

The ECF Update

Newsletter of the Eastern Cougar Foundation



Bringing Back a Legend

November 2008

2008: No. 4



Inside...

Re-visioning the Eastern Cougar – Chris Spatz	-2
ECF Celebrates 10th Anniversary – Todd Lester & Chris Bolgiano	-4
Louisiana: With or Without Our Help? – Mike Guerin	-6
The Landscape of Fear and Cougars in East – John Laundré	-8
An Overview of Livestock Depredation by Cougars – Julia B. Smith	-10
Wilderness Wildlife Weekend, Pigeon Forge, TN; Jan. 10-15, 2009	-12
ECF News: Thanks to those who are helping us	-13
BREAKING NEWS: Cougar Killed in Georgia	-13
Cougar Advocates Meet – Helen McGinnis	-14
News from the Blank Space	-15
—AERIE Mountain Lion Tracking & Ecology Workshops	-16

The Louisiana black bear lives in the purple, blue and brown areas of Louisiana. Wildlife officials are trying to establish a population in the green area and promote a corridor (yellow) of distribution. If cougars are to be restored to the East, they will need similar plans to preserve habitat and to disperse between undeveloped large blocks of land. See Page 6 in this newsletter.. *Map copied from Louisiana Agriculture Magazine, Spring 2002.*

Eastern Cougar Foundation
PO Box 300
Harman, WV 26270

www.easterncougar.org



PRESIDENT'S MESSAGE: Re-visioning the Eastern Cougar Christopher Spatz

Welcome to the Eastern Cougar Foundation 2.0! Back in October, ECF board members, advisors, and volunteers convened at Hawk Mountain Sanctuary (HMS) in eastern Pennsylvania to chart a new direction for the foundation.

The main event that weekend was a lecture by Kerry Gyekis and Jay Tischendorf (a former intern at HMS); their talk reflected some of the changes we had met to discuss.

Two years ago, I was fortunate to catch one of Kerry's lectures in New Paltz, NY. As well as touching on cougar taxonomy and behavior, Kerry provided a convincing case for the chimerical lack of evidence of cougars in the East. His talk's conclusion, showing the cougar's current eastward migration ending roughly at the Mississippi River, left me wondering: if they're not here, how *do* we bring them back? Jay's follow-up at HMS, and the subject of much of our discussion that weekend, provided the answer: cougar restorations. To this end, we had already begun retooling the ECF's engine.

During the past several months, you may have noticed some changes on our website, changes meant to streamline our workload in advance of new projects: soliciting evidence only, rather than the steady flow of unsupported sightings from the hotline; retiring the eastern cougar listserv, long on titillating search and sightings discussions but a poor source for membership recruitment and restoration nitty-gritty; and redrafting our mission and goals. The mission shift: de-emphasizing a decade of searching for cougars in which the ECF's efforts have failed to log a single confirmation, to focus on habitat protection, education, and advocating for cougar recolonization and restorations.

If the ground-breaking work of Todd Lester, Chris Bolgiano, and other active members of the ECF over the last ten years has taught us anything, it is that the hopeful handful of confirmations from the '90s have not produced the kind of repeated incidental evidence occurring in the central Mississippi basin. Had anything but a few likely former captives been roaming and breeding in the East, we'd have the body count and random trail cam photographs being documented in the Midwest. We don't, and we've realized we can no longer wait the decades natural recolonization will take for cougars to arrive, *if* they arrive.

Under the specter of incessant development pressures, the big habitat the big cats need is shrinking quickly. Research from the fields of ecology and conservation biology – *the landscape of fear* studies first christened by ECF advisor and HMS attendee, John Laundré – has proven that critical to the health of any ecosystem is the presence of alpha predators. Not only is remaining habitat suffering from fragmentation and recreation abuses, our eastern forests are critically ill – from misguided white-tailed deer management and an absence of wolf and cougar presence to alter deer's cattle-browsing behavior.

