Wildlife Classroom Series:
Turtles: an early celebration of World Turtle Day!

Wednesday, May 8, 2013

Comment:
Who is taking attendance? Mark me present.

Raina Krasner, WCV:
Just a few minutes until class starts! Who's ready besides Guest?

Comment:
That is me that is present, not guest :)

Raina Krasner, WCV:
Well, hello!

Comment:
Hmmm, Guest is present. Fancy that!

Comment:
First ever class for me. Usually have lunch date on Wed.

Comment:
Present and waiting patiently. Think GN's job today is to take attendance.

Comment:
Might be a little distracted from learning about turtles if the little bearlings don't stop being so cute!

Comment:
Our 19 kids all snuggled up for class! HI RAINA!

Comment:
Since GN's being a cranky teacher's assistant, he should write the questions for the missing students to answer--just to make sure HE's paying attention ;-)

Comment:
present! front row, center

Comment:
I just told you I was here for the webinar Raina. LOL
Raina Krasner, WCV:
Oh, yes you did :)

Comment:
Ready for turtle class!

Comment:
i love turtles i am ready i used to have 2

Comment:
I'm here and ready (until someone comes around the corner for work)

Comment:
@ GN, add Shirley Bristol to the list of people who must turn in reports

Comment:
(Hand up) PRESENT and ready for class! At least for the next half hour of my lunch. Hi Raina.

Comment:
I'm here. Just trying to find a distraction from the squirrely 7th graders that are in my class right now. Two more weeks of school. :)

Comment:
Lurking here for class as well.

Raina Krasner, WCV:
Ok...let's get started!

Comment:
Who knows when Turtle day is?

Raina Krasner, WCV:
Later this month, we’ll be celebrating World Turtle Day. May 23 marks a day that people and organizations all over the world take time to celebrate our fabulous, shelled friends.

Raina Krasner, WCV:
As you know...we are BIG fans of turtles here at the Wildlife Center.
Amazing Amanda showing off her beautiful birthday turtle slippers!

**Raina Krasner, WCV:**
So we thought we’d get the celebration started a little early by focusing on turtles for our class today. So here we go!

**Comment:**
BEAUTIFUL!!

**Comment:**
she manages to make those look very sophisticated.

**Comment:**
who is this she holding

**Raina Krasner, WCV:**
A patient, I believe. I’m not sure what patient # though.
Join us as we celebrate World Turtle Day a little early!

Raina Krasner, WCV:
Let’s start with a simple definition. What is a turtle?

Raina Krasner, WCV:
To help explain our turtle friends, I channeled Dr. Suess and wrote you a little turtle poem!

Raina Krasner, WCV:
Some are very big …
But a lot of them are small…
Some love the water…
Others don’t need much water at all!
Some have colors that are bright…
While others are rather dull.

Raina Krasner, WCV:
You can see them in the woods…
You will find them in the ocean…
Some turtles are fast, but some are slow, when they’re in motion

Raina Krasner, WCV:
They live on every continent
Except Antarctica (it’s too cold!)
They have shells and beaks and scaly legs
And many live until they are very old! (seriously...really, really old)

Raina Krasner, WCV:
Some turtles eat meat and others like plants
They can be scavengers and omnivores
Some eat insects, like worms and ants
Raina Krasner, WCV:
They come in so many shapes, colors and sizes
Let’s celebrate World Turtle Day
In honor of the reptile who can always surprise us!

Comment:
Love it!!!! Great job, Raina!

Comment:
how old is old?

Raina Krasner, WCV:
Pretty old!

Comment:
Our kids think your poem is WONDERFUL!

Raina Krasner, WCV:
Oh good! Well, that’s the extent of my turtle creativity...now down to business.

Raina Krasner, WCV:
I know, the poem is silly, but the point is, there are lots of different types of turtles and they have an incredibly diverse population. They are super amazing and totally worthy of a day honoring their existence!

Raina Krasner, WCV:
Although turtles vary in their appearances, behaviors, and habitats, there are few things that remain true for all turtles.

Raina Krasner, WCV:
All turtles fall under the taxonomic order called “Chelonia” and are therefore often referred to as “chelonians”.

Raina Krasner, WCV:
All turtles are reptiles; they all have scales, lay eggs, and are ectothermic (more commonly called “cold-blooded”).

Raina Krasner, WCV:
They have shells (but not all shells are the same!)

Comment:
Turtle question: the woods behind my house seems to be an excellent habitat for turtles, with very little human traffic, a small stream and lots of vegetation. Indeed, I have noticed several turtles there, sometimes divagating in the yard and even on the back deck. So my question is, do turtles have teeth?

Raina Krasner, WCV:
And they have no teeth...to answer GN's question.

Raina Krasner, WCV:
So let’s look at what makes a turtle so unique compared to other reptiles— the shell!

Raina Krasner, WCV:
As I mentioned earlier, all turtles have shells. Most turtles have hard shells, but some have soft shells.
Raina Krasner, WCV:
Hard turtle shells are made from bone. Yup! That’s right….bone! So that means when a turtle is hit by a car and suffers a crack in the shell, it’s the same as us suffering a broken bone in our bodies.

Comment:
QUESTION FOR TURTLE CLASS: Do turtles have backbones and ribs? If yes, how do they "fit in" with the turtle shell?

Raina Krasner, WCV:
Turtle shell is made out of about 60 bony plates, including backbone and ribs.

Raina Krasner, WCV:
A turtle shell has two main parts. The carapace – the top part of the shell. (the image above).

Raina Krasner, WCV:
And the plastron – the bottom part of the shell.
Raina Krasner, WCV:
Soft shelled turtles have shells that are made out of cartilage and thick skin supported by small bones.

Raina Krasner, WCV:
This picture of the inside of a carapace (right) shows how a turtle is connected to the shell by its spine. The plastron is shown on the left.
Raina Krasner, WCV:
A turtle’s shell is covered in scutes, which are sheets of keratin that protect the bone underneath. This diagram shows you how the scutes on a turtle’s shell are labeled. The scute model is a hatchling Wood Turtle.

