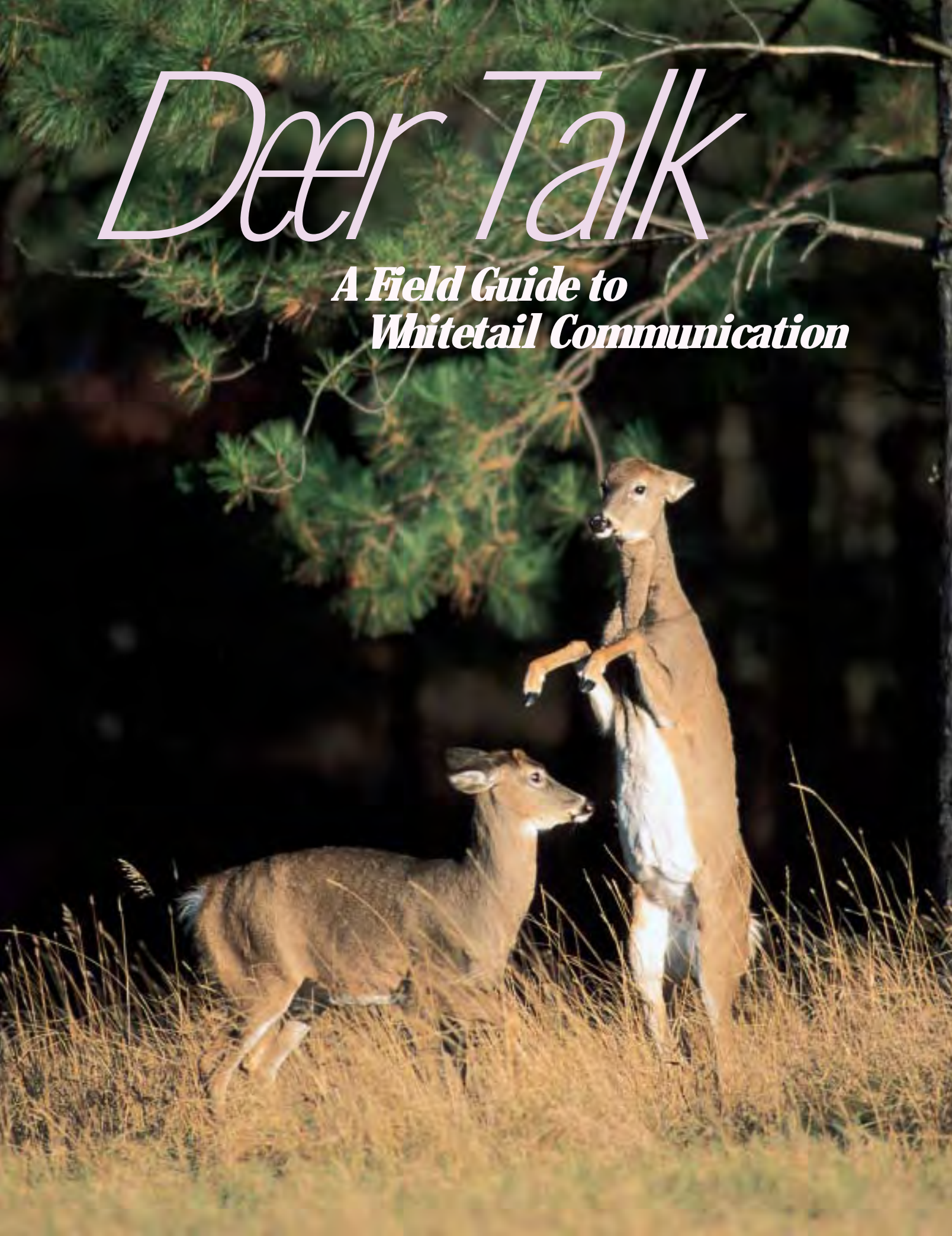


Deer Talk

***A Field Guide to
Whitetail Communication***



Deer Communicate with their whole bodies. Tails, ears, eyes, and postures tell other deer about potential dangers and communicate family relationships. Deer also “talk” to each other with grunts, bleats, and snorts. However, the most fascinating form of communication among deer is their use of scents. With scents, deer can communicate over long distances and through long periods of time. Scents mark their trails, identify family members, and help mates locate each other.

