



INSTRUCTOR GUIDE

LESSON 9: BIG GAME RECOVERY

V. 2/2018

Bowhunter Education 2017 Standards – Section 7

Objective 40

Instructor Notes



This lesson introduces the students to the knowledge and skills needed to effectively recover big game animals. This lesson corresponds with chapter 7 (pgs. 58 – 62) in the Today's Bowhunter student manual. Teach this lesson as part of a Round Robin with a small group (4-8) of students.

Teaching Methods Used In This Lesson

- Lecture
- Discussion
- Student hands-on activity
- Role-play

Time Suggested





25 Minutes

Materials Required



- 3D or 2D deer decoy, or deer hide, to simulate the dead animal at the end of the trail
- Arrow shafts (2) with fletching only; no tips
- Bottle of fake blood (2-3 oz. per course) (see Addendum A for recipes on how to make your own)
- Bright and/or reflective flagging tape

	<ul style="list-style-type: none"> • Deer hair • Deer hoof or man-made tool to make tracks in soil (see Addendum B on how to make your own) • Portable roll out deer blood trail (for indoor setup; see Addendum C for details)
<u>Station Set-up</u>  20 minutes	<ol style="list-style-type: none"> 1. Create a mock blood trail for a deer. <ul style="list-style-type: none"> • start the blood trail with the area of the shot <ul style="list-style-type: none"> ◦ use a bloody arrow, some deer hair, and some blood splatter ◦ place arrow a few feet away to simulate a “pass through” shot ◦ the trail could also simulate a deer shot with a firearm (e.g. deer hair and blood splatter, minus the arrow) • lead the blood trail away from the area of the shot with sign every 1-2 yards • the blood trail should contain: <ul style="list-style-type: none"> ◦ blood droplets ◦ broken twigs ◦ tracks ◦ pooled blood ◦ a deer bed ◦ blood on shrubs/trees ◦ gaps in the trail where blood/sign is lacking • the length of the trail is location dependent, however, a trail of 20-25 yards is recommended 2. Place the simulated dead deer at the end of the blood trail. Place the deer behind a large tree or bush so that it can’t be easily seen by the students until they are near it. This

	<p>helps to prevent the students from rushing through the exercise, and gives them some excitement when they find it.</p> <p>3. For this lesson, have them assume the role of an active hunter and engage the students as if they have just shot a deer. This technique can instruct the students while having them participate. Have the students meet you 5-10 yards away from the area of the shot to start.</p> <div data-bbox="418 709 1409 949" style="border: 1px solid black; padding: 10px;"> <p>Note: Be aware that in a typical Round Robin, multiple student groups will be using the trail. Design the blood trail so that it is easy for the students to walk beside it without trampling the sign. You may need to refresh the sign between groups.</p> </div>
<p><u>Vocabulary Builder</u></p> 	<div data-bbox="418 1087 1409 1243" style="border: 1px solid black; padding: 10px;"> <p>Note: Do not read the vocabulary to the students. These are terms commonly used during this lesson, and the definitions are for instructor reference only.</p> </div> <p>Bed – An oval/circular location on the ground with compacted vegetation where a deer has laid down.</p> <p>Bile – Dark green to brown fluid produced by the liver of most game animals that aids in digestion of food.</p> <p>Blood droplets – Blood that has slowly dropped off of an animal while it was walking or running.</p> <p>Blood splatter – Pattern of blood left on the ground when blood has rapidly spurted out of an animal; either from an initial wound, or from arteries convulsing blood from the</p>

wound.




Blood trail – The path the animal traveled after being shot, marked by the loss of blood from the animal, extending to where it died.


Dew line – An observable trail created when an animal has passed through the vegetation disturbing the dew.

Dispatch – To safely, ethically, and legally kill a wounded animal.

Downed animal – An animal that has been shot and has lain or fallen down.

