Motus UPDATE by Dr. Alice Boyle

The Motus Wildlife Tracking System (Motus) is an international collaborative research network that uses coordinated automated radio telemetry to facilitate research and education on the ecology and conservation of migratory animals. Watch Dr. Boyle's presentation last year (Feb. 16, 2022) on our BirdBlog - the part about Motus begins at about 34 min. (Youtube - https://www.youtube.com/watch?v=ISJP8Qm1CEs



Meet at Tallgrass Tap House, 320 Poyntz at 5:00 for dinner with Alice before the program.

JOIN US at the Manhattan Public Library, Groesbeck Meeting Room at 7:00 pm on Oct. 18th.

Dr. Boyle will give as update on new, planned, and in progress installations, contributions of our network to the broader understanding of migration (i.e., cool detections so far), and our plans for our first local tagging efforts in the coming year.

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



prairie falcon

Northern Flint Hills Audubon Society Newsletter Vol. 52, No. 2, October 2023

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Upcoming Events

Oct. 3 - Board meeting - 5:30 Public Library

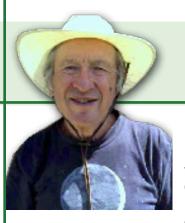
Oct. 14 - Sat. Morning birding depart Sojourner Truth Park at 8:00 AM

Oct. 18 - Alice Boyle "Update on Motus" Groesbeck Meeting Room Manhattan Public Library 7:00 PM

Oct. 26 - BIRD SEED **ORDER DEADLINE** (see pg. 5)

Nov. 4 - BIRD SEED PICKUP

Nov. 3-4 Celebration of Cranes Quivira National WIldlife Refuge



Skylight plus Pete Cohen

I begin with an update. Some may recall mentions here of various efforts to provide rights that are granted to persons, to certain non-humans as well. Corporations have long held certain rights to act as if they were persons, and in recent years there have been movements to extend such rights to entities from certain animals to topographical features. A tree in Athens, Georgia, was allowed

to inherit the land it was growing on. An effort to free an elephant in a Bronx zoo pen to transfer to pleasanter surroundings by use of habeas corpus was denied.

More recently I've learned that the full city commission of Guajara-Mirim (pop. 40,000) in the Rondonia state of Brazil, has voted to confer personal status upon their local river to give it a legal basis for receiving official help in preserving its area from desecration by robber loggers and other land grabbers. Unfortunately how much support federal officials will provide, and how well that works out against violent criminals, remains to be seen.

Something noteworthy that can be seen now in our southeastern sky (and through the autumn), providing there's a low horizon, is a star called Fomalhaut. It is the bright sparkle at the right upward end of a very dim formation of stars, resembling a short, thick fish, an interpretation that has passed at least from one Western civilization to another. The formation is known as Piscis Austrinus, the Southern Fish. I'm told the star is not a great deal bigger than our Sun, yet shines 16 times brighter, so its light reaches across the 25 light years between us in a lively manner. And wits have had fun with its name's pronunciation. The main consensus seems to be that it rhymes with "about". It translates as "the Fish's Mouth".

In an especially wide area around it, all the other cosmic objects can barely be seen, thus Fomalhaut is sometimes referred to as "the loneliest star," lonelier even than Virgo's Spica, so when one is in a position to find it, it's a notable singleton, a beacon over yonder.

While it shines alone some of September's performances will be held over into October (with some modification). Venus continues as a striking Morning Star, though without Mercury's supporting role, reaching her brightest for the month early on the 23rd. She will be in Leo and the Moon will visit, this time with Leo's bright Regulus also present, making for a dancing threesome that will change relative positions the 8th-11th. There should be little difficulty distinguishing a planet from a Moon from a star.

The Moon and Jupiter will have been together sooner, late evening the 1st, and much closer. Then the Moon will have visited Taurus' Aldebaran, for two nights, the 2nd-3rd, with the Gemini Twins next, the 7th, then on to Scorpius' Antares the 18th. The Moon and Jupiter get back together on the 28th, this time nearly touching and in the early morning.

