially frozen recently, and has developed some odd ice sculpting caused, in part, by the rubble substrate and debris dams as well as the course of the water. In the “thalweg” (the deepest part of the stream where the current runs fast) the mica-thin sheet of surface ice has been stretched into a bizarre, mythic etching, as if some recently departed soul had been captured as it escaped the flow. Other formations look like Victorian lace, a shredded silk scarf, or the mouth on the comedic mask of thespians. In one reach, bubbles the size of pearls are trapped in the ice, evidence of some biological activity continuing even in this forbidding season.



Our pond froze first in the shallows, then over the deeper holes. A line demarcates the changing depths and persists even as thaw begins. Last year, a pattern like neurons formed, the determining force unknown to us. Wildlife have eschewed the pond now and have found the perennial spring that feeds into our south creek.



One year a young fox squirrel drowned in one of our big water tanks; it was unable to grip the slippery ice. Now, I’ve tied a mesh bag that dangles in the water to the faucet that fills it to provide purchase for some hapless swimmer. A friend lost his dog who fell through thin ice on a deep creek: the ice became too thick and the current too strong for him to rescue the struggling creature. We are wary when our companions venture near ice-covered bodies of water: they can wait until spring to swim again.

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Birding Festivals ...



Audubon NEBRASKA

Crane Festival

We are already anticipating with great excitement the internationally celebrated migration of 500,000 Sandhill Cranes through central Nebraska. Thousands of people from all over the world come to witness this amazing, life-changing wildlife event. We hope this year you will choose to be part of this experience by registering for Audubon's Nebraska Crane Festival, to be held **March 17-20, 2016, in Kearney, Neb.**

Featured speakers this year are Thomas D. Mangelsen and Paul Johnsgard, Ph.D. On Saturday evening during the banquet, they will present their new book, "A Chorus of Cranes," followed by a book signing.

Details on speakers, field trips, and other activities for the upcoming festival will be updated on this site as information becomes available. See activity descriptions on this website now, for more information and registration: <https://nebraskacranefestival.org/field-trips/>



Kansas Birding Festival

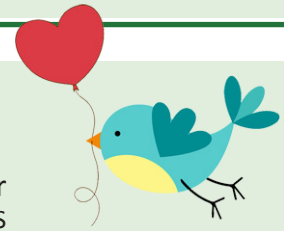
April 29-30, 2016

Plan now to attend the Kansas Birding festival in 2016. Over 300 species of birds can be seen in the Milford Lake area. This area is rich in birding opportunities during the latter part of April.

Not only are there native birds who inhabit the area year round, but it is the prime season for birds that migrate. Combine this with Milford Lake, the wetlands, and the native prairie; and you have the best locations in America for bird sightings.

For more information go to: <http://www.kansasbirdingfestival.org/>

Take Note



Upcoming Events

Feb 1 - Board Meeting 6 p.m.

Home of Tom & MJ Morgan

NOTE: Board meetings are now
back on first Monday of the month

Feb 14 - Discovery Center Tour

315 S 3rd St, Manhattan, KS

See top of front page

Feb 13 - Sat. morning birding -

Meet at Sojourner Truth Park at 8 a.m.

Feb 12-15 - Great Backyard Bird Count

Great Backyard Bird Count

February 12-15, 2016

All ages count birds!

go to <http://gbbc.birdcount.org/>



The Great Backyard Bird Count (GBBC) is a free, fun, and easy event that engages bird watchers of all ages in counting birds to create a real-time snapshot of bird populations. Participants are asked to count birds for as little as 15 minutes (or as long as they wish) on one or more days of the four-day event and report their sightings online at birdcount.org. Anyone can take part in the Great Backyard Bird Count, from beginning bird watchers to experts, and you can participate from your backyard, or anywhere in the world.

Each checklist submitted during the GBBC helps researchers at the Cornell Lab of Ornithology and the National Audubon Society learn more about how birds are doing, and how to protect them and the environment we share. Last year, more than 140,000 participants submitted their bird observations online, creating the largest instantaneous snapshot of global bird populations ever recorded.

The 19th annual GBBC will be held Friday, February 12, through Monday, February 15, 2016. Please visit the official website at birdcount.org for more information and be sure to check out the latest educational and promotional resources.

You can have a voice:

Volunteer to be on a Manhattan City Advisory Board:

<http://cityofmhk.com/437/Advisory-Boards-Committees>

Aggieville Business Improvement District Advisory Board

Board of Zoning appeals

Cemetery Board

Douglass Center Advisory Board

Downtown Business Improvement District Advisory Board

Flint Hills Discovery Center Advisory Board

Manhattan Urban Area Planning Board

Social Services Advisory Board

Special Alcohol Advisory Board



Northern Flint Hills
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P.O. Box 1932
Manhattan, KS
66505-1932

Non-profit Organization
U.S. Postage Paid
Permit No. 662
Manhattan, KS 66502

Return Service Requested

Published monthly (except August) by the Northern Flint Hills Audubon Society, a chapter of the National Audubon Society.
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Also available on-line at www.ksu.edu/audubon/falcon.html

Membership Information: Introductory memberships - \$20/yr., then basic, renewal membership is \$35/yr. When you join the National Audubon Society, you automatically become a member of the Northern Flint Hills Audubon Society. You will receive the bimonthly Audubon magazine in addition to the Prairie Falcon newsletter. New membership applications should be sent to **National Audubon Society, PO Box 422250, Palm Coast, FL 32142-2250**. Make checks payable to the National Audubon Society and include the **code C4ZJ040Z**. Questions about membership? Call 1-800-274-4201 or email the National Audubon Society join@audubon.org. Website is www.audubon.org.

Subscription Information: If you do not want to receive the national magazine, but still want to be involved in NFHAS local activities, you may subscribe to the Prairie Falcon newsletter for \$15/yr. Make checks payable to the Northern Flint Hills Audubon Society, and mail to: Treasurer, NFHAS, P.O. Box 1932, Manhattan, KS, 66505-1932
RARE BIRD HOTLINE: For information on Kansas Birds, subscribe to the Kansas Bird Listserve. Send this message <subscribe KSBIRD-L> to <list serve@ksu.edu> and join in the discussions.

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