### WHAT ARE WE DOING?

Sat. morning birding - Patricia Yeager Birdathon - Jim Koelliker Butterfly Garden - (Jacque Staats) Patricia Yeager North East Park - (Jacque Staats) Cindy Jeffrey Cecil Best Trail Carnahan Creek park Bluebird boxes/trail - Greg Wurst Alsop sancturay - Patricia Yeager Stagg Hill - Michel-Ross Preserve - Patricai Yeager Birdseed Sale - Cindy Jeffrey, Patricia Yeager

#### WHAT CAN WE DO?

Birdseed Sale -

Board Members - President, Vice President, Treasurer, Secretary, Members at large, AOK representative

Programs

Educational activities - who to involve younger people

MAY program:

Reports about our current activties

Sunday May 15th, 2:00 pm, Groesbeck Room, Manhattan Public Library.

Brainstorm about what we can be.

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



# prairie falcon

Northern Flint Hills Audubon Society Newsletter Vol. 50, No. 9, May 2022

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# **Upcoming Events**

- May 3 -Board Meeting, 5:30 pm Manhattan Public Library PLEASE CONSIDER JOINING THE NFHAS BOARD
- May 14 Saturday morning Birding 8 am, Sojourner Truth Park
- May 14 World Migratory Bird Day Protect Birds: Be the Solution to Plastic Pollution!
- May 15 NFHAS Activities (see above) Groesbeck room, Manhattan Public Library

# Skylight plus

Pete Cohen



Somehow years ago I learned a lively song that begins like this:

While strolling through the park one day

in the merry, merry month of May,

I was taken by surprise by a pair of roguish eyes;

In a moment my poor heart was stole away.

The speaker receives only a smile, but that is so satisfying that five lines down:

I never will forget that sweet moment that we met

while walking in the park one day.

A recent personal incident brought the tune back to mind, and out of curiosity I later sought its source on-line, discovering there are a number of creations using the same first two lines and going in various directions. Free to add my own, and transposing my incident's timing, it would go like this:

While hiking in the woods one day In the merry, merry month of May I was taken by surprise by somae thorns of roguish size In a moment my poor sleeve began to fray. But it—was such—a lovely path That I—cooled down—my rising wrath. I immediately stopped my stride Then worked to save my hide— Now I'll sharply look about for spiny branches leaning out While along a woodland path I make my way.

From there out of curiosity I've sought to learn more about thorns. And here I ask the forberance of those who are botanically informed, for the little I've learned might be of interest to those not so informed. I've learned that botanically speaking, "thorn" is a word-of-art, referring to a modified stem. Certain cellular activity causes the stem to start out from another stem, then that activity gradually weakens, resulting in the stem thinning down to end eventually in a sharp point. Cacti have modified leaves called "spines", and roses, by further contrast, have "prickles", which having no vascular content are the easiest kind to remove, though telling that to anyone who has tried to do so might raise an eyebrow.

It seems intuitive to reason that 'thorns' (speaking generally) developed to ward off plant-eating animals, though in the 1800s was put forth a theory that they signaled a species' declining vigor and were an effort at extra protection otherwise unneeded. That theory was put down with the help of the example of varieties and species growing in conditions isolated from animal browsers, such as on oceanic islands, that displayed no thorns. (I wonder if any such isolations still exist these days.)

With cacti, the spinal leaves have transferred the necessary chlorophyll to the body of the plant where the stomata, the pores that facilitate the processes of photosynthesis and transpiration, unlike in other plants, can close up for a daytime siesta amid the dry desert heat. And I read that as thin as the spines are individually, cumulatively they can provide a significant amount of shade.

So the spines (a/k/a thorns) that I met prodded to me to find out some things I didn't know. And it was nice that a musical thought came forward to help ward off less pleasant ones.

Overhead, it'll be quite a month for planetary friendships. May dawns with Venus and Jupiter as close companions as they were when April ended. They will then move a little apart, Jupiter to the right, and almost right away, beginning on the 3rd and lasting till the 20th, there'll be a left-to-right line of Venus, Jupiter, Mars, and Saturn, in the ever earlier dawnlight. On the 4th-5th the latter two will take their turn at snuggling, with Saturn slightly the brighter.

