Photo © Bill Byrne

Mountain Lions in Massachusetts

Distinguishing Fiction from the Facts

by Tom French

The fact that individual Mountain Lions have occurred in the state from time to time in recent years is supported by tangible evidence, including DNA. But despite many reported sightings every year, the reports are either not supported by any evidence, or the evidence proves the report to be a case of misidentification. The lack of evidence conflicts with the widely held public perception that the Bay State is home to a resident population of the big cats. So, why do so many people believe they have seen a Mountain Lion?

The Mountain Lion (*Puma concolor*) – also called puma, cougar, catamount, panther, painter, and a few other creative monikers – once ranged throughout most of the North American continent. Its range still extends most of the length of North and South America, but, with the exception of a severely endangered and genetically corrupted subspecies in Florida (the Florida Panther), this cat is no longer believed to exist in viable populations anywhere in the United States east of the Mississippi River. Populations in many western states are thriving and expanding their ranges, however, and some individuals are making their way East. The best current North American range map can be viewed at ***www.cougarnet.org/sites/original/bigpicture.html.***

When the Pilgrims arrived, the Mountain Lion was the most wide-ranging species of mammal in the western hemisphere. It was found from what is now Atlantic Canada west to southern Alaska, and south to Argentina and Chile. It was known by different names in different regions (particularly among Native American tribes, many of whom revered it, while others believed that sighting or even hearing it was an evil omen) but it was all the same animal. In the early days of European settlement, any animal that competed with the colonists for game, damaged crops, or was considered a threat to livestock or to the settlers themselves, was killed. Several colonial states offered bounties for "catamounts" in the eighteenth century as a means to encourage settlers to do their civic duty, and the practice followed settlement as it marched across the country.

The last Massachusetts Mountain Lion was killed around 1858. The last documented individuals in the entire Northeast were killed in New Brunswick, Canada, in 1932, and Maine in 1938. When the federal Endangered Species Act came along, the Eastern Cougar (*Puma concolor cougar*), the subspecies of Mountain Lion that originally occurred in the Northeast, was among the first animals listed. However, in 2011, the U.S. Fish and Wildlife Service (USFWS) concluded that the Eastern Cougar was already extinct even before it had been listed as Endangered in 1978, and on June 17, 2015, a proposed rule to formally delist the Eastern Cougar was published in the Federal Register. That subspecies of the Mountain Lion is clearly gone, and likely has been since well before the middle of the 20th Century.

But is there any solid evidence that other subspecies of the Mountain Lion occur in Massachusetts today? Certainly there is some. In 1997, John McCarter, a professional tracker and tracking instructor, was hiking inside the Quabbin Reservation in New Salem when he came across a mound of dirt he immediately recognized as cat sign, presumably the work of a local Bobcat. Scat buried in the mound was nearly an inch in diameter and appeared too large for a Bobcat, however, and when he found another mound containing scat that was nearly a foot long, he started to get excited. Searching the area meticulously, he soon found the covered remnants (entrails) of a beaver covered in a typical "cat cache". The cache was nearly 8 feet long (gigantic for a Bobcat cache) and was in close proximity to the remains of a beaver's jaws. (For a detailed account of this discovery see **The Quest for the Eastern Cougar** by Robert Tougias, 2011.) DNA from the scat samples confirmed they were produced by a Mountain Lion. We do not know the origin of the individual that left the scat, but given the DNA proof, it seems likely that other undetected or poorly documented individual Mountain Lions have visited our state.

To date, the only other confirmed evidence of a wild Mountain Lion in Massachusetts was found on March 4, 2011, when Steve Ward, a DCR forester, discovered and photographed a track trail in the snow crossing a frozen cove near the southwestern end of Quabbin Reservoir. The tracks were fresh and the photos, which were of excellent quality, were examined in great detail by professional tracking experts from Massachusetts, Virginia, Vermont, and Wyoming. These experienced trackers unanimously confirmed that the tracks were made by a Mountain Lion. While these confirmed tracks, along with the DNA associated with the beaver carcass in 1997, validate the fact that individual Mountain Lions have visited our state in recent years, the evidence does not support the widely held public percep-

Photo © Bill Byrne

Taken at Buttonwood Park Zoo in New Bedford, this photo captures the powerful musculature backing the Mountain Lion's huge front paws. Those paws are armed with long, sharp, retractable claws that are used to grab and hold prey that is typically dispatched with a bite to the back of the neck or throat. Note long tail, short muzzle, and relatively small size of the head in comparison to the body: all characteristics to look for during a sighting.