Comment:
(the plastron is also bone? or is it more similar to cartilage?)

Raina Krasner, WCV:
Bone!

Comment:
what a scutie pie

Raina Krasner, WCV:
:)

Raina Krasner, WCV:
Somebody should have explained to Walt Disney (and every cartoonist, really) that turtles don’t “live” in their shells. A shell isn’t a home or a shelter.

How many cartoons in the past portrayed turtles stepping out of their shells? Or inviting others into their “homes” — a.k.a. their shells?
Comment:
Do turtles shed this shell?

Raina Krasner, WCV:
A turtle’s shell is part of that turtle’s body. They are attached to their shells and cannot leave them behind. Their skin and bones are connected to the shell, and so inviting a friend inside would be impossible...or deadly. And the only way a turtle is leaving its shell is through decomposition.

Raina Krasner, WCV:
The shell a turtle a born with is the shell they have all their lives. They don’t shed their shell or outgrow their shell and find a new one. They are physically attached to their shells.
Comment:
Right--turtles are not like a hermit crab!

Raina Krasner, WCV:
Absolutely correct. But many people seem to think that they are. That, once they grow, they find a new shell. But they don't. Their shell grows with them.

Raina Krasner, WCV:
Inside their shells, turtles have soft, squishy bodies – it’s easy to see why they need a shell to protect them! Turtles have scaly skin that protects the skin that is exposed, like on their legs.

Raina Krasner, WCV:
There are a lot of different types of turtle feet. Some turtles have webbed toes or feet that look like paddles– it makes sense that these turtles spend most of their time in water.
Raina Krasner, WCV:
Some turtles have sharp claws on their toes – for digging into soil and dirt and swampy areas.

Raina Krasner, WCV:
And other turtles have stumpy legs – these turtles find homes in dry, desert climates.

Emma the Russian Tortoise, showing off her scaly, stumpy legs

Raina Krasner, WCV:
As GN helped us learn earlier, turtles eat their meals without teeth. Some have notched beaks that help them tear apart food, while others just suck in their food and swallow it whole!

Turtles have widely varying diets, foraging styles and ways of eating.

Box Turtle beak
Comment:
I think I want to visit GN’s house. woods, streams and turtles :)

Comment:
What is the difference between a turtle and a tortoise?

Comment:
Are tortoises included in World Turtle Day?

Raina Krasner, WCV:
Ah...they are! And we’re just getting to that now.

Raina Krasner, WCV:
We use the name “turtle” as an all-encompassing term. But really, the reptiles that fall under the order of Chelonia can be broken out into different groups.

Comment:
How many different species of turtles are there?

Raina Krasner, WCV:
There are more than 70 different species of turtles worldwide (no wonder we have a world turtle day!). Of these 70 species, some of these turtles spend most of their lives in water, some that live entirely dry lives, and some that split their time between land and water.

Raina Krasner, WCV:
Of the turtles that spend their lives in water, some live in saltwater, some live in freshwater, and some live in brackish water (a mix of salt and fresh water, as in a bay or saltmarsh).

Raina Krasner, WCV:
And then there are the turtles that live on land – the terrestrial turtles – and they make a variety of habitats home. There are desert turtles, grassland turtles, woodland turtles...

Raina Krasner, WCV:
So, are you getting the picture? That they have a WIDE variety of habitats? Good.

Comment:
Then there is the difference between turtles and tortoises. Turtles = live in/near water. Tortoises = land dwelling. Yes? No?

Raina Krasner, WCV:
Close. Let’s get to down to semantics – let’s think about the language we use to talk about our shelled friends.

Raina Krasner, WCV:
This might blow your mind, but “turtle” often technically refers to the turtles that spend their lives in the water – like sea turtles! There are many different types of sea turtles, but these turtles have webbed feet that help them with swimming and typically have shells that are streamlined and built for swimming.
Raina Krasner, WCV:
Sea turtles are die-hard aquatic turtles; they spend all their lives in the water, coming out onto land only to nest and lay eggs!

Comment:
he looks like a turtle-fish

Raina Krasner, WCV:
Right? With his flipper-like feet. Very cool creatures.

Raina Krasner, WCV:
There is also a group of turtles known as terrapins. Terrapins are turtles that split their time between land and freshwater or brackish water or wetlands. Like Diamondback Terrapins!

Raina Krasner, WCV:
(psst! My avatar is a diamondback terrapin)
Raina Krasner, WCV:
Diamondback Terrapins, for example, spend part of the time in the brackish water or bays or marshes. The rest of the time they spend on land. These turtles will hunt for food mostly in the water, but can also find food when they are out on land.

Raina Krasner, WCV:
Then we have tortoises, like our Emma – the Russian Tortoise!

Comment:
well dressed!

Raina Krasner, WCV:
Tortoises spend their lives in drier, hotter climates, like deserts. They do not need to live near bodies of water like many other turtles, and they usually have stubby legs meant for walking on land as opposed to webbed or partially webbed feet. They also usually have larger, domed shells and have pretty long life expectancies. Some tortoises can grow to be quite large.

Raina Krasner, WCV:
We have no native tortoises here in Virginia.

Raina Krasner, WCV:
To be clear, not every species of turtle fits neatly into one of these three categories.

Raina Krasner, WCV:
For example, Eastern Box Turtles are sometimes more closely categorized with tortoises based on their physical and behavioral characteristics. They are usually referred to as being “terrestrial turtles”. They don’t spend a significant portion of their time in the water, but unlike tortoises, they do need to live near a water source.
Comment:
I recently visited the aquarium in VA beach and saw the sea turtle nursery there. One little baby sea turtle apiece in a salt water tank until they got big enough to move into larger water tanks and in groups. So cute. They were really a swimmin'

Raina Krasner, WCV:
They are seriously good swimmers, those sea turtles. In fact, they can swim pretty fast!

Raina Krasner, WCV:
Using the term “turtle” when generally speaking of any turtle is perfectly acceptable. There is no need to feel like you need to use the exact, correct term when referring to each species of turtle. Just stick with turtle and you’re safe!

