



Seed Planting Party

We need to start some seeds NOW so we will have plants for the Alsop Bird Sanctuary in May. Pots, seeds and soil will be supplied.

Join us at Patricia's home.

Sunday, March 15th at 3:00 pm.

Wear clothes you don't mind getting dirty and meet at Patricia's garage. Of course, birding Lake Elbo and seeing what shows up at the feeders is a part of this outing too. Please RSVP if you would like to stay for a soup and sandwich supper-
pyeagerbirder@gmail.com or call 776-9593.

Directions to Patricia's- **5614 Bayers Hill** from Manhattan:

Head east on 24. Just past mile marker 321 get in the left turn lane and turn North (left) onto Lake Elbo Rd. Continue until the pavement turns to gravel. At this point turn into Lake Elbo. Ignore all right turns until you are across the dam. Then take the immediate right turn onto Bayers Hill. The seed planting party is at the 4th house on the right.

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



prairie falcon

Northern Flint Hills Audubon Society Newsletter

Vol. 48, No. 7, March, 2020

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Upcoming Events

- Mar. 3 - TUESDAY Board Meeting- 6:00 pm,
Manhattan Public Library
- Mar. 14- Sat. morning Birding 8 am,
meet at Sojourner Truth Park.
- Mar. 15- Sun. 3 pm, Seed planting and birding
5614 Bayers Hill
- Apr. 7- TUESDAY Board Meeting- 6:00 pm,
Manhattan Public Library



Skylight plus

Pete Cohen

Some time ago this column referred to a book by a British biologist, the now late Lyall Watson. Titled *Heaven's Breath*, it scientifically describes the structure and activities of our atmosphere, including instances when

it contributed to the outcome of certain human events, going back to when a typhoon helped prevent Kublai Khan's "crowd" from invading what is now called Japan. Recently I was gifted another of Mr. Watson's books, also metaphorically titled: *The Secret Life of Inanimate Objects*. This could foretell a collection of humorous short stories, but instead the author provides a serious consideration of the interactions of our universe's beings.

Be assured that he does not regard the inanimate ones as having sensate feelings or opinions or ambitions. He does believe that they are capable of acting in ways that range from the merely interesting to the consequential. And in that way, have 'lives'. After all, it would not be uncommon to say of an old car, "I wonder what a 'life' it's had!". Or to say, "Look at this pretty stone I picked up hiking. It 'caught' my eye."

What has happened regarding the stone is that it had been put together by inanimate substances acting on their own, and it reflected the Sun's light toward me, or in the alternative the inanimate Sun's rays have bounced from it toward me. Since I wasn't searching for the stone I was quite passive in the encounter.

That occurrence would not involve a secret, while there is a process called 'mass wasting' in which tiny particles of inanimate soil, along with adjoining tiny animate creatures, manage unobserved to find their way downward among other such particles, that do not descend, leaving above them abandoned, less supported objects such as fence lines to lean more and more from their more useful vertical.

When grain seeds intended for outdoor storage are blown out of a chute onto a level pad they will form, unguided, conical heaps whose slopes all end up at about a 40° angle to the horizontal. To my eye that happens to be similar to the side slopes of Flint Hills ridges, which in any case all seem to resemble each other, for like the grain seeds they are of similar substance. Without human intervention, different substances settle with different slopes; that is, at their "Angle of Repose". Any unsupported attempt to increase the angle will result, like it or not, in a slump.

Gravity, I strongly suspect, plays a central part in this—in some way, for I am told not to regard it as a

force. It is something else, and to my understanding no one knows its cause. Albert Einstein thought it the result of a warping curve in space-time, which I think is not a complete answer. Isaac Newton, who in 1687 became the first one to propound a comprehensive theory of gravity, discouraged searches for its cause. More important, he thought, was to give time and effort to understanding all the math involved.

Henry Cavendish, who among other accomplishments discovered the "inflammable air" we call hydrogen, following up the work of a deceased geologist, John Michell, in 1797-8 created a device consisting of a level bar from whose ends were separately hung two heavy balls. In each case one of the balls was much larger and heavier than the other. Protected from air currents and temperature variations, it was noted that each pair of balls gradually moved closer to each other on their own, and in a quantifiable way.

