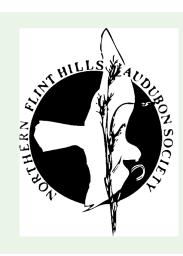
ANNUAL PLANNING MEETING AND POTLUCK!

Please join us in planning the next year for the Northern Flint Hills Audubon Society. Our meeting will be June 30th at 4:00 p.m. at the home of Patricia Yeager. (5614 Bayers Hill, Lake Elbo, pyky@ flinthills.com 776-9593)

We need **ideas** and we welcome all. If you have ideas for activities and programs, but can't make the meeting send them to one of the board members (see back page).

We follow the meeting with a great potluck social.

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



prairie falcon

Northern Flint Hills Audubon Society Newsletter

Vol. 41, No. 10~ June 2013

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Upcoming Events

- Jun 3 Board Meeting 6 p.m. Carla Bishop Home
- Jun 8 Saturday Birding 8 a.m. Meet Sojourner Truth Park (Cancelled if raining)
- Jun 10 Butterfly Garden Cleanup 6:30 p.m.
- Jun 30 Annual Planning Meeting & Potluck Home of Patricia Yeager



Skylight plus Pete Cohen

Last month began a report on a new book titled "The Whole Story of Climate," by E. Kirsten Peters, which describes the whole story of climate as

being one of ever increasing knowledge of the details of the past, knowledge that lacks a good deal of the Why, and therefore is limited in its offer of what might happen in the future. But the story that's told of what we have learned is worth knowing.

While making a central point that climate is forever changing, consideration is also given to the changing way that knowledge of it has been obtained. Starting in the 1700s there came into being a series of individuals who, being struck with special observations followed their ideas, with or without easy financing or encouragement from others. They made great seminal strides, as well as missteps, in ultimately discovering that climate has been constantly changing, that despite some theologies species can go extinct, and by combining with available astronomical and archaeological information, the how, when, and where.

That work has and is being very much enhanced by modern equipment, but she points out that this work can only be funded by huge entities and performed by teams of specialists that have all the equipment that empowers, and all the group politics that impedes, independent focus. And she wonders if that will make a difference in what progresses.

Progresses from what accumulated data?

While briefly taking note of the changes through the deeply distant eons, she mainly adds that the immediately prior 2-million year Pleistocene Epoch and our current (for the last 10-12,000 years) Holocene Era, have contained a lot of ice. Through the Pleistocene, she recounts, regular periods of extreme cold existed for about 100,000 years each, containing steeply graphed variations, interrupted by warm periods of about 10,000 years, also with steep internal variations. Then at the start of our Holocene, in fact demarcating it, the interrupting warmth very significantly does not go as high as all the prior ones, nor do the graph lines descend deeply, but thereon up to the present describe a level, more uniformly sawtoothed outline. Those temperature-variation "teeth" are relatively short, but the effects on the earth's surface, and therefore its inhabitants, as she describes, have been serially extreme.

This gives rise to a suggestion that human agriculture, beginning about that long ago and initiating various civilizations have altogether given rise to increasing methane and CO2 greenhouse emissions that have preserved us from being afflicted as huntergatherers by another repeating severe return of Pleistocene frigidity. This is controversial and may be in fact only coincidental to the effects of all the astronomical Malinkovitch cycles, involving the earth's ever-varying orbit and tilt, which impact the amount of solar warmth reaching the earth, and in turn has various, not fully understood, ways of receiving it. Nor does it mean that our current man-made emissions from so many more intensive sources aren't heating us too far enough to tip us into an oven, and do it quite quickly, for many of the temperature reversals found by the research have occurred within a human's life span.

Such is the story she tells of the past and present with easily understandable language, providing, I think, a good broad basis for evaluating the current climate discussion. As noted before, the book's author is a Washington State Univ. geologist, E. Kirsten Peters, published by Prometheus Books, 2012.

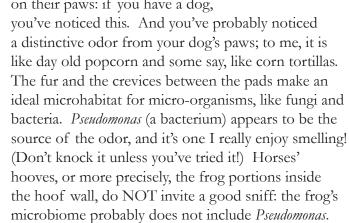
Whatever heat we have through June, we will be having our best chances--given a low western horizon-to spy that elusive, never-high-in-the-sky Mercury, always closely following sunset. On the 1st, though not a fist high, it will be a tiny sparkle above Venus above Jupiter. On the 10th -11th it will be with Venus and a crescent Moon. The Moon will be next to Spica in Virgo the 18th and below nearby Saturn on the 19th, the night we bid a temporary farewell to Jupiter, two days before the official summer solstice occurs at 12a04 the 21st. The Moon will be absent the 8th, officially new at 10a56, and full the 23rd at 6a32.