Photo © Steve Ward

DCR Foresters Steve Ward and Randy Stone (pictured) went to considerable effort to photograph and protect a track trail Ward discovered in the snow at Quabbin on March 4, 2011. Thanks to the quality of the documentation, tracking experts were able to confirm the tracks were made by a Mountain Lion, making this one of only two cases where evidence of one of the big cats in the wild in Massachusetts has been confirmed. It is very possible that the individual that made these tracks was the same one struck and killed by an SUV in Connecticut about three months later.

tion that there is a resident population of these cats in Massachusetts.

The young adult, male Mountain Lion struck and killed by a SUV on the Wilbur Cross Parkway in Milford, Connecticut, early on the morning of June 11, 2012, provided absolutely irrefutable proof that a wild Mountain Lion, at least occasionally, can make its way to New England. With the aid of modern DNA analysis technology and the availability of a camera in every cell phone, the story of this animal has been pieced together in a way that would not have been possible just a few years ago. Ten days before its death, this cat was photographed about 35 miles away in Greenwich, Connecticut. The photo was poor, but DNA from a scat sample later confirmed this was the same animal killed on the parkway. DNA analysis also matched this animal with scat, hair, and a blood sample from one location in Minnesota, three in Wisconsin, and one in Lake George, NY (see ***www.ct.gov/deep/cwp/view.asp?Q=483778***). The DNA profile of this animal showed that he had come from a population in the Black Hills of South Dakota and dispersed through Minnesota, Wisconsin, probably through the Upper Peninsula of Michigan to Ontario, and back south through New York to Connecticut; a journey of about 1,800 miles that took about one and a half years.

Over a period of a year and a half, this one wild Mountain Lion left DNA evidence in at least four states from hair and scat, as well as identifiable tracks, trail camera photos, photos from sightings, and finally, a body. It is also very possible he was the one that left the tracks at Quabbin three months before his demise. If a single animal could scatter that much reported, verifiable evidence, imagine how much would be available for discovery if a population actually existed in New England!

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Mountain Lion Tracks

Photo © Paul Rezendes

Tracks are among the most common forms of verifiable evidence of Mountain Lion sightings, so it helps to have some idea of what to look for. Both the front (left) and rear paws of this animal are typically wider than long. Most examples are more than 3 inches long and 3 1/4 inches wide, and both parameters may exceed 4 inches on larger specimens. The arrangement and size of the toe pads are quite asymmetrical, particularly on the front feet, and the heel pad, with three rear lobes, appears very large in relation to the size of the toe pads. These features are obvious in the Mountain Lion tracks below, in mud (FL) and sand (CA).

Photo © Paul Rezendes

Photo © Eric York

Photo © Steve Ward

Photo © Bill Byrne

Among wildlife species, the tracks of Bobcat and Coyote are the two most commonly reported as Mountain Lion. While a Bobcat track displays the same round, clawless, felid shape, it will always be smaller than a Mountain Lion track (top left) that is typically at least 3 inches wide. Coyote tracks (top right), like those of other canids (including domestic dogs), tend to be elliptical in shape, almost always display symmetrical toes and claw marks (the felid's claws are normally retracted, as shown below), and typically display a pyramid, rather than the curved ridge of a felid, between the toes and the heel pad. For a detailed look at Mountain Lion track and sign, see the book **Tracking and the Art of Seeing** *by Paul Rezendes.*

Photo © Bill Byrne

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Another young Mountain Lion killed in Chicago in 2008 had also come from South Dakota, and had dispersed over 1,000 miles. Typical dispersal distances of young males are about 100-300 miles. While young Mountain Lions, dispersing east from expanding western populations, are being reliably documented in Minnesota, Wisconsin, Illinois, Missouri, Arkansas, and Louisiana, very, very few make it as far as New England.

