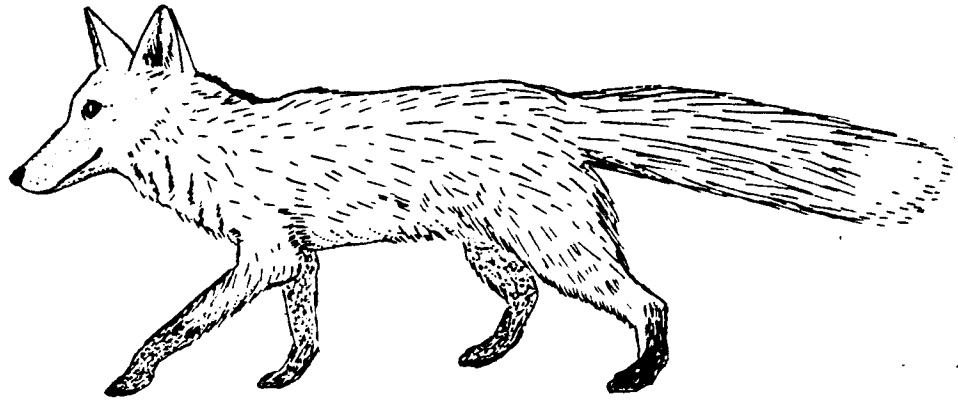


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One spring morning as I was walking along a bicycle path through town conservation land, I noticed a flock of crows "mobbing" an unseen adversary. Their excited calls were quite similar to the calls employed to scold owls, but they seemed to be directed toward some creature moving on the ground.

In fact, the object of their displeasure seemed to be moving up the path toward me. I stood quietly and waited. In a moment, a large red fox trotted around a bend in the path. He saw me immediately and sprang backwards a step. For a second he froze, evaluating me silently. Then he stole into the brush without a sound. From the calls of the crows I could tell that he was circling me in order to regain the path further down.

I am always a little surprised to find these attractive little canines in the midst of our increasingly hostile suburban environment. And I wonder if their legendary cunning will allow them to survive the many hazards which we place in their way.

In order to learn more about red foxes in Lexington, I wrote a small article for the local newspaper in which I requested that persons who had recently seen foxes in the Town report their sightings to me. I was quite unprepared for the response which resulted. At least twenty people called with a variety of fox sightings. By plotting their reports on a map, it was possible to identify at least four areas in Town where the red fox is active.

The Red Fox in Lexington

BY

JOHN W. ANDREWS

The site at which man and fox meet most frequently is Willard's Woods, a town-owned recreation/conservation area which consists of pine woods, mowed fields, wet meadows, and an old apple orchard. It is worth noting that the red fox, the top-of-the-food-chain mammal in suburban habitat, shares this site with the Great Horned Owl, the bird of prey which dominates all others in Massachusetts. When this happens, it is a sure sign that the area also supports a healthy population of rabbits, meadow mice, and other small mammals.

The red fox is an extremely adaptable animal, and given an opportunity, it can survive in close association with man. Gill and Bonnett note that in the city of London, the red fox has been

"successful in maintaining its status and invading the urban area, and has breeding locations within four miles of St. Paul's Cathedral. It is found in proximity to densely populated districts, and makes use of sheds and dumps to provide shelter for the rearing of cubs. It is indifferent to both traffic and noise, and manages to thrive under what at first might appear to be unpromising conditions"

There is evidence that foxes in urban locations may adopt different habits than their rural counterparts. They may become more active during the daylight hours. They may also breed earlier than rural foxes (probably due to the greater availability of food during the colder months).

The extent and distribution of open space in a community is critical to the existence of foxes. They require a home range of about 800 acres in order to survive. But they are largely denied access to highly developed areas due to fences, automobile traffic, and the presence of dogs. Hence development patterns create "islands" of suitable habitat which are largely surrounded by hazardous areas. Sometimes no one parcel of open space contains all the elements the fox requires for survival throughout the year. For instance, food, water, shelter, and suitable denning areas may be in separate

locations. If the open space corridors between these areas are closed, the fox is doomed. An appropriate analogy is that of a sailor shipwrecked upon a chain of islands in a shark-infested sea. One island has excellent water, another abundant food, another secure shelter from storm. The sailor cannot survive if he is restricted to only one island. He must fashion a safe way to circulate among the islands if he is to survive.

Wildlife corridors are also important in allowing contact between different breeding populations. "Outsiders" must occasionally enter the area to prevent genetic inbreeding and to restore a population which has suffered accidental deaths. Furthermore, dispersal of the young must occur when parents are no longer willing to tolerate their maturing offspring within their territory. If this dispersal requires young and inexperienced animals to traverse areas of dense human activity, many will perish.

