



HIGHLAND LAKES CHAPTER



Highland Lakes Steward

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MISSION

The Texas Master Naturalist program is a natural resource-based volunteer training and development program sponsored statewide by Texas A&M AgriLife Extension and the Texas Parks and Wildlife Department.

The mission of the program is to develop a corps of well-informed volunteers who provide education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within their communities for the state of Texas

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MESSAGE FROM MELISSA

DON'T EAT THE DIRT..... YET

This is the time of year when we love to plant our natives, dig in the garden and work with the earth in general. Most of us do not mind getting dirty, however, after enjoying that work we usually have a snack purchased from the market or grown in the aforementioned garden. We do not eat the dirt we have been working with.

It is true that dirt holds pathogens. It is posed as a risky substance in literature; full of radon, lead, mercury and other pathogens. However, get beyond these reports and you will find scientists investigating types of soils that can be beneficial to our health. Of course, there is the soil to food link which logically concludes that the richer the microbial biomass in soil yields richer nutrient value in the food.

More intriguing is the practice of geophagy- or the practice of eating dirt by humans. Accounts of geophagy have been found from the age of Hippocrates, more than 2000 years ago. Pre-Chinese peoples utilized dirt in their medicines. Early tribes from the Northern California area ate dirt mixed with ground acorns. The practice of geophagy spread from Africa to the Southern United States during Slavery. In a 1942 survey among schoolchildren in Mississippi, 25% of the children responded that dirt was a regular part of their diet.

Pica is the compulsive practice of eating inappropriate materials and is often associated with mental illness. Conversely, geophagy

is intentional and controlled. Some scientists believe that a nutritional deficiency is present in the diet such as a lack of zinc, iron and calcium that happens to be present in the dirt. Others claim that eating earth actually works as a shield against ingested parasites, pathogens and plant toxins. More than 480 cultural accounts have been put into a database recording geophagy practices. The hunger hypothesis was found to be unlikely because the practice mostly occurs when and where food is plentiful. Most people eat only small amounts at a time that would not fill an empty stomach. The protection hypothesis best fits the data. Women in the early stages of pregnancy and pre-adolescent children are common ingestors. Granted, most dirt eaten is a type of clay taken from deep in the ground and the clay is usually boiled. Cornell researchers state that..... "It is time to stop regarding geophagy as a bizarre non-adaptive gustatory mistake."

I am anticipating a visit from a grandson that is of the age to enjoy making mud pies. Should I dig deeper for clay soil and mix up a clay pie instead? Should I bring a wee spoon while concocting, for a little taste?

I think not. I think we have contaminated much of our soil in this area. But the concept is fascinating and I await further investigation into geophagy. Behavior beyond our norms does not necessarily make that behavior wrong. Maybe one day we will be digging a bit of clay to go with our dinner.

by Melissa Duckworth

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Please submit pictures, articles, reports, stories, announcements, etc. to

chili865@gmail.com.

Photos should have captions and appropriate credits. The deadline for submissions to each month's newsletter is the 10th of the month and publication will be by the 15th.

APRIL PROGRAM

By Cathy Hill

Barron Rector, PhD., Associate Professor and Range Specialist Texas A&M AgriLife Extension Service will lead a plant walk and talk at Reveille Peak Ranch.

Due to it being one of our GOP days the meeting will be at 2:00 pm.

GET WELL!

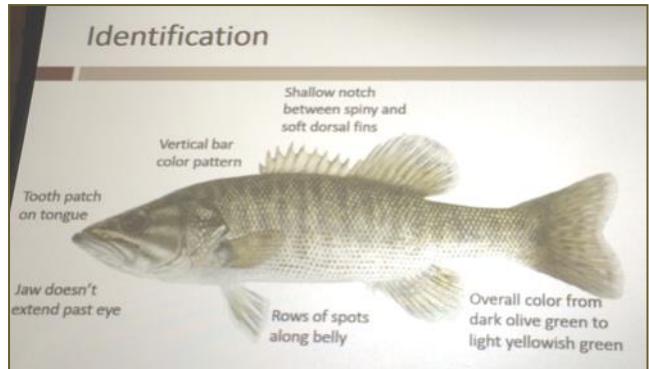
Prayers and loving thoughts for a quick recovery to be back "on the trail"

- Margie Butler – knee replacement
- Elaine Barnhill – cut and stitched foot
- Wade Hibler – his wife, Ellen
- Mike Kersey

MARCH PROGRAM

By Mike Childers

Preston Bean, PhD, a Conservation Ecologist with TPWD at the Heart of the Hills Fisheries Science Center provided a very interesting update on the conservation efforts for the state fish, the Guadalupe Bass.



Guadalupe Bass (*Micropterus treculii*)

Stewardship

An ethic that embodies cooperative planning and management of environmental resources with organizations, communities and others to actively engage in the prevention of loss of habitat and facilitate its recovery in the interest of long-term sustainability

NATURE CENTER SPREADING NATIVE BEE BOXES

by Billy Hutson

Over the last three months UHLNC meetings we have gathered bamboo at the hatchery and other sources to build native bee nest boxes for educational outreach, donation boxes to partners and material to give to kids and adults to start their own nesting boxes.

In nature center activities in and out of our base we have had fun teaching the public about the important roles that all bees have in our environment. Some pictures are attached. Nothing beats seeing a child's enthusiasm when learning about insects.

Of the 4000 native bee species in North America, 500 are found in Texas and their habitat is shrinking. And with the downturn of our honey bee population the native bees are becoming more important in picking up the pollination load. As naturalists, we are spreading the word and helping in some small way to mitigate the problem.

