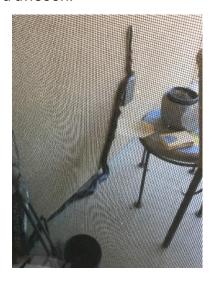
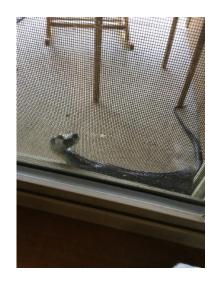
The Hills Above Possum Kingdom Nature Committee Newsletter Spring/Summer 2020

INTRODUCTION: Welcome to the Spring/Summer edition of the Nature Committee's seasonal newsletter. As we prepare it, the spring hasn't yet brought many of the birds we have here BUT by the time you read this most will likely have arrived. However, based on what has taken place in the past years, things even now are a little slow. While we have nesting Phoebe's (one nest has already been a failure - most likely done in by this Rat Snake that took up residence for a period of time on our front porch where the Phoebe's were nesting), Bewick's Wren feeding young in their gourd nest box and a pair of Black-crested Titmice busy feeding their young in a box down our drive. We seem to have fewer hummingbirds than last year at this time and have yet to see the beautiful Painted Bunting and the Dickcissels. BUT we do have at least one Black-capped Vireo singing and seen only once but it is not uncommon for this bird to move around unseen.





We have updated the Bird Checklist for all birds seen here in The Hills. We added seven new birds to our list for a grand total now of 171 species. The birds added since last check list include an American Woodcock first recorded on our game camera then heard calling its "peent" call a couple of nights later. So, look and listen for that bird and learn to separate it from the Chuck-wills Widow which has a fairly distinct three call that almost sounds just like its name. You can access the new Checklist with this link. The Hills Bird Checklist - 2020 (hover over this link which then says to do 'control+click' then say ok. Should take you directly to the checklist)

Meanwhile, there are things happening in our community and the following articles are intended to inform you, entertain you and help in making you aware of just how many different things there are - both as a nuisance and as a benefit to us. The Nature Committee (Lynne Aldrich, Lynne Brown, Peter Gottschling, Wolf Patrick) hope you enjoy this issue. If you've missed others be certain to go on line at The Hills Above Possum Kingdom https://www.pkhillsassociation.com/nature-committee.html

POSSUMS (Wolf Patrick)



Since we at "Possum Kingdom" use the French spelling of the word Opossums that is how this part of the Newsletter will read. Let's start by noting there are several different stories as to how Possum Kingdom got its name. The two most excepted are the French Trappers that came through here in the 1800's and said it was the largest population of Possums they had ever seen; thus the French spelling, and the other story is that lke Sablosky; a Russian Jewish Immigrant, who settled in the area of Mineral Wells, went into the Fur business and called the trappers who brought him Possum pelts "the boys from Possum Kingdom." It is possible both stories are true and are one and the same.

So now to learning more about Possums: Possums are the only marsupial native to North America. Ours are called the Virginia Possum. Because Possums are scavengers, they will nomadically roam from place to place. Like Buzzards, they are attracted to carrion, which is why you may see them inspecting roadkill. This activity (like the Buzzard & Vulture) help to control the spread of diseases. In addition to carrion Possums also consume those beloved roaches, the pesky slugs that attract wild hogs, worms, mice, and oh yes snakes!! Did you know that studies show Possums are immune to snake venom, and that includes our western diamond back rattle snake. Possums also like table scraps so if you have one you want to keep around, well there you go. Studies show they have an uncanny ability to remember where food is left. Now for those of you who think they are nasty creatures, here is some insight for you, they are just like cats in keeping themselves groomed and remarkably clean. But the best attribute they make is they eat ticks!! My research shows this icon of our community can consume around 5,000 disease spreading ticks (though some sites say 7,000) in just one season. A healthy Possum population means a more controlled tick population and less chance of Lyme disease.

Because of their low body temperatures Possums are not susceptible to certain diseases that other wildlife is. Unlike wild hogs for instance, a Possum getting rabies is an <u>extremely</u> rare event. Though this creature skipped down the same trails as the dinosaurs; showing great resilience, they only live about three years and are often killed

by predators; to include humans. When they play dead; like you may have seen them do in the road, please know it is actually extreme fear and they have literally fainted!! That state can last up to four hours and they may even appear to be stiff as a board, so researchers ask that you give them a chance and don't run over them, if they are playing Possum they will jump up and run at some point and head out to go eat some ticks!! Though they possess like 50 teeth, our name sake is considered very gentle and poses little threat to anything.... except chickens, and who does not love chicken, so you cannot really fault them for that.

