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photographed by
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**Male white-
tailed deer send
unmistakable
messages during
mating season.**

In autumn, a white-tailed buck makes a dramatic transformation from “one of the boys” to lone Casanova. During the summer while his antlers grow, he socializes as part of a bachelor group. But as the days shorten in early September, major changes take place. The testosterone level increases in his blood, his antlers harden and the velvet supplying blood to his antlers dries up. Most of the velvet falls from his rack, and what remains is rubbed off on nearby saplings.

From then on, his attention is focused on the mating season—the rut. A buck depends on his sense of smell, keen eyesight and hearing to detect danger and to locate rival bucks and receptive does. If the buck proves to be dominant, he can breed many does—an example of the strongest and fittest being able to sire the most offspring.

A buck advertises his presence through numerous sensory signals. He applies scents from various parts of his body to the landscape, signaling other deer of his presence and dominance. In addition to saliva and urine, he uses secretions from preorbital glands in front of his eyes, forehead glands at the base of his antlers and tarsal glands on the insides of his hind legs. Though scents may tell a lot about the buck and his readiness for breeding, the ultimate determination of his dominance is fighting prowess. Early in the season, many young and some mature bucks may engage in skirmishes and playful sparring. But when breeding time is imminent, mature bucks challenge each other in serious combat. With antlers pressed together, they push and twist with tremendous force. The contest lasts from a few seconds to several minutes, until one wins and the other runs away. The dominant buck focuses on finding receptive does and will fight other bucks along the way.

Fall breeding produces young the following spring, when green-out has occurred and food sources are abundant. In areas with high doe-to-buck ratios, deer breed into the winter, which delays birth until late summer or even early fall.

BUCKS IN THE RUT



◀ RUBBING BUSHES AND TREES

Bucks start rubbing antlers soon after the antlers complete their growth and harden. The initial rubbing removes the velvet covering of dried blood vessels that nourished the antlers during growth. Antler rubbing continues throughout autumn and intensifies as breeding time approaches. As the buck rubs bushes and trees, he leaves scent from his forehead glands. Other deer detect both the physical appearance of the rub and the scent left behind. Additionally, rubbing may function as a mock shoving match with an adversary—somewhat like shadowboxing. Rubbing may strengthen neck muscles to prepare bucks for fights.

MAKING A SCRAPE ▶

A buck advertises his presence by pawing the ground to rake away leaves and grass, leaving a bare spot 2 or 3 feet in diameter. Bucks scrape almost anywhere, including the middle of a field or deep in the woods, but often they scrape along the edge between a grassy field and a wooded area.



TWIG LICKING ▶

After making a scrape, a buck will often leave his scent in several ways. One is to lick overhead branches. The buck will lick twigs as high as he can reach, sometimes standing on his hind legs. Other bucks will smell and lick the branch. The scrapes and overhanging branches appear to provide a form of social communication between bucks as well as between bucks and does.





SCENTING A SCRAPE

After making a scrape and licking an overhead branch, a buck often will urinate in the scrape. He may also rub together and urinate on the deeply stained tarsal glands on the insides of his hind legs, adding the pungent scent of the tarsal glands to the scrape.

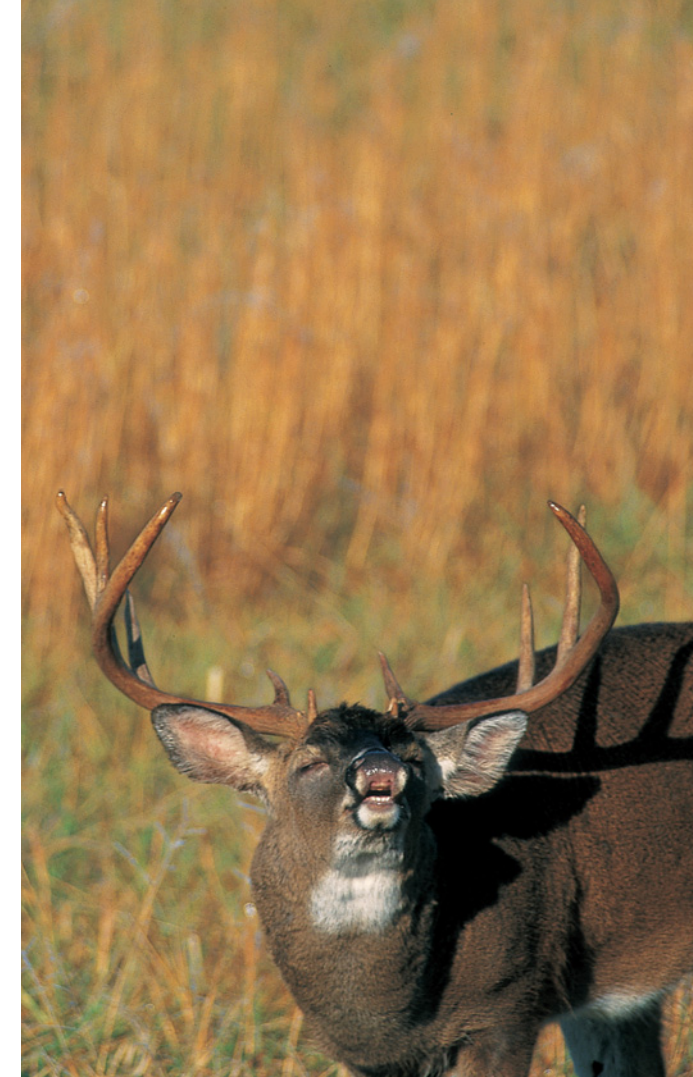
FIGHTING

During autumn, bucks are continually looking for opportunities to breed. Deer do not form pair bonds. Instead, the larger and stronger bucks breed the most does. Bucks exert their dominance in many ways: by their massive appearance, by staring and by challenging subordinates. At the peak of the breeding season, mature bucks often challenge one another, and dramatic fights ensue. With antlers clashing together, the animals vigorously push, shove and twist. With great speed and strength, they continue until one retreats. These battles occasionally become so fierce that a buck is injured or killed.



SNIFFING FOR SCENT

As a doe approaches estrus (heat), she frequently stops and urinates. Her urine provides a chemical track that a buck can follow. The buck has a special way of drawing the scent into the roof of his mouth, just inside the upper lip. This sniffing action, known as the flehmen behavior, enhances his ability to detect the chemical messages in the doe's urine. The sniffing action causes the grunting sound produced by bucks.



THE CHASE

When the doe nears estrus, the buck pursues her, keeping other bucks away through threatening gestures—grunt-snort-wheeze noises or fights if necessary. When ready to conceive, the doe allows the buck to catch up. After breeding, the buck may stay near her for a day or two and may breed again.