The Moon will have an extra gig the 23rd-24th with Saturn and Fomalhaut. Being from the south Fomalhaut will be lower left/lower right of the Moon these nights, while Saturn will be upper left/upper right. The Moon will have been new on the 14th (12p55), and full the 28th, while still unable to blot out the sturdy close by Jupiter.

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Good Vibrations Dru Clarke

"You can feel it in your bones." Literally, this is true. The rumble of an approaching subway train, the trembling deck of a diesel-powered inter-island ferry, the explosion of ordnance at the twenty-mile distant fort, the sharp crack of lightning and rush of expanding, superheated air (the peal of thunder), the earth moving beneath your feet in a seismic event. You feel it all, through your bones.

Pallesthesia*, the ability to perceive vibrations, is a sense common to many animals that helps them navigate the dangers and opportunities that they encounter in their lives. In Jennifer Ackerman's new book on owls, she describes an owl who can detect, under the snow, the depth and direction of a vole trundling through its tunnel and make an accurate and deadly strike. Elephants, through their pancake-flat feet, can feel vibrations generated from miles away. Certain amphibians lay their heads on the ground, their jaws picking up surrounding reverberations. (Bone is an excellent conductor of vibrations: think 'funny bone' in your elbow when you whack it.) Animals who rely on hearing instead of vision – marine mammals like seals and whales come to mind – have highly developed ear bones or ossicles. A whale ear bone in my possession, dredged up from the seafloor along with manganese nodules, is the size of a ciabatta roll. True seals can have ossicles up to 320 mg, but elephants outdo them with 650 mg ossicles! Our domestic horses, known for acute hearing, have ear bones of 74 mg. Certain fish, like the drum, have pearly white otoliths about the size of a thumbnail that sense vibrations. An array of adaptations – hyoid apparatus in moles, saccula in frogs, tympanic bulla, Herbst corpuscles in birds, Pacinian corpuscles, temporo-mandibular joints, Merkel disk receptors, tactile corpuscles in humans attest to the extraordinary information-gathering abilities of a host of living creatures.

One of the most entertaining demonstrations of vibration generation is the drumming of ruffed grouse. A motivated cock will hop onto a log and use it to amplify his rapid-fire wingbeats. Prairie chickens do foot drumming, a staccato stamping designed to arouse even the most demure female. Intrasexual competition utilizes vibrations effectively to claim territory and mating privileges.

Mothers keep their broods together relying on pallesthesia. I've witnessed turkey hens rounding up their poults by some such mechanism. I suspect that our cow dams sometimes locate their calves by infrasound, at a frequency lower than the limit of human audibility (about 20 Hz), although they usually vocalize their concern loudly. Sometimes the calves come running when mom appears quiescent.

In The Croods, the Thunder Sisters describe the thunder sound as "crash, boom, pow!", "quaking, shaking, down to your knees." Thunder, of course, is the sound produced by a bolt of lightning where the air becomes superheated to 50,000 degrees F (5x the surface of our Sun) and a sonic shock wave is born. The thunderclap or peal of thunder is the sonic wave, the loud boom you hear is when the lightning channel strikes the ground. Sometimes when small pockets of electrical charge near the place where the lightning originates are energized, sounds like the tearing of fabric or a hot iron sizzling in water occur, known as brontophonic sounds. (Brontology is the study of thunder.) When you hear it, run.

The most emotionally stirring vibration I've felt was that generated by an organ warming up in a cathedral in Spain. The cathedral was on a massif, so the rock magnified the tremulous sounds. My whole body trembled with a delirious and undeniable feeling of joy and it brought tears to my eyes. Like the Beach Boys song, I went to 'a blossom world.' Good vibrations, indeed.

* Pallesthesia – thanks to John McPhee for introducing me to this word in his "Tabula Rasa" Pacinian corpuscles, hyoid apparatus, tympanic bulla, Herbst corpuscles, temporo-mandibular joints'

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Registration and more information about tours:

https://www.audubonofkansas.org/celebration-of-cranes.cfm



2023 Celebration of Cranes Speakers Nov. 4th, Sterling College, Thompson Hall For more information on our tours:

https://www.audubonofkansas.org/celebration-of-cranes.cfm

12:00 - 12:30 pm

Welcome from Audubon of Kansas

What is Friends of Quivira? A brief introduction by Brandon Case



Paityn Bower

Outreach Biologist, International Crane Foundation. Paityn joined the ICF Texas Program with the goal to increase visibility and engagement throughout the Gulf Coast and Central Flyway.