So far we have donated our hand made boxes to HLMN, Inks Hatchery, Balcones, Save The World Brewery, Science Mill, UHLNC and Inks State Park with several in use at our learning stations.

Shown counter-clockwise from below are pictures of the ones at the Balcones NWR, Save The World, a natural habitat in a dead tree, Nature Center rain water distribution system, and an interested family at a recent Marble Falls event.



THE EASTERN KINGBIRD

by Joanne Fischer

The Eastern Kingbird (Order: Passeriformes, Family: Tyrannidae) is another species seen in the Hill Country that could be mistaken for a more common area resident – the Eastern Phoebe. Given that both are flycatchers with similar fly catching behaviors and couple that with the fact that they are very similar in coloration (dark gray upper parts, white breasts and black heads with crests) it is possible to mistake one for the other (see accompanying photos). However, the Eastern Kingbird is larger than the Eastern Phoebe (an inch and one half longer) and it also has a key distinguishing characteristic – a conspicuous white band at the end of its tail. An “inconspicuous” feature of the Eastern Kingbird is a crown of yellow, orange, or red feathers on its head. This crown however is usually concealed.

The Kingbird is one bird species that “resembles” its name. The scientific name *Tyrannus* means “tyrant, despot or king” and in the case of the Kingbird it refers to the aggressive nature of this species. Kingbirds are known to harass birds much larger than themselves such as Crows, Hawks, Jays and even Great Blue Herons if they intrude on their territory. They have also been seen attacking squirrels while defending their nests. They are very territorial during breeding season and will aggressively fend off intruders and may even display their hidden “cap”.

The Eastern Kingbird has quite an extensive range and despite having “Eastern” in its name, its range extends from the Atlantic to the Pacific coasts. Eastern Kingbirds are summer residents virtually everywhere in the United States east of the Rockies as well as northern states that are west of the Rockies and also parts of Canada. However, because the Hill Country is on the western edge of the Kingbird’s range we typically only see it during spring or fall migration. But it does breed in eastern and northeastern Texas. They are long distance migrants and winter in the forests of South America. And unlike their breeding behavior which is very single pair oriented and territorial, they travel and feed in flocks on their wintering grounds.

Eastern Kingbirds breed in open habitats – fields, pastures, and grasslands and are especially attracted to open spaces along forest edges or water. The female builds the nest which is typically placed in a deciduous tree or large shrub, in a range between seven



Eastern Kingbird



Eastern Phoebe

and thirty feet above the ground. Incubation is done mostly by the female. And although the eggs hatch in about two to two and a half weeks, and the nestlings fledge in another two to two and a half weeks, the parents continue to feed their young for another month after they fledge. Because of this relatively long period of dependence, a pair generally only has one brood per year.

One interesting fact regarding the Eastern Kingbird's breeding is that they may sometimes parasitize each other's nests by leaving their own eggs to be raised by another pair. On the other hand, the species is known to eject Brown-headed Cowbird eggs.

(Continued on page 5)

CONGRATULATION TERRY BARTOLI!

2500
Volunteer
Hours



KINGBIRD

(Continued from page 4)

The Eastern Kingbird's diet consists primarily of insects during migration and the breeding season, but during winters in South America, they eat mainly fruit. Eastern Kingbirds prefer relatively large insects (beetles, crickets, grasshoppers, locusts) which they take back to a perch, beat into submission, and swallow whole. They will catch smaller insects on occasion which they swallow without bothering to land. It is believed that they rely almost completely on insects

and fruit for moisture since they have rarely been observed drinking water.

Although the Eastern Kingbird population has decreased slightly since the 1960s, they are still considered widespread and from a conservation perspective are classified as of Least Concern. The decline in population is, like for many species, attributed to loss of habitat and use of pesticides.

And, in conclusion, in keeping with its descriptive name – a group of kingbirds is collectively known as “a coronation”, “a court” or “a tyranny” of Kingbirds – how appropriate is that!

NOT ONE OWL, NOT TWO OWLS, BUT THREE SCREECH OWLS NESTING IN OUR YARD

by Lyn Davis

This year we put up another owl box in our backyard and one in the front yard to join the one that was put up last year. The owl from last year took residence within a day or two, so why not try more this year? ... at, least that was our thinking!

We live in Lakeway – on one street from the lake so our trees are large. All three boxes have had nesters now for at least 3-4 weeks. Our YOUNG grandkids have named them Hootie, Peekaboo and Wings. We order meal worms from a cricket ranch at 2,000/order and keep the worms in sawdust in a cool place. We thought of raising our own meal worms, but they are cheap and free shipping!!! Every evening on a platform feeder near each owl box, we put between 10-15 worms. Interestingly, one evening we were out/between shipments – when suddenly 2 screech owls flew within 3 feet of our porch where we sit and enjoy them in the evening around dusk. We're they notifying us they were ready for their worm treat??

Now we are patiently awaiting the arrival of their babies.....to be continued.

A few facts that you might not know regarding screech owls:

- Males smaller than females
- Males bring food while the female is on the nest
- Pairs are monogamous
- Oldest screech owl 14 years, 6 months and over 20 years in captivity
- Males have the lower pitch voice
- Average weight of a screech owl is 5.5 to 6.5 oz.
- They are about 6.1 inches long
- They have a wingspan of 15 inches



GALLERY

by Sondra Fox



I spotted 12 Great Egrets roosting in trees near my home a couple of weeks ago. After several evenings of trying to get good pictures, I have given up. It is just too dark by the time they come in to roost. These two pictures are my best ones. Many of the egrets are in breeding plumage.



Pine Siskin at water fountain