LESSON PLAN

<p><u>PART A:</u></p> <p><u>Focus Activity</u></p>  <p>1 minute</p>	<p>The purpose of the focus activity is to get everyone's attention focused on the lesson. Role-play and describe the scene of a hunt. For example, say: "you have a treestand set up over there, you've been hunting all morning, a deer has just walked into range, you take the shot, and now the real work begins."</p>
<p><u>PART B:</u></p> <p><u>Objectives</u></p>  <p>1 minute</p>	<p>State the learning objective to the students. "At the end of this lesson, you will be able to:</p> <ul style="list-style-type: none"> describe the basic steps for successful big game recovery."
<p><u>PART C:</u></p> <p><u>Teaching Method</u></p>  <p>5 minutes</p>	<p>Ask: "when does big game recovery begin? What can you do immediately to aid in recovery of the animal?" Discuss the following topics:</p> <ol style="list-style-type: none"> Carefully observe every movement of the animal after you shoot: <ul style="list-style-type: none"> Make a mental note of where the animal was standing at the time it was shot Observe the reaction / body language of the animal when it is shot Observe the path the animal takes after the shot Make a mental note of the last spot they saw the animal Take a compass bearing and estimate the distance to the spot the animal was standing Mark your tree so you remember where you were

	<p>2. Explain why they should wait for a period of time before trailing game:</p> <ul style="list-style-type: none"> • Allows the animal time to perish • Avoids spooking the animal if it did not go far (bumped wounded game are often unrecovered) • Wait 1 hour when bowhunting, or longer if unsure of the shot <p>Transition into having the students trail the deer by asking the students: “once we’ve waited the proper amount of time, and we start looking for the deer, what types of sign should we look for?” After they give some answers, say “good, so let’s take a look to see if we can find any sign.”</p>
<p><u>PART D:</u></p> <p><u>Student Exercise</u></p>  <p>11 minutes</p>	<div data-bbox="386 953 1403 1218" style="border: 1px solid black; padding: 10px;"> <p>Note: One technique you can employ to ensure each student participates is to have them take turns finding sign. When a student finds sign, have them stay put while the next student looks for the next sign, and so on and so forth. However, this does tend to make the exercise take longer.</p> </div> <p>3. Take the students to the beginning of the blood trail and have the students look for sign. Explain what each type of sign tells the hunter:</p> <ul style="list-style-type: none"> • Arrow <ul style="list-style-type: none"> ○ amount and color of blood ○ presence/absence of air bubbles in blood ○ presence/absence of hair ○ presence of bile ○ presence of fat • Blood splatter • Hair • Kicked up dirt and leaves

4. Have the students follow the sign. Explain key elements of finding sign and what it means:

- Blood up on vegetation
- Deer bed with pooled blood
- Sign other than blood
 - broken branches
 - dew line
 - tracks

5. Explain how and why to mark sign they find:

- Bright, reflective flagging
- Toilet paper is biodegradable, but it's also white which can be dangerous
- Keep track of the trail
- Helps see path in the dark
- Allows an educated guess of direction of travel

Note: Have the students temporarily hang flagging, or some other marking material, as they find sign. Remember to take the flagging down after each group.

6. Explain the techniques for regaining the trail if sign is lost:

- Return to last point of sign
- Search outwardly in arcs/circles
- Look for downhill trails
- Wounded game will often follow the path of least resistance, especially toward water

Note: Discuss regaining the trail at a point along the blood trail where there is a gap between sign.

7. Once they find the decoy, explain to them how to approach a downed animal:

- From behind
- Away from its feet

8. Explain how to ensure the animal is dead:

- Check the animal's eyes
 - the eyes of a dead animal are normally open
- Prod the rump with a stick or an arrow to see if the animal reacts



9. Explain to the students how to dispatch an animal that is still alive when found:

- Well placed lethal shot
- Ensure the shot is still legal/safe/ethical
 - greater than 500' of an occupied dwelling
 - greater than 150' from a road
 - during legal hunting hours
 - property you have permission to be on
- If it is no longer legal/safe, contact an EPO for guidance

10. Explain that there are legal requirements that must now be met and the best ways to meet them:

- Tag the animal immediately
- Where to put the tag
- How to keep tag dry
- Which animals in MA require a tag
- Reporting a harvest

Students are not being tested at this stage; they are gaining new knowledge. Let the students follow the trail and find sign on their own. Your role as the instructor is that of a facilitator/coach to help the students follow the trail and learn the material.