This guide does not contain all the ways whitetails communicate, but it does include the most common. This guide is divided into three sections:

Voices of the Deer (vocal communication)

Common Scents (chemical communication)

Body Language (visual communication)

In reality, any “talk” between deer probably involves more than one type of communication. For example, an alarmed deer may stamp its foot (visual), snort (vocal), and release scent from its feet (chemical).

As you use this guide, remember researchers still have a lot to learn about wild animal communication. As scientists discover new details, old ways of interpreting deer communication may become outdated. If you can spend time with wild deer, you may discover amazing things about how they communicate. Studying wild animals and wildlife behavior can be an exciting hobby or career!

Voices of the Deer

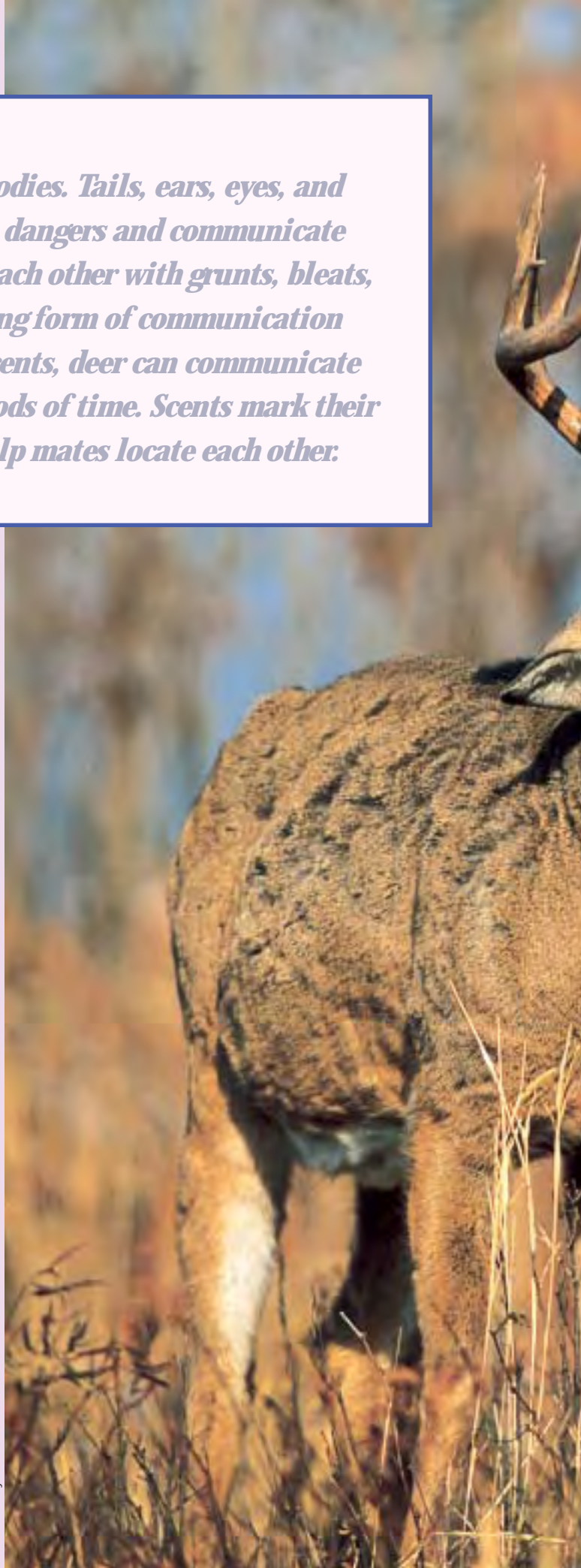
Vocal communication is not as common among whitetails as visual and chemical communication, but the information is just as important.

Alarm & Distress Calls

Blow or snort (all deer, all seasons)

The deer forcibly expels air through its nostrils like a greatly magnified sneeze. The deer **blows** when it detects danger at a distance. These blows are drawn-out “whooshes” repeated several times. **Snorts** are single, very short, explosive sounds given as the deer turns to run.