And lastly as appropriate for a place called Possum Kingdom Lake our mascot loves water and they are very good swimmers.

In conclusion: **Protect the Possum my fellow Possum Kingdomers!!**Here is a video clip on why Possums are so good for your back yard.
https://youtu.be/TZolo-IJMAc

IT'S WILD HOG TIME!! (Lynne Aldrich) - And most of us would say that it is time for wild hog time to end. I suspect most of us have been spending a few months trapping, maybe shooting and other wise attempting to FULLY get rid of these pesky pigs. Well, more than pesky - they are downright a nuisance and many of our yards show the torn-up signs of them. Hopefully we can all be successful in finally getting them under control but meanwhile - there are some interesting things to know about them and how they have grown to become so prevalent in Texas and The Hills. We can do our best - trap, shoot, fence, flash lights but alas we are probably stuck with them for some time. But there are some interesting facts about them.

Wild (feral) hogs began to increase in population in most areas they had inhabited around 2000. Wild (feral) pigs occupy one of the largest global ranges of non-domesticated mammals and have been in the US for centuries. But prior to this time appearance of feral hogs into urban areas was uncommon.

And mankind itself has had a huge role in helping to expand the range of this nuisance. First by transporting them into new areas for purposes of hunting - with over half of the nation's estimated population of feral pigs living in TEXAS.

Feral hogs can live almost anywhere and as their population grew, they expanded their range to include more urban areas and areas that, as development took place, removed some of the natural habitat that kept it protected from so many things. They have been able to spread by using drainage corridors and 'greenway/bare ground' corridors and finding vegetation (grasses) and man-made garbage as food resources to sustain themselves. Landscape areas and other areas where natural habitat have been removed get rooted and rooted badly. They will eat nearly anything - they dig out plants by the roots and will eat ground nesting birds, eggs, insect larvae - you name it they

pretty much eat it. While being opportunistic omnivores, they prefer succulent green vegetation (they do not digest cellulose well) along with a variety of animal material, fruit and grain. In the spring they eat grasses, forbs, roots and tubers. In the summer and fall they eat mostly soft and hard mast such as prickly pear cactus, mesquite, guajillo, huarache, grapes, plums, acorns and persimmons. Rhizomes, bulbs and tubers are also important food items during the fall. Winter diets consist mainly of grasses, forbs and agricultural grains such as corn, milo, wheat, oats, rice and soybeans. They also eat peanuts, pumpkins, watermelons, potatoes, cantaloupes and orchard fruit. Shelled corn put out as supplemental feed for wildlife - deer and turkey feeding attracts feral hogs and can be a major part of their diet. They readily consume carrion and animal matter, including arthropods (especially beetles), amphibians, reptiles, eggs, birds, small mammals, and the young of wild mammals and livestock.

And, a big impact they have on our natural surroundings is that one study shows that both mammal and bird communities are about 26% less diverse in areas where feral pigs have taken over.

Not only one of the most intelligent animals - also one of the most prolific!! They average between five and six per litter and average two litters per year. The female usually is over a year old before breeding begins. Wild pigs average about six to eight years in life span with predation not being real issue after about being 15 pounds or so. They can also get up to a hefty 300 pounds for a really big one but generally female up to 175 pounds and males up to 200!!!

Just to show how smart they are? We put out a trap and baited with corn. One night they came and ate the corn leading up to the trap but did not go in. The next night the corn in the trap was GONE and no trap door sprung. How did they do that? Well, based on the skid marks and trampling they simply shoved the trap aside one way and ate corn that was under it and then shoved it the other way and ate the rest. It is recommended you stake down your traps.

Trapping and shooting - the main ways to get rid to these truly pesky creatures. But then, literature indicates that it would take a reduction of 50 - 70% of the population to simply keep the numbers stable!! Not good news but worth a try.

So, it is true that feral hogs represent a serious problem that is on the increase. The damages caused by these animals to date in urbanized areas have been widespread and varied. Specifics about their behavior in more developed areas are not well understood. What are their movement patters and their home ranges? Human disturbance can move them away but they do tend to use the same paths (they are creatures of habit) so long as the food source remains and they are more than willing to venture far and wide in seeking a food source. Unfortunately, the solutions to the urban feral hog problem are at best a work in progress at this time.