Meanwhile Old Man Moon will again be quite like a Hollywood tour guide, moving about from night to night and pointing out celestial celebrities, planetary and stellar. In the evening twilight the 2nd Taurus' red star, Aldebaran, will be to his left, with Mercury a little bright to his right. The Gemini Twins, Pollux and Castor will show up to his right the evening of the 6th, Pollux the closer. On the 9th, Leo's Regulus will be below him as night comes on. Then Virgo's Spica gets a turn to his right the evening of the 13th.

All of the above being prelude to (for us west of the Mississippi) his rising into the process of becoming fully eclipsed the 15th. Central Daylight time the eclipse is pegged to start at 9p27, with full eclipse lasting from 10p29 to 11p54, with the show ending at 12a55.

For afters, its back to dawn activity as Moon moves below Saturn the 22nd, then forms a bright line, then a triangle, with Jupiter and Mars the 24th-25th. Next he dances around Venus the 26th-27th, and the month ends with Jupiter becoming a close companion again, this time with Mars.

While strolling through the park one day While hiking in the woods one day In the merry merry month of may In the merry, merry month of May I was taken by surprise by a pair of roguish eyes I was taken by surprise by some thorns of roguish size In a moment my poor heart was stole away. In a moment my poor sleeve began to fray. A smile was all she gave to me But it was such a lovely path But I was happy as could be That I cooled down my rising wrath. I immediately tipped by hat I immediately stopped my stride And then as soon as that— Then worked to save my hide— I never shall forget that sweet moment when we met Now I hope I shall recall, in the Maytime or the fall, While strolling through the park one day To sharply look about for spiny branches leaning out While along a woodland path I make my way. song by Ed Haley, published in 1884 but dating back to 1880

© 2022 Peter Zachary Cohen

# Ruint Dru Clarke

One of Villanova's key players, Justin Moore, tore his Achilles tendon during the last game in which the fabled (Philly based) Wildcats qualified for the Final Four of the NCAA basketball tournament. He had to be helped by two assistants as he limped on one leg off the court. How seriously this will impact their performance against equally fabled Kansas, the Jayhawks, we will discover as the teams play on without him.\* As for Justin, he – at least for this season – is 'ruint.' \*\*

Ligaments and tendons hold us together, keeping bones and muscles and vital organs in place so they can do what they were designed to do. We have about 900 ligaments in our bodies. The Achil-

les tendon is a joining of two calf muscles, the gastrocnemius and the soleus, into a tough tissue that attaches to the heel bone, the calcaneus. (Ain't Latin great?) When it is torn or ruptured, it is impossible for the body to locomote with grace without external help, a zimmer frame or crutches or caregiver. Surgery is called for, and rehab is lengthy.

So, what are some of the implications of healthy versus 'ruint' connectors? Watch a bird land on a perch. When the bird lands, the tendons in its legs tighten, causing the toes to lock on the twig or branch. When ready for flight, the bird jumps up, its legs straighten, and the toes unlock, releasing the feet. A compromised leg tendon would make it difficult for a bird to perch properly, making it more susceptible to danger.

Another remarkable tendon is in the shoulders of pelagic (open ocean) birds. The 'tubenoses,' whose fused nostrils and associated gland enable them to excrete excess salt from ingested seawater, include the albatrosses, shearwaters, and petrels. The shoulder tendons 'lock' the wings in place, enabling them to fly distances of over 1000 miles without flapping their wings. Some don't touch land for years.

Our horses sleep standing up. This seems improbable unless you understand the physics of it.

Their forelegs and one hind leg support the body while the other hind leg bends, with the hoof resting on its toe. This locks the stance is a 'stay' position, managed by the horse's leg tendons and ligaments.

Cows don't do this, but they do 'doze' standing up, true sleep coming only when they are lying down.

They sleep only a few hours a day, but rest a lot while they chew their cud, up to ten hours a day.

We just had a calf born with contracted tendons in its front legs: right now, he is walking on his knees with hooves turned under. Luckily his mother's udder is low enough so that he can reach it in a kneeling position. He will be able to stand in time, but it is heartwrenching to watch him navigate right now. When his mother lets us, we give him a boost.

