MAY 15-31, 2016 NATURAL HISTORY NOTES FOR EASTVIEW
By Dick Harlow

CATTAILS

(1) Wide-leaved Cattail, *Typha latifolia*

The name Cat O' nine tails, came from a multi-tailed whip that originated as an implement for severe physical punishment by the Royal Navy. I believe when sailors from Britain came to America they observed a species of cattails that had thin leaves in a bunch; and they had to have thought it looked like the long leather straps of the punishment whip, the Cat O' nine tails.

Cattails are easy to see as they grow in many shallow ditches, make up large masses in marshes, and are easy to see from some distance. If Cattails don't have to compete with Phragmites, which is another large reed like plant, they will be the most dominant species in a marsh and very easy to identify from a distance. The following 1st 2nd and 4th pictures were taken here at EastView.

There are two species of Cattails known as aquatic reeds that live in marshes, alongside freshwater shores or along freshwater seeps next to saltwater. Wide-leaved Cattail, *Typha latifolia*, (1)(3) has a wide leaf, and will be primarily found in freshwater marshes along ponds and eutrophic lakes.

(2) Narrow-leaved Cattail, *Typha angustifolia*

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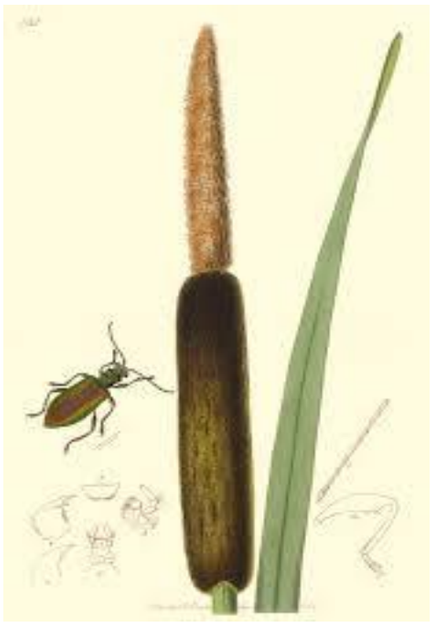
Narrow-leaved Cattail, *Typha angustifolia*, pictures (2)(4) will grow in the same area, but *angustifolia* has a tendency to tolerate salt better than *latifolia* (1). Therefore, you might see *angustifolia* in areas where there are tidal influences or along roadside ditches where winter salt treatment has concentrated.

The best way to tell the difference between these two species is to look at the flower spikes (3)(4). Wide-leaved Cattail has no space between the female (brown) lower section and the male (lighter tan or gray) upper part; they look as though they are attached. However, on the Narrow-leaved Cattail, there is a wide space of varying lengths between the male and female parts of the flower. We have both species here in our EastView retention ponds.



(3) Wide-leaved Cattail, *Typha latifolia*
© L. Watson and M. J. Dallwitz

Although Cattails can overtake a shoreline or shallow pond, they do a valuable service to pollution remediation by absorbing and using many of the pollutants, e.g. fertilizer runoff and other pollutants found in water runoff of lawns, driveways and streets. All this nutrient and pollutant rich water flows into our retention ponds and adjoining freshwater marsh.

(4) Narrow-leaved Cattail, *Typha angustifolia*
© Dick Harlow 2015

However, Cattails are not the only plants that thrive with an increase in water nutrients. Plants thrive on nitrogen, potassium and phosphorus that are found in the nutrient package of lawn fertilizers. Large surface and undersurface concentrations of various species of green algae also flourish with the spillage and flow of dissolved fertilizer that overflows into the retention ponds. It is the over abundance of water nutrients that causes a tremendous algal growth in the ponds which creates the anaerobic conditions when all this plant growth dies. This creates a very unhealthy water environment for living organisms.

Further information on algae will come in future notes.

TURKEY VULTURE

Turkey Vulture, *Cathartes aura* © Dick Harlow 2016

This fellow was a visitor last month here at EastView. This type of visitor we normally see flying high with raised wings over our fields and meadows. But, on the 7th of April there were three individual vultures finding something to their liking by the bluebird boxes, and spent some time picking over whatever it was that they were investigating. When I went out to take a look after they were gone, whatever evidence might have been left was no longer there.

