



MARK YOUR CALENDAR

**Australia: The Wildlife Down Under
ROGER BOYD**

February 9, 2020

3 pm - Grosbeck Room, Manhattan Public Library

1:00 - Lunch with the speaker at a El Patron

Australia is nearly as large as the continental US making it difficult to visit a representative sample of the country. On their 29-day tour Roger and Jan Boyd visited the west, east, and south coasts with a short extension to Tasmania. Although difficult to sum up in a few words, Australia is the land of parrots and kangaroos. Both were seen everywhere and in a wide variety of shapes, colors, and life styles from small Swift Parrots to the enormous Red-tailed Black-Cockatoo and from the rabbit-sized Red-necked Pademelon to the 6 ft. tall Red Kangaroo. Like the US, Australia is a land of contrasts and Roger's presentation will give us a taste of Australia's astonishing variety.

Roger Boyd received a BS degree from Baker University, a MS from Emporia State University, and a Ph.D. from Colorado State University before returning to Baker University to teach biology, be department chair, and director of the Baker Wetlands. He recently retired as Professor Emeritus of Biology after 42 years of service. Roger researched Least Terns and Piping Plovers along the Kansas River for the US Army Corps of Engineers for many years. He also surveyed Least Terns and Snowy Plovers at Cheyenne Bottoms, Quivira NWR, and the Cimarron River for several decades. More recently he was involved with development and implementation of the mitigation plan for the K-10 project around Lawrence which expanded the wetlands by 410 acres and provided over 11 miles of trails and the Discovery Center for Baker students and the public to better enjoy and experience the wetlands. With his wife Jan, Roger has organized and led over 25 natural history tours to the tropics for the benefit of students and adults alike. They have traveled to 21 countries and 6 continents in the past 30 years. Roger has served on the JAS Board various times since 1978.



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



prairie falcon

Northern Flint Hills Audubon Society Newsletter

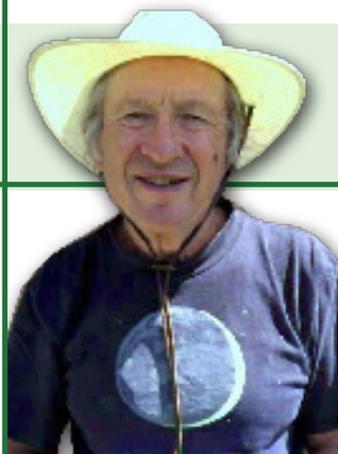
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Upcoming Events

- Feb. 4 - TUESDAY Board Meeting- 6:00 pm,
Manhattan Public Library
- Feb. 9 - SUNDAY PROGRAM
Australia: The Wild Life Down Under
Roger Boyd. See above.
- Feb.14-17 Great Backyard Bird Count (see pg. 5)



Skylight plus

Pete Cohen

Come to think of it, we're into another Leap Year: February containing an extra, or intercalary, day. Absent other arrangements, hourly workers will bring in more than the February usual by month's end; salaried folk will put in a day for nothing. It doesn't have to be this way. Not that we can get the Earth to quit taking 365 1/4th days to circuit the Sun and instead strike a pace that has for that number something more easily divisible. But other folks now and yesteryear have arranged different systems, such as setting regular, unchanging time periods, then from time to time adding intercalaries, or omitting dates, to keep their calendar aligned with the seasons.

The system we're using has its roots about 2700 years deep in Roman history when certain privileged magistrates used adjustments to the phases of the Moon to declare what dates were what. They eventually formulated a 12-month year but were not above tinkering dates to lengthen or shorten the terms of office of favored or disfavored officials, creating apparently an irately confused public. Julius Caesar, taking charge, consulted with an Egyptian astronomer, Sosigenes, and produced a calendar of months that was based on a year of 365 1/4 days. To do so he let the year we now refer to as 46 B.C.E. run on for 445 days, producing a whirl of confusion that nonetheless ended with a workable, if not perfect, arrangement.

Pope Gregory XIII ordained an improvement by omitting October 4 through 14 in 1582, that's been quite gradually widely accepted. Great Britain did so by ending its year 1751, which began March 25th, on December 31st and beginning 1752 on January 1st, then omitting September 3rd through the 13th of that year. Thus unadjusted dates given prior to that September 14th we label 'O.S' (Old Style) and dates after can sometimes be usefully labeled N.S. (New Style).

February's current part is to add a day to every year that can be divided by four, except for centennial years that can't be divided by 400. Thus 2000 was leap year; 1900 wasn't, and 2100 won't be. It's strictly celestial mathematics, and the only explanation I've found for why the adjective is 'leap', is that in common years a date that falls, say, on a Tuesday one year, will fall

on Wednesday the next year, but after a February 29th is added, it will "leap" to a Thursday the next year. Though I suspect the term has more to do with just the crisp sound and meaning of the word.

February being the runt of the litter of months, has been pushed around in all this, having been given various numbers of days through the ages, and for a while put at the tail end of the year. The emperor Augustus took away a day so that the month of August, in the normal order then scheduled to have 30 days, would instead have 31 to be equal to the prior month of July, named for Julius Caesar. February's name, I'm told, comes from the Latin *februum*, meaning a purification, and thus refers to rites of this kind conducted during this mid-winter period.

