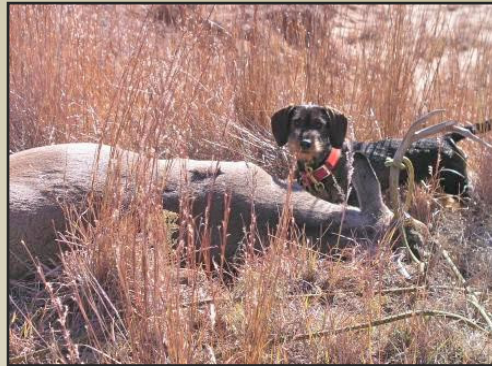


NEW YORK STATE LEASHED TRACKING DOG LICENSE GUIDE



Acknowledgements

Prepared by

Gaye Somogie (Author)
Bernadette LaManna (Editor)
Natalie Sacco (Design)

Photographs courtesy of

Jolanta Jeanneney

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Kathy Moser, Assistant Commissioner for Natural Resources
Patricia Riexinger, Director, Division of Fish, Wildlife & Marine Resources
Doug Stang, Assistant Director, Division of Fish, Wildlife & Marine Resources

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A. HISTORY

John Jeanneney initiated the tracking dog program in New York State in 1976 when he lived in Dutchess County. Jeanneney was the first person to receive a research permit from DEC to test the possibility of using dogs to track wounded deer. In 1986, the Leashed Tracking Dog Program was signed into law, and, in 1989, the New York State Department of Environmental Conservation (DEC) issued the first Leashed Tracking Dog License (LTD).

Since 2008, the use of leashed tracking dogs to track wounded, injured or dead big game has been legal in 17 states. Some of these states followed New York's lead by initiating their own tracking programs with similar laws. Other states have adopted their own laws based on their own hunting history and unique belief systems. In the Northeast, leashed tracking dog programs also exist in Maine, New Hampshire and Vermont. Currently, other states are in the process of making it legal to use a tracking dog.



John Jeanneney, founder of New York State's leashed tracking dog program

B. LEASHED TRACKING DOGS

A leashed tracking dog is a dog that is specifically trained to track and locate dead, wounded or injured white-tailed deer (*Odocoileus virginianus*) and American black bear (*Ursus americanus*). Training a dog requires dedication and includes important techniques, such as working an artificial scent line, training during the day and night, allowing the dog to become accustomed to other people and tracking deer or bear that have already been located. Once a dog is ready for a "real" scent line, it will continue to learn by gaining valuable experience.

A handler and a leashed tracking dog can track a deer or bear for a hunter, for special purposes or after motor vehicle/animal accidents. The handler can use their dog to track wounded deer or black bear for a hunter during the hunting season, including the 24-hour period after a hunting season ends. Deer and black bear can be tracked day or night with or without an artificial light. If the handler needs to use a leashed tracking dog for special purposes or accidents, it can be done any time of the year using artificial lights if necessary.

C. DOG BREEDS USED

Several dog breeds have proven to be successful trackers of wounded deer and bear. No single factor makes a particular breed of dog a dedicated tracker. Success depends on the type of dog, its personality and the training it receives. When choosing a puppy, the prospective dog handler should consider the scenting abilities of the puppy's parents, the breeder's reputation and the puppy's personality.

It is important for a dog to have a good nose for ground scenting. However, other characteristics are also necessary for a dog to become a reliable tracker, such as intelligence. An intelligent dog has the ability to stay focused and be persistent while tracking. A persistent dog will be able to track deer or bear even when a scent trail becomes faint and/or is very long. Intelligent dogs learn from experience.

A tracking dog must learn to ignore distractions, such as other animals and other people, when working. The ability to ignore distractions can improve with experience. A good tracking dog should have a strong desire to track an animal or to please its handler. It should be enthusiastic about following a scent trail and be able to demonstrate endurance, physical toughness, stability and courage.

A tracking dog must be in good physical condition and be able to track through different types of terrain. A good tracking dog also may need to swim on occasion, when a scent trail leads to where a deer or bear has entered a body of water. If a dog does not exhibit courage, it may be hard to work with because big game, loud noises or other people may frighten it. Two other desirable traits of a reliable tracking dog are how easily it can be trained and how responsive it is to the handler's commands.

A beginner dog may exhibit some good tracking abilities and show potential for other positive traits. The handler should be willing to spend considerable time with a dog and give it a chance to learn and improve. He or she must determine whether the dog has the capability of improving over time and the lasting enthusiasm needed for tracking.

Both male and female dogs can become great trackers. However, the handler may notice some differences between males and females. For example, some male dogs may be physically tougher when tracking, while some females may be more focused. Most female dogs mature more quickly than their male counterparts. Of course, there are exceptions, and each dog, whether male or female, has its own individual personality and abilities. A female with puppies should not be used for tracking until after the puppies have stopped nursing for at least a month.

Successful Breeds of Tracking Dogs

- Basset hound
- Bavarian mountain bloodhound
- Beagle
- Belgian sheepdog
- Coonhound
- Cur breeds
- Dachsbracke
- Dachshund
- Drahthaar (wirehaired pointer)
- Golden retriever
- Hanoverian bloodhound
- Jagdterriers and other terriers
- Labrador retriever
- Wachtelhund and other Spaniels
- Weimaraner

D. LICENSING PROCEDURE

Once the handler has decided to take his/her dog out on a deer or bear call, the procedures described below, along with others outlined in 6 NYCRR Part 176 (see [Appendix b](#)), must be followed to “legally” track wounded big game.

1. The handler must contact an environmental conservation officer (ECO) by telephone or in person before searching for a wounded animal with their tracking dog. The Division of Law Enforcement (DLE) 24-hour dispatch number is 1-877-457-5680. For regional DLE telephone numbers during office hours, please see [Appendix a](#).

