

Scientists  
consider  
the claims...  
and the  
evidence.

by David Kocka  
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It can happen anywhere—at a sportsmen's show, next to the coffee urn at the local convenience store, or in church on Sunday morning. As soon as you are pegged as a wildlife biologist someone will ask you about the rumor circulating of a mountain lion in the area. In recent years this has become a weekly, if not daily, event. Access to the Internet and oversaturation of information through cell phones, blackberrys, and the like adds to the frenzy. More and more images appear as

photo attachments to emails claiming to have been taken in Virginia. With some detective work, they are often debunked as pictures from a western state that are now making the Internet circuit, maybe even more than once. Thankfully, there are websites such as [snopes.com](http://snopes.com) that assist us in bringing the facts to light.

But what do we know about mountain lions (aka. cougars, panthers, pumas, catamounts) in Virginia? As reported in our 1991 publication, *Virginia's Endangered Species* (McDonald & Woodward publishing Co.), mountain lions existed statewide at the time of European settlement but presumably were extirpated from Virginia by the 1880s.

According to Handley and Patton's *Wild Mammals of Virginia*, published in 1947, the last Virginia mountain lion was killed in Washington County in 1882. The authors further stated that "reported" sightings in the early 20<sup>th</sup> century "must be looked at with considerable skepticism."

Several researchers point to an increase in sightings in the 1970s as possible evidence that lions existed in Virginia at that time. Robert Downing, now a retired biologist with the U.S. Fish and Wildlife Service, spent five years snow tracking along the Blue Ridge Parkway and within various areas on U.S. Forest Service lands in Virginia looking for evidence of lions. At the end of that period he

reported that "no indisputable sign of cougars was found."

But that was 40 years ago. Are mountain lions here in the commonwealth today? What about all of the "sightings" that get reported to the Department (DGIF) either directly or indirectly? Let us start by looking at the current, reported range of big cats in the contiguous 48 states and then look more specifically at Virginia.

The September 2009 issue of *National Geographic* identifies the current, established range of cougars. These published maps are based upon confirmed photographs, carcasses, or paw prints. Except for the Florida panther, the closest confirmed wild cougars

appear to be in Michigan, Wisconsin, Arkansas, and western Louisiana. The cats do appear to be expanding their range eastward in recent decades. With deer herds at record levels in the East, the prey base is certainly present for mountain lions. Could these lions tolerate the dense human populations of the East? This remains to be seen, but they do quite well in the suburbs of Colorado and California.

Remember, sightings by themselves are not evidence! Harley Shaw, a retired mountain lion biologist who spent decades studying the big cats for the Arizona Department of Game and Fish is quoted as saying, "After years of chasing UFOs—unidentified *furry* objects—I now discount out-of-hand any sightings of lions, even from professional biologists. The human mind is a strange and wonderful thing, and it's totally unreliable."

The Department's information would seem to support the range map created by the National Geographic Society.

Calls to the DGIF have averaged approximately two sightings of large cats a month in recent years. To date, none of these reports has been substantiated by a photograph, a carcass, or a track. When we reviewed these reports, we found that as many as 25 percent are of a large *black* cat. Importantly, there is no reported melanistic phase of cougars or pumas in the literature. Jaguars are known to have a black phase, but their range did not extend any farther north than Central America. In those few instances where the information appears credible, investigation by staff has always confirmed the animal to be a bobcat, black bear, domestic cat, or dog.

What other data exist to support, or refute, the existence of lions in Virginia? First, it is commonly known that in the western U.S. where mountain lions are hunted, they are often pursued by hounds, because they are known for "treeing" relatively easily during such a chase. Estimates of as many as 70,000 hunters in Virginia use hounds to chase black bears, raccoons, bobcats, and foxes. During the various hunting seasons that exist across many months throughout the year, mountain lions have never been treed.

Mountain lions are considerably larger than a bobcat and can reach up to 200 lbs. at maturity.

## Big Cats in Virginia: The Facts Ain't Lion



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Each year bowhunters in Virginia are surveyed to report on the various species of animals they observe during their trips afield. Monitoring wildlife populations with archery hunter observation data is a tool used by many states and provides a reliable index to population trends. During 2008, over 20,282 hours were logged by 374 bowhunters throughout Virginia. No big cats have been reported on any of these annual surveys, which have taken place since 1997. If a large cat was observed, it would still have to be confirmed by an attendant photograph, carcass, or track of the animal.

A common technique for documenting elusive species is the use of trail cameras. Each year more sportsmen and non-sportsmen alike use these cameras to document the critters inhabiting the backyard as well as the deep woods. Despite its growing popularity, not one trail camera has documented a wild cat in Virginia, with the exception of the native bobcat.

From 1997–2001, Shenandoah National Park personnel also utilized numerous



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trail cameras, which had been baited with deer carcasses in an effort to document the presence of coyotes. Hundreds of pictures were obtained of black bears, bobcats, and raccoons, as well as some coyotes, but no big cats.