Gilbert and Sullivan's opera, *The Pirates of Penzance*, gives its hero, Frederic, the problem of being born on a February 29th and afterward being bonded to a pirate gang "until his twenty-first birthday". When he becomes twenty-one years old and is fed up with piracy, the gang won't set him free because he's got fourteen birthdays yet to go. A lot of music, song, and dance provide a happy ending to this situation. Hopefully everyone else born on a leap day has no difficulty from it.

During this extended February three planets will gradually gather closer together in Sagittarius during the wee hours into morning twilight, with Mars up first, then Jupiter, with Saturn below them. A thinning Moon teams up with Mars the 18th, Jupiter the 19th, and Saturn the 20th.

Over in the west Venus sets brilliantly through the early evenings. Not as brilliant, though doing its best, Mercury will be visible close to the horizon the 1st through 12th.

When they have set the winter array of bright characters will sail on across the sky. Taurus the Bull (red-eyed head, long horns, and with the Pleiades for its shoulder) will keep backing away from the oncoming and fully revealed Orion the Hunter trailed by all of the Big Dog (Canis Major) containing Sirius, our brightest star. The long rectangle of the Gemini Twins, rising from prone to standing, will move above Sirius as a stretch of the Milky Way glitters between them and Orion, and Procyon, the lonely bright star of the Little Dog (Canis Minor), shows under them.

Higher up, along the east edge of the Milky Way, will be Capella, the main shine of Auriga the Charioteer, and higher still, amid the Milky Way toward Cassiopeia, will be the sparkling cluster of stars forming Perseus, the sky's young mythic hero.

The non-mythic Moon will be full at 12p48 the 9th, new at 4a28 the 24th.

Mixed Blessing

Dru Clarke



The willows clustered in the southwest cove of our largest pond, swollen from summer rains, had grown large and imposing. The pond's water level, higher than it had been in years, lapped thirstily against the spillway. The willow's soft, lance-shaped leaves and flexible boughs lent a delicate and graceful silhouette to the landscape. I hoped to harvest some of the bark of the slim twigs to chew to release the salicylic acid – the active ingredient in aspirin- stored within, simply out of curiosity to see if it dulled aches or if it simply numbed my gums. So, it was startling to see two of the willow trunks lying horizontally – flat out in the water- and with horror the realization hit that the beavers had returned.

Always one to accept, even embrace, the ways of nature, and remind others that 'they were here first', my husband and I began to look for their burrows and do reconnaissance around the shoreline to see where else they had made incursions on the vegetation. Many years ago, they had built a lodge on the south edge of the pond and we could hear the kits chirping within as we quietly floated our poke boat nearby. Then they moved out, the reason unknown. Today, we found they had harvested saplings and even substantial trees from all margins of the pond, and many of the branches had 'disappeared' from where they had been felled. Research showed that they move them to the deepest part of the pond, where it is unlikely to freeze in mid-winter and stick the chiseled ends into the mud to form a cache of food they can access when the surface is frozen. Underwater entrances to their bank burrows lead to aboveground 'rooms' bedded with wood chips to insulate and absorb moisture.

We installed a motion camera in a tree at the edge of a soft mudflat near where the willows had fallen and were rewarded with lots of images of native wildlife: wintering robins, a Cooper's hawk, a skunk, coyote, and most surprising, a great blue heron stalking, then flying at 10:30 p.m. (Did you know they were active at night?) And a few distant beaver shots: they had evidently moved to another spot. Walking along the west shoreline we noticed a downed young cedar most of whose branches had been clipped off. Not ten feet away a bed of cedar leaves had been laid down on the shoreline, and most of the new shrub growth had been whittled away. We wondered what they made the cedar bed for: a soft place to sit while feeding? A fragrant place to emerge? Some sort of deterrent? Or just to baffle us humans? We moved the camera to that area, hoping the tree it is anchored to would be spared.

Beaver have had mixed relationships with humans. Native Americans considered them the 'sacred center' of the land, and many made them their clan animal. They were honored as Transformer, bearer of wisdom, mischief maker, even a kind of tooth fairy. In the 19th century fortunes were made by trapping beaver and rendering them into fur, felt and food. (Their fatty tails are especially delicious.) Castoreum, a gooey molasses-like substance secreted by glands under the tail, was and still is harvested for its fragrance (a musky vanilla, an FDA-approved natural flavoring). The Eurasian beaver as well as the North American species nearly became extinct, but rewilding efforts have been somewhat successful (e.g. Scotland now has an established population). When I visited a nature preserve in Russia in the early 2000's they were raising captive beavers to reintroduce to the wild. Here, many municipalities are not so

enamored of them and their hydrological engineering skills. In one Idaho town where they were testing the patience of locals, the beavers were captured then dropped by parachute into a protected basin. (Of the 76 only one didn't survive the skydive.) But the wetlands they create host more species – many of concern or endangered- than almost any other environment. And we know the associated benefits: as nurseries for many of those species; slowing runoff, trapping sediment; cleansing contaminated water, absorbing storm surges and flood waters.