Unfortunately, I wasn't able to capture a confrontation between a flying Turkey Vulture and a Northern Harrier, and between a Northern Harrier and a first year Red-tailed Hawk shortly before the vultures landed between the bird boxes.

Turkey Vulture, *Cathartes aura* © Dick Harlow 2016

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Have you ever wondered what happens to animals, let's say a deer that dies in the woods, or a Raccoon or for that matter any animal that dies in the woods? Turkey Vultures are scavengers that will finish off a carcass in a short period of time.

When an animal first dies and is found by coyotes they will partake as the initial scavengers. But, they will not scavenge a carcass that is over a few days old. Primarily, toxic bacteria have released too many toxins into the carcass. When that happens Turkey Vultures and in the south Turkey Vultures and Black Vultures will fly in to feed on the carcass.

I don't think that people tend to think about natural death happening in the woods. But, it does, and there is nothing except these vultures and other carrion eaters to break down the carcasses so that fungi and microbes can do the rest. These fellows play an important role in giving back to the natural system, to the forest floor and to the earth, vitamins, minerals, (e.g. calcium), and organic waste. It is so important for plants to have these minerals recycled into the earth.

Turkey Vultures have an amazing digestive system. When an animal dies flesh-degrading Fusobacteria along with poisonous Clostridia start working on the body. As the carcass decomposes the bacteria excrete toxic chemicals. Studies have shown that vultures are immune to these bacteria and the deadly toxins they produce. As a matter of fact, vultures tend to wait and come in on a carcass after these bacteria have begun to work and less competition for their meal. Don't let anyone say that vultures don't play an important role in our ecosystem!

OPOSSUM

Virginia Opossum, female with young, *Didelphis virginiana*
© Stan Tekiela

Yes, EastView has this critter investigating our grounds! This fellow is the only naturally occurring marsupial in North America! They have done well from the south to the northeast due to their flexible eating habits, and their reproductive success.

Opossums are an interesting animal. What animal that you know of has either total or partial immunity to the poison of pit vipers, i.e. poisonous snakes? Opossums have that immunity! Rattlesnakes, Cottonmouths or Copperheads don't seem to bother them. According to literature, Opossums are "about eight times less likely to carry rabies than wild dogs, about one in 800 opossums are infected with this virus." That is one impressive immune system.

This immune system is probably why this marsupial has been so successful colonizing the eastern part of our continent in unusual locations and under different conditions.

EastView is ideal. No loose dogs or cats. It is easy for the Opossum to walk around our campus at night without being noticed except during mating season. How do I know they are here? Tracks left along our South pond and in the snow during 2015. Opossums are loners and nomadic. They will stay in a place providing there is plenty of food and water; but when food sources become scarce or absent they will move on in search of a better opportunity.

Because Opossums will occupy an already dug burrow, or house themselves under a shed, or find any spot where they can seek cover with perceived safety, there are spots around EastView where they can hide. As EastView's grounds become more established and our landscape becomes more inviting with cover, we may in fact get to see one of these critters walking around campus.

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MAY OBSERVATIONS

BUTTERFLIES

Cabbage White
Silvery Blue
Mourning Cloak
Red Admiral

DRAGONFLIES

Common Whitetail
Dot-tailed Whiteface

AMPHIBIANS

Gray Tree Frog
American Bullfrog
Leopard Frog
New England Tree Frog

MAMMALS

Canines
Eastern Coyote (heard)

Ungulates
White-tailed Deer

Rodents
Meadow Vole
White-footed Mouse
Eastern Gray Squirrel
Eastern Cottontail
Muskrat

Weather Tidbits

Month of May 2016

All Measurements taken at solar noon (1230 EST).

PRECIPITATION

Total Precipitation: 56.4 mm or 2.2 inches

Overcast Days: 11

WIND

Highest wind gust: May 8, 34 MPH, Direction: North

Average Wind speed for April: 1.7 mph,

Dominate Wind Direction: North

Days w/wind gusts 20-30 MPH: 8 Days w/wind gusts 30 MPH: 2

TEMPERATURE

Mean Temp: 15.1.0 C^0/59.2^{0}F
High Temp: 30.1 C^0/86.2^{0}F
Low Temp: -0,4 C^0/ 31.3^{0}F

DAYS OF:

Min. Temp. 0.0 C^0/32^{0}F: 2 days Max. Temp. 0.0 C^0/32^{0}F: 0 days