REMOVING WEEDS THE CHEMICAL-FREE WAY (Lynne Brown) We all must admit that with the first signs of Spring, one of our first realizations is "Here Come the Weeds!" Many of us, including landscapers, farmers and gardeners, turn to chemical applications such as Roundup. That certainly does eliminate unwanted weeds and grasses quickly. But few are aware of the many dangers that using that product creates.

Roundup contains several dangerous chemicals, including Glyphosate, a known carcinogen. It is toxic to many beneficial organisms and microorganisms, including earthworms. It is extremely toxic to aquatic life if it seeps into a water source. It is found to contaminate ground water supplies. These are only a few of the problems it creates.

Having these facts in hand, why not turn to natural and organic methods for controlling weeds? They are not always as fast-acting as chemicals, but the effort is well worth it when considering the damage that some of these products do to our environment. Following are some suggestions that seem to work well:

- 1. Mix well 1 gallon of apple cider vinegar, 2 cups Epsom salt and ¼ cup Dawn dishwashing liquid in a garden sprayer. Spray grasses and weeds on a sunny, hot day. Avoid spraying any ornaments, shrubs or flowers (so not on a very windy day!) Also, treat on a day where rain isn't expected for a few days, to give the product time to work.
- 2. Purchase a jug of 20% agricultural vinegar for organic production. This is sold at many garden centers, or online. This is the product that many farmers use to control weeds. It should be applied with a sprayer, undiluted, on a sunny, hot day, with little wind. It's very strong, so follow directions (use gloves and eye protection). This really does the trick!
- 3. Boiling water. Pour a kettle of boiling water over weeds to burn them up. This works well along garden paths, pavement, etc.

For smaller areas or gardens some suggestions:

- 1. Mulching cover soil between plants with organic matter such as grass clippings, straw or wood chips (no hay). That will help smother the weeds.
- 2. Cover weedy area with plastic sheeting, clear and heavy (not black). Full sun and heat will help. Leave on 4-6 weeks until the weeds are dead.

If all else fails, get out your trusty hoe. It's great exercise, and the way farmers used to do it for years and years!

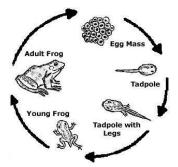
TADPOLES (Lynne Aldrich) – They are the beginning of life for those toads and frogs we find on our porch starting soon. Tadpoles are the larval stage of amphibians and are mostly fully aquatic. If you look in those standing pools of water right about now you can see them floating around. They love still water and feed on soft decaying plant matter. The ones we are seeing in our yard love the moss loaded standing pools of

water. The cool weather we are having at this moment has them somewhat sedentary but as things warm up, they will use that flattened tail at the end of a little fat body to dart about madly.



But just how do THEY start that begins the life cycle of those toads and frogs. Both toads and frogs begin the same way – male calling from the distance in more wooded areas, females being attracted to the call, mating then egg laying. That egg laying occurs in slow running/stagnant water. The toad eggs will be in strands with the frog eggs being clusters. We've been hearing toads and frogs for some time now so we've been on the lookout for those tadpoles. We saw our first around April 10th. Any single frog or toad can lay thousands of eggs so it doesn't take too many to get all those tadpoles started. Depending on the water temperature the eggs can hatch in three days to two weeks.

There are four stages in a frog or toad creation starting with the eggs, then tadpoles, then tadpole with legs, young frog and toad and then land loving adult frogs and toads.



The tadpole starts with gills so it can breathe underwater then slowly develops lungs for its final stage as a land loving frog or toad. The whole tadpole stage takes up to nine weeks to complete. So, the tadpoles we're seeing now will begin to load our porches

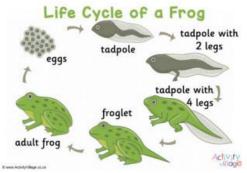
sometime towards the end of May then begin to migrate back to the woods, meadows and gardens where they spend most of their lives.

The male fertilizes the eggs as they are laid. They lay hundreds of eggs because of the hazards encountered between the laying of the eggs and the growth into full adults. Lots of the eggs themselves die and if one is vigilant you might see them as they turn white or opaque in the tepid water. Even once hatched there are dangers ahead. They don't really begin moving about until they have developed their lungs and have truly begun to look like tadpoles – getting longer as they grow. Then, the tadpoles begin to swim around – up to ten days after hatching and feeds on the algae in the water. After a few more weeks (up to four) go by the tadpole begins to develop very tiny teeth that allow it to grind foods into small particles. They are highly adapted to digest the small amounts of food they intake so they gain the maximum nutrients from them.

By the fourth week they become more interactive and begin to develop little tiny legs with their heads becoming more distinct followed by arms bulging out. Their diet begins to change to include not just plant life but some insects as well. After about nine weeks these little tadpoles begin to look like tiny little adults with a really long tail.