The following information must be provided to the ECO:

- a. Name of the licensee
 - b. Name, address, telephone number and big game license number of the hunter engaging the licensee
 - c. General location of the wounded or injured animal
 - d. Name of the landowner(s) where the search will be conducted
2. If the wounded animal is on private property, the landowner must grant permission to track it. If the wounded animal travels to other landowners’ properties while being pursued, the licensee must also request permission from each subsequent landowner before continuing the search.
 3. The licensee cannot charge a fee for his/her services unless s/he is also a licensed guide. To become a licensed guide, a prospective candidate must be at least 18 years old and pass the exam. For information on how to become a licensed guide, see [Appendix c](#).
 4. The licensee must carry a current big game license.
 5. The licensee must carry a valid LTD license.
 6. The licensee must use only leashed tracking dogs that have also been licensed and identified as required by Article 7 of the New York State Department of Agriculture and Markets Law.
 7. All tracking dogs must be on a lead attached to the dog’s collar or harness the entire time tracking is in progress. The lead must be at 12 feet long.
 8. The licensee is the only person authorized to track a wounded animal. The licensee is not permitted to transfer his/her license to anyone else.

E. EQUIPMENT

The following is a list of necessary and useful equipment and items for every handler. Of course, there is additional equipment available that a handler may want to have based on his/her personal preferences. Some of these additional equipment and items are also listed below.

- Wide collar or a harness
- Leash (stiff mountain-climbing rope works well as a leash)
New York State leashed tracking dog regulations require that all dogs be on a lead that is at least 12 feet long. Depending on the handler's personal preference, a longer leash may be more desirable.
- Light that lasts for four or five hours or a headlight attached to a hat
- Compass and/or a map
- Orange surveyor's tape or (preferably) biodegradable tape or flagging
- Leashed tracking dog license
- Big game license
- Water for handler and dog
- Extra batteries
- First-aid kit for handler and dog

Additional Equipment and Items (Optional)

- GPS (global positioning system)
- Hunter orange vest and hat
- Electronic tracking collar
- Eye protection
- Ear protection
- Hunting coat and pants appropriate for different weather conditions, and/or waders
- Boots suitable for rough terrain and water
- Two-way radio and/or cellular phone
- White tissue for dabbing the ground to check for blood when it is hard to see in the area where a deer or bear was hit

F. PARASITES/DISEASES

Several parasites and diseases can affect dogs. Every dog handler should be knowledgeable and aware of the symptoms, treatments and vaccinations available to prevent disease and help maintain their dog's health. If a handler notices their dog exhibiting any unusual symptoms, the dog should be taken to a veterinarian. For information about the diseases that can afflict a dog and how to prevent it, please refer to the [suggested reading](#) section at the end of this document.

G. TRAINING

Training a puppy or an adult dog to become a good wounded-deer or wounded-bear tracker takes time and dedication. Training can begin when a puppy is 7 to 8 weeks old, but a dog of any age can be trained to become a leashed tracking dog if it has potential. However, a very old dog may not have the energy or enthusiasm necessary for tracking. In addition, it will not have the time to gain natural experience before retirement.

For training and tracking purposes, the prospective leashed tracking dog handler should choose specific words or commands that s/he finds appropriate for his/her own dog. These should be clear and simple for the dog to understand and follow. The handler can use these words or commands to praise, encourage and teach the dog when it exhibits appropriate behavior. The handler should stick with the same words for both training and tracking. However, specific words may not be as important as the way they are expressed, such as with excitement or sometimes sternness.

The handler can motivate a dog by praising it when, in the proper moment, it exhibits the correct responses while working an artificial line, especially when the dog reaches the end of the line. Motivating a dog helps advance its natural tracking instincts. Positive reinforcement helps the dog focus on appropriate tracking behaviors. Severe punishment or negative reinforcement is not recommended, except when mild scolding is necessary.

Dogs have a strong desire to please the person that they identify as the leader-the alpha dog. The alpha dog is the “top dog,” the one who dominates everyone else in the pack.” The behavior of recognizing the owner as the alpha dog goes back to the behaviors that evolved from their wolf pack ancestry. This has long been thought to be true and may still carry some validity as far as captive wolves are concerned, but recent research has shed new light on using the term alpha male when referring to wild wolves. Earlier studies of wolves were based on observations of captive wolves that were unrelated and had been placed together. In the wild, wolf packs usually consist of parents and their offspring, not a group of unrelated individuals. Therefore, wild wolf parents are more appropriately called the breeding male and the breeding female or the male parent and the female parent. However, for captive wolves, the term alpha may still appropriately be used.

Wild wolves are social creatures and each individual animal exhibits certain behaviors as part of the pack. For example, the female wolf tends to the young while the male plays a more important role when it comes to attacking prey. The male and female know what their skills are, and they work together as a team. The same is true for a tracking dog. A beginner tracking dog learns what is expected of it, what it needs to do as part of a team and what the handler’s role is as well. When tracking on a real line, the dog begins to understand that its handler is also working to find the wounded animal.

Eventually, these social behaviors help establish a bond between a trainer and a dog. The bond can grow so strong that a trainer will be able to read the signals that a dog is relaying, and, at the same time, the dog will become more attuned to the handler’s commands. A good relationship between a handler and a dog is very important to developing a great tracking team.

1. Developing Artificial Lines

A common technique used to train a dog to track wounded deer is to use an artificial line. An artificial line is a deer-scent line set up by the handler to imitate a real line. A real line is a scent line of a live, wounded deer.

To develop an artificial line, the handler applies deer blood (blood line) making a trail for a dog to track. In addition, a deerskin, a deer carcass or a deer part the handler considers appropriate should be placed at the end of the line as a reward. The handler should consider wearing rubber boots while developing an artificial line to avoid confusing a dog with his/her own scent. However, most dogs will instinctively know to follow deer scent rather than a handler’s scent.

After an artificial line has been established, the handler should allow the line to age for only 15 minutes before a dog is introduced to track the line. In most cases, when a dog is placed in front of an artificial line, it will realize that it should follow the scent trail. Once a dog has shown an interest in tracking, the artificial line can be increased in length. When the length of the line increases, it is beneficial to use a few 90-degree turns when setting up an artificial line. This can help a dog learn how to track on a real line that changes directions, rather than continuing in an artificially straight line. The age of the line should also be increased from 15 minutes to 1 or 2 hours and then to 4 hours.