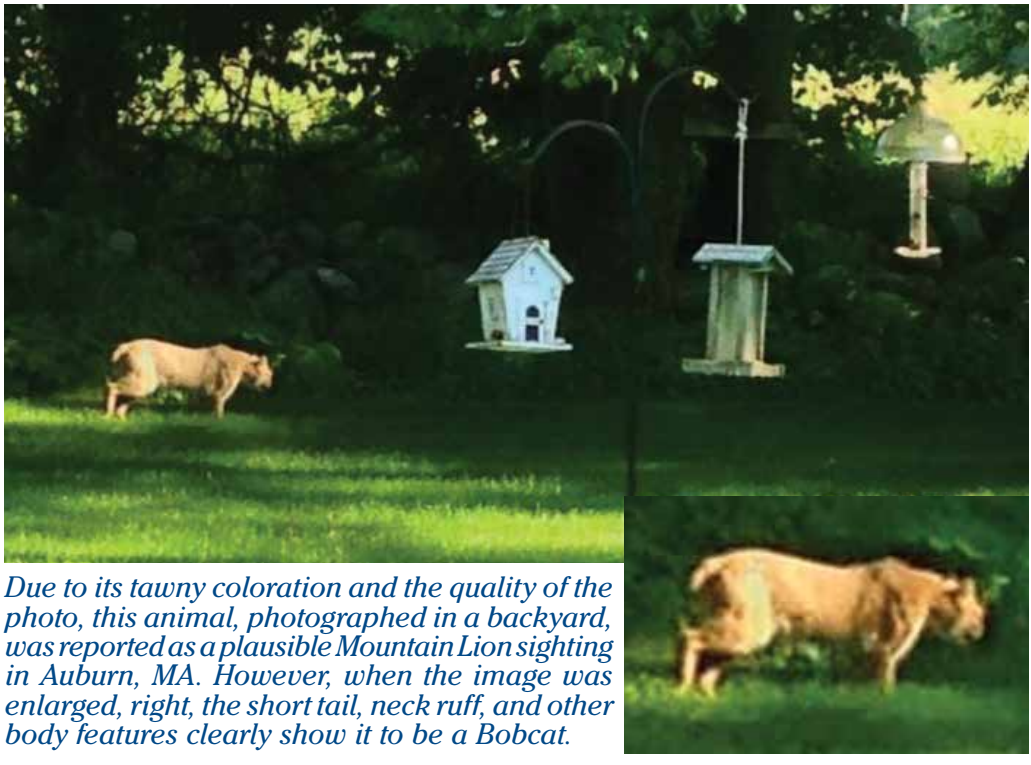
Misidentification

The majority of people in Massachusetts who report having seen a Mountain Lion are absolutely certain that they have, but in truth, what they saw was probably not a Mountain Lion. Since nearly everyone who takes the time to report a mountain lion sighting is being completely honest and is very confident that they know what they saw, they are generally not happy to have the validity of their report questioned by a doubtful biologist. Seeing the real thing is always possible, but a sighting of a genuine Mountain Lion in New England is so rare that it is the wildlife equivalent of winning a jackpot in the MegaMillions lottery. If the observer claims to have seen a Mountain Lion more than once, it is nearly certain they have not.

This is why tangible evidence is so important. Only with something tangible like a photo, a set of tracks, hair, or droppings, can biologists make conclusions based on the facts available. This is why most sightings are dismissed. Since nearly everyone now carries a cell phone with a camera, and the use of high quality trail cameras has skyrocketed, more and more reports are being accompanied by a photo. Especially over the past two or three years there have been increasing numbers of photos of Bobcats identified as Mountain Lions. In Massachusetts,

Photo courtesy Connecticut Bureau of Natural Resources, Wildlife Division

This young adult, male Mountain Lion was struck and killed by a SUV in Milford, Connecticut on June 11, 2012. It provided absolutely irrefutable proof that a wild Mountain Lion, at least occasionally, can make its way to New England. This one cat left DNA and/or photographic evidence of its presence in at least four states during its 1,800-mile journey. If Massachusetts was supporting an actual population of these predators, evidence of their presence would be readily available.



DFW Archive Photos

Due to its tawny coloration and the quality of the photo, this animal, photographed in a backyard, was reported as a plausible Mountain Lion sighting in Auburn, MA. However, when the image was enlarged, right, the short tail, neck ruff, and other body features clearly show it to be a Bobcat.

Bobcats have been significantly increasing in numbers and spreading eastward (see *Massachusetts Wildlife* No. 4, 2014).