To paraphrase Will Stolzenburg from his insightful book, *Where the Wild Things Were*, the East misses its native predators like phantom limbs. If zero confirmations since 2000 haven't convinced you, let degraded ecosystems be the ultimate indicator of missing cougars. We know from panther and cougar studies in Florida and California that they can thrive in close conjunction with human activity; all they need is adequate prey, habitat connectivity, and concealing places to bed down during the day.

The very future of forest succession demands restoring the cougar to federal parks, forests, and wildlife refuges, to the largest state forest preserves left in the cat's former eastern range.

While we won't be abandoning the search entirely – Judy Tipton's camera survey in Land Between the Lakes has been re-sanctioned by the US Forest Service – we must begin seeding recolonization and restoration projects. Ensuring cougar protection and migration corridor preservation in Midwestern states; launching grant supported habitat and public opinion surveys; expanding our outreach and education efforts to include schools, conservation centers, and the East's cities; building a coalition of like-minded NGOs; finding wildlife agency and congressional allies to enforce stalled restoration mandates in the Florida panther recovery plan and the Endangered Species Act; and of course, we will need to fundraise to support all of these efforts.

We will also need your generous and continuing assistance: in your membership renewals and donations that support the publication of the ECF Update, camera survey expenses, and the day-to-day operations of the foundation (i.e. Helen McGinnis' thousands of volunteer hours); in the form of any volunteer services you can provide. Look over the above list of project proposals and consider where you may be able to offer your particular area of interest or expertise, like our Virginia volunteer, Ben Schrader, who organized and manned an eye-popping cougar booth for an outdoor show earlier in the year; like Brian Donovan, a New Jersey printer handling some of our publications at cost. Review our updated website (with perpetual thanks to webmaster Jim Solley in Reading, PA), and tell us what it needs.

Returning the cougar to the East may seem like an extraordinary luxury amidst this time of multiple national crises, but eastern ecosystem restoration on public lands can not happen without its native big cat. I expect that President-elect Obama, with his exquisite ability to channel history, will soon be reminding us all of another generation's famous call to service by another young, transcendent chief executive. Eastern forests need you. The cougar needs you.

Just as we remember a coal miner's transforming encounter on a West Virginia mountain and the vision for wild cougars he created, our children may one day reflect at Hawk Mountain Sanctuary. There, they may find listed among the resident fauna: cougars, and learn that on a mountain in Pennsylvania renowned for its birds of prey, the eastern cougar inspired its next incarnation.

As we begin our second decade, help the ECF bring the legend back.

Thank you.

New ECF Fliers Available. Printed on 4X6" heavy glossy paper, they explain ECF's mission.



On the back is our contact information. If they desire, readers can put on a stamp and send it to us for a response on paper. They are designed to be put out in places such as nature centers, natural history museums, zoos, visitor centers run by natural resource agencies such as the National Park Service and US Forest Service etc. We need the help of members to get them widely distributed. If you know of specific places to set them out (never do so without asking permission; tourist-related businesses must pay to have their literature set out), please contact us. Images of the flier, front and back, have been posted in our "Store" on our website, www.easterncougar.org.



EASTERN COUGAR FOUNDATION CELEBRATES 10TH ANNIVERSARY

Todd Lester and Chris Bolgiano

Todd says: I'm delighted to have this opportunity to announce ECF's ten-year anniversary. This is an achievement we can all take great pride in, as we have certainly come a long way since those humble beginnings in 1998.

The secret to ECF's success lies in the hearts and minds of its members who have sacrificed so much of their time and energy to keeping the wheels turning. The glue that has held us all together over the last ten years is our admiration for America's Lion and our sincere belief that this magnificent cat deserves to survive in the wilds of the Eastern and Midwestern U.S. With such a strong supporting cast behind ECF, there's no limit to what we can accomplish.

Let's now board the time machine and check out some of ECF's accomplishments over the last ten years.

1998: I began forming the ECF.