Ecosystems are held together and 'in place' by their varied parts. Keystone species, named for the capstone bracing the side arcs, hold all in place. Remove it, and the structure, now unstable, becomes dilapidated (L. dis – apart; L. lapis -stone). So, take one species away, or even loosen its grip on its place in an ecosystem, and the entire system may fail, or, as Celie was in "The Color Purple", 'ruint' (not once, but twice).

Mature 'mother ' trees in ancient forests – now endangered themselves – function as keystones, as do perennial grasses on our prairies, giving surrounding plants added nutrients and sharing the microbiome in the soil. One remembered tree I visited when it was alive, recognized as a champion in its day, is now just a stump, but before she succumbed to fire and vandals, she birthed a host of children – saplings that will, someday, perhaps be as grand as she was. Ruint, but not lost, as her genes live on in these young trees. (I cannot share her whereabouts as I am sworn to secrecy about her offspring.)

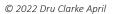
In existence today there is a program that targets apex predators – bears, wolves, mountain lions, bobcats, coyotes – for extermination as they are wrongly thought to thrive on livestock. If that were true, then they would have become extinct long before settlers brought their herds and flocks to subsist on native grasses and other plants. It would behoove those who create and implement these programs to read Aldo Leopold's classic parable "Thinking Like A Mountain." For those not familiar with it, it illustrates how wrongheaded and devastating it is to eradicate an apex predator, in this case, the wolf, from an ecosystem in which it acts as the control on, in this instance, a deer population. Once the wolf was gone, the deer overpopulated, destroyed the vegetation, and the mountain began to fail. It essentially began to wash to sea. I used to read this essay to my students in Ecology class, and often I would pause, look up, and see more than one with tears in his or her eyes. Sometimes I had trouble getting through it.

Luckily, birds of prey are exempt from this program. Birders have always been stalwart conservationists, even those among us who hunt (and eat) their harvest. In fact, especially those who hunt as it is a given that they do not want their sport diminished. And they admit, often sheepishly, that they love the birds they harvest.

I began this piece sitting on a log, picking up early season ticks, as I waited for my favorite cow to give birth to the aforementioned afflicted calf. As I ventured into the woods where she stood, a coyote ran out into the grassland: perhaps it had smelled something about the pending event. This morning, mother and calf were alive, with no coyote in sight. I knew they were alive as the recently arrived vultures were absent as well. Had either one died, they would have told me by their presence. I have no concern about the resident coyote as I know it is an omnivore and that its ancestors thrived before domestic stock arrived. It, too, helps to connect all things in this place, like a ligament or tendon, to keep it from being ruint.

\* As it happens, KU beat 'Nova, then went on to pull it out against the Tar Heels in the national championship. A key player (Bacot) for the Heels went down and out of the game in the last few minutes, contributing to their defeat.

\*\*Ruint – a falling down; collapse (colloquial)







# Big Bird - Apex Scavenger

Jay Jeffrey

"It was a beautiful spectacle thus to behold these great vultures hour after hour, without any apparent exertion, wheeling and gliding over mountain and river." - Charles Darwin, 1841

Part 2.

I had been stunned once again and encapsulated in awe after sighting another giant Andean Condor (*Vultur gryphus*). They are iconic and venerable, an emblem of the Andean region and have essential cultural and ecological roles in Andean ecosystems. Now invigorated with energy, listening to the rushing river, infused with excitement, I smiled while lacing up my mountaineering boots — which was good, I was still 12,500 feet below my intended destination: the summit of Aconcagua.

The bird with the widest wingspan (**ws**) is the Wandering Albatross with a claimed maximum ws of 12 feet 2 inches (other maximums reported: 11' 6" to 11' 11"), and an average **ws** of 10' 2" in larger-bodied populations. The Great White Pelican and Dalmatian Pelican have reportedly reached over 11' 6", and each are much heavier than any albatross species; males of these pelicans average 21 to 24 pounds depending on region. Trumpeter Swans have **ws** averaging only 6-8 feet, but males can average 24-28 pounds; beefy birds.



However, the largest non-extinct flying bird in the world is the Andean Condor: maximum wingspans are just shy of 11 feet (10' 10"), average **ws** is only less than a foot shorter than average **ws** of Wandering Albatross; wings of condors have the *largest surface area* of any bird in the world (i.e., their wings are much broader than albatross or pelican wings); and they are the heaviest flying bird with males averaging 28 pounds, some ranging up to 33 pounds; females averaging 22 pounds.