Comment:
I am on a tinsy netbook and can’t read the words on the scute diagram. What do the labels on the blue read and green scutes say?

Raina Krasner, WCV:
Ventral - at the top in green. Pleural - in the middle in red. Marginal - in the blue/purple at the bottom.

Comment:
Yay! University of Maryland Terrapins (my alma mater, lol) Par of the campus is by the Chesapeake Bay--thus the name of their sports team

Comment:
So a teenage mutant ninja turtle is still just a turtle.

Raina Krasner, WCV:
Yes, a sort of awkward turtle.

Comment:
So turtles that spend most of their time on land have a high domed shell than those that spend most of their time in the water?
Raina Krasner, WCV:
That’s not a hard rule, but generally speaking, yes. Tortoises that spend their lives on land have higher domed shells.

Comment:
Thanks for answering the scute question Raina :) (taking notes,might have to help katiesmom with her report)

Raina Krasner, WCV:
So now we’re caught up on some basic turtle vocabulary, and we’ve learned a little about the different types of turtles.

Raina Krasner, WCV:
Although it’s WORLD turtle day, I’m going to focus on a few species of turtles we have here in Virginia.

Raina Krasner, WCV:
In Virginia, we have 20 different species of terrapins and five types of sea turtles.

Raina Krasner, WCV:
I tried to narrow it down to just three or four….but then I would convince myself that I just HAD to tell you all about just ONE more species.

Raina Krasner, WCV:
So, I’m going to talk about a few different species of turtles...just a little about each...

Raina Krasner, WCV:
...so you can get an idea of how interesting, dynamic, different, important, fascinating.....

Raina Krasner, WCV:
Ok, ok. I’ll just get started.

Raina Krasner, WCV:
The first turtle I want to talk about is the Eastern Spiny Softshell turtle. They aren’t one we hear about too often, but they are super cool critters.
Raina Krasner, WCV:
Now, as I mentioned earlier, softshell turtles don't have a bony shell like most other turtles. Their shells are made from cartilage and skin supported by a system of small bones.

Raina Krasner, WCV:
Their shells have tiny, sharp projections along the edges (if you expand the picture, you can see the spiny projections behind the head.)

Comment:
Ohhh, he has a snout.

Comment:
Looks like it has a snout

Raina Krasner, WCV:
Yes! They have a pointed snout instead of the hooked beak most turtles have. They feed mostly on aquatic animals and insects – such as fish, crayfish, mollusks and frogs.

Raina Krasner, WCV:
These turtles are very rare in Virginia. There are small populations in the very Southwestern counties of Virginia, along the Tennessee border. Their populations are sadly declining in their limited territories.

Raina Krasner, WCV:
I wanted to include them because they are the only softshell turtle in Virginia (other than some sea turtles).

Comment:
So, they suck them up?

Raina Krasner, WCV:
Not quite. They snout-like nose is where the nostrils are. They still eat like other turtles, just not the same kind of sharp beak to help with chopping up food.

Comment:
So glad you included, I have never seen nor heard of such.

Comment:
It looks prehistoric.

Raina Krasner, WCV:
They are really, really cool turtles. And they kind of defy the normal "definition" of turtle, since they don't have a hard shell! Their shells look a lot like pancakes to me. Not very appetizing pancakes though...

Comment:
Shhhh, I just got home from Bob Evans.

Raina Krasner, WCV:
:

Raina Krasner, WCV:
Ready for the next turtle?
Comment:
Yep, carry on.

Comment:
Give me a minute to digest that last one.

Comment:
This fascinating, You and Amanda are real turtle/tortoise people!

Comment:
Digest not the right word GN.

Comment:
Ewww....

Raina Krasner, WCV:
I bet no one will forget about Eastern Spiny Softshell turtles now, will you?

Raina Krasner, WCV:
Ok...so the next turtle is....

Comment:
Sure won't. Will think of them every time I have pancakes.
Raina Krasner, WCV:
Eastern Painted Turtles are one of the most common turtles seen in Virginia.

Comment:
My favorite

Comment:
OK. That's what I'm used to.

Raina Krasner, WCV:
They are often spotted basking on rocks or logs along waterways.

Raina Krasner, WCV:
They usually prefer slow-moving water, such as lakes or marshes, but can be found in a number of different aquatic habitats.

Raina Krasner, WCV:
They have two yellow patches behind each eye, and the “marginal” scutes – the scutes at the edges of the shell – are reddish in color.

Raina Krasner, WCV:
(you can refer to the image above with the scute diagram to confirm where the “marginal” scutes are).

Raina Krasner, WCV:
They can be easily confused with other basking turtles, especially Red-eared Sliders – a non-native turtle popular in the pet trade that has been introduced to the Virginia wild.

Comment:
Marginal were on the margin :)

Comment:
(Ugh! someone at work interrupted my webinar! Now I have to scroll back to catch up)

Raina Krasner, WCV:
We're still here!

Raina Krasner, WCV:
Interesting Painted Turtle fact: the gender of Painted Turtle hatchlings is determined by the ambient temperature surrounding the eggs after they are laid.

Raina Krasner, WCV:
Females are hatched from warmer temperatures, and males are hatched in cooler temperatures.

Raina Krasner, WCV:
Female Painted Turtles can adjust the times that they lay their eggs to ensure that there will be an equal mix of males and females hatched.

Raina Krasner, WCV:
As the average temperature rises on the planet, there is the potential that Painted Turtles will be hatching as females more and more frequently. With fewer males hatching, the Painted Turtle population could be in real trouble!
Comment:
Now that is an interesting fact....from the same nest, she can lay at two different times to control the sex?

Raina Krasner, WCV:
She lays them at the same, but can adjust what day she lays them, so the eggs will have a better chance of being varied in gender.

Comment:
all the eggs in a clutch would be the same sex?

Raina Krasner, WCV:
If the average temperatures continue to rise, they could be!

Comment:
Isn't gender by temp also true of sea turtles? (We help protect sea turtle nests when we're at the beach in North Carolina each year.)

Raina Krasner, WCV:
In some cases, yes!

Comment:
I'll bet eggs in center of mass are warmer and eggs at edges are cooler, so that would differentiate females and males.

