



the prairie falcon

Vol. 32, No.10
JUNE 2004

NORTHERN FLINT HILLS AUDUBON SOCIETY, P.O. Box 1932, MANHATTAN, KS 66505-1932

June 16, 2004
7:00 p.m.
Annual Planning Meeting

WE NEED YOU!

Board Positions open:



President
Vice President
Secretary
Education Chair
At-Large (2)

Please send nominations to any of the present board

JUNE 16th is our planning meeting for the upcoming year's events. Do you have ideas for programs, field trips, etc.? Send them to one of the board members, or come and join us at 7 p.m. at Java Cafe in Aggieville.

Field Trips

BEGINNING BIRDWATCHING WALK

Join us Saturday, June 12th and every second Saturday at 8 a.m. in the Ackert/Durland parking lot on the KSU campus. We will carpool to a local birding hotspot and should return by about 11 a.m. Birders of every age and interest level are welcomed. Children are especially encouraged to attend. For more information call Patricia Yaeger (776-9593) or e-mail her at pyky@flinthills.com.

INSIDE

2 GREEN EGGS
3 PREDATION DEER
4 SKYLIGHT
5 TAKE NOTE
6 ACCEPTABLE LOSSES
7 MIGRATION COUNT

CONTRIBUTORS:

DRU CLARKE
PETE COHEN
THOMAS MORGAN
ELLEN WELTI (DRAWINGS)

UPCOMING DATES:

JUN 12 Beginning Birding, 8 a.m.
Ackert/Durland Parking Lot

JUN 16 Annual Planning Meeting
7 p.m. Java Cafe, Aggieville

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Green (and other) Eggs

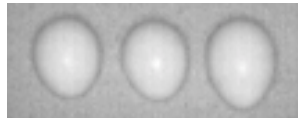
dru clarke

One, two, three, four....I counted my hens as they scratched with their long, scaly toes in the sandy soil. There should be five hens... Baudelaire, the lordly bantam rooster with gilded feathers, strutted in front of them, but... no fifth hen. I peeked in the walkway between stalls, and beneath the panel where they roost at night was a slimy mass of glistening, raw shell-less egg, dumped from the hen as she was plucked from her roost and carried away.

The dogs had been anxious and yappy all night, and now I knew why. We had seen coyotes and bobcats in the yard toward the end of winter: they were hungry for fresh meat to nourish growing foetuses or newborn pups or kits, and our chickens - afraid to go in the henhouse where a sister bird had been nabbed when we forgot to close it up one cold evening - were fair game in the open stalls. The shell-less egg, known as a zephyr or wind egg, is a phenomenon occurring when a hen bird is frightened by something ominous, like a storm, or, in this case, a predator. As one egg is laid, another begins to develop immediately, but evidently with zephyrs the last process of shell-building never has a chance to start, so the egg is ejected, unprotected. Aristotle spoke of such eggs, and attributed their occurrence to stormy meteorological conditions, but he did not mention predation as a stimulus.

I had an emu egg shell once: it was deep forest green, with a pocked surface, and about the size of a kids' football. Today, I collect blue-green eggs from my araucana hens, but they are small compared to the emu's. I waited a long time for them to start laying (I bought them as pullets), but when they did, they were dependable and polite, leaving two or three a day in a place where I could find them. The original six hens are now four. Nature provides, sometimes from our larder.

Eggs fascinate me, and those of wild birds are wondrous in their variety. John Zimmerman lent me a treasured egg collection to use for teaching. They were from native birds, and varied in background color, pattern (spots, streaks, and scrawls), size, and degree of ovalness. The oval shape is said to have evolved with cliff-dwelling birds: if the egg begins to roll, it will do so in a circle, staying on the ledge where it was laid. Great horned (and other) owl eggs are round, not oval, so it seems



odd that, according to The Audubon Field Guide to North American Birds, they lay eggs "on the bare surface of a cliff or cave," although sometimes they use previously established stick nests of other species. So, how does the roundness ensure survivability? (Or, is it a neutral adaptation? Hmmmm...)