If a not-force of an as yet undetectable origin can produce that result, it seems rather illogical to presume that some other influence cannot cause occasions comparable to things going bump in the night. In his sometimes-cautionary descriptions of animate-inanimate interactions, Lyall Watson did not let those bumps go unnoticed. More on his book next time.

Meanwhile those inorganic denizens of the sky (particularly the ones seemingly acting on their own, not having been shot up there from Earth) are beginning or continuing or ending their lives. And the ones we generally focus on are in their continuing phase. Four of them will be of particular note starting around mid-month, albeit in the pre-dawn hours.

On the 17th Saturn, Jupiter, and Mars will rise in a kind of three part chorus line (reddish Mars on the right), reaching to a height of almost two extended fists above the eastern horizon. The Moon will join them the 18th, forming a rather trapezoidal display. On the 19th the waning Moon will have sunken below Saturn, leaving the other two as near neighbors above. On the 20th Jupiter and Mars get very cozy—for a night—and then for the rest of the month, Mars, on a faster orbit, moves gradually closer to Saturn. Mercury will be keeping track of the others almost secretly from low to the left, with the best chance to spy him the 23rd-24th from the southerly latitudes.

Elsewhere in the night, Venus will be a bright, lingering Evening Star in the west. Old Man Moon will have a conference with Taurus's star, Aldebaran, the 1st and 2nd, then be in speaking distance with Leo's Regulus the 7th. Then above and left of Scorpius' Antares the 15th. Then he'll show up well below Venus the 27th, getting a little closer to her left the 28th. He'll have a reunion with Aldebaran the 29, before Mars get close to Saturn 31st.

Daylight Savings Time returns at 2a00 the 8th and the Vernal Equinox at 10p50 CDT the 19th. The Moon will be full the 9th at 12p48, new the 24th at 4a28.

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Life... and Gains and Losses... on a Small Farm

Dru Clarke



Two days after Christmas, Calliope, the cow from hell – I should explain- had a tiny bull calf, perhaps the most adorable, sweet-looking calf ever born. My sister-in-law who was visiting named him Sonny, which I spell Sunny, as when we first saw him, he was illuminated by an opalescent ring of sunlight. A month before we had KSU vets come out to check her for pregnancy. She 'resisted': that is, she tore the head gate out of the ground, galloped madly around the corral, nicking my husband's belly with one horn, then stood, fuming, daring anyone to try that again. Fortunate for her, she birthed a keeper.

February began with great promise: a fuzzy red heifer born on the first day of the month to Eleanor, our big red Angus cow who's always delivered with ease. And at 2 a.m. on the 2nd, Cocoa Puff, my 'pet' Highland cow, birthed a beautiful black heifer. But she didn't nurse and missed the window when colostrum, the immunity-producing milk, could be absorbed. Even with milk replacer taken greedily by her the next day, she succumbed two days later, after heroic efforts by a caring and knowledgeable staff of vets and students at KSU. Already we were suffering from cabin fever and suspected S.A.D. (seasonal affective disorder) - witness the stacks of escapist Brit mysteries and contemporary political commentary read over the last few months- this loss was almost too much to bear.

But yesterday, Koki – nicknamed for the color of the poppy, in French- separated herself from the herd and stood by the creek and, on a bed of dry leaves, had a small red calf early this morning. By evening she had brought it up to a round bale where hay lay in a bed beneath it, where she waited patiently and maternally for her grain.

Why would anyone comfortably retired even think, much less bring to bear, such intense responsibility for other lives? I didn't grow up on a farm, although my dad was marketing director for the Secretary of Agriculture in New Jersey, and he used me as a prop to get engaging photos of farm animals for magazine spreads. (One year, he had me pose with a tom turkey to whom I was reading a pamphlet entitled "How to cook a turkey". It made the cover of Compass, the magazine that covered New Jersey. Another time he had me hold the halter of a recalcitrant Jersey calf who stomped on my foot with her sharp little hoof. I still have that facial shot under glass on my desk).