Comment:
Figures! Females are generally warmer than males :)

Comment:
That's just weird.

Raina Krasner, WCV:
If by weird, you mean amazingly, incredibly, fantastically cool...then yes, it's super weird.

Comment:
wow, that really makes global warming relevant, doesn't it?

Raina Krasner, WCV:
It does. Definitely something to think about.

Raina Krasner, WCV:
So, next turtle?

Comment:
Yeah, that is what I meant.

Raina Krasner, WCV:
Of course you did!

Comment:
OK Ready for the next one!
Comment:  
Next turtle, please!

Raina Krasner, WCV:  
This one is...well, let's say it's a pretty well known turtle.

Comment:  
Snapping Turtle

Comment:  
eek!

Comment:  
Do they snap?

Raina Krasner, WCV:  
They certainly can.

Comment:  
Yep! Snappers

Raina Krasner, WCV:  
Look at that beak!

Comment:  
Hope not on Gn's deck.

Comment:  
Ouch!

Raina Krasner, WCV:  
They look like prehistoric animals, don’t they?
Comment:
They always looked to me like they had warts all over them...more reason to leave them alone.!!

Comment:
I don't like snapping turtles! Scary when swimming!

Raina Krasner, WCV:
Oh, whoa now. Of course you like snapping turtles. Just maybe you don't like them when they are snapping at you, right?

Comment:
I had some really whopper snappers on the farm where I grew up...huge creatures

Comment:
Snappers, that is what I was waiting for.

Comment:
Has one ever snapped you 33?

Comment:
Hi Raina, Is the snapping turtle the only turtle that "bites"?

Comment:
correct! Not snapping at me!

Raina Krasner, WCV:
All turtles can bite. I've been nipped by a box turtle when I placed my finger inappropriately.

Comment:
But it has no teeth!

Raina Krasner, WCV:
Correct...but it has that rather sharp beak...and strong jaws!

Comment:
I had a tortoise when I was a kid - we called him "Fang" because he bit everyone...

Comment:
Any turtles pointy beaks hurt when they are clamping down

Comment:
Are the jaws and beak like a tooth bite when they snap?

Raina Krasner, WCV:
Right. Think of birds. Birds don't have teeth, but if they bite you, it can hurt!

Comment:
Just get to stop in for a couple minutes. Kelly showed me how to pick up a snapping turtle. It was quite interesting.

Raina Krasner, WCV:
It's super important to carry a snapping turtle the right way, so your precious fingers stay out of the way.
**Comment:**
Oh yeah, I would not want a Buddy Bite!

**Raina Krasner, WCV:**
So, the image I posted before of the snapping turtle was a juvenile. It doesn't look too big, but don't let that fool you. These turtles can get BIG.

**Raina Krasner, WCV:**
The record is over 70 pounds.

**Comment:**
Wow. 70 lbs. is a lot of snap.

**Raina Krasner, WCV:**
It's generally a good idea to not approach or touch these turtles if you see them in the wild. They have powerful jaws and are known to snap if they feel threatened. They have very few predators in the wild, with humans being the primary threat to their populations.

**Comment:**
Well when they start peddling those back legs/claws at your hands, you kind of realize you messed up picking it up.

**Raina Krasner, WCV:**
Right.

**Raina Krasner, WCV:**
Snapping Turtles feast mostly on freshly dead fish. They will also eat frogs, toads, fish, mollusks, insects and small mammals that find their way to the water’s edge.

**Raina Krasner, WCV:**
These turtles are often encountered in the roadway in the early spring through the summer as they travel to find mates and lay eggs.

**Comment:**
How do the fish get "freshly dead?"

**Raina Krasner, WCV:**
Think...a fish that died and is still floating along the surface of the water. Not a "rotting" fish, that's been in the water for a while and has started to decompose.

**Comment:**
They like ducklings too

**Comment:**
The snapping turtles in the pond behind my Mom's house eat the baby swans - very sad....

**Raina Krasner, WCV:**
Whatever they can subdue, they eat. But remember...it's the circle of life. The snapping turtles need to live just as much as the ducklings.
Comment:
GN, you are on today!!

Comment:
Do they eat fingers?

Raina Krasner, WCV:
Don’t put your fingers too close, or you'll find out.

Comment:
Tell that to the ducklings.

Comment:
Oh my lesley uk!

Raina Krasner, WCV:
Next turtle?

Comment:
Yes! something nicer!

Comment:
And the next turtle is TA DA

Raina Krasner, WCV:
I bet you can all identify this little guy.

Eastern Box Turtle
Comment:
what a handsome devil. boxer?

Comment:
Box

Comment:
Box turtle! my favorite!

Comment:
He is reading the newspaper?

Raina Krasner, WCV:
Correct! An Eastern Box Turtle. And it does appear that he's pointing out the sale on dog food in the circular.

Comment:
Nice! Amanda's favorite, box turtle!

Comment:
15-17 lb. bag of Pedigree dog food for $11.99 is a pretty good price.

Comment:
I betcha that is what GN has on his deck

Comment:
Isn't this actually a "she"? males have red eyes?

Raina Krasner, WCV:
Not always a completely accurate well to tell gender. You can look at the plastron of the shell, and the males will have a concave plastron while the females have a flat plastron. Better way of telling the gender.

Raina Krasner, WCV:
Box Turtles are the epitome of “turtle”.

Raina Krasner, WCV:
Who doesn’t think of the box turtle when they hear someone say turtle? Well, I certainly do.

Raina Krasner, WCV:
They are one of my favorite species of turtles and a fairly well-known species, so they had to make it on to this list of turtles to talk about.

Comment:
they're so turtle-y

Comment:
I think of chocolate covered carmel and pecans.

Raina Krasner, WCV:
wrong kind of turtle!
**Raina Krasner, WCV:**
Eastern Box Turtles are really interesting animals. They are opportunistic omnivores, which means they will eat whatever is available. They will eat carrion, fish, fruit, leaves, small mammals, frogs, toads, and definitely earthworms.