<p><u>PART E:</u></p> <p><u>Student Summary</u></p>  <p>2 minutes</p>	<p>Ask students to recall the important topics that were covered in the lesson. It is important for students to be able to verbalize these points. Use questioning strategies to flesh out answers.</p> <ul style="list-style-type: none"> • What should you do when you first shoot the animal? • How much time should you wait before tracking? • What sign do we look for and what might it mean? • How do you regain a lost trail? • How do you approach a downed animal? <p>END OF LESSON</p>
<p><u>Additional Instructor Notes</u></p> 	<p>Set-up Notes:</p> <ol style="list-style-type: none"> 1. During the summer months, ants and bees may be attracted to your fake blood, take precaution. 2. You may need to refresh the blood trail between groups. Weather may also impact the durability/longevity of the fake blood. 3. You may even consider creating two separate trails that both lead to the same deer. Take different groups along different trails. 4. Setting up the trail along a hiking path is a good way to keep the students from actually walking on the blood trail. 5. Watch for Poison Ivy and Poison Oak and avoid setting up in areas where they are present.

Addendum

A



RECIPES FOR MAKING FAKE BLOOD/BILE

- Fake Blood – Option 1

- 8 oz. of glycerin
- 2 oz. of water
- .75 oz. of red food coloring

Characteristics:

- has a shiny consistency
- holds color well as it dries
- holds up better in wet conditions
- most expensive to make
- will stain clothes/hands

- Fake Blood – Option 2

- whole milk (or half and half)
- red food coloring

Characteristics:

- can mix to desired color
- “blood” has a high protein and fat content similar to real blood
- readily available ingredients
- can be lightened or darkened to simulate arterial or venous blood
- can be made frothy to simulate a lung hit
- has realistic color when dry
- does not hold up well in wet conditions

- Fake Blood – Option 3

- Karo Syrup
- water (just enough to thin mixture to desired consistency)
- red food coloring

Characteristics:

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- can mix to desired color
 - shiny consistency
 - holds color well
 - readily available ingredients
 - holds up well in wet conditions
 - can dry out on hot/sunny days, yet retains a good color
 - attracts ants/bees

- Bile



- 3 oz. glycerin based dish soap
- ~5 drops yellow food coloring
- ~3 drops blue food coloring
- ~2 drops red food coloring
- preserved peat moss

Directions:

- mix the dish soap and food colorings to desired green/brown
- crush some of the peat moss with your hands into a bowl
- pour some of the bile into the bowl and mix well
- outcome should resemble greenish/brown stomach contents

- Notes:

- a small plastic bottle works well for mixing, storage, and use
- if you make the consistency of the fake blood thin, you may be able to use a spray bottle and mist it onto the trail
- feel free to create multiple mixtures to show students varying colors/consistencies of blood and what each color may mean

