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Bobcats Searching for Mates

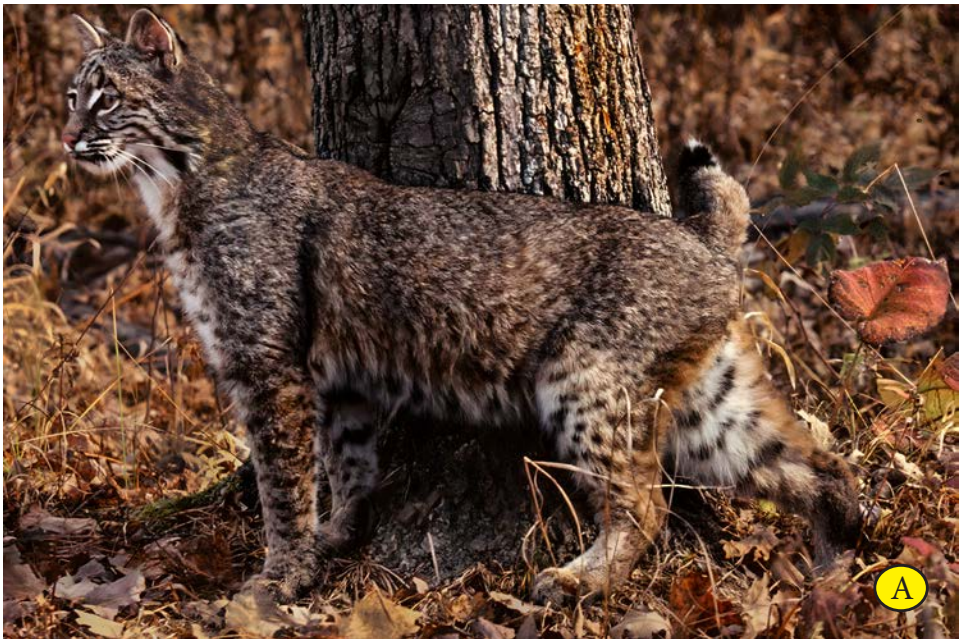
Story and Photos by Susan C. Morse

I was blessed. Hidden in my blind, I got to film this fine male bobcat while he facial-marked the tree trunk in his embrace. He rubbed the glands on his ears, forehead, cheeks, chin, and around the corners of his mouth onto the rough bark.

His paws grasped the tree and scratched backward and "claw raked" – creating a shredded surface that would be more visible to other cats traveling in the area. The trunk's roughened claw-raked surface was also more absorbent and thus more effective at delivering scent messages over a longer time period. Bobcats release specific scent chemicals from interdigital glands located between their toes.

In addition to the deliberate deposition of urine, feces and saliva, bobcats have nine different scent glands that are used to communicate. Glands located on the face, tail, around the anus, and between the toes all contribute, singly or in combination, to an individual felid's unique scent signature. Marking reveals a bobcat's social and sexual status as well as the animal's occupancy of a given territory. This remote signaling also reduces the risk of fighting and competition, and enhances the odds of finding breeding partners.