**Raina Krasner, WCV:**
Box turtles do not live in boxes, if you didn't already guess that.

**Comment:**
Hi Raina. How do they pull their heads in and out and hide when scared?

**Raina Krasner, WCV:**
They can “box” themselves up. Many species of turtles cannot close their shell the way a Box Turtle can. They have hinged plastrons, so if they feel threatened or want to hide, they can close their hinged shells, just like a door and tuck in their heads, legs, tails.
Comment:
I first met a box turtle in the wild when i was picking blackberries and accidentally kicked a "rock" under the brambles...which turned out to be a box turtle! Went home and there in my field guide was a picture of a box turtle...eating a blackberry!

Raina Krasner, WCV:
Very cool. I hope the turtle was ok!

Comment:
I bet they would live in a box of freshly dead fish.

Raina Krasner, WCV:
Their hard shell protects them from many predators, but not all.

Raina Krasner, WCV:
Birds of prey, such as hawks, have been known to pick up boxed-in Box turtles and drop them on hard surfaces, like rocks, to crack open their shells. Not very pleasant to think about, but interesting that the birds found a way around the protective shell!

Comment:
You do NOT want your finger still inside the shell when they close up shop--VERY painful pinch!

Raina Krasner, WCV:
Sometimes Box Turtles are able to survive forest fires by digging into the dirt and boxing themselves in their shells. I once knew a turtle who had done this to survive a fire in the Pine Barrens; he had some scarring on his carapace where his shell was exposed to the fire!

Comment:
How do eagles eat turtles or any kind, how do they get inside of it? Oh, you answered at that moment, so eagles will drop them too?

Raina Krasner, WCV:
Correct.

Comment:
Robin...sounds like she is sharing a childhood experience also...

Comment:
RR, are baby box turtles what the pet stores and dept stores used to sell (back in my child hood days, well before you were born)? They often painted their backs (back thing I know now and now illegal). But back in the day, they were popular pets (I had 1 named Murtle the Turtle).

Raina Krasner, WCV:
There are still places that sell Box Turtles, but usually not Eastern Box Turtles. There are several different species of box turtle...like the Ornate Box turtle, which is common as a pet to this day.

Comment:
I had a box turtle lay 6 eggs in my back yard a few years ago - they all successfully hatched. I called a nature center and they said she was probably an older gal since she was such a fertile turtle :)
Raina Krasner, WCV:
Thats true! We'll talk a little about Box Turtle's laying eggs later, but the nature center was probably right - usually Box Turtles are older when they lay eggs.

Comment:
Raina...what are those little green turles that stores sell, like to put in an aquarium...they never grow, they just eventually die?

Raina Krasner, WCV:
Oh goodness. I have no idea, but it sounds pretty awful.

Raina Krasner, WCV:
We have three more turtles to talk about before we move on. Are you ready for the next one?

Comment:
Mo turtles please.

Diamondback Terrapin (see the "lips")?

Raina Krasner, WCV:
Diamondback Terrapins are cool looking turtles. They have pale white/gray skin with distinctive black spots or flecks all over. They have black eyes and their beaks have a yellow coloration that makes it look like they have “lips”.

Comment:
Lips....for sure!!!!

Raina Krasner, WCV:
These turtles are brackish water turtles, which means they live in bodies of water that are a mix of freshwater and saltwater, such as bays, estuaries, and salt marshes. Occasionally, these turtles find their way out into the Atlantic Ocean!
Comment:
"lips" = "beak"?

Raina Krasner, WCV:
Right!

Comment:
These are native to Virginia? I never saw one while growing up in Norfolk..

Raina Krasner, WCV:
Yes.

Raina Krasner, WCV:
Diamond-backed Terrapin populations have suffered terribly due to habitat loss and human predation – both accidental and purposeful.

Raina Krasner, WCV:
They often find themselves stuck in crab traps set along the shore and die while trapped inside. Many years ago, this turtle was hunted to near extinction for turtle soup – it was considered a delicacy.

Comment:
Poor terripins...

Raina Krasner, WCV:
Two more turtles!

Raina Krasner, WCV:
These last two are true "turtles".

Comment:
OK! Ready!

Comment:
So, a turtle that can swim in the water, and spend lots of time in the water, can drown in the water? Needs an air exchange?

Raina Krasner, WCV:
Yes, they have lungs not gills and need to breathe.

Comment:
Since sea turtles live most of their lives in the ocean, how do they breathe? How often do they need to inhale from the air, how long can they stay down in the water?

Raina Krasner, WCV:
Some sea turtles can hold their breath for up to 30 minutes when swimming and foraging for food. When they are resting, it’s much longer.
Raina Krasner, WCV:
Sea turtles! Sadly, these turtles have Federal – Threatened and State – Threatened designations. Though it’s disappointing to hear of any animal suffering population declines, it’s really devastating when it’s an iconic animal such as the Green Sea Turtle.

Raina Krasner, WCV:
You don’t think they’re iconic? Sure you do! Have you seen Finding Nemo? Their turtle friend, Crush is a Green Sea Turtle. And when you think of images of sea turtle climbing out of the ocean to lay eggs on the beach, it’s likely a Green Sea Turtle that you’re imagining.

Raina Krasner, WCV:
Aside from being threatened in Virginia, they have fairly limited populations in our state, and it’s unlikely that breeding occurs on the shores of Virginia.

Comment:
I love Finding Nemo!

Comment:
Is it right they can live to be 100 years old?

Raina Krasner, WCV:
It’s been difficult for researchers to determine how old sea turtles can live to be. Because they move around a lot and are difficult to study for long periods of time. There is a record of them living to be at least 60 years old, though.

Comment:
Hi Raina, We have sea turtles here in Charleston and the SC Aquarium has a hospital that takes care of the injured turtles. They are beautiful!
Raina Krasner, WCV:
I bet they are fun to watch. Very graceful...and very big!

Raina Krasner, WCV:
These turtles can be pretty large – over 650 pounds - but not quite as big as the last turtle I’m going to talk about.