The beaver of today resembles its predecessors but is adapted to a wholly different environment. Castoroides, a giant 8-foot-long beaver weighing over 200 pounds, had banana size front incisors but instead of felling trees to eat probably ate semi-aquatic plants (stable isotopes found in their fossil bones differ from those in our modern beaver). Our beaver has iron in its teeth, making them especially durable for gnawing. And their lips close around these protruding teeth so that they can carry materials without ingesting water. Our beaver, with its plushy soft fur kept clean and smooth by a specially designed double-nailed toe on its hind foot, may reach a yard long and 50-60 pounds (although one in captivity tipped the scale at 109 pounds). The kits can swim when only half an hour old but stay with their parents for two years. Mother beaver carries them on her tail, in her front paws, and on her back when she swims. Ear and nostril flaps keep water out when submerged, and a nictitating membrane protects the eye. All said, the beaver is a remarkable animal.

As they are active at night, there is little chance we'll see them in the day, so relying on the camera may be as close as we get to our returned neighbors. In looking around the pond, there seems to be plenty of foodstuffs for them for a long time to come. Willows are fast-growing trees, so they'll come back too. A colleague once told me that the beaver was the spirit keeper of our pond. No doubt this is true, and now we have the real keeper.

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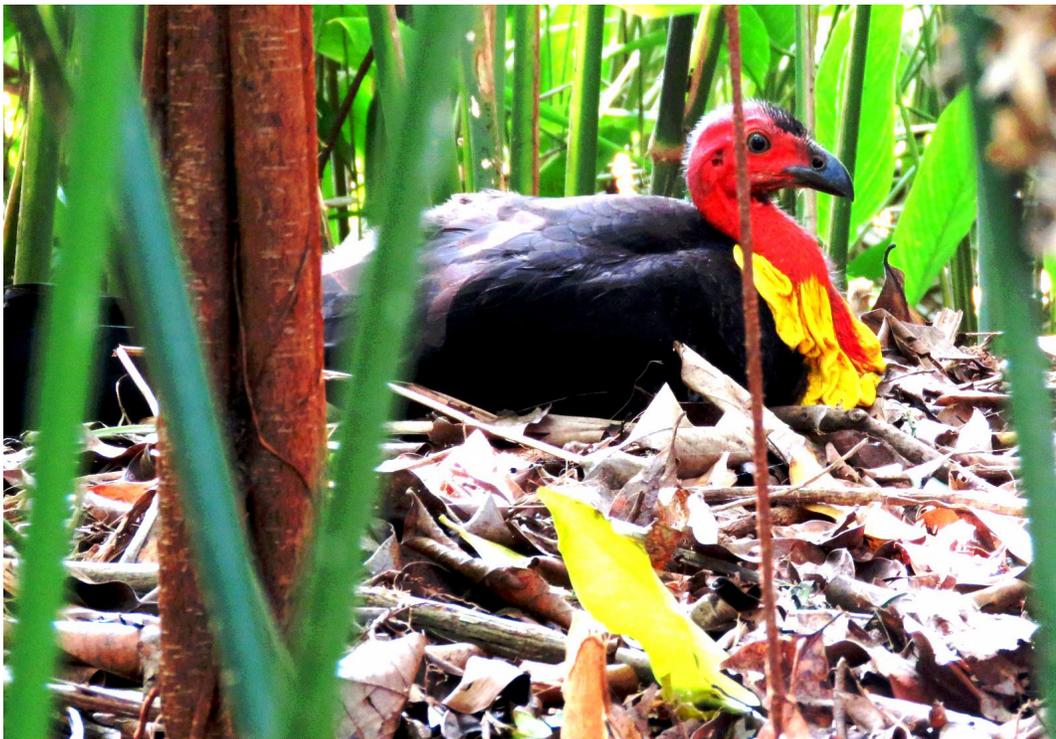


The Wildlife Down Under

Photos by Roger Boyd



E. Grey Kangaroo



Bushturkey

AUSTRALIA

Great Backyard Bird Count

The 23rd annual GBBC will be held Friday, February 14, through Monday, February 17, 2020. Please visit the official website at birdcount.org for more information and be sure to check out the latest educational and promotional resources.

Participants are asked to count birds for as little as 15 minutes (or as long as they wish) on one or more days of the four-day event and report their sightings online at birdcount.org.

Each checklist submitted during the GBBC helps researchers at the Cornell Lab of Ornithology and the National Audubon Society learn more about how birds are doing, and how to protect them and the environment we share. Last year, more than 160,000 participants submitted their bird observations online, creating the largest instantaneous snapshot of global bird populations ever recorded.

The Great Backyard
Bird Count



<https://www.audubon.org/conservation/about-great-backyard-bird-count>

The Merlin - *Falco columbarius*,



Falcons will stun and/ or kill their prey by hitting them with clenched feet in the air. The notch in the beak severs the vertebrae in the neck but is not necessarily responsible for the death of prey.

Humans have relied on them for millennia as effective hunting partners.

Scientists estimate that falcon vision is eight times better than humans’.



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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

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WE NEED YOU!

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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