Twenty years ago, many observers reported seeing black panthers, sometimes even noting a little white on the animal's chest. These sightings coincided with the growing abundance and range expansion of the Fisher, which is also commonly called "fisher cat" or "black cat". Interestingly, as Bobcats have become more common, the number of Mountain Lion reports received by MassWildlife has continued to outnumber reports of Bobcats. Even though most observers are usually adamant that they know the difference between a Mountain Lion and a Bobcat, the photos they provide prove to be photos of bobcats.

When tangible evidence has been available, most often from a photo of the animal or its tracks, sightings reported as Mountain Lions in Massachusetts have actually turned out to be a variety of other species, most commonly Bobcat, but also domestic cat, Coyote, domestic dog, Fisher, and even River Otter. Some of the most difficult photos to review have been of house cats that were backlit so they were just silhouettes with nothing in the photo to use as a point of reference for size. The observer will sometimes insist the animal was a very specific weight or size, such as "150 pounds" or "larger than a German Sheppard". Without something in the picture for scale, even a 10 pound house cat can look to be 100 pounds. The more difficult cases are the ones in which a very poor photo is submitted. If the observer did not easily recognize the animal they saw, their belief is that it must be something rare, rather than any of the more common and more likely mammals that are found in Massachusetts. In reality, **the simplest and most likely explanation is usually the right one.**

The Fallibility of Eye-Witness Accounts

So, how do we so often misinterpret what we observe with our own eyes? As we all look at the world around us, what we see is a collaboration of our eyes sending data to our brains, and our brains providing us with an instant interpretation.

Unfortunately, the old cliché that "the worst witness is an eye witness" is fairly accurate. If the information provided by our eyes is incomplete, unfamiliar, out of context, or lacks a point of reference for size or shape, our brains instantly fill in the blanks or create a plausible interpretation based on our individual experiences, expectations, and beliefs. This interpretation by our brains is our reality. In familiar day-to-day activities, this system serves us very well. Unfortunately, our brains are easily tricked.

The creativity of our brains allows us to look up at the clouds and envision the ever-changing shapes of all manner of animals and other familiar objects. This actually is an example of how our brains can take what we see in the cloud, which in detail has absolutely no resemblance to an animal, and by ignoring the details, smooth out the lines and imagine the shape of something familiar. In this case we are aware of what our brain is doing, and we call it imagination. Sometimes looking at a track in the snow is a very similar process. We envision the track of what we think most likely fits our expectations, a Mountain Lion, and see if we can make it plausibly fit. If so, our expectations are fulfilled, even though, in reality, the track was made by a dog or Coyote. An example of this occurred in Winchester two winters ago when tracks in snow were misidentified as having been made by a Mountain Lion. This "discovery" was eagerly accepted by the public and media, but got little press when it was soon proven false.

In court, the judicial process depends on the honesty of witnesses. It's a crime not to be honest when providing sworn testimony. However, psychologists have long known that the observations and memory of witnesses are often unreliable. Memory is subject to distortion and contamination from the very beginning by an unconscious process of gap-filling, editing as the story is told, and influences of suggestion, and it generally deteriorates over time. When we recount a story about anything, no one really wants to hear absolutely everything that was observed, so we recount a narrative that hits the high spots that we feel are relevant. Investigators query the witness for more information in the hopes of learning about some detail that the witness did not think was important, so was left out of the original story.

The very act of questioning can change the story. In one experiment, research subjects were asked about a car accident that took place in a video they had just seen. When the cars were said to have "smashed" into each other and the subjects were questioned, they reported with certainty that they had seen broken glass at the scene, when no glass had actually been present. Stories are generally told for a purpose, and we tailor the story somewhat for different listeners. If the story is about a fish we were proud to catch and the point of the story is that the fish was fairly big, we err by reporting the upper limit of our own estimate, and as we continue to emphasize this same point, the size of the fish increases with the telling until it is significantly exaggerated; thus the cliché of a "fish story".

All of these editorial changes become part of our memory of the events, which is our reality. People will defend the accuracy of their memories, and their honesty, vigorously, but studies in criminal science have shown that the accuracy of a person's memory is not correlated to a witnesses' confidence in its accuracy. Witnesses may hold to a false memory as strongly as they would to a true one. They are not being dishonest, because the edited memory has become their honest recollection of the events. This phenomenon holds true for our memory of the details of an event we witnessed under good conditions, as well as events in which our brains have incorrectly interpreted a momentary observation.