After a dog has successfully tracked a 4-hour-old scent line, the handler can increase the age of the line to 8 hours and then to 20 or 24 hours. Increasing the age of an artificial line may teach a dog how to track a “cold line” an old scent trail of a live, wounded deer or bear which they may encounter on real lines. The handler may also want to consider using less blood on the artificial line to prepare a dog for real lines where there may be very little blood.

Different techniques are used to lay a “blood line” (a trail of deer blood placed on the ground for a dog to track). The handler must collect deer blood in a container during deer hunting season. It should be kept frozen and then thawed when needed. A half-pint of blood is usually sufficient for a bloodline. Blood can be distributed on an artificial line either by using the squeeze-bottle technique or by using the dabbing technique.

A plastic squeeze-bottle with a spout commonly used in laboratories is an effective way to mark the line. A simple water bottle with a hole in the cap also works. As the handler walks along the trail, s/he squeezes the bottle to apply a small amount of blood on the ground at about every other step. To apply the blood using the dabbing technique, the handler attaches a small sponge to a stick, dips the sponge into a container of deer blood and then dabs the blood onto the ground at about every second step as well. The squeeze-bottle technique usually leaves a larger amount of blood on the ground, while the dabbing technique forms more of a pattern on the ground.

“**Scent shoes**” can be used as another method for marking an artificial line. These can be made out of wood blocks with boots attached or there are other styles available that can attach to a pair of boots.

Whatever kind of scent shoes the handler prefers, s/he can attach deer hooves to them and then drip blood directly onto the hooves. Alternatively, blood can be placed on the ground, with the handler putting the hooves into it instead. Deer hooves can be kept frozen and used repeatedly.

Scent shoes are a good method to use on an artificial line for dogs that have had initial training with blood lines. The advantage of this method is that a beginner will pick up other scents to follow from a deer’s hooves and fur, not just the scent of its blood. This method of training is considered more realistic in replicating a real line.



Scent shoes are an excellent method to use for creating an artificial scent line

An artificial line can be 10 feet long for a beginner and then increased gradually up to 50 feet. As training progresses, training lines can be up to a quarter-mile long. The handler should not make an artificial line too long because it can result in a dog losing interest and motivation in tracking. The handler should consider a dog's tracking abilities and level of interest and judge accordingly.

Remember that it can be highly motivating for a dog to find a food reward along with a deerskin at the end of an artificial line. This motivation reinforces a dog's desire to track during the next training session.

When training a dog to run a line, the handler may consider setting up artificial lines in a few different locations. As a dog gains more experience, the handler can make the artificial lines more difficult. Identifying trail markers should be placed along the line. These can be as simple as colored clothespins on bushes or branches along the trail. An alternative is to tie biodegradable orange tape or flagging to branches or leaves. Flags can also be inserted in the ground along the line. The international pattern used for marking a line is a cross placed at the beginning of the trail, with the time the line was developed written on it. All right-angle turns should be marked with inverted "L's" to show the direction the turns take. Finally, another cross is placed at the end of the line. Be aware that a dog may become accustomed to following the particular trail markers used instead of the actual scent on the ground. To eliminate this potential problem, the handler should place all markers above the dog's eye level.

2. Running a Line

When a dog begins training on an artificial line that has 90-degree turns, it is common for it to continue scenting in a straight line, thereby overshooting the turn and losing the scent. Most dogs will realize at some point that they have lost the scent trail. The dog then tries to find the scent again by circling back to where it was lost. This behavior is called working a check. Hopefully, the dog will regain the scent on its own. However, if it has difficulty relocating the scent, it may respond to the handler's vocal cues and find its way back to the scent trail with appropriate encouragement. If this does not help, mildly scold the dog and bring it back to the spot where it lost the scent trail.

The handler should permit the dog to make as many corrections as necessary on its own when working on an artificial line. When a dog tracks on a real line, it cannot rely on the handler for assistance. One way a handler and a dog can have a more realistic tracking experience is to have someone else set up an artificial line for them. The handler can also apply his/her own "blind line." If all of the markers are out of the handler's sight, then both the handler and the dog must track blindly. This method gives the handler a chance to work with the dog in a more realistic way and test his or her readiness to be led by the dog.

The handler may consider establishing an artificial line in an area populated by live deer. When pursuing a wounded deer on a real line, a dog may become distracted by "hot lines," (scent lines left behind by live deer). Training a dog on an artificial line near "hot lines" should help minimize or eliminate this behavior when tracking on real lines.

3. Training Time

The amount of time the handler spends training a dog on an artificial line depends on both the handler and the dog. Some handlers have found that training their dog once a week produces good performance results and can help maintain a dog's interest in tracking. Other handlers have found that working a dog several days a week resulted in poor performance and the dog becoming bored with tracking. This may vary depending on the handler and the dog involved. As the handler becomes more accustomed to their dog's behavior, s/he will be able to figure out the routine that works best for the "tracking team."

It is important to keep in mind that each dog has its own individual personality and abilities. Even an excellent handler may find that their best training efforts do not produce a good tracking dog. Occasionally a dog with good genes for scenting ability simply may not have the enthusiasm or the desire to track.

4. Other Training Techniques

Training with bear blood and bear hides can be done and may prove to be helpful, but some handlers use deer blood and carcasses exclusively. If handlers choose to track bear as well as deer, they may find that their dogs are willing and able to track a bear with as much persistence and dedication as when tracking deer. Most dogs quickly understand that the scent trail is not that of a deer and that they need to track a bear instead. When handlers take a dog on its very first bear tracking experience, they should use the commands the dog learned during training. Encouragement should be sufficient to show the dog it is tracking the correct animal.

Another option for training is to allow a dog to track a dead deer or bear that a hunter has already shot and found. Tracking a deer right after it has been shot may be difficult for the dog because there is scent everywhere, and the dog does not have a line to follow. To challenge a dog, the handler may want to wait until the animal's scent trail has aged. This gives a dog a taste for tracking a "cold line."

Training can also include other important aspects for a dog to gain essential experience for deer or bear tracking. It can be very beneficial to introduce a dog to various situations that it may encounter while on an actual deer or bear call. For example, having a dog track an artificial line at night with a light can help prepare it for night tracking. Allowing a dog to become accustomed to loud noises may teach it not to be distracted by various sounds, such as gunfire, that may occur during tracking. It is also helpful to allow dogs to interact with other people so they are not frightened when they encounter a "new" hunter on a deer or bear call. If the handler is working with an adult dog that is not accustomed to people, it may be more difficult to train than a puppy.