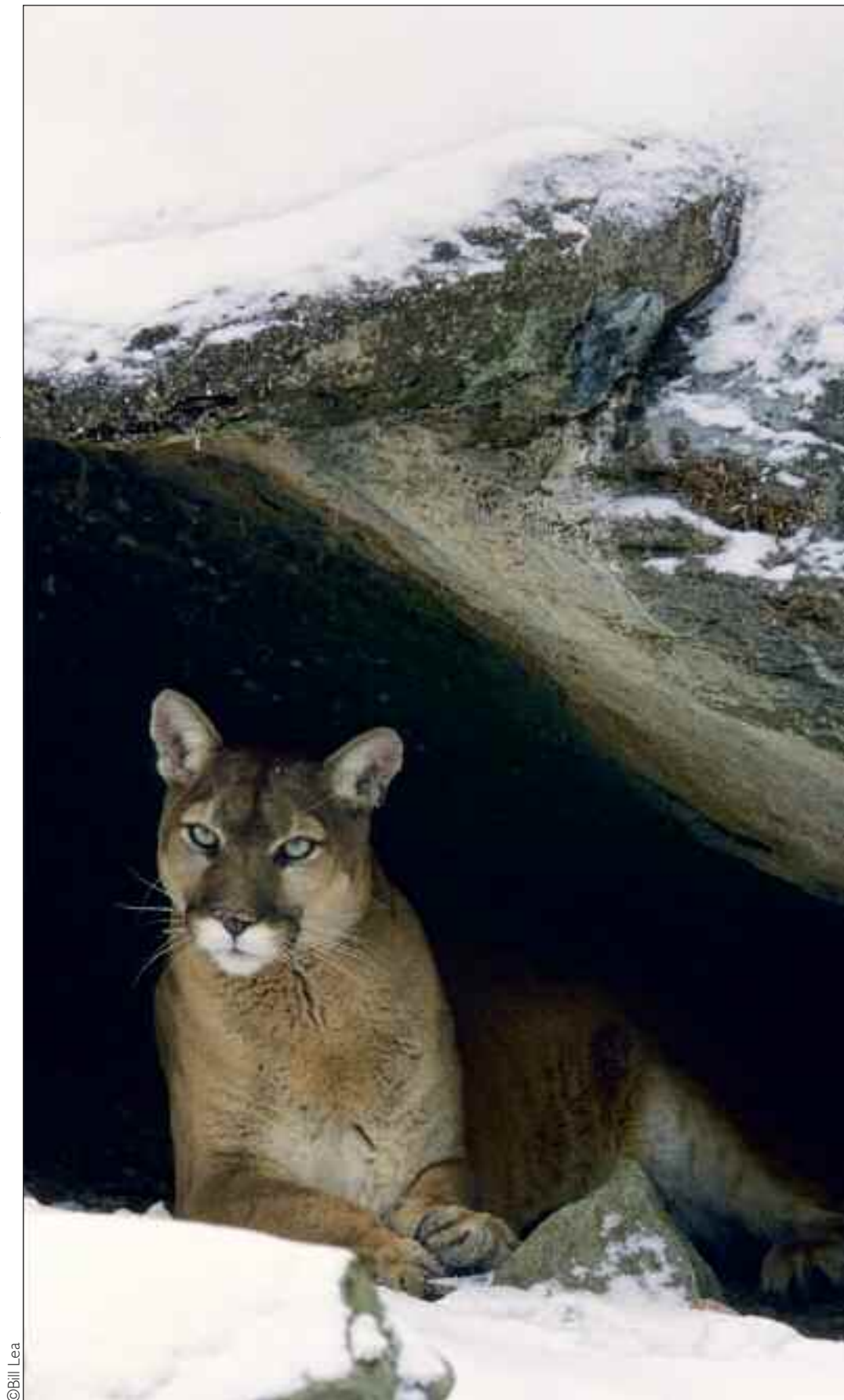
Furthermore, from 2007 through 2009 one of the authors (Dr. Bill McShea) made use of volunteers with trail cameras along the Appalachian Trail from North Carolina through Pennsylvania, in an effort to document species in some of the more remote areas of these states. Eighty percent of the sampling occurred in Virginia. Volunteers sampled 575 locations near the trail, including over 150 points in Shenandoah National Park (a total sampling effort of over 16,000 trap nights). Again, they obtained pictures of black bears (430), bobcats (57), coyotes (89), red foxes (59), and gray foxes (48), but no cougars. If there is a small population of mountain lions residing within their survey area, yet not detectable at that level of pursuit, the population would probably not be viable.

Could mountain lions held in captivity have escaped and be establishing a population in Virginia? This would also appear unlikely, as during the few instances in recent years when this has occurred the cats were so accustomed to people that they were often found short distances away, instead of in some remote wilderness.

The bottom line: The DGIF and the National Geographic Society do not believe that mountain lions currently exist in the commonwealth. But mountain lions do appear to be colonizing some of their former range by expanding eastward. If they move this far, could they become established here over time? The answer will depend upon their ability to adapt to a state with over seven million human inhabitants. The prey base is waiting for them, as well as many diehard fans of these elusive creatures. □

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