There may be three reasons for these sounds. The noise warns all deer that something is radically wrong. The “sneeze” clears the nasal passages, and helps the deer sniff the air better. The sound may startle a predator into revealing its location or leaving the area.





Bawl or bleat (all deer, especially fawns, all seasons)

This sound is very similar to a calf's bawl and is used by deer in big trouble (e.g. injured, cornered, or terrified). Fawns call their mother by bleating if they are attacked by predators. The pitch of the sound decreases as the deer grows older.

Aggressive Calls

Low Grunt (all deer, all seasons)

Used by dominant animals to establish and maintain who is boss.

Grunt-snort (bucks during rut, females occasionally)

A **low grunt** accompanied with a **snort**. Dominant animals direct this sound at subordinates. It can be followed with a **grunt-snort-wheeze** by bucks in rut. This call is a **grunt-snort** coupled with a drawn-out wheezing expulsion or air through pinched nostrils. A grunt-snort-wheeze is the most threatening call of bucks and is often followed by **antler rush**.

Maternal Calls

Maternal grunt (does with fawns)

A low-intensity grunt that can be heard for only a short distance. Used to call a fawn out of its hiding place for nursing. Later in the summer, does use it to keep the kids together while moving about.

Mew (fawns)

Fawns give this high-pitched sound in response to the maternal grunt. It is the fawn's way of saying, "I'm hungry and need some attention."



Photo by © John Mielcarek

Fawn bleat (fawns)

This call is similar to **mew** but more intense. It sounds like the bleat of a lamb but is higher pitched and lacks the volume. The bleat's intensity increases with increasing need. It probably means, "I'm very hungry and need you, NOW." Fawns also bleat when disturbed from their bedding site. We can hear this bleat up to 100 yards away. It can be imitated with a predator call to attract does.

Mating Calls

Tending grunt (bucks during rut, mostly dominant males)

A low guttural call which sounds like a rooting pig. It is made by a buck while following a doe in heat.



Whitetail bucks frequently stop during a rubbing episode to lick and smell the rubbed area. Occasionally, does will mark these rubs with their own foreheads.

Photo by George Barnett

Contact Calls

Contact call (all deer, but primarily does, all seasons)

Similar to the **low grunt** and the **maternal grunt** but is longer and higher. It also has varying inflection. Used by a doe which has become separated from her maternal group. This sound tends to gather and calm the deer.

Common Scents

Forest-dwelling animals rely less on sight and sound and more on scent. Scent travels farther and lasts longer. A whitetail's sense of smell is many times greater than ours. When we attempt to interpret how deer use chemical signals to communicate, we are guessing. Even if we accurately measure the amount of scent reaching the nostrils, we don't know the significance of the message. Observation of a deer's behavior in the presence of specific chemicals is the only clue which scientists have. Sources of communicative odors in deer include specialized skin glands, urine, vaginal secretions, and possibly saliva.

Walking (all deer, all seasons)

Deer mark their trail every step they take with scent from the interdigital glands on each foot.

Tarsal flaring (all deer, all seasons)

Scent is released by flaring the tarsal hairs into a rosette. The odor smells dry and musky to us. Whitetails obtain information on an individual's identity, dominance position, physical condition, and reproductive status from the odor of this gland.

Licking (bucks, all year)

Bucks communicate with one another by repeatedly marking the same branches. Marking involves mouthing the branch and sometimes rubbing it with the forehead or preorbital glands. At the same time, bucks smell and taste marks left by other bucks. Licking may communicate information about social status and promote social bonding.

Urine and feces (all deer, all seasons)

Deer urinate and defecate frequently. Deer can probably "read" the age and sex of other deer from their urine. See **rub-urinating** under "Body Language." To us, deer urine smells like sage or pine.

Rubs and thrashings (mostly dominant bucks, during pre-rut)

Making a rub or thrashing antlers against branches is actually a behavior, but the marks and scents leave a chemical message for other deer. After rubbing or thrashing the antlers, the buck will

leave scent from his saliva and from glands on the forehead and eyes. Does sometimes mark these rubs with their own foreheads.