1999: Incorporated the organization through the State of West Virginia and received 501 (c)(3) non profit status through IRS. Published first newsletter.

2000: Sent request for Similarity of Appearance Ruling in the East to Bruce Babbitt, Secretary of the Department of the Interior. This was intended to resolve some of the confusion about the legal status of cougars in the East.

2000: Chris Bolgiano presented a paper, "Field Evidence of Cougars in Eastern North America," on behalf of ECF at the 6th Mountain Lion Workshop in San Antonio, Texas.

2001: ECF was highlighted in a number of magazine and newspaper articles.

2002: ECF presented a program on cougars in the Westvaco Center at Cooper's Rock State Forest near Bruceton Mills, West Virginia. ECF was awarded two grants to purchase and deploy remote cameras for a cougar survey in the eastern U.S.

2003: A Field Advisory Committee (FAC) was established comprised of ECF members and representatives from the US Fish and Wildlife Service, the US Forest Service, and the West Virginia Division of Natural Resources to guide the remote camera project. ECF began its remote camera project in the Monongahela National Forest of West Virginia. This was the first systematic field survey for cougars in the East since Bob Downing's search in the early 1980's.

2004: ECF and --AERIE jointly organized and hosted the 2nd Eastern Cougar Conference, held in Morgantown, WV. Participants came from 22 eastern and midwestern states, three Canadian provinces and from Wales in the United Kingdom.

2005: Chris Bolgiano's book, **The Eastern Cougar: Historic Accounts, Scientific Investigations, New Evidence**, was published with royalties to be donated to ECF. Tom Baddick rediscovered the Anson Panther mount, Pennsylvania's last documented wild cougar (1974), and it was donated to the State Museum of Pennsylvania in Harrisburg.

2006: The remote camera project was moved to the Land Between the Lakes of western Kentucky & Tennessee and is being led by Judy Tipton. Proceedings of the 2nd Eastern Cougar Conference were released. ECF enlarged its outreach efforts as Kerry Gyekis began giving PowerPoint presentations.

2007: The Ontario Puma Foundation, ECF and --AERIE co-sponsored the 3rd Midwestern-Eastern Puma Conference at Trent University in Peterborough, Ontario. Dr. Marcella Kelly prepared a presentation on our 2003-2004 remote camera project, and Helen McGinnis gave it to the conference. In June, Jim Solley came on board as our webmaster, and Jay Tischendorf succeeded Todd as President. ECF continued to shift its focus to the central US and Canada because of an apparent lack of cougars in the East.

2008: Bev Fronk's **Cougar Club for Kids** was added to the ECF web site. Ben Shrader put on an excellent exhibit for the Bedford Outdoor Show, ECF's first such action, which was successful enough to plan for more in the future.

On October 1, Christopher Spatz became ECF's third president. The organization announced a shift in emphasis from searching for evidence of cougars to education, protection of habitat and dispersal corridors, and advocating for cougar recolonization and restorations.

On behalf of ECF, I'd like to thank everyone for their dedication and support over the last ten years and ask that you continue to push ECF in the right direction for years to come. And above all, keep the spirit of the cougar close to your heart.



Chris Bolgiano adds: I had been researching cougars in the East for some years when I met Todd online around the mid 1990s when he established the first listserv dedicated to cougars in the East. Todd's commitment to and passion for wild forests with cougars in them was impressive. Todd believed that individuals alone couldn't advance the cause of wild cougars, that we needed an organization to have any clout, and that's how ECF was born. Todd did all the legal and financial work, and I contacted every relevant scientist I had met through earlier researches to form a Board of Directors. That first board was composed of feline geneticist Melanie Culver, biologist Bob Downing, Cooper's Rock Mountain Lion Sanctuary director Mark Jenkins, biologist Don Linzey, environmental attorney Tom Linzey, biologist David Maehr, forester and cougar expert Sue Morse, and biologist Jay Tischendorf. Helen McGinnis soon joined us as a hard-working officer. The fact that most of these people are still involved in ECF in one form or another demonstrates the depth of their commitment.