H. TRACKING

It is recommended that a leashed tracking dog be brought to a tracking location with a collar or harness and leash that are different from the ones used during tracking. The handler should place the "tracking leash" on their dog when they are at the actual tracking site. Tracking leashes must be at least 12 feet long. However, longer leashes may work better. When tracking begins, the handler may want to release most of the length of the leash, allowing the dog to have a considerable lead. This may also help prevent the leash from becoming tangled in bushes and brush.

Remember to keep an open mind because an animal may react much differently than you expect. For instance, there are obvious differences in endurance and strength between young and old animals. An older deer is larger and stronger and has the ability to run longer and farther than a small, young animal. However, the latter still may travel a much greater distance than you would think possible.

1. White-tailed Deer Tracking

When the handler begins a search for a wounded deer, s/he should always begin from where the hunter shot the deer. If the handler starts at the location from where the hunter lost the wounded animal, important information may be overlooked. This can include missed blood on the trail and the direction the deer ran, among other signs. Starting at the hit site also enables the dog to put the blood and all the other different scents of the deer together in its mind. The hunter's point of loss is a difficult place to start because it has been traveled by the hunter. Very often this is the place where bleeding stopped, and the dog must be able to recognize other scents of the wounded deer. Remember, tracking experience varies from hunter to hunter. Keep in mind that the hunter called you because they were unable to locate the deer themselves.

When tracking, pay attention to the location of the blood trail. Look for blood on the ground, bushes and other high vegetation. The handler may not find blood at the beginning of a trail because deer do not always bleed immediately after being hit. When tracking a wounded deer, it is important that the handler mark blood spots on the trail with orange, biodegradable tape or flags. These can be removed after tracking has been

completed. The handler can usually determine where a deer has been hit on the body from the location and color of the blood along the trail.

If the blood on the ground forms a pattern referred to as “fingers,” the handler will know the direction the deer ran. “Fingers” on the blood drops usually point in the direction the deer traveled, but if there are other blood “fingers” that point in opposite directions, then the deer may have doubled back and traveled in a different direction. Be sure the blood is not coming from the dog. Occasionally, tracking dogs bleed from cuts they receive from the various types of vegetation they track through.

When a deer bed is located, the handler can check for blood in and near the bed and check whether the bed is still warm. If it is, it indicates that a deer has recently fled from the bed. The amount of blood and the location of blood in the bed can also give the handler clues as to where on its body the animal was wounded. The smell of the blood can also be an important indicator. For instance, when a deer has been hit in the gut, the contents of the gut may be present and will have a distinctive odor.

If a wounded deer crosses a windswept open field, a leashed tracking dog may lose its scent. A dog may work back and forth across a broad band of scent, instead of working a narrow scent line. If a dog still finds it very difficult to relocate the scent, a handler can allow a dog to walk around the field working the edge. A dog can follow each deer trail it finds leading away from the field for about ten yards until it recognizes the correct trail of the wounded deer it is tracking. When the dog finds the correct trail, the handler can verify this by checking for visible blood. Another option is to resume the search at the end of the day when the humidity rises and the wind drops. The same procedure can be used when a wounded bear leads a dog and its handler to a field.

A deer may run through water so that its pursuers--the dog and the handler--will lose its scent trail. While some deer will not necessarily cross a river, pond, lake or stream, they may exit the water downstream on the same side they entered. A tracking dog, under normal circumstances, would cross the water and check up and down the stream first on the opposite side. If a dog is unsuccessful in locating the scent, then it would cross the water again to the same side where it lost the scent trail and check up and down the stream until the scent is located.

Roads are also used by deer in an attempt to lose their pursuers (roads do not hold scent well), and a tracking dog will check a road the same way it would check a stream, river, pond or lake. Wounded deer also move into swampy areas and may bed down on land surrounded by water in an attempt to lose pursuers. Some hunters believe that a wounded deer will not travel up hill. However, a deer trying to return to a safe bedding area or lose its pursuers will travel up or down hill.

2. American Black Bear Tracking

A dog who successfully tracks deer usually is able to track black bear too. Most dogs adapt easily to tracking a bear when encouraged by a handler to do so. This can be done with little or no prior training with bear blood or bear hides. When tracking a wounded black bear, it can be hard to find a blood trail. The thick fur on a bear can prevent blood from dripping to the ground; however, blood can sometimes be found on tree trunks or bushes. Although it may be difficult to find blood from a wounded bear, the body and pad scent left behind is strong enough for a dog to follow. Bear scent holds better on the ground than deer scent.

As with tracking deer, the handler will find it useful and advantageous to begin tracking a wounded bear from the point where the hunter shot the animal. The tracking dog and the handler can locate any blood or footprints that a bear has left behind and that the hunter may have overlooked. Some bear will not begin to bleed out until they have gone several feet. A handler should look for blood on the ground, bushes, saplings and tree branches. If a tracking dog locates a bear bed, this area should also be checked for blood. Orange, biodegradable tape should be used to mark every site where blood from a bear was located. Marking each site helps the handler and the hunter locate the previous blood spot from the bear if the tracking dog suddenly loses the trail.

Bears may find and cross water—lakes, ponds, bogs, streams or rivers—when they are wounded. Bears can swim well, and, instead of crossing the water, a bear may stay in it as a means of escape and may die in the water. As discussed earlier in the case of deer, a bear can and usually will travel uphill even when wounded. It may also be possible for a wounded bear to climb a tree. Look for claw marks on trees when a bear trail appears to end abruptly.

3. Night Tracking

In New York State, tracking can legally occur during the day or night. There are several advantages to tracking a deer at night. Many handlers are employed during the day at other jobs, or they are hunting themselves, making night tracking more convenient. Other conditions improve tracking at night. There is usually less wind and more humidity at night. The handler does not have to be concerned about other hunters in the area because deer hunting hours are from sunrise to sunset. Scent lines age less rapidly at night. If a handler waits until the following morning after a deer or bear was hit, it is possible that a coyote will find it before the handler does. One disadvantage of night tracking is that wildlife can be more active, and this can be quite distracting to a dog, depending on its experience. As opposed to deer tracking, bear tracking should be carried out during the day. It is much harder to see a black bear at night than it is to see a deer.