Scrapes (dominant bucks, mostly in pre-rut)

The buck paws at the ground creating an oblong area about 1-4 feet in length. It then rub-urinates in the scrape leaving a "calling card" for other bucks and reinforcing his social rank. He often licks and rubs his forehead on an overhanging branch. Does in estrous sometimes rub-urinate in scrapes, leaving messages for the buck that they are ready to mate.

Body Language

These subtle signals help to organize a deer group and protect it from danger.

Aggressive threats and dominant displays

Whitetails live in groups. Within each group there is a boss, or dominant deer. Each deer has a place in the group, being dominant to some deer and subordinate to others. Dominance displays are used to reinforce the rank of an individual deer.

Dominant deer walk with their heads held high. They hold their tails slightly lifted, and erect their body hair to appear larger and darker.

Subordinate deer walk with slightly hunched backs and a stiff-legged gait. They tuck their tails, and depress their body hair. Subordinate deer move out of the paths of superiors and avoid eye contact.

A deer wanting to challenge another higher rank will threaten with a display. The threats become increasingly intense until one animal turns away. These threats and displays are designed to solve conflicts without actually fighting. However, if neither animal "gives," the deer will fight. In this listing, the dominance displays are arranged from low intensity to high intensity.



Photo by George Barnett



This list is not complete; you may notice several displays and threats which are not here.

Ear drop (all deer, all seasons)

Ears are laid back along the neck. This is the lowest form of threat. It is used frequently.

Hard look (all deer, all seasons)

The deer lowers its head, puts back its ears, and stares at the offending deer for three to ten seconds. Since deer usually avoid eye contact with each other, this is a threatening display.



Photo by George Barnett

Strike (all deer, all seasons)

The dominant deer picks up its front foot and attempts to put it down on the other's back. The forefoot does not necessarily make contact.

Sidling (all deer, all seasons)

Deer stand with sides toward each other with their heads held high. They slowly approach and slowly circle each other. A buck usually turns his head and body approximately 30 degrees from his opponent. If neither deer retreats, sidling is usually followed by **flailing** or **antler rush**.

Flail (does and bucks without polished antlers, all seasons)

Deer rise up on their hind legs and strike at each other with front feet, similar to boxing. Contact is rare during flailing.

Antler threat (bucks during rut)

One deer lowers its head and points its antlers directly toward its rival, signaling the intention to

charge. If the opponent responds with an antler threat, **sparring** or **antler rush** follows.

Sparring (bucks in rut)

Bucks face each other, lower their heads so that the antlers point toward each other, and gently ease their heads together. They simply push, sometimes with twisting movements. Sparring matches are held early in the fall and usually have no winners or losers. Nonviolent sparring reinforces the social rank established during the summer. Most sparring stops once breeding begins.



Bucks are generally cautious when sparring, but when the rut begins, equal sized bucks fight with a much greater intensity.

Photo by George Barnett

Antler rush (bucks in rut)

Antlers are lowered as in **antler threat** and the opponents run directly at each other and crash antlers. There is a winner and a loser, resulting in the establishment of a dominant-subordinate relationship. This, the most violent form of threat, rarely occurs in the wild. Usually deer settle disputes through less dangerous displays.

Alarm displays

All alert (all deer, all seasons)

Body is tense and rigid, leaning forward. The front legs are stiff. Head is erect, ears cupped forward, and tail partially or fully erect. This deer is very concerned about possible, immediate danger. It may bound away immediately. The longer it stands absolutely still; the more likely it will soon relax. All deer have short attention spans. They react quickly to what may be danger, but they soon calm down if no problems develop.

Head bob (all deer, all seasons)

The head is bobbed up and down. The deer begins to lower its head toward the ground as if to feed, but it quickly jerks its head back up. This sudden unexpected movement can cause a predator to flinch and reveal its presence. The head bob is a typical response to an unidentified object or motion.

Tail flare (all deer, all seasons)

The tail is flashed and sometimes the white hairs on the rump are flared out. Unalarmed deer normally carry their tails low, but usually raise them with the first sense of trouble. The flashing tail alerts the entire herd in a moment, even though no sound has been

made by the alarmed deer. As alarm increases, the animal will also flare its white rump hairs. A deer with flared tail and laid back ears is split seconds away from bolting.

