

# The Outside Story

## Mating Rituals of Muskrats

By Colby Galliher

Muskrat mating is so sensational that songs have been written about it. Fans of 1970s pop music might be familiar with a certain ballad, written by Willis Alan Ramsey and popularized by bands like America and Captain & Tennille, about two anthropomorphic muskrats falling in love. Though you

probably won't find breeding muskrats "nibblin' on bacon" or "chewin' on cheese" this spring, you might nevertheless come upon them looking for "Muskrat Love" in aquatic habitats.



Muskrats (*Ondatra zibethica*) are large, furry rodents that inhabit wetlands, ponds, and waterways. They live in burrows dug into the banks of these areas or in lodges constructed of plant material. In harsh winters, muskrats may den communally to conserve heat. They remain active year-round, feeding mostly nocturnally on plants like cattails and lilies, among many others, and the occasional snail or crayfish. A key to differentiating muskrats from beavers is their tails: Muskrat tails are thin and scaly, whereas beaver tails are wide and flat.

In northern New England, the muskrat breeding season begins in early spring when the ice on ponds and rivers thaws. At this point, any bonhomie between muskrats that huddled up for the winter disappears, as adults turn aggressive in securing their own territory and in the subsequent search for mates. Older males tend to outcompete younger ones for the choicest real estate, forcing the latter to roam further afield in search of unclaimed territories, which can render them more vulnerable to predators like bobcat, great horned owl, and mink.

Once paired up, typically by early April, monogamous muskrat couples establish territories that can range from 100 to 120 feet in diameter. They will rarely venture more than 50 feet beyond these areas unless forced abroad by a food shortage. They delineate their domains by marking them with scent produced by glands located at the base of their tails. These glands swell to produce an oily liquid called "musk," the substance for which this species is named. Muskrat musk was once widely used in the production of perfumes and colognes for its earthy aroma but was eventually replaced by artificial alternatives in the 1960s.

If these scent barriers fail, muskrats will defend their territory from intruders with their claws and teeth. Brehan Furfey, wildlife biologist and furbearer project leader at Vermont Fish and Wildlife, said that muskrat pelts sometimes show deep scrapes and furrows, grisly evidence of these showdowns.

Pairs tend to mate partially underwater or just above the surface on floating materials like driftwood. Paired muskrats will “kiss” and nuzzle each other as a show of affection – one dimension of “Muskrat Love” that has some basis in reality.

The gestation period is just under a month, meaning the season’s first litter is generally born in late April or early May in northern New England. A litter can include between 4 and 8 kits, which will be reared chiefly by the mother. Female muskrats can mate again almost immediately after giving birth, which allows them to produce up to three litters per year. Pairs will often breed again while the female is still nursing the previous litter.

Kits are born blind and nearly furless, relying on the mother for about 30 days before taking their first swim outside the den. From there, their coming-of-age progresses quickly. Young muskrats strike out on their own at roughly six weeks from birth, at which point they will begin the search for suitable mates, though females do not reach sexual maturity until they are about a year old.

This quick maturation period, combined with their prolific breeding, can lead to population densities of up to 25 muskrats per acre in aquatic environments. When densities climb, muskrats may become polygamous, and adult males may kill newborn and young muskrats to eliminate competition for food and mates. High populations may also greatly reduce aquatic vegetation in the surrounding environment, which will eventually force local populations back down.

It turns out that the ballad “Muskrat Love” isn’t a particularly reliable guide to these rodents’ breeding habits. The author cannot report to have seen, nor found record of, courting muskrats “singin’,” “jinglin’,” or “floatin’ like the heavens above.” Still, if you have a resident muskrat pair in your local wetland or pond, you can watch their breeding season unfold this spring and check to see if they really “do the jitterbug out in muskrat land.”

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