Imagine such a bird alighting near an aging Kansas roadkill deer, the bird standing 4 feet tall, as you pass by in your car — the truth of birds being dinosaurs might sink in much deeper.

Andean Condors are one of the world's longest-living birds, with a lifespan in the wild of 50 years and a record in captivity of almost 80 years. A captive Flamingo and a Sulfur-Crested Cockatoo each were documented to live for 83 years (a few unverified reports of centenarian cockatoos exist). Of note, the oldest living wild bird on record is a still-living 71-year-old Laysan Albatross; originally banded and an annual nester on a Hawaiian atoll.

Prepare for Takeoff: Andean Condors are ultimate sailing masters of skies. They can soar to heights of 18,000 ft, often flying over 100 miles a day. They sail and ride the invisible wind oceans and thermal streams; gliding on wind currents, casually navigating swirling eddies among gargantuan mountainous obstacles, levitating or spiraling on warm updraft waves, surfing or evading katabatic winds — it's the high life.

Adult female Andean Condor. Photo credit: Eduardo Quintanilla/ Macaulay Library at Cornell Lab (ML44178351)

"Except when they rise from the ground, I do not recollect ever to have seen one flap its wings. Near Lima, I watched several of these birds for a quarter and half-an-hour [45 minutes], without once taking off my eyes." — Charles Darwin, 1841

In a recent 2020 satellite telemetry study using GPS and high-tech recording gear strapped to eight Andean Condors, registering over 250 hours of flight time, researchers found that while aloft, the condors only flapped their wings 1% of the time; correct, 99% of flying time was spent...sailing and riding winds. One condor flew for **more than 5 hours, enjoying over 100 miles, without flapping once.** 

Making a Clan: Andean Condors mate for life, roost and nest up to 16,500 ft, only lay one egg every two or three years, take two months of incubation by both parents prior to hatching, it's 6 months until fledging for first flight, another two months of parental care ("breeding season" is almost a year in length), and two years before the young leave their parents. The young won't be sexually mature until age 5-8 (so 8-11 years before young produce their own lovely kiddo).

Ecosystem Linkages & Threats: Pumas (aka Mountain Lions or Cougars) are apex predators and ecological engineers, and in pristine Andean landscapes have a tight predator-prey link with Guanacos and Vicuñas (Vicuñas, also in the camel family, are slightly more gracile than Guanacos, frequent higher elevations, and are likely the parental species of domesticated Alpacas). These large ungulates provide significant prey for pumas, and carcasses from puma-kills help feed Andean Condors — carrion-eating apex scavengers (they dominate at carcasses and dwarf other scavenging competitors such as Crested Caracaras).

While conducting Wyoming amphibian surveys one summer, below a known Mountain Lion den, I was deep in a jungle of willows that concealed creek-side wetlands when I came across a fresh deer kill. I had never felt vulnerable as potential prey before, until then. Core areas of a puma's home range influence the distribution of Guanacos due to the "fear affect." If I was a Guanaco, I'd hope to be in a big herd.

After the Pleistoscene's extinctions of many megafaunal species, it was the condor's long-range travel capabilities and highly flexible foraging strategies that allowed them to survive (throughout western South America). Even today, long-range forays continue to allow condors to utilize coastal marine mammal carcasses and eggs from seabird colonies, and exploit small carcasses



Researchers in Argentina with Andean Condor fitted with satellite telemetry tags. Photo courtesy of Ugo Mellone https://www.wildphoto.it



Condors feeding on dead Guanaco, background is Torres del Paine, Patagonia, Chile. Photo via awasi.com

and a diversity of human-related carrion resources; particularly exotic sheep, cattle, red deer, European hares. When landscapes change through direct or indirect impacts to habitats, the puma-camelid population dynamics can degrade or disappear, and such "alternate carrion" is sought and acquired — by both pumas and condors.

Here's the crux, condors face grave unnatural threats related to current human-related carrion resources, and one ranks top in devastation: recent increases in illegal carcass poisoning for predator control (pumas, canids, and/or condors perceived to be predators). Condors are particularly vulnerable to extinction. As mentioned, condors live long but reproduce exceptionally slow (elephants of the bird world). Probably a fair estimate is that one pair of condors could rear 20 condors in 50 years. Although naturally low in abundance, condors are gregarious scavengers.