Shorebirds have pointy eggs which when laid in a circle- point in-occupy less room, and, hence, are easier to 'cover.' There appear to be no square (bird) eggs, although some shark and skate egg cases I have seen are two-sided, smooth-edged, seamed rectangular packets. When a domesticated chicken lays its egg, the large end emerges first, so I assume it is the same in wild birds.



Some eggs have a luminous shine from the cuticle or 'bloom,' a protective coating which blocks the pores (for exchange of carbon dioxide and water) and prevents microbes from entering. Shell thickness depends upon the age of the hen bird and the egg size. The older the bird, the larger the egg; with the same amount of shell-building material available, the shell tends to be thinner. But some species' eggs are naturally large and thick-shelled: it takes a hammer and chisel to open a two-gallon volume ostrich egg! Hummingbirds' eggs, on the other hand, are bean-sized.

A raw egg is curious, too. The albumen (or white) cushions the nutrient-rich yolk which turns inside: the tissue connecting the two twists into a noticeable cord called the chalaza, which some mistake for a developing embryo. Aristotle called it the 'navel-string.' The more obvious it is, the fresher the egg. Nutrients in the yolk include - besides the cholesterol that once gave eggs a bad rap - zeaxanthin and lutein, found in macular pigment in the eye. By increasing your consumption of these nutrients, one may minimize the risk of macular degeneration. Cephalin, a phospholipid found primarily in nerve tissue, is another nutrient found in eggs. Yolk color also varies from pale yellow to rich marigold: an occasional greenish tinge around the yolk of a cooked egg is from iron and sulfur compounds, not hazardous pollutants.

(continued on bottom of next page)



White-tailed deer are primarily herbivores. However, a scientist watched one deer eat a warbler in a mist net. And Pamela Pietz and Diane Granfors of the Northern Prairie Wildlife Research Center found that deer fed on nestlings in 3% of the songbird nests in their study (Am. Midl. Nat. 144:419-422). Deer removed nestlings of the red-winged blackbird, brown-headed cowbird, grasshopper sparrow, clay-colored sparrow, and Savannah sparrow. This events were videotaped between 10 p.m. and 5 a.m. in June and July in North Dakota.

Could the predatory behavior be partially driven by the deer's need for sodium? In my column, "A Craving for Salt," which I wrote earlier this year, I mentioned that moose eat sodium-rich plants that are rooted in poorly oxygenated muck in wetlands. Unlike moose, deer feed on plants which have little sodium. Most of what is known about salt requirements of deer comes from a study published in 1976 (J. Wildl. Manage. 40:610-625). The deer appeared to be very well adapted for survival on a sodium-deficient diet, but during April and May, they used natural mineral licks. The authors estimated the potassium and sodium concentrations in the deer's diet, and found that the ratio of potassium to sodium increased 5-fold from February to May in Indiana, as the deer switched from a winter diet of greenbriar, plantain, and honeysuckle to a spring diet of succulent grass and forbs. The authors noted that the white-tailed deer's use of mineral licks coincided with the highest dietary intake of potassium and water. The authors speculated that the excessive consumption of potassium and water caused a sodium deficiency. A pregnant doe invests about 20 grams of sodium in the amniotic fluid and in the twins which she delivers in late May. And her milk production is greatest in August, when she loses about a gram of sodium a day during nursing.

Well, after finishing my reading in the library, I still don't know whether a salt drive influences predatory behavior. A way to attempt to answer this question would be to compare the amount of predation on songbird nestlings in lands that are provisioned with salt blocks to the amount of predation in lands that aren't provisioned. Some of the other herbivores which occasionally prey on birds, such as southern flying squirrels, red squirrels, fox squirrels, and thirteen-lined ground squirrels, might also be influenced by their sodium drive. I haven't investigated the literature on the salt drive in squirrels. I did notice a statement about fox squirrels, however. Apparently, some people have seen these critters chewing on cattle salt blocks.

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The first chickens to arrive in the western hemisphere were thought to have been brought on Columbus' ships, but a South American chicken, some believe, was brought by earlier pre-Columbian Chinese ships in the 15th century (around 1421). Today, there has been renewed interest in keeping domesticated fowl, even in suburbia: the success of MacMurray Hatchery, featured recently on Sunday Morning, is testimony to this modern phenomenon.