Comment:
Sweetpea..I been there too...they are facinating

Raina Krasner, WCV:
Another sea turtle...and sadly, another Federally – Threatened and State – Endangered turtle. These turtles are pretty massive. They can weigh up to 1,200 pounds!

Comment:
Ah, the Leatherbacks are fabulous...

Comment:
Wow! Look at that fella!

Comment:
Looks like the size of a mini cooper

Comment:
Basically a small car size... that is the one I was thinking about...
Comment:
Are their backs really leather?

Raina Krasner, WCV:
Yup. These are soft shelled turtles – their shell is made from tough, leathery skin.

Raina Krasner, WCV:
Not having the weight of a hard, bony shell allows this turtle reach depths of 475 meters – that’s almost as deep as bottle-nosed dolphins dive!

Raina Krasner, WCV:
These big turtles are not only the largest sea turtles, they are also the fastest – swimming at speeds of over 15 miles per hour.

Comment:
Leatherbacks are found in VA? I didn't know that.

Raina Krasner, WCV:
They are pretty rare, and likely don't nest on the shores, but they can found off the coast, yes.

Comment:
Walrus legs and flippers and turtle shell and face

Comment:
Do the lines/waves on a turtles shell indicate grow like on trees? Can their age be determined by this?

Raina Krasner, WCV:
They don't. Their scutes can be damaged, shed, and replaced so there isn't an accurate way to guess age. It's pretty hard to determine the age of most animals that don't have teeth.

Comment:
Sure looks like this guy has teeth.

Raina Krasner, WCV:
No teeth.

Comment:
Have humans killed them in the past for their leather? If so, could this have led to their threatened and endangered status?

Raina Krasner, WCV:
Leatherback Turtles keep up their massive size with a diet of lots sea squirts, amphipods, and jellyfish. Due to their interest in jellyfish, leatherback turtles will sometimes ingest plastic when they mistake it for a jellyfish meal. Ingesting plastic bottles, bags, or soda-pack rings can lead to impaction, starvation, and death. Pollution has had a huge and detrimental impact on turtle populations, including the our sea turtle friends.

Comment:
What about the wilds of the Eastern Shore, pretty desolate along there, be fine for a leatherback to exist.

Raina Krasner, WCV:
Could be.
Comment:
Do all sea turtles return to their hatch beach to lay their own eggs? The decimation of beaches, either by congestion or erosion or pollution, contributes to the declines in these turtles.

Raina Krasner, WCV:
I'm not sure if all turtles return to their hatch beach, but they do have to go to the beach to lay eggs. So along with pollution, beach erosion and congestion has had an impact of their ability to successfully nest.

Comment:
RECYCLE!

Raina Krasner, WCV:
Yes!

Comment:
Raina...aren't all sea turtles somewhat migratory in nature? I saw green sea turtles in the Caribbean, and also off the SC coastal manmade reefs.

Raina Krasner, WCV:
Correct.

Raina Krasner, WCV:
So that covers all six of the featured turtles! Now a bit of Wildlife Center turtle information.

Raina Krasner, WCV:
Now, we don’t typically admit sea turtles as patients at the Wildlife Center, but more than half of our reptile patients every year are turtles.

Raina Krasner, WCV:
The most commonly admitted turtle patients at the Wildlife Center are Eastern Box Turtles, Eastern Painted Turtles, and Snapping Turtles.

Raina Krasner, WCV:
(three of the turtles we talked about earlier).

Raina Krasner, WCV:
In 2012, we admitted 157 turtle patients – including 99 Box Turtles, 32 Snapping Turtles, and 12 Painted Turtles.

Raina Krasner, WCV:
The most common causes for admission were hit by car, domestic animal attack, and fish hooks.
Snapping Turtle #12-2438 swallowed a fish hook.

**Raina Krasner, WCV:**
This is a photo of Snapping Turtle 12-2438, who ingested a fish hook.

**Raina Krasner, WCV:**
http://wildlifecenter.org/critter-corner/archive-patient/eastern-snapping-turtle-12-2438
Raina Krasner, WCV:
This Yellow-bellied Slider spent 291 days as a patient at the Wildlife Center after being hit by a car.

Raina Krasner, WCV:
Turtle patients are housed in the reptile room at the Wildlife Center. Our Box Turtle patients are fed and soaked in tubs outside in warmer weather.
Comment:
Raina, sliders are not native, right?

_Raina Krasner, WCV:_
Yellow-bellied sliders are. Red-eared Sliders are not.

Comment:
What's on the box turtle menu?

_Raina Krasner, WCV:_
Oh, an earthworm, some chopped greens, a big, fat strawberry. Lots of yummy stuff!

Comment:
Ah..thank you for the clarification!

_Raina Krasner, WCV:_
As reptiles, turtles are ectothermic, which means they rely on their surroundings to warm them up or cool them down.

_Raina Krasner, WCV:_
They do hibernate, which means is turtles are brought to us as patients late in the year, or if we have patients that aren’t ready for release before the fall, they often need to be overwintered at the Wildlife Center since we cannot release them in cold weather. We are just getting into the time of year when late-last-year patients are being released!

Comment:
So it is getting to be the time you will be releasing them that you have over wintered.

_Raina Krasner, WCV:_
Correct! We recently released the YBS I mentioned above.

Comment:
Do turtle eat meat?

_Raina Krasner, WCV:_
Not all turtles, but some turtles do.

_Raina Krasner, WCV:_
When the Wildlife Center receives a turtle as a patient, it is important to know exactly where they were rescued so that the turtle can be released in that same location. Moving turtles (or other reptiles) to new locations increases the risk of diseases being spread and also decreases the chances of that turtle surviving in a new, unfamiliar territory.

Comment:
Have you had many turtle patients that were sliced open by lawn mowers? The Animal Medical Center in NYC gets a number of those each year and does all kinds of "helping to regrow/holding shell together" operations. Much like some of the apparatuses we’ve seen on WCV turtles.

_Raina Krasner, WCV:_
yes! And we have used "bars" to help hold the shell in place as it heals...give me a second to find a good photo...
There you go! Those little bars on the shells are holding a fracture in place to stabilize the bone.