Throughout these ten years there have been many set-backs and a seemingly glacial pace of progress. It has been my role to repeat as often as necessary: The ECF is a long-term endeavor, and we know that we may not achieve our goals even in our lifetimes. We must work patiently and steadily to lay the groundwork for the recovery of cougars as a significant part of eastern ecosystems. This is a magnificent goal, and there is no other group working toward it. The social changes that are necessary to allow cougars to thrive again in the East will take decades, but they are already underway. So may this first decade's anniversary be the start of many more!

Louisiana: With Or Without Our Help?

Mike Guerin

The study and debate continues but many believe that parts of the Florida panther population may need relocation into other areas of the South so that all of the “eggs” aren’t in one basket. Is this a good decision? What is the best path to take? We have been asking ourselves these and other essential questions: where should we reintroduce them, how should we do it, should relocation even take place at all? In the meantime, the cougars continue to be cougars and apparently aren’t waiting any longer for us to take action.

While we debate and plan the best methods for restoring the cougar to some of its former range the cougar has been hard at work also, pressing eastward into areas officially devoid of cougars for a century. In 2002, Louisiana was able to confirm its first cougar resident in many a decade. The sighting by Michael Carloss and his wife was backed up by DNA evidence from scat located at Lake Fausse Point State Park.

Fast-forward to the spring of 2007: pictures from a trail camera originally intended to observe deer captured multiple instances of a cougar inhabitant. These photos remain unconfirmed due to the desire of the owner to keep the location anonymous. He fears losing his deer hunting lease to higher bidders and does not want sightseers to over-run his hunting grounds. I wouldn’t normally put much faith in such evidence but it just so happens I know members of the deer lease. So, although I am not allowed to prove it to everyone else, I know the source of the photos and know them to be legitimate.

This Fall, two separate cougar photographs surfaced that were taken by trail cameras 100 miles apart in Louisiana. Maria Davidson of the LDWF examined these pictures and visited the spots where they were taken, suspecting that the cougar pictured might be the same one traveling both areas. After the investigation, the Louisiana Dept. of Wildlife and Fisheries confirmed the evidence as legitimate unaltered proof of a cougar in Louisiana.



One of the unconfirmed trail cam photos from south-central Louisiana, Spring 2007.

I know of other cougars in the state, but I just don’t have permission to come forward with the evidence for various reasons. Either way the trend is clear, cougars are pressing into old stomping grounds without our direct help.

The only question that remains is: will they be able to establish themselves as a permanent viable breeding population? That problematic uncertainty has been studied intensively by those looking for potential relocation areas for the Florida Panther. The results of those investigations can leave you with mixed feelings. Cougars need habitat, and lots of it, without human congestion in an area guaranteed to remain that way in the future. That is something we all

understand, and those places do exist in a number of states including Louisiana, but there is another factor to consider and that is public perception.

Cougars were wiped out of the East during a time when the available habitat wasn't much of an issue. The public merely didn't want cougars around so the cougars were systematically killed off. Unfortunately, public perception is a mixed bag right now. I would like to think it would be an easy victory for the cougar. However, in my talks with people across the South the fear factor has reared its ugly head and has the potential to deal a death blow to any cougar re-establishments that occur or would occur with or without our help.

Currently in Louisiana the cougar gets a free pass - at least from a legal standpoint. The killing of a cougar in Louisiana comes with some hefty fines and potential jail time. Fines of \$100,000 and jail time of up to one year should be a significant deterrent to most, but if you don't think you will be caught then the stiff penalty might not be as potent as one might think.

For the time being, the cougar has the law on its side in Louisiana in addition to another big ace up its sleeve for potential long term viability. That ace comes in the form of the Louisiana Black Bear. The state has long had a program designed to bring the black bear back from near extinction in the state. This program not only protects the black bear but also its habitat.