For those of you worried about the returning phoebes (written about in a previous column), here is an update: Displaced from their



east porch fan, they found an alternate site for their nest, the top of the west porch light, next to the main entrance of the farmhouse. Three wide mouths fill the nest cavity, and they, in turn, are filled by doting parents. The eggs they hatched from would have made a single-bite omelet, so we'll continue to collect araucana eggs for ours.

© May 2004 Dru Clarke

Note: It is illegal to collect eggs and nests from migratory birds. Source for South American chicken origin theory: Menzies, Gavin. 1421: The Year the Chinese Discovered America. NY: William Morrow, 2002.

(piping plover eggs with chick, previous page by Dave Rintoul)



As we move from mid-June to mid-July we will notice our exuberant carpets of wildflowers thinning. Seems like a good time to visit the garden party in the sky. It helps to have a few owl genes in your blueprint, because the party doesn't get going till darkness darkens fashionably late this time of year. Also, those highly twistable necks that owls have are great equipment for star-gazing. I wonder if the 100 percent owls make such use of theirs.

I suggest we enter this garden party by the north gate where Polaris has volunteered to be the greeter for the next millennium or so. Despite his easy visibility he's a very shy fellow who these years never mingles; he barely stirs about in a microscopic circle so that he is always there as the light on the gate, and as a guide-on so that we don't lose our sense of direction as we take the first path to the west.

We will have to step lightly over the hard-to-see extended tail of Draco the Dragon, where sits Thuban. As has been mentioned here, he had star-billing in Caesar's time as the north gate's sentinel, though he never circled as close to his post as Polaris does now. Having stepped over Thuban, another step brings us into the company of what is likely the most well-known celebrity in the whole soiree. The Big Dipper, though part of a much larger array, he has his own separate fame, the way many people might recognize the name of Rembrandt without having a clue as to what pictures to attach to the name. BD is the attached tail and right haunch of the Big Bear, Ursus Major. A long tail for a long Bear, the third largest sky-occupant, occupying at any one time about 90 degrees of his route around the Pole.

Northerly insulated from the summer warmth, the huge bear will be seen amid his annual humongous back flip, his far reach best marked by the three visible feet – three widely separate pairs of stars. From the bowl/haunch they're thrust about a fist and a half to two fists' widths away, two of the pairs to the fore. From there let's quickly go further west to pat Leo the Lion on the head, for he's picked up his sickle and triangle to go home early. And – as a special attraction for this year's party only!(as noted in April) – a rare flower in the

garden should be blooming and creeping upward past that sickle head toward the Big Bear's forward feet: a comet as bright as Polaris and known endearingly as C/2001 Q4 (NEAT).

Next let's retrace, to follow the curved trail indicated by the curve of BD's handle/tail, which points to the brightest star at the party, Arcturus. Is he there as a) the orange/yellow ribbon tying a kite to its tail, b) the lemon sorbet leaking out the bottom of a cone, or c) the gleaming belt buckle of an industrious low-waisted ploughman (BD being the plough) or herdsman? Just off to the east of the stars, diverging northward from Arcturus is a) a small crown, or b) a campfire near circle, or c) a group of smiling petite maidens dancing in a ring (one maiden missing) or, d) a boomerang. In the celestial phonebook hereabouts it's listed as Corona Borealis, but the other possibilities remain, so let's keep following the curve southward to Spica, the brightest gem adorning a very leggy maiden, Virgo. Whether she is a) a fertility goddess, or b) a Medusa-like virago, is a matter of historical opinion, and the rest of her stars are too dim to shed much light on the form beneath.

So, curve onward with a bend back westward. We encounter a basically four-starred Corvus the Crow, or alternatively, a fan. I prefer to see Corvus, the only crow I know who grows more distinct the darker the night.

Thus far we've been meeting some of the regulars at these summer parties. Among the irregulars now are the Moon and Jupiter having a western tete-a-tete on June 23rd, and Mars and Mercury having an intimate conversation low on July 10th, just before they leave as the party's just beginning. Venus, having rested a few days after her run across the face of the Sun, will be reappearing a little earlier before every dawn, achieving another peak of brilliancy July 14th. Well, we haven't gotten around to the folks in the eastern part of the garden, but they'll still be in full swing next month, while these participants in the west will be putting on their coats. Meanwhile, summer solstice at 7p57 CDT June 20th. New Moon July 17th, full July 2nd.