<p><u>Addendum</u> <u>B</u></p> <p></p>	<p>DIRECTIONS FOR CREATING AN OUTDOOR “TRACK” STICK</p> <p>Cut a stick/limb that is 1½” – 3” in diameter to a length of approximately 48”-60”. Carve (with a knife, saw, or chisel) one end of the stick to look like a 3-dimensional rendering of a deer’s hoof. Use this to create tracks in the soil of your mock deer trail.</p>
<p><u>Addendum</u> <u>C</u></p> <p></p>	<p>DIRECTIONS FOR CREATING A PORTABLE ROLL OUT DEER BLOOD TRAIL KIT</p> <p>This kit can be used indoors when there are no outdoor options. A few of these kits are available for check-out from all of our district offices; however, you may wish to create your own portable roll out deer blood trail kit. Below are directions on how to create, set-up, and instruct with your kit.</p> <p>You will need:</p> <ul style="list-style-type: none"> • 3’ x 24’ piece of burlap • 2 arrows with field points only; no broadheads (1 vital shot; 1 gut shot) • 24-30 silk leaves from craft store • two 18” Christmas trees • 1 sandwich bag of deer hair • 6 leafy stems to represent vegetation • 1 fake grassy mat for deer bed • 30 grassy stems • thirteen 2” x 4” x 4” wooden blocks with pre-drilled holes for the grassy stems (6 blocks w/ 5 holes), arrows (1 block with two holes), vegetation (6 blocks w/ 1 hole) • fake blood/bile (see Addendum A) • 1 deer decoy

- bright flagging
- Plastic tote (36 1/8 " long x 18 1/8" wide x 13 3/4" high = 105 quart) for storage
- Station cards (see Addendum D)

Note: With the exception of the deer decoy, this kit can be created for approximately \$30-\$40.

Creation/Set-up:

1. Roll out the burlap to represent the trail. There will be six stations along the trail with sign. Stations will be spaced approximately every 4 feet.
2. The first station has two arrows at the beginning of the trail. Place the vital shot arrow (i.e. covered in fake blood) in the block at an angle. During your discussion, you can have the students mark the beginning of the trail by placing the arrow in the hole on top of the block so that the arrow stands upright. Have the gut shot arrow (i.e. covered in green/brown bile) handy to show as a comparison.



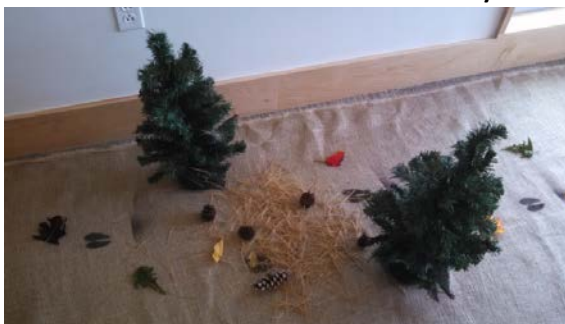
3. The second station is blood on leaves, and leaves kicked up by a running deer. Use the leaf stencils and paint leaves on a 2.5' wide section of the burlap. Within this painted section, hot glue silk leaves onto the burlap to represent kicked up leaves.



4. The third station is 6 wooden blocks with one leafy stem standing upright in each. Place blood on the leaves to represent blood on vegetation rather than on the ground. Bend the vegetation towards the end of the trail to represent disturbed vegetation.



5. The fourth station is the two miniature trees. Place these at an offset angle on the burlap and hot glue deer hair on each of the trees. Use this station to mention that not all sign will be blood. You can also hot glue pine cones and pine needles below the trees for realism if you wish.



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6. The fifth station is a deer bed. Hot glue a 2' x 2' grassy mat to the burlap. Place 6 of the wooden blocks around the grassy mat and stand 5 pieces of grass in each block. Pool blood in the middle of the bed.



7. The final station is the dead deer. Lay the deer decoy at the end of the burlap and use this station to discuss what to do after finding the deer.



8. Place fake blood on the arrow, leaves, leafy stems, and bed.
9. Use the track stencil to paint tracks leading from each station to the next.
10. Hot glue additional leaves along the trail for realism.
11. Use the spray paint to color code your blocks and their location along the burlap.
12. For storage/transport, the blocks, trees, grasses, leafy stems, arrows, fake blood/bile, and deer hair can be laid in the
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bottom of a plastic tote. The burlap can be rolled up and laid on top of the other items.

Instruction tips:

The outdoor option is best. Only use this roll out blood trail when an outdoor blood trail is not possible (i.e. darkness, inclement weather).

Step 1- Focus Activity

Complete the focus activity on page 4.