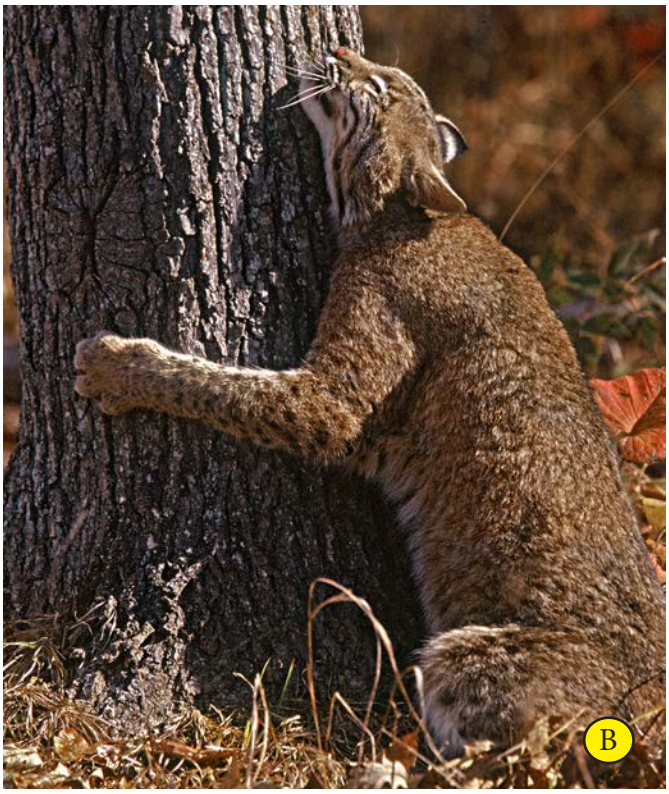
For bobcats, mating season peaks in February, with most breeding completed by early March. Tomcats and females post hundreds of scent messages to guide each other along the way. Naturalists can use tracks and sign to discover and monitor specific scent-marking behaviors. Combining fieldwork with ever-improving remote camera technology, we can document the repeated presence of specific male and female resident animals, and occasionally their offspring, as well as visitations by nonresidents and eventual newcomers. From a community conservation-planning standpoint, we can irrefutably prove that core habitats and sanctuaries within them exist in our remote regions and that wide-ranging sensitive species such as bobcats can flourish, providing we conserve their habitat.

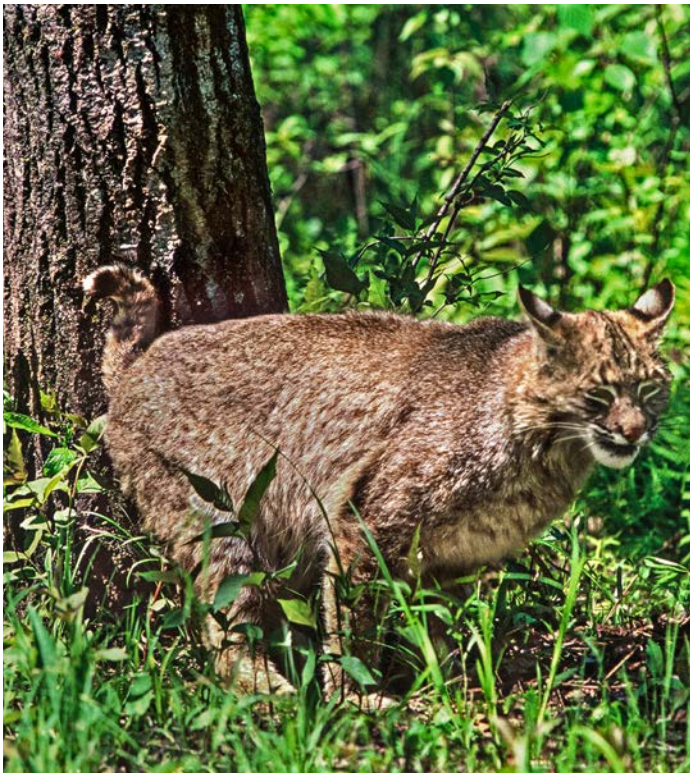


A. His tail is elevated for perianal scent release. The hind feet are scuffing backwards to make a "scrape" with scent deposited from interdigital glands between the toes.

B. Here, this tom is rubbing his submandibular glands found beneath his chin. He will also rub the corners of his mouth on the tree in order to deposit saliva and scent from his perioral glands found around the mouth.