Foot stamp (all deer, all seasons)

The deer will lift its forefoot very slowly and gracefully, pause a second, and then stamp downward with great force. It will do this repeatedly when disturbed. Foot stamp is used when a deer is alarmed but cannot identify the object of its suspicion. While stamping, the deer will use its nose, ears, and eyes to try to identify the source of alarm. It is often followed by a **snort**.

The stamp is telling other deer that potential danger is nearby. The sound can be heard over short distances; the vibrations can be felt over greater distances. The stamp also urges a potential predator to move or reveal itself and releases scent from the interdigital gland.

Tail Flag (all deer, all seasons)

The tail is held up and wagged loosely from side to side exposing the white underside and rump patch. Tail flag is used when running from danger, real or imagined. The tail helps keep a group of deer together when fleeing. In

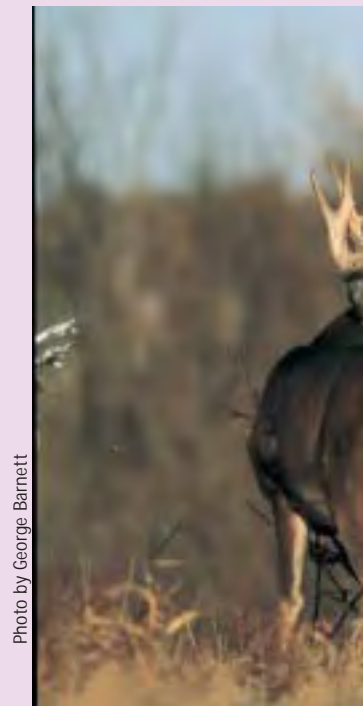


Photo by George Barnett

the deep thickets and heavy brush, it would be very easy for fawns to lose sight of Mom. When the deer wants to sneak, the tail is clamped down.

Tail flat (all deer, all seasons)

The tail is pressed down so that only the brown hairs are visible. Tail flat is used when a whitetail is hiding or when it is greatly alarmed at close range. It is also used when danger is detected at great distance and there is a chance to escape undetected.

All clear (all deer, all seasons)

When a deer wags its tail once, in a casual, side-to-side tail flick, it often is an “all clear” signal. It shows that the deer has decided everything is okay. The tail flick can also tell other deer in the area that danger has passed and that they can come out of hiding. A feeding deer often twitches its tail before raising its head to look for danger.

Courtship displays

Flehman (bucks during rut, all deer when they smell something favorable)

A whitetail buck holds his nose high and curls the upper lip so that the gums show. The buck is using a special organ in his mouth to “smell” the urine of does about to come into estrous.



Photo by George Barnett

Buck run (bucks following does)

The buck runs with neck extended, head low, mouth open, and tail straight out behind. A buck in rut and pursuing a doe may bound, but often simply runs. He makes low, long **tending grunts, blows**, and wheezes during the chase.



Photo by © John Mielcarek

Group relationship displays

Sniffing (all deer, all seasons)

Deer sniff each other when they meet. They touch noses or sniff the tarsal glands. Tarsal sniffing may be the way deer recognize family or group members. Deer may be able to determine age and sex. Tarsal sniffing of strangers is often followed by chasing or striking.

Rub-urinating (all deer, all seasons)

A deer rub-urinates by hunching slightly and urinating on the tarsal glands. The deer then rubs the glands together and licks them. Deer rub-urinate more during the breeding season. Dominant animals rub-urinate more frequently than subordinates. Scent from the tarsal gland has an overpowering, dry, heavy, musk smell to us.

Licking and grooming (all deer, all seasons)

Deer lick and groom one another especially around the neck and shoulders. Grooming helps to maintain bonds. However, as they groom, deer are also removing external parasites from each other. Grooming is often started by a dominant deer. The subordinate deer follow. Mother deer lick the tarsal glands and anal areas of their fawns while the young are nursing to establish and maintain bonds.



Photo by John R. Ford

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In keeping with tradition, Whitetails Unlimited will continue to design and implement programs based on the best information research has to offer, yet routinely assess the quality of WTU's existing programs.



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