4. Prospective Calls

When the dog handler receives a deer or bear call from a hunter, s/he must ask certain questions to evaluate the possibilities of recovering the animal. The handler is responsible for trying to figure out where a hunter shot the animal on its body as s/he questions the hunter and gathers other information. There may be some cases when the handler believes that the animal has a high chance of survival. This should be explained to the hunter carefully to let him/her know that most likely even a tracking dog would not be able to locate the animal. Some hunters may be able to describe their hunting experience with complete accuracy. However, other hunters may not. Try to anticipate the excitement, tension, frustration and disappointment a hunter may be experiencing after losing the trail of an animal they have wounded. The handler should also find out whether the land where the animal was wounded is privately owned, and, if it is, whether the hunter has the landowner's permission to hunt the land. After taking a few deer or bear calls, the handler will become more confident about judging the accuracy of a hunter's description.

I. WEATHER

Weather conditions can affect deer and bear tracking. Rain, snow, wind and dry conditions can require a handler to change the normal course of tracking. When the ground is warm and the air is cold, evaporation from the ground improves scent conditions. If the ground is cold but the temperature is warm, it is much harder for a dog to detect the scent left behind by a deer. In addition, tracking dogs find it very difficult to pick up deer scent before a storm. The exact reasons for this remain unknown.

1. Rain

Rain, if not torrential, helps to hold deer scent on the ground, especially if it stops raining and the sun comes out afterwards. However, rain before or during bear tracking may cause problems for a dog. When blood is present in the footprints of a wounded bear, rain likely will not prevent a dog from being able to smell its scent. Unfortunately, rain in a footprint without blood may eliminate the strong pad scent of a bear altogether, making it very difficult for a dog to pursue the animal.

2. Snow

As with rain, snow helps to hold scent on the ground, and a dog is still able to follow the trail well. However, snow can cover animal tracks and blood sign making it difficult for the handler to be sure the tracking dog has headed in the correct direction. Dry snow is an exception to this rule and can be very challenging for the tracking dog.

3. Wind

Wind causes difficulties for dogs while tracking. On a windy day, the dog works downwind of the track of the wounded animal. Keep in mind that wind direction can change. A dog instinctively raises its head to catch scent particles on windy days. Most handlers prefer that their dogs gain experience through tracking, keeping their noses to the ground before tracking on windy days. This way, the dog will not learn to ground and wind scent simultaneously under normal conditions.

4. Dry Conditions

Sandy beaches, dry surfaces and roads do not hold scent well. However, moist surfaces and vegetation do. Areas such as conifer forests can be difficult for a tracking dog because there is not much undergrowth for scent particles to penetrate.

J. SAFETY

All handlers are required to follow hunting regulations and leashed tracking dog laws. It is also important to let the hunter know that you will be following these regulations and laws. The handler should use her or his own judgment if a hunter does something illegal while the handler is tracking. After tracking is completed, the handler should report all illegal activities to an environmental conservation officer.

When a wounded deer or bear is found during a pursuit, be cautious because there is a chance that either species could become aggressive toward a dog and/or its handler. Always keep in mind that the potential exists.

Another safety issue to be aware of is the fact that hunters are required to carry a firearm at certain times. During an evening search, only the handler is allowed to carry a firearm, but during daylight hours, the hunter is required to carry a gun or bow depending on the hunting season that they took the animal. The handler must always be the leader on the trail while searching for an injured deer or bear. This means that during gun season, the hunter, carrying a firearm, must walk behind the handler and the tracking dog. The handler should always make sure that the hunter has their gun in the safety position. This helps to ensure a safe trek for everyone involved.

At night it is important for the search party to follow behind the handler and his/ her dog in single file and stay close at all times. Also, all members should have their flashlights turned on when a handler needs to shoot a wounded deer or bear. The handler is always in charge and the search party should follow his/her instructions.

K. BIG GAME

New York State regulates big game, including white-tailed deer and American black bear (see [Appendix c](#) for big game hunting laws and regulations).

1. White-tailed Deer

White-tailed deer populations are found throughout New York State. A white-tailed deer's home range is approximately one square mile. Bucks (males) can weigh between 150 to 350 lbs., while does (females) can weigh between 90 to 200 lbs. White-tailed deer are herbivores. The diet of a deer can change depending on seasons and food availability. Deer eat the buds, twigs, leaves and bark of cedar, birch, yew, walnut and a variety of other tree species. They also eat corn, nuts, fruit and green plants. They are ruminants, i.e., their stomachs consist of four chambers. In the fall and winter, the coat of a deer is grayish brown, and in the spring and summer, it is reddish brown.

White-tailed deer mate in late October and early November in the northern part of their range. A female has 1 to 3 fawns, but typically 2. To facilitate contact and mating, deer have tarsal and metatarsal glands on each hind leg. The interdigital glands between the cloves of each hoof also produce a scent unique to each deer. This is important for a tracking dog when following a deer that is not bleeding. The scent a deer leaves behind will, in most cases, be easy for a dog to detect.

Deer have good eyesight, hearing and sense of smell. They "snort" to alert other deer of danger. Another warning is when alarmed deer run with their tails up in the air exposing the white underneath. When a white-tailed deer is shot, it usually claps down its tail.