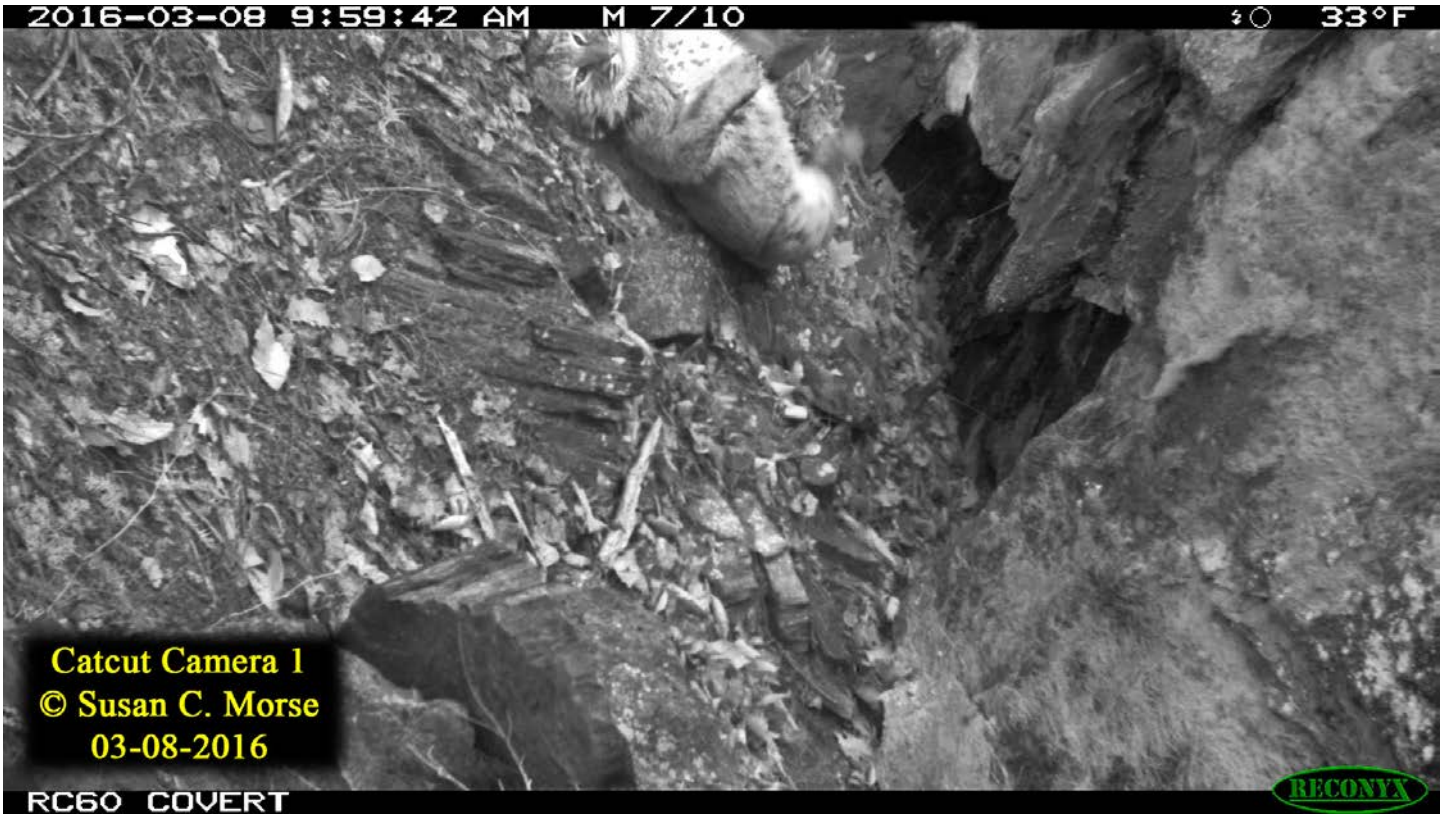
C. Rubbing of the forehead (called bumping) leaves scent from glands located on the top of the head.





This tom is "retromingent spraying". His tail is elevated and he is releasing a jet of urine onto the absorbant dark bark of a poplar tree. Chemicals in his urine will increase the pungent tomcat odor of his spray over time. He appears to be grimacing; this is because he is engaged in flehmen response. He has just detected the alluring scent of a female in heat nearby.