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What am I?

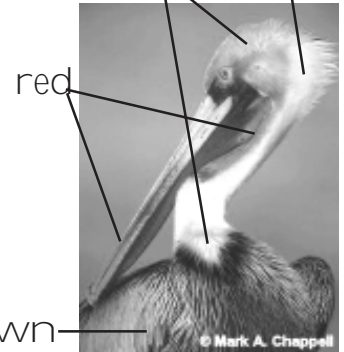
(drawings by Ellen Welti)



i AM A BROWN
PLELICAN



yellow white



brown

© Mark A. Chappell

Each day from eight to four
Less half an hour for meals,
Ugly yellow dinosaurs
Tear apart our fields.

No blade of grass is spared,
Evicted rabbits flee.
The hungry jaws plough ahead,
Crunch, another tree!

Soon we gaze on barren grounds,
While yesterday a stream
Midst gently sloping grassy mounds
Unfurled to meadows green.

The Wrens
paul munro



Fairy Wren
of Australia

Fairy wrens of vivid blue
Were in those rushes born;
Their tiny voices once rang through
To herald each new morn.

Now we hear no creatures call,
No crystal brooks meander past;
Tomorrow comes a shopping mall...
Hosts of toxin spewing cars.

Man and metal void of heart
Portend our darkest day;
Fields of green by stealth depart,
And wrens no longer play.

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Australia



April is a month which offers hope: a month of birth, not destruction. But this year, April was the month the city of Manhattan bulldozed a classroom.

No, it did not ram heavy equipment into a school building, but a classroom, nonetheless, was taken. More precisely, it was the grassland study area of Project W.O.L.F., an outdoor laboratory facility used seasonally by Manhattan High School and a variety of other groups. Project W.O.L.F. (Wildcat Outdoor laboratory facility) has been identified since the late 1960's when an agreement was forged with the city of Manhattan by two visionary biology teachers, Gary Ward and Perry Conway, to give students an authentic, hands-on, minds-on natural area to study principles of ecology. The grasslands area, small but rich in native species of grasses and forbs, led into a successional zone, a slope that ran into an abandoned WPA road, into thick, deciduous forest and a riparian zone along Wildcat Creek. The land has always belonged to the city of Manhattan, but until recently, the leaders had kept the agreement alive, and there was no reason explained to the school district for its use to change.

More recent problems with student parking (Sophomores have been allowed to use a portion of the Sunset Zoo parking lot), littering, foul language and other behavior problems, plus a perceived need to provide a separate service road to Sunset Zoo, led to this bulldozing. It seems the perception exists that the area was minimally used, and it is true that students and their teachers did not visit the area daily; however, seasonal measurements were made by not only high school students, but by their work with elementary children through the Wide Horizons Program, KSU classes in the College of Education, Agriculture (especially Natural Resource Management and Forestry classes), the GLOBE Program, affiliates of the Kansas Geographic Alliance, and the Kaw Valley Heritage Alliance's Stream Link Program, and the summer field lab biology program offered by USD 383. Today, with budget problems that tighten a host of activities, like field experiences away from campus, the area has become even more valuable for meeting the federal and state standards for environmental education,

science, and other curricular areas. Project W.O.L.F. was the envy of school districts statewide, and now, a vital portion of it is gone.

As an example, the successional area - in the 1970's, a grass- and shrub-covered west-facing slope - used to be home for horned lizards - the ones who squirt blood from the corners of their eyes - and scorpions (who glow in the dark when exposed to UV light). Try to capture the vividness of these animals by showing kids a picture! Through time, the area has undergone succession, and now tall cedars and other trees dominate the slope, and it is home to different species. Again, can a book or picture take the place of the authentic landscape responding to change through time? Does the rare late spring spiderwort or the gayfeather of fall resonate with our kids from the pages of a field guide more than being able to see and touch and smell them in their native habitat? Too, will anyone bother to even include in their 'curriculum' a book or image of these species we shared our world with when they are gone? Sunset Zoo is a haven for more exotic animals, and has interesting vegetated areas, but provides little that is truly 'natural' or minimally managed for true discovery in a natural landscape.