Blame the Skeptics

State fish and wildlife agency biologists are often accused of being completely closed-minded about reports of Mountain Lions, automatically rejecting all such reports as impossible. In support of this belief, it is said that so many people could not be wrong about just this one species. There is no other animal in the Northeast for which there are so many eye-witness reports, and for which almost none are confirmed. The assumption is that Mountain Lion reports are singled out for rejection, and that reports of other

species are usually accepted by biologists as accurate. People are always hopeful that what they have seen is something unusual, rather than just common and mundane. Their identifications are also influenced by the names of species that are given attention in the press and on nature programs.

As a result of this phenomenon, most dead hawks, but especially Cooper's Hawks, reported to MassWildlife are reported as Peregrine Falcons. The vast majority of dead Bald Eagles reported from highways are actually Canada Geese. Many harmless milksnakes are reported as rattlesnakes, and when asked if a rattle was seen, many callers emphatically say "yes". When questioned more carefully, the person will sometimes insist that they not only saw the snake vibrating its tail (which milk snakes do) but that they saw the actual structure of a rattle at the end of the tail.

People who report unusual sightings to MassWildlife almost always provide the report along with a confident identification of the species they saw. If the bird is picked up injured or dead, or was photographed, we find that the caller was sometimes right, so we take all such calls seriously. But often the reported identification is a mistake. Some of the mistaken identifications are quite understandable. A Peregrine Falcon and a Cooper's Hawk are very similar in many ways to all but the experienced bird watcher.

The evidence suggests that people who report having seen a Mountain Lion are even more adamant that they know what they saw. Reports of Mountain Lion sightings, even by people considered reliable observers, can only be considered leads unless they are accompanied by some form of tangible evidence. Observers range from average citizens with little knowledge of nature, to sportsmen with a lifelong history of tromping around in the woods, to "credible observers," including law enforcement officers, naturalists, and even professional field biologists. Everyone, despite their knowledge and background, can mistake what they saw.

One of MassWildlife's experienced biologists, Bill Davis, had a quick view of an animal that crossed some distance in front of his vehicle on a dirt road on the Prescott Peninsula at Quabbin. This 11,000 acre peninsula is off limits to the public and is arguably the largest, albeit artificial, wilderness in Massachusetts. It has been the site of numerous reports of Mountain Lion sightings. Bill had gotten a short, but not entirely fleeting, view of the animal in broad daylight, and his mind had "registered a short muzzle, light brown coat, and rope-like tail." Was it a Mountain Lion?

Stunned and puzzled by what he had just witnessed, he sped up to try to get a second look at the creature. He had patiently and skeptically listened to many similar sighting accounts himself during the course of his career. When he got to the spot where the animal had crossed, he stopped the truck, grabbed his binoculars, and hopped up on a stone wall to glass the very open forest. He saw a

Photo © Jason DeJackame

Bill Davis, one of MassWildlife's veteran field biologists (shown here with a chemically immobilized cow moose), had a brief sighting of an animal on the Prescott Peninsula at Quabbin that would still puzzle him today had he not been able to follow up the sighting with a better view of the animal through binoculars.

Coyote looking back at him; a Coyote with a case of mange that had left the animal with an abnormally short-furred coat and tail that made the tail appear completely out of character for the species.

When the animal ran off, Bill went back to examine the area where it had crossed the road and found its tracks. It had crossed at an angle away from him; hence he hadn't seen the entire extended muzzle, but only a portion of it, so it had appeared shorter and rounded. "My mind had made the assumption that the animal crossed perpendicular to the road," he said. "Now that I had firsthand experience, I understood how easily circumstances could lead to the misidentification of a common animal. The tail was the most obvious field mark that registered, and it was totally out of context with anything I was familiar with."

Bill had seen many Coyotes before, but as is true for everyone, his brain had done its job of instantly analyzing and identifying what his eyes had briefly seen. Since what they had observed did not add up to what his experienced brain believed a Coyote should look like, it had simply filled in the blanks to fit another perceived alternative.