It will soon be leaving the water to lead its life as an adult and then repeating this process over again. So fairly soon we should see these guys come out of the water – and if we're vigilant can watch this slow process outlined above taking place in the water itself and then be on the lookout for them hanging on our windows, screens and hopping about our porches before they disperse to more wooded areas.



If we miss the mass of eggs having been laid (remember, frogs in clumps and toads in in a long string), then we can check out their color once they hatch, with a toad tadpole being jet black and the frog tadple mottled greenish grey with gold speckles. And then there is telling them apart onces they come out of the water and begin to be under our feet and depositing their poop on our porches. Both the frog scat and troad scat can be

up to an inch long about the size of a quarter – those huge pieces of poop we find on our porches indeed come from these small creatures. But there are other ways to tell

them apart.



The toad will have short legs and a fat body that has dry and rough skin which will be covered with wart like features. Those warts are meant to produce a milky poisonous fluid that is harmless to us but toxic to their predators. Color can vary according to not only species but to temperature and humidty – along with stress. They are usually brownish with four toes on their feet in front and five toes connected by webbing on their hind feet. Frogs on the other hand usually have moist slimy skin that is smooth. A frogs eyes will stick out further than a toads and their hind feet are longer. And, a toad is ok with dry land while a frog will require some water to be around in order to keep its skin wet.

So,I have fun watching this take place around us and yes – even enjoy their taking over our porches.







APPS, WEBSITES, NEWSLETTERS AND FREE PROGREAMS (AND REAL BOOKS) TO HELP YOU ENJOY THE NIGHT SKY IN THE HILLS (Peter Gottschling) -

I usually do a column that gives a broad overview of what is happening in the sky for the next few months. There is an old parable that you give a man a fish and feed him for a day, but teach him how to fish and he can eat for a lifetime. So rather than feeding you with general information I will show you to fish for your own information from the sky.

There are dozens of apps to help you improve your night sky and star gazing knowledge. There is no way I could find and test all of them myself. I would rather take the time to actually look at the sky. Here is a list of some of the most popular. Most can be downloaded on Apple or Android.

A list of some popular star gazing and astronomy apps can be seen here. I was quite surprised this list was on Good Housekeeping but I am familiar with almost all on the list so trust it. https://www.goodhousekeeping.com/life/g26089673/best-stargazing-apps/ (Ctrl+click to follow link)

My favorite is Sky Safari. One reason it is so good is that the company that puts it out specializes in astronomy and educational software. The basic iOS version is \$3 and free for Android. I have it on my phone. It is loaded with information and is still easy to use for basic location in the sky and as HG points out, you can use voice control also. I have not tried voice control yet. I actually use the upgraded version Sky Safari Pro on my iPad to control my telescopes wirelessly. It is pretty cool to just touch an object on the screen and the telescope starts moving there magically.

My second favorite app is ISS Detector and Satellite Tracker. I am fascinated by seeing the international space station zoom by overhead. I usually wait for ones at maximum brightness of -2 or -3. This is way brighter than the brightest stars by a factor of 6-15 times. The ISS comes close to the brightness of Venus at its brightest. The bright passes remain visible for 4-7 minutes and seem to be almost motionless when it reaches the zenith. You can set alarms on the app to alert you or just check it every once in awhile and see what is expected during the next few days.

Speaking of the ISS. NASA has an app that actually shows pictures of Earth from the ISS as well as other space photos. It is called NASA sky watch on Android. I just downloaded and have to get to know it better.

If a little screen is too small for you to enjoy space then I recommend the free astronomy software, Stellarium for your computer (which is available as an app but must be appreciated on a big screen). This is a full-blown planetarium program with a beautiful rendering of the night sky. It is easy and fun to use.

For finding out about current things happening such as meteor showers, planets, asteroids and comets check out The Sky Live https://theskylive.com/.

If you like to keep up with current sky happenings and recent astronomy research news, the EarthSky https://earthsky.org/ will send you a daily email with one or two current stories. I signed up for this because they often describe the latest published research for astronomy and earth science (in a simplified way I can understand). McDonald Observatory also sends out current sky activity informational emails but not other current astronomy news.

If you are old school like me you might enjoy a subscription to Sky & Telescope Magazine or Astronomy Magazine (or both). There are also books for beginners and many books about advanced observing. A good starting point is Terence Dickinson's Nightwatch.

One of these days we will have another star party in The Hills so keep watching this column.