

Volunteer Nest Sitter Protocol

Your role

Throughout turtle nesting season (late May to July), when you are available you will 'nest-sit' turtles as they are laying their nests on the side of the road. This is to make sure the turtles are not disturbed while laying and that the eggs are not eaten by a predator or run over by a vehicle before the nest can be protected by a cage or dug up by Turtle Guardians staff to be incubated and cared for at our field office in Haliburton. You will not be responsible for locating the turtles or nests. Instead, Turtle Road Research volunteer teams and call-ins to our hotline (705-854-2888) will locate the nesting turtles, and you will be notified and asked to go nest-sit.

** FYI - the Turtle Guardians hotline is a phone number people can call to report nesting turtle sightings and turtles that need help. The number is (705-854-2888), should you need it.

Time Commitment

In late May, June and July you will receive texts/calls/emails (you can choose how you would like to be contacted) asking if you are available to nest-sit a turtle that is nesting near you. Most of these calls will be in the evening, although some Snappers nest in the morning and throughout the day so there may be some morning and afternoon calls as well (although you can let us know if you only want to be called in the evening). When you are called out to a site, you should be prepared to nest-sit for up to 4 hours, although more than likely you will not be out that long.

What you should bring with you

- High visibility jacket or bright reflective clothing
- Warm clothing / a blanket for night if it cools down
- Bug spray/ a bug jacket
- A chair to sit in
- A flashlight or headlamp
- Snacks, water
- A reflective sign or pylon
- A nest protector cage (see last 5 sections at end of protocol)
- A book or something else to keep you entertained
- A charged cell phone (to call Turtle Guardians (705-854-2888) when the turtle is done nesting)

Nest-sitting guidelines

Finding the turtle:

- A. If the nesting turtle was called in by a Road Research Team, they will either still be there when you arrive, or they will have left a reflective sign marking the turtle so she is easy for you to find.
- B. If the nesting turtle was called into the hotline by someone driving by, the turtle might be trickier to find. We will do our best to get the most accurate description of the location as possible. Once you get there, look for a turtle laying on the ground with a dug up pile of soil/sand behind her.

Setting up:

- A. Nesting turtles are very shy and skittish, so you don't want to get too close, shine any bright lights on her (although red lights are ok!), or make too much noise near her.
- B. If there is not already a sign or pylon 10 m in front of the turtle facing oncoming traffic (ie. put there by a road researcher who found her), set one up to warn oncoming drivers of the nesting turtle. If you need to walk past her to set up the sign, please safely cross the road to give her a wide berth while walking by her.
- C. Set up your chair/station at least 10 m (2 car lengths) from the nesting turtle. Get comfy and grab a book or something to do, because you might be there for a while.

Watching over the turtle:

- A. When there is still daylight simply look over to check on the turtle every few minutes, or if you hear her start to move.
- B. At night shine your light in front of the turtle (not directly on her) every five minutes.

When turtle is done nesting:

- A. Immediately mark the location of the nest by placing a non-heavy object (e.g. a hat, glove, small book) on top of it once the turtle has moved off the nest. **This is very important because it tells Turtle Guardians staff where to dig up the nest to remove the eggs and incubate them safely, or it will help you keep track of where the nest is if it is determined that you need to install a nest protector**

cage. Please do not use anything heavy or use anything that would go through the soil like a stick/stake because this could poke through the nest and harm the eggs.

- B. If the turtle starts to cross the road, check that it is safe for you to walk onto the road and then go ahead and pick her up and carry her the rest of the way across the road in the direction she was heading (please see descriptions below for how to properly hold and move turtles off the road).

Note: Sometimes when a turtle finishes nesting she makes a wide “U-turn”, where it looks like she is going to cross the road but really she is just redirecting herself to go back the way she came. Make sure she really does want to cross the road before helping her across.

- C. Call Turtle Guardians (705-854-2888) to tell them that the turtle has finished nesting. They will determine if you should cage the nest (refer to the last 5 sections of this protocol for help with this) or leave it for them to come and dig it up and incubate the eggs.

Helping Turtles Off the Road

Painted Turtles, Blanding’s Turtles, Map Turtles

To help a turtle across the road (excluding Snapping Turtles and Musk Turtles) pick up the turtle like you would a hamburger. Place your thumbs on top of the upper shell (carapace) and your fingers underneath their belly shell (plastron). Your hands should be between the front and back legs of the turtle on either side and your palms should be against the shell to ensure a secure grip.



Hold the turtle firmly and tightly, this will not hurt them and will prevent you from dropping them when they squirm while being handled. Also, angle the turtle's belly away from you because when they are scared they might pee. When it is safe, carry the turtle across the road in the direction they were originally travelling/facing. If facing up the middle of the road, make a best guess and move the turtle to that side of the road.