Comment:
a couple of weeks ago I transported a turtle from Broadway Va. to WCV for a person who had sliced open the shell with their lawnmower. Is there any way I can find out if it has survived?

Raina Krasner, WCV:
You can call the front desk and ask Leighann or Kate. We can look it up in our Wild-One system.

Raina Krasner, WCV:
So now that you've learned all about turtles, and tortoises, and terrapins...I'm sure you're just DYING to know how YOU can help these fabulous shelled critters, aren't you?

Comment:
absolutely!

Comment:
We wanna help, we wanna help, we wanna help.

Comment:
Yes! always want to know how to help all critters!

Comment:
You betcha!

Comment:
Yes!
Comment:
Leave them alone...don't litter...recylce..don't let your children catch them...

Raina Krasner, WCV:
Well, great! Because I made up a list of ways you all can help.
Good start, MH...

Comment:
Switch to chicken noodle soup.

Raina Krasner, WCV:
I hope most of us have already done that...

Raina Krasner, WCV:
1. Don't leave your pets outside unattended! Cats and dogs injure so many of our turtle friends every year.

Raina Krasner, WCV:
Keep a watchful eye on them, and just do all wildlife a favor and bring your cat indoors.

Raina Krasner, WCV:
2. Don't litter! Litter can be harmful to turtles. They can ingest something that makes them sick or injures them. Even if it's something biodegradable, like...maybe an apple core.

It may seem like it's not a big deal, but some turtles find your garbage irresistible and it's just not safe for these mostly-slow-moving creatures to hang out by roadsides chomping down on your garbage, even if it's a delicious apple.

Raina Krasner, WCV:
Speaking of roads...

Comment:
I remember that Amanda said if you see one crossing the road, put in on the side it was going to(direction it was going-facing)...not back where it came from, as it will just try to cross again.....

Raina Krasner, WCV:
3. Help a turtle out if you see him struggling to cross the road. Remember to always move the turtle in the direction that it was heading. Even if it seems silly or dangerous to put the turtle on the opposite side of the road, just trust his instincts and help him out. If you put him back on the side he came from, he'll just keep trying. They can be pretty persistent critters!
Raina Krasner, WCV:
4. As stewards of the environment, we need to be mindful of the pesticides we use that can affect the water that turtles live in or the soil they get their food from.

We need to protect and conserve their habitats, which means not building over their wetland habitats, not clearing too much forested land, and not polluting or obstructing the waterways in which they live.

Comment:
I saved a turtle last year around Memorial Day! I was afraid to pick it up so I just stomped behind it to move it along... In the meantime, I had stopped traffic in both directions :)

Raina Krasner, WCV:
5. We've heard many unfortunate stories of people taking home Box Turtles as pets and releasing them into the wild later...or sometimes never. Or moving turtles they find to "better" habits. Neither is a good idea.

Raina Krasner, WCV:
When Wilson (our education Box Turtle) and I visit schools together, we ask every student to make us both a promise. They say, "I WILL LEAVE TURTLES ALONE" and I think it makes Wilson really happy to know the children are promising not to move his wild relatives from their homes.

Comment:
Do turtles have small territory?

Raina Krasner, WCV:
Yes! You see, many turtles have a relatively small territory. They only know this small area, and it would be like you and me knowing just our neighborhoods. In that territory, they know where to find food, water, and shelter. If we move them somewhere else, they can have a really hard time surviving.
Raina Krasner, WCV:
And they might try to find the way home, using their strong homing instincts. Unfortunately, making the trip back to their home territory can mean crossing lots of busy roads and covering many miles to get back to the place they know. These homing trips can be dangerous or deadly for turtles.

Comment:
Nice poster at 2:43. May we copy it and post on our various pages if we so desire?

Raina Krasner, WCV:
(I believe we shared this on our FB page from another group..so sure!)

Raina Krasner, WCV:
So please don’t try to relocate turtles, even if you think you’ve found a stellar habitat for that turtle you sometimes see hanging out by the busy street.

Raina Krasner, WCV:
And many people decide to just take home the turtles they find.

Raina Krasner, WCV:
Most often Box Turtles are the victims of these turtle-nappings.

Raina Krasner, WCV:
If you take a turtle home as a pet, you could be removing a healthy adult from the breeding population. Box Turtles in particular can take between 10 and 20 years to reach sexual maturity, and they have a relatively low reproductive rate. So every turtle that is removed from the wild has an effect on the populations.

Raina Krasner, WCV:
(someone mentioned this much earlier, about how Box Turtles tend to be rather mature by the time they lay eggs).

Raina Krasner, WCV:
So I’m going to ask all of you to make me a promise right now....

Raina Krasner, WCV:
Are you ready?

Comment:
Ready

Comment:
Yes!

Comment:
Ready.

Comment:
Yes maam...

Raina Krasner, WCV:
Repeat after me...
Raina Krasner, WCV:
“I promise to leave turtles alone!”

Comment:
I promise to leave turtles alone

Comment:
“I promise to leave turtles alone!”

Comment:
I promise to leave turtles alone, or try to find them a mate.

Comment:
“I promise to leave turtles alone!”

Comment:
I promise to leave turtles alone! :o)

Comment: “I promise to leave turtles alone!”

Comment:
I promise to leave turtles alone......unless they need help crossing a road!!

Raina Krasner, WCV:
Correct!

Comment:
I promise to leave turtles alone (except if they need help crossing the road)

Comment:
I promise to leave turtles alone or help them crossing the street

Raina Krasner, WCV:
You are all so wonderful!

Comment:
Repeat after you I promise to leave turtles alone!

Comment:
I promise to leave turtles alone!!!! ok now I am really going back to work!! thanks again for the wonderful education!

Comment:
I promise to leave turtles alone! I'll just look at them.

Comment:
I will make no more turtle soup.

Raina Krasner, WCV:
Also a good promise.
Raina Krasner, WCV:
By making this promise, you’re saying you understand the impact humans can have by taking home wild turtles as pets, or simply by relocating them with the best of intentions.

Raina Krasner, WCV:
Wilson says thanks!