When the horse market plummeted in the early 2000's (we had a few dozen at the time), I decided to get some cows: at least, that market was strong. And we knew that to manage prairie naturally, ecologically, that grazing (in addition to fire) was a component of that. I mourned the loss of threatened and endangered species, and heritage breeds of livestock were dwindling and needed motivated folks to rescue them. But, honestly, it was a romantic decision. In the 1980's I was touring Ireland, England, and Scotland with three other women and I did the driving. In the highlands of Scotland, we were crawling up a single, uneven track, surrounded by heather and gorse, when suddenly from the brush emerged a large, shaggy red beast with horns that spread like wings. She stood looking at us, as surprised as we were. I fell in love right in that moment with the Scottish Highland breed. (The Queen of England keeps a 'fold' – their term for herd – as her family's source of beef.) So, I was doing, I felt, an ecologically sound and conservation- determined move by investing in the breed.

Our cows self-regulate their grazing by moving over our 100 acres for three seasons. With their formidable horns, they demolish cedars, undesirable prairie invaders, and frequently show up with fragrant cedar fronds on their heads and backs. They browse in the woodland, eating leaves which they consider delectable: even tannin-laden oak (which might have some pesticide effect). And, their droppings are adding nutrients to the soil.

We also purchased a Jersey, another diminishing breed, from a neighbor (her eyes got me). She had been a.i.'d by an Angus and her calf was a brindle heifer who started our cross-bred line. For a few years, I made yogurt and farmer's cheese from her rich milk, leaving enough for her calves to flourish. A too vigorous breeding left her with compromised hips, so she reigns now as yard art.

At times when we are worn out from the cold, breaking ice, lugging grain buckets, or nighttime vigils and nerve-wracking vet calls, we realize it was our choice. And that just maybe some good for the land, for the breed, will emerge. Keeping them prevents us from selling to a developer, and a hundred acres continues to support what the prairie will. It won't be fractured and asphalted and manicured. Life as it should be, with its gains and losses, will continue on a small farm, as long as we can manage it.



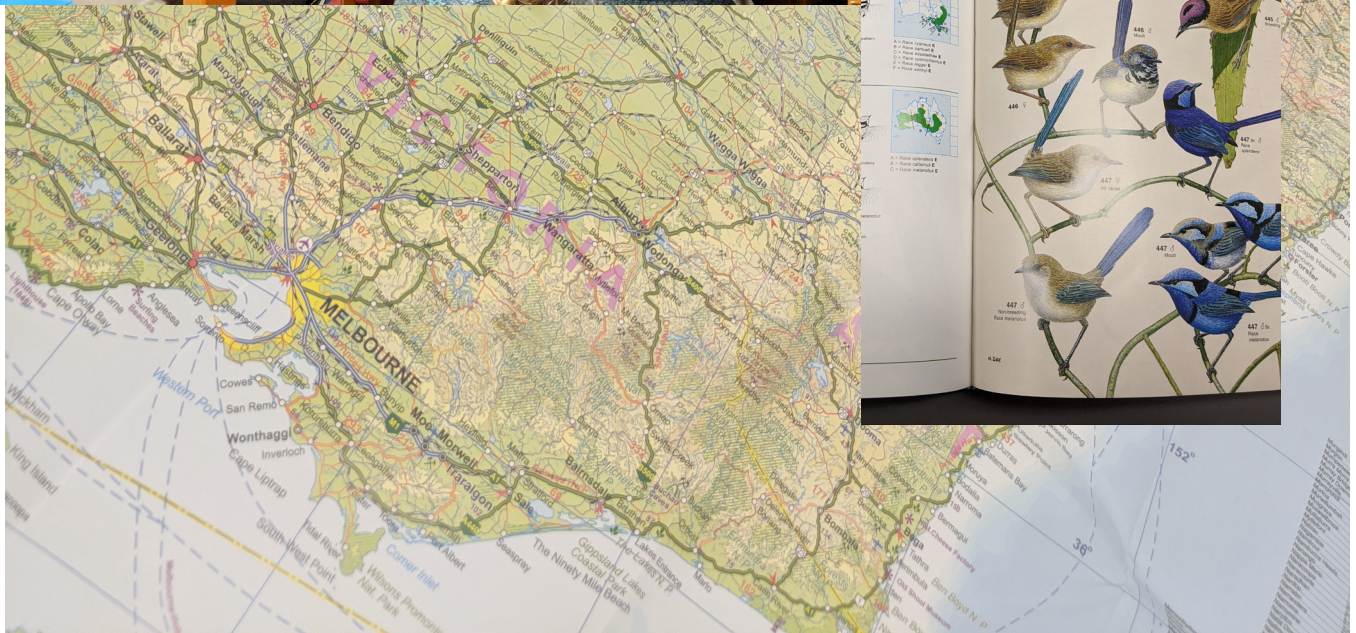
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The Wildlife Down Under