Snapping Turtles

There are multiple ways to safely help a Snapping Turtle across the road. The main rule is to give their front end a wide berth. Here are the approaches we recommend:

- A. The first method is to approach the turtle from behind and grab onto their top shell at their back with one hand on either side (between their tail and their back leg). You can stick your fingers into these areas (squishy leg holes) beneath the carapace - it won't hurt the turtle. Then, when you have a firm grip, carry the turtle across the road in the direction they were travelling/facing as low to the ground as possible. Note that this method is not ideal for large, heavy Snapping Turtles.



- B. A second option for moving Snapping turtles off the road is what we call the "waitress tray" method. Grip the back of the turtle's carapace with one hand, using the same grip as A. Use your other hand to support the turtle by holding the back end of their plastron, as pictured in the image below. This method is especially helpful for heavier Snapping turtles.



- C. Another method is to use a car mat to drag the Snapping Turtle across the road. Put a car mat behind the Snapping Turtle and use the same grip from option A to drag them onto the car mat. Then grab the car mat and use it to pull them across the road.
- D. If options A, B, or C do not work, you can also pull them across the road using the same grip, and lifting their back legs off the ground keeping their front legs on the ground.
- E. If you can find a big stick, or have something in your vehicle that they can bite (eg. snowbrush), you can pull them across the road if they bite and hold onto the object. If you have brought a shovel, this will work in many situations if the shovel is large enough (snow shovels are a good size) to carry or push/plow them off the road. Alternatively, you can cover the turtle and their head with a towel securely and carry them off. In all cases or otherwise a good pair of thick gloves will give you more confidence.
- F. Lastly there is the “wheelbarrow” method. Using the same grip as A, pick up the back end of the turtle holding them between back legs and tail. Keep their front feet on ground, and walk forward with them. Sometimes they may snap at you, but that helps them hop forward!

***NEVER PICK UP A TURTLE BY THE TAIL. This goes for all species as their tails are part of their spines - picking up a turtle by the tail could seriously injure them.

Musk turtles (Stinkpots)

Eastern Musk turtles will act defensive when handled and try to bite you. Although they are small, their bite can still hurt! To avoid being bitten, hold Musk Turtles from the rear with both thumbs on top of their shell and your fingers on their belly shell between their back legs. Because they do not like to be handled, Musk Turtles will try to wiggle out of your grasp so make sure to hold them tightly, this will keep them safe and will not hurt them. As with the other turtles, take the Musk Turtle across the road in the direction they were facing or travelling when you found them on the road.



What Does a Snapping Turtle Nest Look Like?

Snapping Turtles are the only species that lay nests that can be identified after the fact. Their nests have two large mounds of dirt/sand beside each other that are separated by a line in the dirt made by their large tail, hence the nickname “sand boobs.”



Close up of Snapping turtle nest (“sand boobs”)



Snapping turtle nest (“sand boobs”) along side of the road. Car keys and key chain are on the left of the nest to show scale.

Is the Nest in a Safe Spot to Cage?

If the nest is on the side of the road or on the shoulder where a car could pull over or drive on, it is not in a safe place to put a cage. If it is in a ditch, or outside a guard rail where it is clear vehicles will not be driving then it is safe to put a cage here. Keep in mind that if the nest is on someone's property we need to ask permission before caging the nest. If in doubt, call Turtle Guardians (705-854-2888) for assistance.

Nest Cage Information



How to Assemble a Nest Cage

Please watch the “How to Build a Turtle Nest Protector” video, available on our website and Youtube channel, for full instructions on how to make a nest cage. Note that the Nest Sitters program training video includes an older version of the nest cage tutorial. We ask that anyone interested in building their own nest cage use this updated model with wooden sides.

Required materials:

- Wood (2"x4"x8'-10' plank)
- Screws (3")
- Wire mesh (¼ inch grid)
- Saw
- Electric hand held drill/screwdriver
- Hammer
- Wire cutters
- Staple gun
- Eye hooks and/or tent pegs
- PPE (gloves, glasses, ear protection, closed toed shoes)

1. Measure and cut 4 pieces of wood that are 2-2.5 feet long each.
2. Measure out small openings in one piece of the wood. These holes are the exit holes for the hatchlings when they emerge from the nest in the fall. We choose to only put exit holes on one side so that we can try to direct the hatchlings away from a road if it is nearby. You want the holes to be 1.5 inches tall, and 2-2.5 inches wide. The exit holes should be spread out across the wood plank.