Vetting the Evidence

Media outlets, in an effort to attract public attention, routinely print misleading and exaggerated reports of wildlife, which, if taken as truth, would lead almost any reader to believe that Mountain Lions are common all across New England, including in Massachusetts. Simple hearsay reports of sightings from the public, including misidentified photos, are reported as fact, sometimes with claims that they have been "confirmed". I don't remember a single case in which any media outlet has ever published a correction to an article reporting a Mountain Lion sighting when they were later informed that the purported animal in the photo was actually a Bobcat. Many of the "eastern cougar" groups, much like the Sasquatch and UFO organizations, are not much more rigorous in their vetting of sighting reports, yet give the appearance of being scientific. Many Mountain Lion reports have been "confirmed" by some of these groups without meeting any scientific standard. A few groups, like The Cougar Network (***www.cougarnet.org/***), do have good standards of rigor and are reliable sources of information. Actual peer-reviewed scientific journals would welcome articles on the subject that are truly science-based, but there is not yet much science to report on Mountain Lions in the East.

One study, however, has yielded data from eastern Canada. An article published in the *Northeast Naturalist* in 2013 reported 22 confirmed DNA records of Mountain Lions in Quebec and New Brunswick, Canada, from 1992 through 2009. Three of these samples were obtained from killed specimens and 19 were acquired from hair collected from a series of baited scratching posts (some of these are thought to be duplicate samples from the same individuals). One big surprise was that of the 16 samples in which the mitochondrial DNA could be assessed to determine the animal's geographic origin, six (37.5%) had DNA profiles from South and Central America. That is clear evidence that those animals were of captive origin, or the offspring of formerly captive animals. Of the remaining 10 samples, the authors concluded that they could not determine if the animals were of North American origin, came from captivity, dispersed from western populations, or represented local individuals that were members of an original, remnant population.

Regardless of their origins, if these animals reproduce in the wild they could become another source of dispersing juveniles. To date, the evidence supports the rare occurrence of a few escaped or released captive Mountain Lions, and a very few legitimate, wild-born individuals that at this time probably all represent long-distance dispersing animals; most, if not all, being males that began their wanderings as juveniles.

Trying to determine the validity of Mountain Lion reports is further complicated by fairly frequent, deliberate hoaxes. These hoaxes are most often photos of real Mountain Lions, but they were taken somewhere in the core of Mountain Lion habitat in the West, and were posted on the internet. These hoaxes can be particularly convincing when

DFW Archives Photos

Photo hoaxes are fairly common and the people who submit them are often victims of the hoax themselves. The photo at left was sent to MassWildlife and was purportedly taken in Colrain, MA. It is actually a poorly doctored copy of a genuine (and much publicized) trailcam photo (below) taken in Michigan.

the person calling MassWildlife is also a victim of the hoax. The typical scenario is someone who's relative or friend shares a photo of a Mountain Lion that they claim to have seen in Massachusetts. The caller realizes how important this documented record would be and feels a responsibility to report it. So, the caller is completely honest and sincere, and also a victim. Sometimes when the caller is shown the same photo in its original use, they are very embarrassed and angry with the person who drew them into the story.

Some examples of photos used in hoaxes of Massachusetts Mountain Lions can be seen in their original context at the MassWildlife website ***Mass.gov/DFW/Mt-Lions-hoax***. In one example of a fairly sophisticated hoax, the genuine skull of what appears to have been a captive Mountain Lion was used as evidence to support an elaborate story of a carcass found in the Quabbin Reservation. As the story went, only the skull was collected when the carcass was found, but the following year a careful search of the area by another person yielded two additional bones from the supposed scattered carcass. These were an ulna and a foot bone.

However, the ulna is clearly from a different and larger individual than the one the skull belonged to, and after supposedly being in the woods for a year and scattered by scavengers, the bone was perfect, without a single scratch. It has the distinct yellowing of an old antique and the smooth, shiny surface so typical of a bone from a university classroom, polished by years of handling by thousands of student fingers. Anyone who has found the shed antlers of deer knows just how quickly mice, squirrels, and porcupines gnaw on the surface of any bone or antler left in the woods. Fortunately, these bones were given to the Museum of Comparative Zoology at Harvard University and could be closely examined.

Conspiracy Theories

While hoaxes present us with challenges, the conspiracy theories we hear regarding Mountain Lions would be downright humorous if some people didn't actually believe them. Like many

The female Mountain Lion at Buttonwood Park Zoo exhibits the rear leg muscles that allow this cat to make leaps up to 40 feet length and 15 feet in height, a crucial ability for a predator that feeds primarily on deer. Females are commonly around 100 pounds; males may reach 150 pounds or more. Always keep in mind that these cats are BIG: Body length is typically 5-6 feet, not including the long tail,

conspiracy theories or urban legends, most of them rely on the same basic scripts and have been attributed to a wide range of state and federal wildlife agencies in many states across the East.