2. American Black Bear

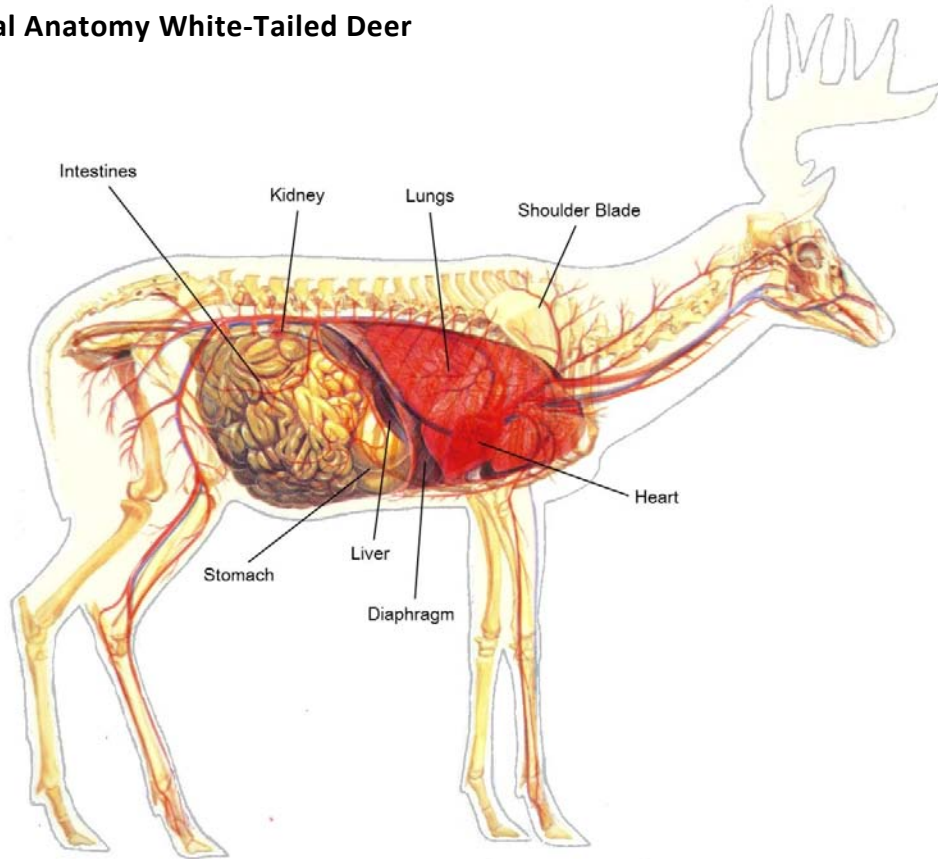
Black bears are found in most areas of upstate New York. Wildlife biologists refer to black bear population ranges as northern and southern. Males weigh 200 to 400 lbs., although some individuals have weighed more than 500 lbs. Females weigh from 90 to 250 lbs. Home ranges for black bears, depending on conditions, average from one square mile up to several square miles. Within the home range, black bears travel long distances.

In the northeast, black bears mate in June, July and August. A female mates on the average of every two years. She gives birth in January or February to 1 to 6, cubs, but 2 or 3 cubs is more common. A cub stays with the sow for up to 18 months. Bears are usually solitary animals, except when the female travels with her cubs. Black bears are omnivores whose diet consists of berries, salmon, fruit, insects, nuts, plants, small mammals, carrion and even young deer.

Bears make different sounds, sometimes human-like noises, when they are nervous or experiencing emotions such as fear, pleasure or pain. Bears climb trees to escape danger or may try to bluff an attack when they are threatened. When tracking a bear with a leashed tracking dog, handlers should check the trees above themselves and their dogs.

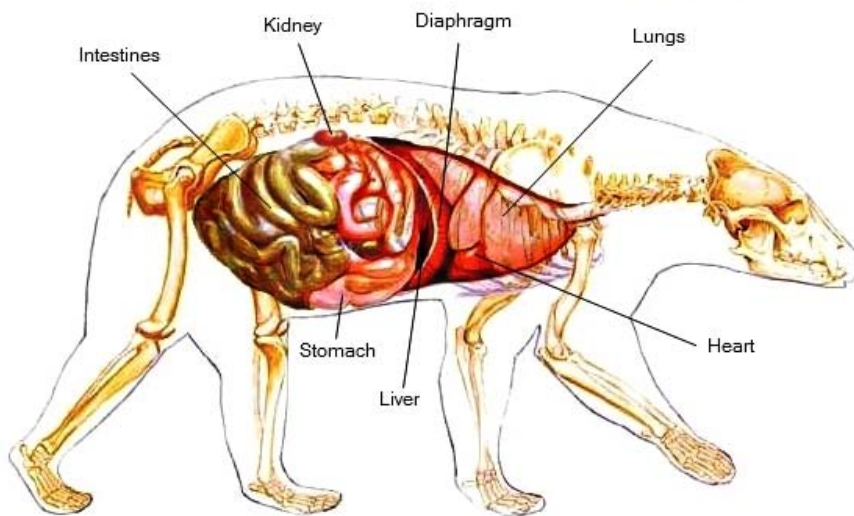
L. DEER AND BEAR ANATOMY

1. Internal Anatomy White-Tailed Deer



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2. Internal Anatomy American Black Bear



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M. SHOTS AND WOUNDS

This section covers shots and wounds. As one would imagine, hunters do not always hit deer where they intended, and sometimes they take shots that they should not have attempted. Many shots will not kill the animal, resulting in complications for the hunter as well as the animal. Briefly mentioned here are some of the most common scenarios, but this section does not cover all possible circumstances. For most leashed tracking dog handlers, additional reading and experience are the keys to success.

1. Chest and Lung

If an arrow penetrates the lungs of a deer or bear, frothy blood on the trail and the arrow should be visible. In the case of a lung hit where there is little or no blood found, it may be because the arrow passed through the deer's chest, and the wound sealed up. If an arrow damages only one lung, there is a good chance a deer will survive, and the injured lung will regain most of its function. The same may also be true for a bear. The chest and lungs of a bear occupy a smaller area of the body than those of a deer. Therefore, an accurate hit to a bear's lungs may be more unlikely than to a deer's.

2. Frontal Shots

Shots at an oncoming deer should never be taken with a bow. It is also risky to take this particular shot with a shotgun or muzzle loader. A deer's ribcage comes to a point in front, like the bow of a boat, and an arrow, slug or black powder bullet is likely to be deflected and skid along the ribs outside the chest cavity. A deer hit in this way may lose a great deal of blood externally, but eventually the bleeding will stop and the deer will probably survive.