"The Wonderful Whooping Crane" Soar with us through the life history of Whooping Cranes as we describe this charismatic species' fascinating life. The work of the International Crane Foundation will be highlighted. You will learn about new research findings, current landowner and partner engagement, and the work ICF is doing to raise awareness and appreciation for this species.



Dr. Jonathan Conard, Biology Dept. Sterling College,

Education, Conservation, and the Liberal Arts: There is a growing understanding that spending time in nature is beneficial for human health and well-being. However, these opportunities may not be equally available for individuals based on location and socioeconomic status. Understanding the role of experiential education in the natural sciences could be key for developing an understanding and appreciation for the natural world and fostering meaningful conservation engagement.

2:00 - 3:00 pm



Kathleen Kaska is the author of The Man Who Saved the Whooping Crane: The Robert Porter Allen Story.

"Seeing the whooping cranes for the first time at the Aransas National Wildlife Refuge in Texas and using their story in teaching my science class, eventually led to the writing of The Man Who Save<mark>d</mark> the Whooping Crane: The Robert Porter Allen Story. I discovered in my research that Allen's contribution to the recovery of the whooping crane population and the dwindling populations of other birds was too significant to be forgotten and that his story should be told. With the assistance of his daughter, Alice Allen, and the staff at Audubon's Everglades Science Center in Tavernier, Florida, I was given access to Allen's journals, correspondences, maps, and oth<mark>er</mark> writte<mark>n</mark> documents. This allowed me to understand the dire circumstances <mark>of Nort</mark>h America's mo<mark>s</mark>t endangered bird and the passion and determination of the man responsible for their recovery." — Kathleen Kaska

Mail Your ORDER by Oct.26, 2023 NFHAS P.O. Box 1932 Manhattan, KS 66505-1932

Birdseed Sale

PICK UP your order Nov. 4, 2023 between 9am and 12n UFM Community Learning Center PARKING LOT 1221 Thurston St and Manhattan Ave.

Manhattan NFHAS Bird Seed Sale 2023

Black oil sunflower	OUR PRICE	Number of bags	Total
10	\$7.92		
25	\$17.52		
50	\$31.92		
striped sunflower			
10	\$13.52		
25	\$29.52		
50	\$54.32		
flint hills feast			
10	\$9.52		
25	\$20.72		
50	\$38.32		
cheap cheap mix			
10	\$7.92		
25	\$16.72		
50	\$30.32		
sunflower chips			
10	\$15.92		
25	\$35.12		
thistle	·		
10	\$28.72		
25	\$63.92		
finch mix	·		
10	\$23.92		
25	\$52.72		
safflower	·		
10	\$19.12		
25	\$41.52		
White millet	•		
10	\$7.92		
25	\$17.52		
50	\$31.92		
peanut pickouts (shelle			
10	\$23.92		
25	\$51.12		
medium corn chop	751.12		
25	\$6.32		
50	\$14.32		
suet cake			
ea	\$2.16		
Ca	\$2.10		

Northern Flint Hills Audubon Society Or NFHAS Checks payable to: DONATION SUBTOTAL DELIVERY_ TOTAL Delivery service available within Manhattan City limits for additional \$5 COMPLETE and return with payment: **ADDRESS** PHONE_ NAME EMAIL

Return Service Requested

Non-profit Organization U.S. Postage Paid Permit No. 662 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.

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Also available online at nfhas.org

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NFHAS Subscription Information: If you do not wish to join the National Audubon Society, but still want to be involved in NFHAS local activities, *you may subscribe to the Prairie Falcon newsletter for \$20/yr*.

Make checks payable to the Northern Flint Hills Audubon Society and mail to: **Treasurer**, **NFHAS**, **P.O. Box 1932**, **Manhattan**, **KS 66505-1932**

WE NEED YOU! PLEASE consider joining our NFHAS Board.

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