Step 2 – Objectives

State the objective on page 4.

Step 3 – Teaching Method

The content for the lesson is the same as presented in the lesson plan for the outdoor station; however, this indoor method is set up with six different stations depicting sign. At the following stations, cover:

Start several feet away from Station 1 – observe reaction of deer; last place they saw it; how long to wait before tracking

Station 1 – blood on the arrow; color of blood; bile on the arrow; use arrow to mark start of trail

Station 2 – blood droplets on leaves; leaves kicked up from running deer

Station 3 – blood may be on vegetation, not just ground; disturbed vegetation; mark trail with flagging

Station 4 – blood isn't the only sign; deer hair, deer tracks, or broken branches can tell of a passing deer

Station 5 – some deer will bed down when injured; pooled blood vs. blood droplets; bumping a bedded deer often results in not finding the deer

Station 6 – how to approach a downed deer; how to check whether deer is dead; how/when to dispatch an alive deer;

tagging a deer

End – how to regain a lost trail; what to do if all sign is lost;
how long a hunter should search

Note: If your students groups are large, another way to teach this lesson is to break the students up into smaller groups, and have each smaller group stand by an assigned station. Distribute the station cards to each group (Addendum D) and have the students formulate answers to the questions as it pertains to their station. Work your way down the trail having each group answer the questions on the cards.

Step 4 – Student Summary

Conclude with the student summary on page 7.

Addendum

D



STATION CARDS THAT CAN BE USED WITH THE PORTABLE ROLL OUT DEER TRAIL KIT

Start

Immediately after you shoot a deer, what should you do?

How would a compass assist you immediately after you shoot a deer?

How long should you wait before you start tracking the deer?

Station 1 - Arrow

Does the color of the blood tell you anything?

Does the smell of the arrow tell you anything?

How could you use the arrow to mark where the deer was when you shot?

How might the sign vary due to your hunting implement (i.e. bow/arrow vs. gun)?

Station 2 – Leaves

What could you glean from looking at the leaves?

What could the pattern of the blood tell you?

What does the volume of the blood tell you?

Station 3 - Vegetation

How could blood get on the leaves of a plant?

While you are tracking the deer, how might you be able to ensure you remember where you have already tracked the deer?

How might this help you predict where the deer has run?

Station 4 - Trees

Is blood the only sign that can tell you where the deer has travelled?

What other signs should you be on the lookout for?

Station 5 – Bed

What could it tell you if you found a pool of blood on matted vegetation?

What should you do while tracking if you find matted vegetation with pooled blood?

Station 6 - Deer

How should you approach a deer once you find it?

What is the first thing you should do after you've found it?

What should you do if it's still alive? How and when?

If you're certain it is dead, what is the first thing you should do?

End

What should you do if you lose sign while tracking?

What tactic should you employ if you still can't find the animal?

How long should you continue to search?

Do deer have any tendencies as to where they run after being shot?

Addendum

E



FREQUENTLY ASKED QUESTIONS

1. How soon should you field dress the deer after you shoot it/find it?

The sooner you can field dress it, the better. Heat is a major factor in meat spoilage, and it is best to cool the animal down as much as possible.

2. Does the color of the hair you find mean anything?

Depending on the animal you are hunting, hair color may be a very good sign as to where your shot hit the animal.

3. How long does it normally take to track a deer?

This is highly variable depending on shot placement, size of the animal, sex of the animal, time of year, and habitat/terrain. A hunter should be prepared to possibly spend several hours tracking a deer.

4. What do you do if you bump a deer?

If while tracking a shot animal, you bump a wounded deer out of its bed, you should quickly and quietly leave the area to keep from disturbing it further. Animals that get up and move are often very difficult to track as they tend to not leave as much sign.

5. What if you don't find the deer?

If you do not find the animal, you are not legally obligated to use a tag on it. How long you look for the animal, and whether to use the tag become ethical dilemmas that every hunter has to decide on for themselves.