The most common ones claim that the agencies have long been aware that there is a well established, breeding population of Mountain Lions distributed throughout New England, but if the agencies admitted the cats were here, it would destroy the existing deer management programs and current forestry practices, and/or the agency would immediately be forced to list the Mountain Lion as endangered, which would require recovery programs that the agency could not afford, and/or the agency would be pressured by the public to eliminate these large cats as quickly as possible.

The truth is that even if there was a Mountain Lion population in New England, none of these assumptions would be true. There is plenty of prey available for Mountain Lions, including deer, and most of our publicly-owned forests are healthy the way they are already being managed. Unless a species is listed federally as endangered or threatened by the U.S. Fish and Wildlife Service (which Mountain Lions dispersing from western populations are not) our listing guidelines developed for the Massachusetts Endangered Species Act (MESA) recommend against listing species that are expanding their ranges into the state. That is why Moose and other species that have recently returned to Massachusetts on their own were never listed.

However, even without being listed, killing or harming any Mountain Lion

For information on how to report a Mountain Lion sighting or evidence, as well as more information on the species, please go to the MassWildlife Mountain Lion web page at ***Mass.gov/DFW/Mt-Lions.***

that does show up in the state is already unlawful. In Massachusetts, all species of wildlife are legally protected unless a statute or regulation says otherwise. So, if someone shoots a Pine Marten, Badger, Nutria, kangaroo, or anything else that our state laws did not contemplate and don't specifically allow to be killed, that person has broken the law.

Another conspiracy theory even goes so far as to claim that the state secretly released Mountain Lions at Quabbin to control deer before hunting was allowed there. Whenever I hear this claim (and fortunately it is rare) it is hard not to laugh out loud. Does anyone really believe that the staffs of multiple state agencies could actually keep a secret like this? We aren't CIA operatives. We are wildlife scientists, and as such, we have learned enough about predator/prey relationships to know that Mountain Lions would not prey on enough deer to accomplish the deer population reduction that was needed at Quabbin.

Get the Evidence

Long ago, the birding community realized that not all reports of bird sightings are reliable. Among birders, there is a wide range of experience from the casual "feeder watcher" to the obsessed "lister", and the same set of complexities of skill level, fleetness of the view, mental gap filling, and the desire to see the unusual and unexpected are all in play. In Massachusetts, the MARC (Massachusetts Avian Records Committee) was established to create reporting standards and then to review reports of rare birds and birds seen at unusual locations or times. These reports include a written account and, more and more often, photos.

Photo © Bill Byrne

The MARC brings credibility to state bird records, and has been responsible for protecting the integrity of our bird literature from contamination by the many incorrect identifications that would otherwise confuse the record. The Committee also reviews old records to purge misleading data, to the extent possible, from the literature. The Cougar Network, a nonprofit research organization dedicated to studying cougar-habitat relationships and the role of cougars in ecosystems (***www.cougarnet.org/***), has set similar reporting standards for Mountain Lions, and for the same purpose – to ensure that only confirmed reports that hold up to scientific authentication go into the official record. MassWildlife has adapted The Cougar Network's standards to evaluate any reports we receive.

Mountain Lions really are expanding east, and in time they may once again be as common as the public is being led to believe they already are. However, for now, real Mountain Lions in Massachusetts are very rare, so we are very interested in examining any evidence of their presence that becomes available, as well as learning of any sightings without evidence that can be investigated and perhaps validated. Fortunately, when Mountain Lions are present, they are not bashful about using well worn game trails, so keep monitoring your trail cameras and help us watch for the next big cat moving through.

Dr. Tom French has served as MassWildlife's Assistant Director responsible for the Natural Heritage and Endangered Species Program for the past 31 years. He has a broad interest in natural history, having authored articles on a wide range of topics, including raptors, ravens, sea birds, turtles, snakes, shrews, whales, beetles, slugs, and the conservation of rare species and their habitats. This article grew out of three decades of fielding wildlife calls from the public and trying to interpret what the caller had seen.