3. Head Shot

A head shot is not recommended when using a firearm or bow. Frequently, the nose or jaw is hit rather than the brain. A deer shot in the jaw will live for many days before it dies of starvation, and it is very difficult to catch up to it. Fragments of bone and teeth may be found in the area where the deer was shot. A deer with a jaw wound will shake its head while running and strands of saliva mixed with blood will fall to the ground. If a handler finds a deer bed used by a deer with a head wound, bloody saliva will be present and found outside the impression of the deer. It is better to track a deer wounded in the head during the day when it may be possible to take a shot at a distance.

4. Neck Shot

If a bowhunter hits a deer in the neck but misses the major blood vessels that are found below the spinal column of the neck, then the deer may survive. A large quantity of blood may be found on the ground and on branches, but the blood will begin to taper off, and, in all likelihood, the deer will continue to move. If a deer is shot in the neck with a firearm, and the major blood vessels are hit, then the deer may soon collapse. However, as with bow hits, if only the muscle above the spine has been hit, then finding the deer is almost impossible. Tracking a deer that was hit in the esophagus or the trachea almost certainly will not be successful because usually wounds of this type do not cause a deer to die right away.

5. Gut

Gut shots include shots that hit the stomach, liver, kidney or intestines. Hits to the stomach or intestines usually cause internal bleeding, with only a small amount of dark red blood on the ground. If a hunter shoots a deer or bear in the stomach, there may be contents of the stomach in the blood on the ground or on an arrow if located. There may also be a strong odor present. Bright red blood originating from the external layers of the animal may also be present on the trail. If a dog tracker locates two blood trails parallel to each other, the handler will know that the animal has both an entry and exit wound. Another possible scenario is that entry and/or exit wounds resulting from a gut shot may be blocked by the intestines, with little to no blood present.

If a hunter has hit the stomach of a deer or bear, it is generally appropriate to wait at least four hours before tracking the animal. When tracking begins and the tracking dog and handler find a deer or bear bed that the wounded animal used recently, there probably will be blood visible in the bed but no blood outside it. If a tracking dog has trouble locating a gut shot deer, the handler should search the area for a stream, river, pond or lake. Often, a deer wounded by a gut shot will become dehydrated and seek water. A deer or bear may be found dead near or in the water.

When a deer or bear is hit in the liver, dark red blood may be present. If there is little or no blood found, it is still possible that there is fatal internal bleeding. A deer hit in the kidney will suffer from a large amount of blood loss, and the handler should see this on the ground. A handler may also find blood spray on bushes. If a deer is hit in the large intestines, it may survive for a few days. The intestines may actually block the entry wound, resulting in little blood on the ground. If the handler follows the deer and determines that it is still alive and mobile, it is best to back off and return the next day.

6. Leg Hits

A deer with a leg wound will often take off immediately. The deer will continue to run on all four legs or on three legs, depending on the damage done to the wounded leg. The handler can check the hoof prints to observe whether the deer is traveling on only three legs. Bone fragments may be found on the ground if the arrow or bullet hit the deer's leg bone. Small, bright red blood droplets may be visible; there might be drag marks on the trail from the wounded leg. When a deer has been hit in the leg, it is possible to find large amounts of blood on the trail. However, at some point, the bleeding may stop altogether. In this case, the hunter, the handler and the tracking dog should trail the deer immediately. If the handler and tracking dog continue to push the deer, bleeding from the leg wound could begin again, and eventually the deer will weaken and stop. When bleeding does not occur after a leg hit, the deer often survives, at least until deep snow comes.

When a bear has a leg injury, it may leave more pronounced pad prints on the ground from the uninjured legs. As with deer, there may also be occasional drag marks left behind from the injured leg. A handler may notice a bear has walked through leaves or broken sticks on the trail. A bear with a leg injury should be pursued as soon as possible. Keeping the bear on the move will weaken it quicker because the injury will continue to bleed.

7. Other Wounds and Hair

If a muscle of a deer is hit, a large amount of bright red blood can be found on the ground and on high vegetation. Hair from the deer may also be found on the ground. Unless the femoral artery has been ruptured, a deer may stop bleeding and survive a muscle hit. When a bear is hit in the muscles, bright red blood may also be found, but remember that the thick fur of a bear could prevent some of the blood from dripping to the ground.

If an arrow enters a deer low and forward on its body, then chances are high that the deer will not survive, and a tracking dog will be able to find the deer. In such cases, some blood may be found on branches or other vegetation.

A deer hit high on the body with no exit wound can be difficult to track. There will not be much blood, and the tracking dog must rely on other scents emitted from the deer's tarsal and interdigital glands.

When a deer is hit above the spine, the deer may instantly fall down and then get up and run. In this situation, deer hair and hair with skin attached might be found on the ground. Be sure to check for blood on vegetation. It is almost impossible to catch up to a deer that has been wounded in this manner.

The handler may want to study the various types of hair found on deer. Color, length and quantity of hair may provide useful clues in tracking a wounded deer. When a handler finds hair on the ground or vegetation while tracking, s/he may be able to determine what part of the body the hair came from, providing clues as to where the wound is located. For example, exit wounds usually cut more hair than entry wounds, leaving more hair on the ground in the area where the deer was standing when hit. Once the handler determines the type of wound, s/he can examine the hair type and decide the appropriate tracking procedure to follow. Often hair may be hard to locate, but a handler who has the knowledge to distinguish different hair types may more accurately determine how to locate the animal.

N. DISPATCHING AN ANIMAL

The leashed tracking dog handler has the authority to dispatch a wounded or injured deer or bear at any time of day or night after it has been located. The hunter, during legal hunting hours (sunrise to sunset) can dispatch the wounded animal after it has been sighted. The hunter must use the weapon of the specific hunting season with which they initially wounded the animal. However, a leashed tracking dog handler can dispatch the animal during legal hunting hours if they decide it is the safest procedure to follow at the time. Safety must always be the number one consideration at all times.

There may be instances when the leashed tracking dog and its handler have jumped a wounded animal and it is not safe for the hunter to take a shot. A wounded deer may also try to charge a leashed tracking dog or its handler, and the safest option may be for the handler to dispatch the animal. Remember to be cautious whenever tracking black bear. Most black bears will not try to attack people, but they may attack a tracking dog.