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Hoofing It Dru Clarke

mammals, like cats – possess this circulatory arrangement.

Many mammals have tufts of fur in between the pads on their paws: if you have a dog,



Those pads on mammal paws have been recently studied (most attention has been paid to skeletal and muscular structures when studying movement) and researchers have found that the larger the animal, the stiffer the pads. This is especially interesting because the relative size of the pads doesn't increase in proportion to the mass of the animal: if it did, the feet would be like wearing oversized wellies. In fact, on bigger animals the front pads are stiffer than the rear ones; scientists think that the softer pads on the hind feet help the animal recover some energy from each step, helping in forward propulsion. Because the pads are unprotected, other than by a tough integument, they can be pierced by sharp objects. In watching the search and rescue dogs in the aftermath of the Moore, Oklahoma tornado, we saw one dog that had stepped on a nail and it kept on working. Our dogs get burrs and sometimes small thorns in their paws and they worry them until they can work them out.

When it gets hot, our cattle stand in the creek to cool themselves. It must feel good, but I wonder if they have some sort of heat exchanger going on too? I know I like to dangle my feet in the pond when it gets hot: somehow it's more appealing than sweating and panting. Time to break out the sandals... or go barefoot! *©Dru Clarke May 2013*

An array of footgear meets one at our "back" door: too muddy to wear inside, they slump against one another as if too weary to trek any further. Rubber muck boots or "willies," mesh-topped ankle length pull-ons, leather and rubber shoe lace ups, rubberized feet mid-calf leather boots, neon green (!) high top leather sneakers – my favorites – and some old canvas topsiders, minus the laces. Each pair is selected according to the prevailing weather, which, as all natives know, changes daily. Our animal companions and wild life don't have these options and are stuck with what Nature intended for them, and, for the most part, this works out well for them.

The mud created by spring rains has made the diversity of animal feet even more apparent to me as I venture about our place. The cows' hooves leave parentheses separated by an ooze of mud, the horses' create saucers that hold shallow puddles. Squirrels, raccoons, and opossums spread their toes wide, a geometry that distributes their weight evenly. Perching and water birds' toes are delicately embroidered on the surface, except for the turkey's, whose prints betray a heavier body. The pads on the paws of mammals and the toes of birds often leave telltale patterns that help one identify the owner.

Moving out on paws on a temperate day seems no challenge for mammals, but how can many of them remain active and unaffected on snow and ice? It seems that dogs (and I assume most canids) don't need booties in the wintertime: the pads of their paws, constructed of fatty tissue and baffles of collagen, are equipped with a network of tiny blood vessels (what we call in whales, seals and otters a "rete mirabile" or "miraculous net") that expands or constricts in response to temperature. The arteries, which bring warm blood from the heart to the extremities and that network of blood vessels, and veins, which return the cooler blood to the heart, are interwoven, so little heat is lost when it is most needed: in cold weather and on frozen surfaces. Penguins too, we know, have this counter current heat exchanger and research is unfolding to determine if other animals - birds like the penguin and other



BIRD SEED SALE COORDINATOR NEEDED

If we are to sell bird seed next Fall, we need a volunteer to serve as our bird seed sales coordinator. Responsibilities include:

1) Contacting our supplier for prices and updating the Order Form.

2) Taking orders from our membership and submitting collated order to our supplier three times a year.

3) Coordinating and supervising order delivery and pick-up three Saturday mornings during the fall and winter.

Please contact Patricia Yeager, pyky@flinthills.com 776-9593 for more information.



Bartramia longicauda



A shorebird of the prairie

The Upland Sandpiper inhabits native prairie and other open grassy areas in North America. Once abundant in the Great Plains, it has undergone steady population declines since the mid-19th century, because of hunting and loss of habitat. It eats mostly insects - including weevils, beetles, grasshoppers and crickets.

Upland Sandpiper pairs scrape multiple depressions in the ground, but use only one for their actual nest. The eggs are buff with dark spotting, 2-7 in a clutch. The chicks are capable of leaving the nest and feeding themselves almost immediately after hatching.

The Upland Sandpiper begins southward migration unusually early, beginning in mid-July. It spends up to eight months of the year in its winter home in South Amerca, during the austral summer.





Visit us online nfhas.org



Second Monday of each Month 6 p.m. June 10th July 8th August 12th September 9th

Take Note

Name that bird...



photos by Dave Rintoul

They are back and singing away!

answer on page 1



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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, P.O. Box 420235, Palm Coast, FL 32142-0235. Make checks payable to the National Audubon Society. Membership renewals are also handled by the National Audubon Society. 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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