Louisiana had two distinct populations of Black Bears at the time the plan was implemented. One population inhabits the coast of St. Mary Parish and the other resides further north in the Tensas area of the Northeastern part of the state. The state's Black Bear Plan has a goal of connecting these two areas with travel corridors. The vast Atchafalaya basin serves as part of the corridor and provides a huge sanctuary for wildlife with very little highway intrusion.

The work done to protect the Black Bear's habitat in Louisiana for future generations is exactly what the cougar needs as well. The Black Bear program could easily be renamed the Black Bear and Cougar Protection Program because even though the original program's goal was designed to assist the bear population, it would provide the cougar with exactly the same thing that it is providing the Louisiana Black Bear... great habitat and lots of it.

Since Louisiana has a thriving deer population and a skyrocketing hog population, large expanses of habitat available for future generations, and legal protections for the animals from hunters and livestock owners, is it just a matter of time before Louisiana has its own viable breeding population of cougars? Would the cougars re-establish in the state anyway with or without our help? A lot of evidence is there to suggest that it is just a matter of time before Louisiana is faced with serious questions concerning how to deal with an emerging cougar population. With their expertise and long involvement with cougars in the East, the ECF would be a logical partner in this decision-making.

--Mike Guerin is a Field Reporter for Louisiana Sportsman, a member of the Louisiana Outdoor Writers Association, and webmaster of <http://www.TheJump.Net>, where you can see several other unconfirmed photographs of the cougar in south-central Louisiana in 2007. You'll also encounter Mike online at Team Hammerdog Prostaff. The two confirmed remote camera photos from September 2008 are displayed in our blog on our website, Cougar News.

The Landscape of Fear and Cougars in the East

John Laundré

At the turn of the century, I and three of my colleagues introduced two complementary concepts to ecology: the *ecology of fear* and the *landscape of fear*. These concepts are based on the underlying hypothesis that fear matters! That fear matters we know from our own history. From castles to taking our shoes off at the airport, our fear of being attacked permeates our history and our daily lives. The concepts of the ecology of fear and the landscape of fear, embody this innate fear of attack, only from the animal's perception. As such, they provide us a new perspective on how animals perceive the environment. It is not an understatement to say that the fear of predation or being killed, normally referred to as predation risk, is one of the strongest motivating forces in animal behavior. Each day a prey individual lives under the constant threat of being killed. To ignore this threat is almost certain death. Thus, fear will influence an animal's daily behavioral decisions, especially on how they use the different habitats in their home range. Specifically, the landscape of fear model proposes that through an animal's eyes, its surrounding landscape is not so much one of varying vegetation but varying levels of predation risk and resulting fear. These levels of fear are a consequence of a predator's ability to catch and kill its prey, what we call predator lethality. Prey individuals should be more fearful of and avoid areas of high risk where its predators are more lethal. The more risky an area, the more fearful the prey will be... and the more lethal the predator.

The reason a predator's lethality varies is because each species of predator has its strengths and its weaknesses that have been honed over its evolutionary history. Most times this lethality is dependent on habitat. For example, wolves run their prey down so they are more formidable in open habitats. Cougars, on the other hand, stalk their prey, so some degree of shrub or tree cover is advantageous. Thus a prey's home area can be divided into safe and risky habitats depending on the particular predator it faces. Our work with wolves and elk in Yellowstone National Park and cougars and mule deer in Idaho clearly demonstrates that prey know this! With the return of the wolves, elk in Yellowstone now avoid the open areas. Mule deer in Idaho avoid the forest edges that make cougars more lethal. The result is a landscape of fear where deer or elk are literally afraid to spend much time in the more lethal habitats of their predators.

The ecological impacts of the landscape of fear are enormous and are just starting to be unraveled. Investigators in Yellowstone Park have demonstrated the return of long absent tree and shrub species favored by elk for food in the areas where elk are now afraid to go because of wolves. This avoidance of dangerous areas by elk has had a series of cascading affects including return of beavers to streams now lined with trees and shrubs.