After legal hunting hours, the handler is the only one who can dispatch wounded big game. If tracking at night, all of the people in the hunting party assisting the handler should carry a light. This way the handler will know everyone's whereabouts before an animal is dispatched. The handler can dispatch the wounded animal with a firearm that s/he is authorized to use and that complies with all federal, state or local laws or regulations concerning firearms.

When a handler finds a wounded deer or bear and prepares to shoot the animal, the handler must make safety the top priority and be sure that all the participants and the hunter are behind him/her and the tracking dog is in a safe place. Also, s/he must be aware of the surrounding area and what is located behind and near the wounded deer or bear.

After the deer or bear has been dispatched or has been found dead, the hunter must complete the carcass tag as required by Environmental Conservation Law 11-0911. If the hunter is physically unable to accompany the handler, s/he must immediately complete the carcass tag when the handler delivers the animal.

O. SUMMARY

Every beginner handler should be prepared to spend many hours training and bonding with his or her dog for it to become a successful leashed tracking dog. The new handler would benefit from spending time watching and learning from an experienced dog handler. Consider joining a leashed tracking dog organization to gather and share important information. Most handlers would be happy to answer questions and offer valuable advice.

The handler will be able to develop and figure out what methods work best for their own dog. When training more than one dog, a handler may find that using different methods will produce different results in each dog.

When tracking wounded animals, dogs can learn that they are part of a team along with the handler in pursuit to bring down prey.

Once the handler feels their dog is ready to begin tracking wounded big game and starts to receive prospective calls from hunters, they should remember that it is important to gather as much information as possible. Every handler must carefully evaluate every call s/he receives to track a wounded deer or bear.

Based on the hunter's description of an animal's (possible) wound, the handler may be able to determine whether their dog will be able to locate the animal. Occasionally, hunters only superficially wound animals, leading the handler to believe the animal will survive. In such instances, the handler should tactfully explain that a tracking dog may not succeed in locating the animal. On the other hand, many animals could be seriously wounded or so weakened that the handler knows their dog has a good chance of tracking and locating it. After the handler gains experience by listening to the attitudes of and descriptions by different hunters, it becomes easier to decide which tracking experiences could be successful.

All handlers should remember to begin searching for a wounded deer or bear at the point where the hunter shot the animal. A leashed tracking dog and/or its handler may find important clues that the hunter overlooked or forgot to mention. In addition, the dog will be able to associate the scent of the deer's blood and the other scents of the deer. This becomes valuable if the deer stops bleeding later. Using biodegradable tape or flagging, the handler should mark each area where blood or other sign was found. If a leashed tracking dog loses the trail of an animal, these marks makes it easier to locate the last area where sign was found. A marked trail can also help the handler and hunter find their way back to the starting point.

The handler often must decide how to proceed with tracking based on weather. Weather conditions sometimes define the way a handler chooses to track a wounded animal. Moist surfaces hold scent well, so rain, if not torrential, may be beneficial for deer tracking. Rain falling on bear tracks without blood droplets present makes it difficult for a tracking dog to pick up the scent. Wind is very challenging for dogs, and tracking should be done downwind of the animal on windy days. In very dry conditions, scent does not hold well, and this can pose additional problems. Nevertheless, tracking dogs may be successful in different weather conditions if the handler is flexible and willing to adjust his/her tracking techniques and styles accordingly.

Safety is always of utmost concern. Make sure that the hunter has his/her gun in a safe position when tracking. When carrying a gun, the dog handler must always be aware of the people accompanying him/her, any hikers or hunters afield, the dog, and themselves. Every precaution should be taken to ensure a safe track.

When afield, a handler must carry his or her licenses (for hunting and for having a leashed tracking dog), and their dog must always be kept on a leash. A handler should be aware of the proper procedures that must be followed in order to legally track wounded deer and bear with their leashed tracking dog.

Leashed tracking dogs and their handlers have increased the number of wounded deer and bear recovered statewide. Because of their dedication and skill, fewer wounded animals suffer when hunters are unable to locate them on their own.

P. GLOSSARY

Artificial line - An artificial line is a blood scent line or trail that a dog handler develops for training purposes.

Real line – A real line is a scent line or trail of a live wounded animal.

Blood line - A blood line is a trail of animal blood placed on the ground for a dog to learn how to track.

Hot lines – Hot lines are scent lines or trails that have been left behind by live, healthy animals.

Cold lines – Cold lines are old scent lines or trails of wounded deer or bear.

Blind line – A blind line is an artificial line that has been established by someone else for a handler, so the handler can blindly follow the line along with his/her dog.

Scent shoes – Scent shoes are a device for holding deer hooves to lay blood on an artificial line.

Check – A check is when a dog loses a scent trail and works the area until it picks up the scent again.

Fingers – “Fingers” describes a finger-shaped splatter of deer blood that usually points in the direction the deer traveled.

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www.nhptv.org/NatureWorks/whitetaileddeer.htm

www.thetroutbum.com

www.born-to-track.com

www.deersearch.org

Suggested Reading for Parasites/Diseases Effecting Dogs

Bleby, John and Bishop, Gerald, *The Dog's Health from A to Z, The ultimate handy guide for every dog owner*, Cincinnati, OH, 1986, 2003.

www.peteducation.com

www.thepetcenter.com

www.heartwormsociety.org

R. APPENDIX

a. Contact Information

[NYSDEC Regional Offices](http://www.dec.ny.gov/about/50230.html) (www.dec.ny.gov/about/50230.html)

[Division of Law Enforcement](http://www.dec.ny.gov/about/621.html) (www.dec.ny.gov/about/621.html)

b. Laws and Regulations

Tracking Dogs

[Title 6 NYCRR Part 176 - Leashed Tracking Dogs](http://www.dec.ny.gov/regs/3937.html) (www.dec.ny.gov/regs/3937.html)

[ECL §11-0928 – Tracking Dogs](http://public.leginfo.state.ny.us) (http://public.leginfo.state.ny.us)

Deer and Bear Hunting

[Summary of Deer and Bear Hunting Regulations](http://www.dec.ny.gov/outdoor/8305.html) (www.dec.ny.gov/outdoor/8305.html)

c. Becoming a Licensed Guide

[Licensed Guide Program Information and Regulations](http://www.dec.ny.gov/permits/30969.html) (www.dec.ny.gov/permits/30969.html)