3. Using your saw, cut notches in the wood where you measured the sides of the openings, these notches should be 1.5 inches long. Be careful not to cut all the way through the wood. Then use a hammer to remove the wood from the hole by hitting it in between the 2 notches. Since the cuts were made perpendicular to the grain of the wood, the pieces should pop out easily.
4. Drill 4 guide holes (2 on each end) into 2 of the 4 sides for the cage. Then attach the 4 sides of the nest cage together by drilling 3" screws through the guide holes.
5. Measure out a rectangle of wire mesh about 2'x2' to fit across the entire cage. Make sure the mesh can cover the entire frame of the nest cage without leaving any gaps. Try not to leave any mesh overhanging on the sides of the cage, as this will be a sharp hazard.
6. Cut the wire mesh out with wire cutters. Use gloves to protect your hands.
7. Attach the wire mesh to the wooden frame using a staple gun.

How to Install a Nest Cage

Place the pre-assembled nest cage (with permit info tag attached, see section on next page) over top of the nest, using the marker object you placed on the nest as the centre of where the nest cage should go. Make sure to remove the nest marker object before securing the cage.

There are a few options for how to secure the cage to the ground.

- A. The first option, which is the most secure, is to screw eye hooks into the sides of the wood. Attach one eye hook at each corner of the cage. The eye hooks should be fairly close to the bottom of the frame (close to where the ground will be), but not so close to the edge of the wood that it might crack. Then put the tent pegs through the eye hooks and hammer them into the ground. Make sure they are going straight down into the ground and not at an angle, as this could potentially puncture the nest and damage the eggs.
- B. The second option is to put tent pegs through the mesh at each corner of the cage and hammer those down very securely. Again, make sure they are not going in at an angle. This works fine, but is less secure than the eye hooks option.
- C. Finally, if you really can't find tent pegs or eye hooks, you can place heavy rocks on all four corners of the cage to hold it down.

Never block the top of the cage. It is very important that the soil on top of the nest gets enough sun so that the eggs can incubate at the right temperature.

Regardless of which method you choose, it is important to secure the cage as tight as possible to the ground so that predators cannot dig underneath the cage and get to the eggs.

Information Required on a Nest Cage Tag

Please contact us for the current year's permit number. You can use an old luggage tag to make your nest cage ID tag or anything else you have that is durable and waterproof.

This equipment is part of a research project.
Permit number(s) XXXXXXXXXX
Please do not disturb. For more information contact:
Turtle Guardians staff: 705-854-2888
Leora Berman, The Land Between Charity
705-457-1222

Nest Monitoring

If you would like to help us monitor a nest after a nest cage has been installed on it, please let us know. We would like interested individuals/groups to check on caged nests periodically during incubation to monitor the success of the nest cage at preventing predation, and to make sure that the hatchlings emerging from the nest are able to exit the cage enclosure safely. Nest monitors should check the nests at the following intervals:

- Every day for the first week after the nest has been laid - many nests are predated within the first few days after they are laid, so frequent checks at the beginning of the incubation period are important.
- Once a week until early/mid-August.
- Every day starting in mid-August until mid-September, or until hatchlings begin to emerge from the nest.
- After it rains - some species of turtles (Snapping turtles in particular) tend to emerge from the nest after it rains, so checking after rainfall, especially in August/September when it is time for the hatchlings to emerge, is important for hatchling protection.

Once the nest begins to hatch, call Turtle Guardians (705-854-2888) to let us know, and we will give you further instructions. If you check your nest and find that the nest protector has

been damaged or tampered with, there are signs of predation (see below), or any other disturbances, call Turtle Guardians and we will help you figure out next steps.

This is an optional, additional task that Nest Sitters can take on if they wish. You can opt to only participate in nest monitoring, to only be put on our call list for nest sitting, or you can choose to do both! Please let us know which aspect(s) of the program you would like to participate in.

How to Identify a Predated Nest

Remnants of egg shells in the dirt mean that a nest has been predated. When the nest hatches successfully, the hatchlings emerge from their shells within the nest cavity, and eggs shells do not end up outside the nest.



IMPORTANT DISCLAIMER: The data you are collecting relates to Species at Risk, and therefore should not be shared with any third party (including any social media posts) without expressed permission from the Charity. This information is highly sensitive and needs to remain private to ensure the safety of these vulnerable species from the pet trade, poaching and deliberate persecution. Even the location of nests is highly sensitive and should not be shared with any third party - there have been many instances of “nest-robbing” where nests that have been protected with cages are dug up to obtain the hatchlings. By signing up to become a volunteer with The Land Between, you agree to help protect Ontario turtle species by keeping all turtle sighting data and nest location information private.