Comment:
I promise to leave turtles alone (unless i can help them across the street in the direction they’re going)

Comment:
I promise to leave turtles alone!

Raina Krasner, WCV:
Excellent. Wilson and I are very glad to have so many pledges from you all...and we trust you'll spread the message to friends, neighbors, that kid down the street....ESPECIALLY that kid down the street, since children are often the once who turtle-nap!

Raina Krasner, WCV:
So last but not least...

Raina Krasner, WCV:
...on the list of ways you can help turtles – you can sponsor one through our Caring for Critters program, or by simply donating to the Wildlife Center.

Raina Krasner, WCV:
We have two education turtles at the Wildlife Center.

Emma the education Russian Tortoise
Comment:
If you have no native tortoises in Virginia and Emma is a tortoise why is she at WCV? I thought WCV only took in native species to Virginia.

Raina Krasner, WCV:
Emma was someone’s pet found wandering. She helps to spread the message about not releasing domestic animals into the wild. Doing so can impact native populations and domestic animals will often not survive when forced to fend for themselves in unfamiliar surroundings. Emma likes to eat whole, leafy greens. And we all think she looks like a dinosaur chomping away when she eats (and my goodness – she eats with gusto!)

Wilson the education Box Turtle when he first arrived at the Wildlife Center.

Raina Krasner, WCV:
Wilson is our education Eastern Box Turtle. He was discovered wandering with a purple shell. Clearly he had been someone’s pet and either made a break for it, or more likely was released into the wild after his caregivers grew tired of him as a pet. Wilson’s story speaks to the importance of leaving our wild turtle friends in their natural homes.

He looks a lot better now.
Raina Krasner, WCV:
And of course, we have various Special Critters in Need throughout the year, and sometimes they’re turtles! So keep a look out for them.

Raina Krasner, WCV:
http://wildlifecenter.org/support-center/caring-critters

Raina Krasner, WCV:
Thank you all for joining me today for a class about TURTLES! If you missed today’s class, you can read back or check back soon on our website for the archived discussion.

Raina Krasner, WCV:
Now I must go and do a volunteer information session for our new potential volunteers.

Comment:
thanks for all the turtle info! great learning experience!! gotta get back to work so I keep the donations coming!

Comment:
Sorry I'm late to turtle class. I haven't been able to be here the last few days. I will continue along and then read back!

Comment:
CLAP, CLAP,CLAP. Super class RR! You have done an outstanding presentation, both fun and very educational. Thanks you. Unfortunately, I have overstayed my webinar slot and must get to an appt. See you all later! (and I promise to leave turtles alone!)

Comment:
I'm going to have my kids promise this and have them share it at school!

Comment:
Raina, it used to be mention of a turtle got a ho-hum from me, had more important animals to watch. You have really awakened me to the wealth of turtle information, and the promise to take care of them, not mess with them, help them across the street. Thanks!

Comment:
This class has been very educational and informative and also interesting. Thank you Raina.

Comment:
Raina Thanks for the great education on turtles. Very enjoyable.

Comment:
No problem, Wilson!

Comment:
Raina fascinating turtle info today. Thank you!!!

Comment:
Raina, turtles are a lot more complicated than I thought! I learned a lot today. Thank you so much!
Comment:
Unfortunately, my town has an annual turtle race for charity every year. Maybe I can use information I find here to let them know that it's a bad idea.

Comment:
(and when I get back form my appt I am hitting donate button in honor of you class and World Turtle day) over and out

Comment:
We live in a subdivision and have a 10 acre lake behind our house where quite a few turtles live that we love to watch. My husband is now well trained - he knows to stop and let me out of the car if we see one on the street because he knows I will stay with that turtle and protect it from cars coming by, and if anybody asks me what I'm doing, I tell them I'm just waiting to see what direction he wants to go, and then I'm going to help him get there! I really enjoyed these turtle lessons today! Great presentation!!

Comment:
So glad I happened in. Very informative and fun. And I will leave turtles alone - if I ever see one!

Comment:
I promise to leave turtle alone and when I help them cross a road, only to help them in the direction they were walking....(how's that?)

Comment:
Wow...almost a 2 hour class...Raina really did her homework...A+++++++ Thank you for the wonderful info!

Comment:
Great class! Thanks Raina!

Comment:
you guys are wonderful to take in these poor abandoned critters. shame on their unworthy humans!

Comment:
Thank you Raina for the wonderful world of turtles.

Comment:
Thanks for a great turtle class, Raina!

Comment:
Forgot to say that was from Sheryl from Florida - about having my husband well trained! LOL

Comment:
Great class, Raina! Learned a lot!

Comment:
Thanks for all the great information about turtles, Raina!! VERY interesting and enlightening!! :o)

Comment:
Good class, Raina. Thanks for your time today.

Comment:
Sorry to be late to class and I luv turtles. Will follow along now and then read back.
My work deals with sea turtles (mostly Loggerheads are very popular here). I haven't finished reading back, but the sex of the hatchlings for sea turtles is also affected by the temperature of the sand. If a bad beach nourishment project puts darker sand on the beach, there are more male turtles than females (and that upsets their whole life cycle).

I swam with the sea turtles in the Carribean:) what fun that was! (course they were alot faster than I was)

I forgot to look for Wilson and Emma when I was there. Where are they located?

Raina Krasner, WCV:
in the lobby.

Raina Krasner, WCV:
Ok. Bye now! And thanks again!

Great class Raina...(got interrupted at work :-(...but enjoyed the class.

Great class Raina! Thank you very much.

Great presentation, Raina! Very interesting and informational. I had no idea there were so many different species of turtles, terrapins, and tortoises! Thank you for your enthusiasm.

Friends of Hugh Taylor Birch State Park: Great news about a rescued loggerhead turtle off the coast of Islamorada yesterday. It was taken to the turtle hospital in Marathon. The Turtle Hospital has treated more than 1,200 injured or sick turtles and released them back into the wild, as well as functioning as a nursery for thousands of baby sea turtles rescued from nests.

Thanks for a great turtle class, Raina!

Darn work got in the way of turtle class I will read back when I get home.

Thanks for all the great info Raina!