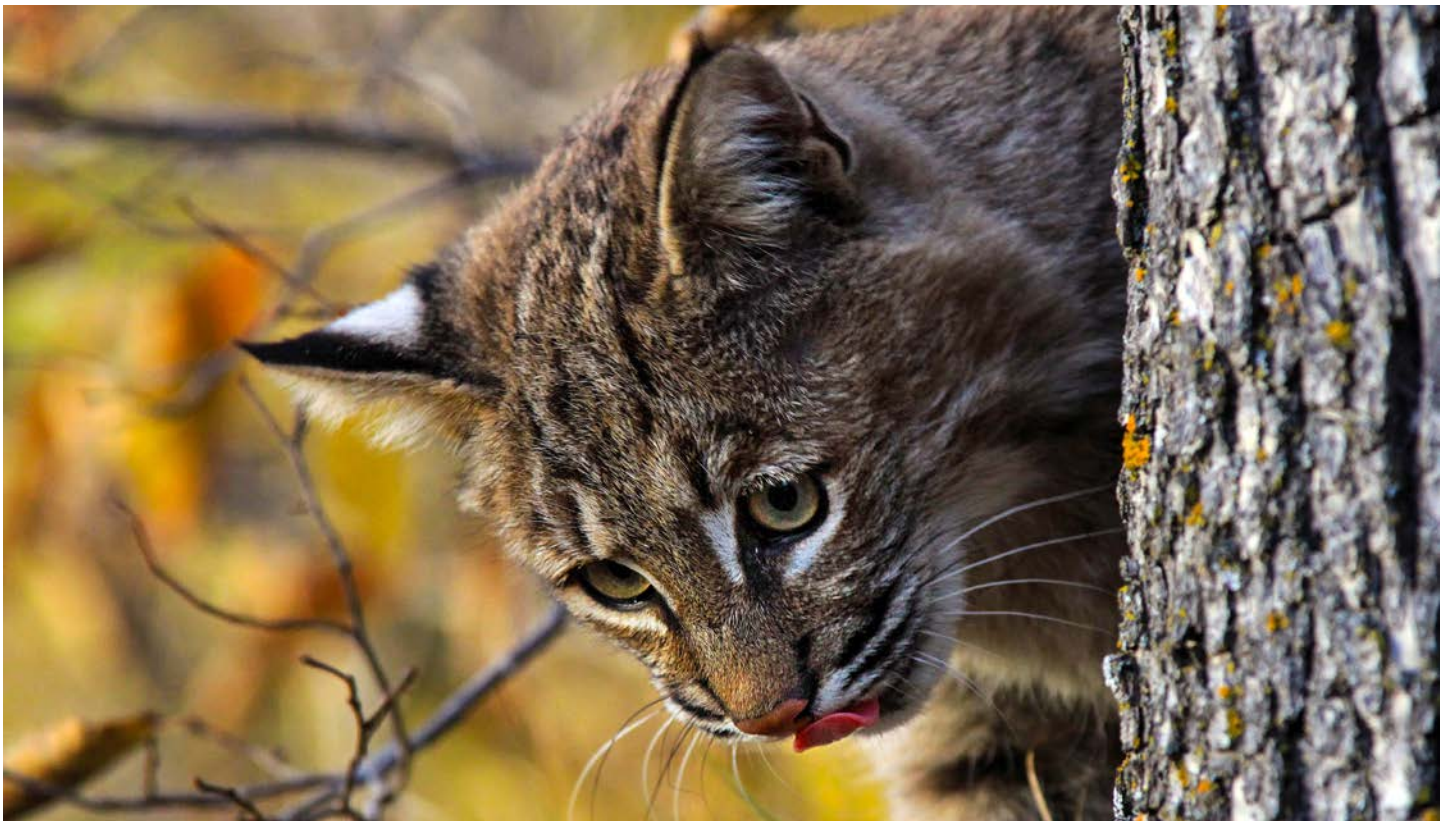
When I took this close-up photograph of "The Fang", a downward-pointing outcrop beneath a ledge overhang, I was delighted to document that a bobcat neighbor had recently facial-marked this feature. Notice bobcat hairs plastered on the rock.



Above: Ethologists describe body rubbing as "recumbent scent marking." In this picture, we see an estrus female writhing and flipping her body side to side while rolling and rubbing her face and the top of her head.