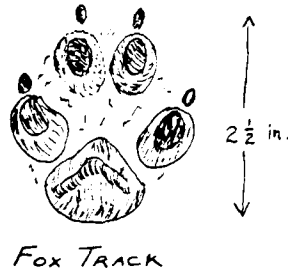
In Lexington the Conservation Commission has pursued a policy of acquiring connecting strips between major parcels of open space. The original motivation for this effort was to preserve passage for hikers, cross-country skiers, and bicyclists. The Town may also ask developers to grant conservation easements along brooks in order to protect stream banks and preserve water quality. These policies provide corridors which are highly beneficial to wildlife. In other situations, right-of-ways for railroads or irrigation canals may also serve as wildlife corridors.

The attractive fur which keeps a fox warm through the coldest winter nights makes him a prime target for trappers who can get up to \$120 for a good pelt. In Lexington, Town regulations prohibit trapping on town-owned land. Nevertheless, some illegal trapping activity persists. Recently a young man who identified himself as a "licensed trapper" called the Conservation Commission to inquire about the location of foxes on conservation land. When the Commission could provide him with little help in violating

their own regulations, he called me. He asked for my assistance on a "school project" he had undertaken on the topic of mammals in Lexington. When I asked "which mammals?" he reeled off the names of all those with valuable fur - he had absolutely no interest in skunks!

Most of the people who discussed fox sightings with me seemed to sense that a glimpse of a fox is a rare event not granted to everyone. In general, foxes are wary animals, more active at night than during the day. Roger Burrows spent a year studying red foxes in Gloucestershire, England while sighting a fox only twice. Fortunately, he was able to learn a great deal about them without actually seeing them since foxes leave more evidence of their activity in an area than most animals.

Although the fox's vision can detect the slightest movement, it often appears that the fox is unable to perceive the motionless human figure as a living object. This may explain the experience of one Lexington resident who was standing quietly attending his charcoal grill in his back yard when he suddenly became aware of a fox trotting toward him along the edge of his property. The fox drew within a few feet without taking notice of the human presence. At this point the man said "Hi, fellow", and the poor startled fox nearly jumped out of his skin! Nevertheless, if any new object, human-shaped or not, appears in an area the fox is familiar with, he will immediately become suspicious.



The attitude of state fish and game departments toward the fox has varied from vilification to glowing praise over the past century. In 1879 the New Hampshire Fish Commission bitterly condemned the fox as a useless scoundrel : "The fur is of almost the lowest grade. . . I would show these pests no quarter nor give them protection, for the time and money will be wasted in attempting

to introduce birds of value while we shield in any way their worst enemies and worthless destroyers."

But only a few years later the state declared that "fox hunting is a royal sport" and instituted a series of measures protecting the fox from persecution. By 1915 the wildlife managers were congratulating themselves for having created a plentiful supply of foxes for both trappers and hunters.

Modern biological research has proven that outside of artificial game bird ranches, foxes and game species co-exist quite well. As Burrows explains, foxes subsist mainly on mice, rabbits, crabapples, and other fruits:

"Foxes fit into their niche in the environment just as perfectly as other natural members of the society. Because they fit, they have little total effect on the surrounding population of animals, provided those animals are there in normal density. A fox on farmland in Gloucestershire takes very few ground-nesting birds, such as partridge and pheasant, because they are not easily detected or caught. If the density of these species is increased artificially, then the fox is bound to do damage, at least as far as man is concerned, but for the birds this predation is good, keeping their numbers in equilibrium with the available food supplies"

Although foxes have few natural enemies, they do have occasional problems with diseases. Mange can cause a debilitating loss of fur (this condition should not be confused with the moth-eaten appearance foxes often exhibit in spring as the thick winter coat sloughs off in patches to be replaced by the lighter summer coat). Foxes, like other mammals, are also susceptible to rabies. Any warm-blooded animal (especially a dog, fox, skunk, or bat) which is observed to be acting in an unnatural or sick manner should never be approached since a bite from a rabid animal requires serious medical treatment.

Sometimes when I express the hope that the fox will persist as a member of our local fauna, someone will ask quite sincerely "what good are they?" If I were to reply that their fur is valuable or that hunting them is good sport, I am sure I would be immediately understood. Or if I were to reply that the fox serves to regulate the numbers of other species, that too might be readily grasped. But the more important answer cannot be understood without exercising one's insight and imagination. I feel that the fox serves as a special intelligence which sustains some magical quality of our wild places which we are only beginning to appreciate. It might be claimed that two owls hooting under a frosty moon provide quite enough magic for a piece of Lexington conservation land, but I think the fox adds a new dimension. The place where you meet a fox is forever a different, a more special place. The transformation occurs when we are able, if only for a moment, to see our world through the eyes of the fox who shares it with us. If you should by chance encounter a wild fox on your morning walk, look quickly into his brown eyes before he disappears. If the wildness and independence you see there causes your spirit to leap just a little, then you have received his special gift. You know the value of the fox.

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