Photos by Roger Boyd



A wonderful evening with
Dr. Roger Boyd.
**THANK YOU FOR SHARING
YOUR ADVENTURES.**



Parrots and Falcons — Long-lost Cousins

(Thanks to a comment by Dave Rintoul on Facebook, I found this article about Parrots and Falcons!)

<https://www.birdnote.org/blog/2015/02/parrots-and-falcons-%E2%80%94-long-lost-cousins>

Few surprises are more compelling than the recent discovery that falcons are more closely related to parrots than they are to hawks and eagles.

There are two reasons why this is such an interesting discovery. First, just about everyone on the planet knows the players. Most of us can recognize a parrot. A Peregrine Falcon's killer dive-speed is famous. We generally understand what hawks and eagles are, and we know that falcons are kind of lumped together with them.

Second, we all know these groups pretty well because they have a whole suite of fairly recognizable features that bind them together. Let's review:

Parrots: Plumage in bright, saturated colors. Social. Smart. Most species found in the tropics. Strong hooked bill used to tear apart fruits and nuts.

Falcons: Awesome predators. Superlative fliers. Plumage exclusively in earth tones. Relatively solitary. Found from the tropics to the Arctic. Strong hooked bill used to tear apart prey. **Hawks and eagles:** Everything we just said about falcons also applies to hawks and eagles. Hawks and eagles, though, tend to soar as they watch for prey, while falcons tend to rely on speed for active pursuit of it.

So, you don't have to be a specialist in bird taxonomy to have a guess about who is related to whom based on similarities, right? When biologists sat down to organize bird biodiversity, most put the falcons in the same taxonomic basket as hawks and eagles. It turns out this was a mistake akin to putting puffins and penguins together. Hawks and eagles are aerial predators, and so are falcons. Apparently, the predatory lifestyle has driven these two unrelated groups of birds to converge upon each other — not only in the shapes and sizes of their bodies, not only in the color of their feathers, but also in their relatively sparse numbers and solitary lifestyles.

Now we know the surprising truth. The similarities between falcons and other raptors, including hawks and eagles, is one caused by "convergent evolution" and not shared family history. And what about parrots and falcons? Besides the powerful curved bills, do these groups have anything in common?

Here's where the modern science comes in. It is fair to ask, "Well, if parrots and falcons are so obviously different, what gives us any confidence in this new hypothesis that they are evolutionary cousins?"

The answer is DNA. Lots and lots of DNA.

DNA codes nearly everything about the final form and behavior of an animal. The "complete sequence" of DNA found in an animal (or plant) is referred to as its genome. If the genome were likened to a book, we would say it is telling a very, very long and very complex story. Thus, the genome of any animal is a goldmine of information.

Through our genomes, each of us, in fact every living thing, represents one version of "the book of life." Comparing versions of this book, we find that some parts of the story are changing all the time. These parts correspond to rapidly evolving genes, such as those in our immune systems that must change all the time to respond to new threats. Other parts of the story have remained essentially unchanged for hundreds of millions of years. These parts of the story correspond to highly conserved genes, which tend to govern basic life processes shared by all organisms.

The versions and variations of these "books" are as diverse as life itself. However, if you can read a copy of one species' story and compare that copy to other species' versions, you will start to see patterns in how the versions relate to one another. More closely related species share more of the story and have fewer discrepancies between versions.



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Manhattan, KS 66502

The purpose of the Northern Flint Hills Audubon Society is to teach people to enjoy and respect birds and their habitats. NFHAS advocates preservation of prairie ecosystems and urban green spaces thus saving the lives of birds and enriching the lives of people.

Also available online at nfhas.org

Published monthly (except August) by the Northern Flint Hills Audubon Society, a chapter of the National Audubon Society.
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PLEASE consider joining our NFHAS Board.

Contact Patricia Yeager if interested, and watch our website and newsletter for time and day of meeting.

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