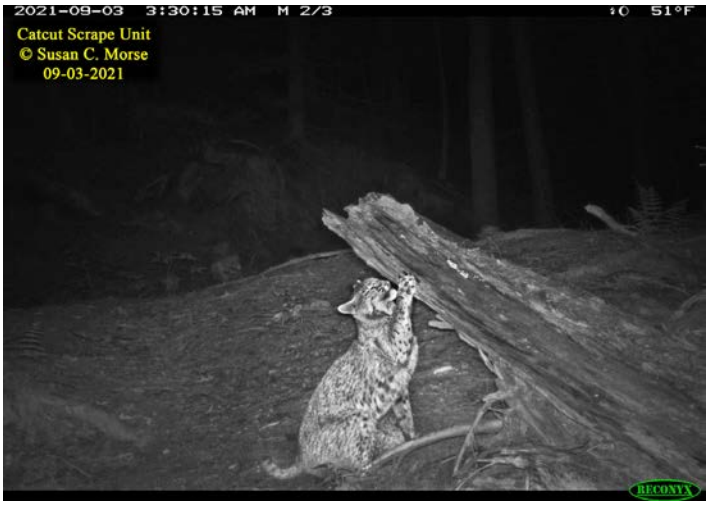
Below: Females advertise their desire for a mate through scent marking and calling. At Wolfrun, I have been privileged to hear the caterwauling, howling cries of female bobcats in heat. In this picture, the female is on top of Bobby Knob, a cliff that overlooks the Snipe Island drainage. The reach of her calls is enhanced by her elevated position.

Field researchers have learned that snow leopard females use an alpine cirque, an amphitheater-shaped basin, to amplify their calls, which reach far out into the rugged Himalayas. Males and females alike have huge home ranges and so benefit from her method of advertising her presence.



Above: Scent marks are strategically placed, often in locations that bobcats use repeatedly. In my study area, a resident tom, which I dubbed "Mystery," is investigating the underside of a snag that has been marked by multiple bobcats over many years. The cats investigate and refresh facial marking, scrapes, sprayed urine, and claw-raking information throughout the year.

Below: This is a second photo of Mystery investigating the same rotten snag. At the same time he is rubbing his forehead, perioral (around the mouth), and cheek and chin (submandibular) glands to leave a bouquet of aromas for other bobcats. His eyes are closed and his mouth is partially open because he is engaged in "flehmen response" – inhaling and transferring scent molecules to the vomeronasal organ at the base of his nasal cavity. This scenting behavior enables him to transfer fluid molecules to the hypothalamus in the brain, which influences his sexual behavior. While many regard dogs as the champions of smelling and interpreting scent, it turns out that cats are more sophisticated with 30 or more different types of chemical receptors in their vomeronasal organ as compared to 9 for a dog.

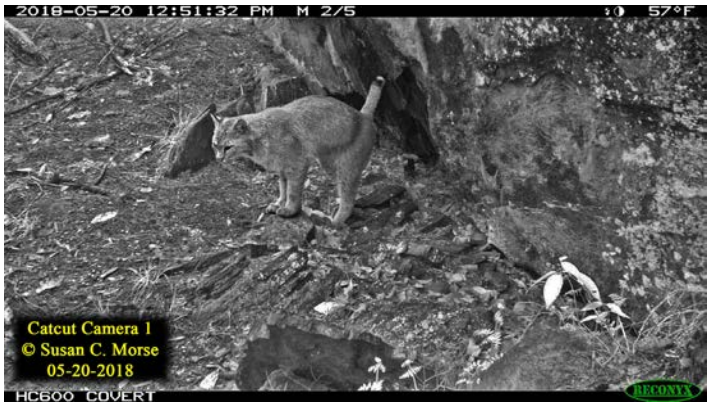


Above: This unidentified bobcat is "head bumping" and facial marking the landscape feature I call "the fang." This popular scent station is perfect for scent-message deposition because it is protected from the dilution of olfactory information due to rain, snow, and wind.

Below: Mystery is engaged in squirting his urine backward (called "retromingent spraying") against a rock wall within the ledge overhang's sheltered environment. His tail is elevated so that the jet of urine passes unimpeded.

Throughout the forest we can easily find spray marking in the following locations: the undersides of leaning rotten stumps and trees; the rotting surface of logs or snags; underneath rock overhangs or even exposed ledge; and any tree, shrub, or rock located at the intersection of wildlife trails.

Many years ago I backtracked "Tom 2" for more than a mile, searching for his spray-marking sign. I was amazed to count 11 spray marks in all. Backward spray marking seems to be the "piss de resistance!" – the main event, especially during the breeding season.



Late winter's courtship becomes spring's kittens! Infant bobcats may be born anytime in May.