A group of 20-35 individuals simultaneously at a single carcass is not uncommon, highest numbers documented range from 67-80, and one observed gathering included 108 condors at a feast.

Carcass poisoning is a practice — typically illegal, ecologically immoral, at times heinous — conducted worldwide to manage human-wildlife conflicts, most notably to eliminate species that prey on livestock. Regarding Andean Condors, 89 were killed in Argentina between 2017 and 2018 which included 34 that died at a single carcass. Fifteen to 20 died within 6 months between 2018 and 2019 in Ecuador (10% of that nation's condor population). In 2021, 34 were killed from a single poisoned cow in Bolivia (19 adults, 15 immatures). Other unreported mortality events have likely occurred, as detectability of such events in the field is low.

No rigorous population estimate has been made across the species' distribution. In 2020, a global estimate of 10,000 was proposed. A few decades ago, 2000 condors was suggested for both Argentina and Chile; more recently hundreds are still known to communally roost at study areas in those two countries.

The condor's gift of flexibility during the Pleistoscene, now makes them vulnerable to large mortality events due to intentional poisoning and also several other toxicological threats inherent to current-day human-related carrion resources. Currently, depending on which South American country, Andean Condors are considered either Vulnerable, Endangered, or Critically Endangered.

I did make it to Aconcagua's 23,000 ft summit. Just off the trail in the snow, I passed a body bag enclosing a recently deceased climber. A stark and sobering reminder that I was potential prey, to the mountain. As I said in Part 1, my joy and goal is always the ascent and descent through life zones. And I learned that life zones, and life in general, are scant at high-elevations. Seek life zones and bask in biodiversity.

© Jay Jeffrey 2022



Northeast Park Prairie



Cecil Best Trail bridge











Carnahan Park Blue Bird Nesting boxes



Butterfly Garden, Sojourner Truth Park

A few years back - Birdseed Sale pickup



p. 6 Prairie Falcon MAY 2022

## Plastics by the numbers

#### National Geographic Society:

https://www.nationalgeographic.com/environment/article/ plastic-pollution

#### Plastics by the numbers

Some key facts:

Half of all plastics ever manufactured have been made in the last 15 years.

Production increased exponentially, from 2.3 million tons in 1950 to 448 million tons by 2015.

Production is expected to double by 2050.

Every year, about 8 million tons of plastic waste escapes into the oceans from coastal nations. That's the equivalent of setting five garbage bags full of trash on every foot of coastline around the world.



Plastics often contain additives making them stronger, more flexible, and durable. But many of these additives can extend the life of products if they become litter, with some estimates ranging to at least 400 years to break down.

The solution is to prevent plastic waste from entering rivers and seas in the first place, many scientists and conservationists—including the National Geographic Society—say. This could be accomplished with improved waste management systems and recycling, better product design that takes into account the short life of disposable packaging, and reduction in manufacturing of unnecessary single-use plastics.

# Kansas Motus

Alice Boyle

Alice Boyle gave a presentation about this project at the March meeting (click this link for a recording of the talk <u>https://www. youtube.com/watch?v=ISJP8Qm1CEs</u>) and is hoping that Audubon chapters or individuals will consider sponsoring a tower or tags. You can learn more about the project here:\_ <u>https://www.kansasmotus.net</u>



For all those interested in contributing to the project, please send a check to:

The Division of Biology, Kansas State University, Accounting Office,

104 Ackert Hall, 1717 Claflin Hall, Manhattan, KS 66506.

Please write on the check "Kansas Motus" and enclose your name, contact info, and any additional instructions you have.

Alternatively, an account is being set up with the K-State Foundation so if folks want to make a tax-deductible donation (minus the 5% overhead), contact Alice Boyle or check the KansasMotus webpage (<u>https://www.kansasmotus.net</u>) in 1-2 weeks for a link and further instructions."

#### Return Service Requested



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

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 <u>nfhas.org</u>

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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 becomea 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 membershipCall 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 **WE NEED YOU!** PLEASE consider joining our NFHAS Board.

NFHAS Board

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