Authorities have shown a willingness to compromise and restore a grassland area for future study. We hope that this occurs, and that the impacted users will be involved in the restoration. But this action only heightens our fears of what else may be lost if communication and collaborative efforts do not occur before changes in our landscape are made, and valuable resources that many of us cherish are lost.

Losses when conflicts arise are deemed acceptable if the overriding cause is moral, 'right,' or truly necessary. We mourn if they are personal, and eventually move on. Who, indeed, will mourn for lost acres, those areas naturally adapted to the forces of soil, water, atmosphere, and time? Once they are gone, will we suffer from intergenerational amnesia, never having known what was here before the gravel, asphalt, cars, or built structures took their place?

It is time to widen and deepen our respect, and stand up for the land which nurtures us, and say, " This is not an acceptable loss."

April 2004 Dru Clark



Have you ever wondered “What is the Shape of migration?” It all depends on your viewpoint. Waterfowlers have benefitted from the extensive studies of the U.S. Fish and Wildlife Service in their role for managing the Nation’s game species resource. Hawk watchers may think of it as “Rivers” and space themselves on ridges and prominent peninsulas like the Marin Highlands, Whitefish Point, the Blue Ridge Mountains, and Cape May, to count the flow. Shorebirders look at it as “Island Hopping” and go to the “islands” of Bodega Bay, Mono Lake, Bear River, Galveston, Cheyenne Bottoms, Higbee’s Beach, and Pea Island. All of these have led to efforts to preserve and protect critical habitat for migration: we now have the National Wildlife Refuge System, Hawk Mountain, and the Delaware Bay Beaches. But what of Songbirds?

By what paths do neotropical migrants move from Central and South America to their breeding grounds? Do American Redstarts line up in military style and move north in a solid front, leaving occupying forces along the way? Perhaps Wood Thrushes are like blood flowing through major arteries before anastomosing into capillaries. Think of Kingbirds lining up like the runners in the New York Marathon and visualize the spread after the starter’s pistol. Maybe Purple Martins move like ducks, geese and swans, with colonies making a series of short hops along a predictable route. It may seem wild, but do Bobolinks move like shorebirds, with a series of widely spaced discrete essential stops?

The North American Migration Count is like the Christmas Bird Count, but with a few twists. The Area for any one count is not a 15 mile diameter circle, but an entire County [Parish in Louisiana]. The big twist is the timing: unlike Christmas Bird Counts, which are spread over several weeks, this count is done on just a single day.

The choice of the second Saturday in May has been made to try to find the peaks of movement of neotropical species while they are still where most of the birders are. It will not be peak everywhere: the Northern States will be getting the first glimmer of Spring and the Deep South will be in early breeding season, but the overall goal is of importance to everyone.

The goals of the North American Migration Count are:

- To obtain a “snapshot” of the progress of Spring Migration.
- To obtain information on the abundance and distribution of each species.
- Initiate more participation among Birders within a state and between states.
- Create challenges and goals among Birders while collecting useful information.
- Aid in organization and centralization of data.
- Have fun.
- Establish the second Saturday in May as a “National Birding Day.”

*From - Jim Stasz,
NAMC Coordinator,
Maryland*

Riley County

Preliminary report: 148 species

Pottawattomie County

Preliminary report: 132 species

Highlights: Golden eagle, neotropic cormorant, yellow-bellied flycatcher and white-winged dove



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Subscription Information:

Introductory memberships - \$20 per year; then basic membership is \$35 annually. When you join the Northern Flint Hills Audubon Society, you automatically become a member of the National Audubon Society and receive the bimonthly Audubon magazine in addition to the **PRAIRIE FALCON**. New membership applications may be sent to NFHAS at the address below; make checks payable to the National Audubon Society. Membership Renewals are handled by the National Audubon Society and should not be sent to NFHAS. Questions about membership? Call toll-free, 1-800-274-4201, or email the National Audubon Society join@audubon.org.

If you do not want to receive the national magazine, but still want to be involved in our local activities, you may subscribe to the **PRAIRIE FALCON** newsletter for \$15 per year. 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 Listserv. Send this message <subscribe KSBIRD-L> to this address <listserv@ksu.edu> and join in the discussions!

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