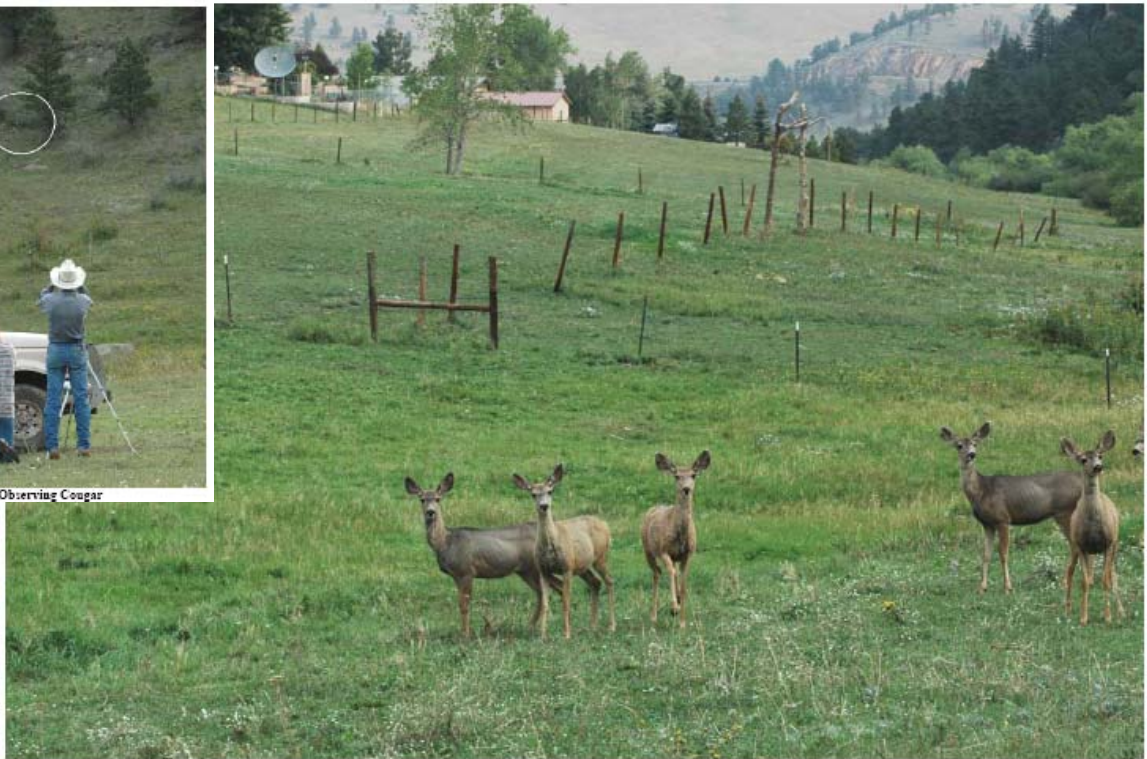
Besides the obvious avoidance of dangerous habitats by the prey species, it is important to view the landscape of fear from the predator's perspective. Since there are habitats where a predator is more likely to catch its prey, it makes sense that a predator should spend more time hunting those areas rather than waste its time in low success habitats. As hunters we know this and so we hunt ducks along the edge of a pond rather than try to sneak up on them in the open water. And other predators know this too! We have demonstrated that cougars in Idaho spend more time in the forest edges where they are more lethal than in open areas. Thus, the landscape of fear for the prey becomes the landscape of opportunity for the predator! It is within this landscape of opportunity that the predator has to make its living trying to catch its prey in the habitats where it is most successful.

What does this all have to do with the re-establishment of cougars in the East? Plenty! If an area has a landscape of fear for a prey that is primarily safe habitat, then the landscape of opportunity for the predator will consist mostly of areas where it has little chance of catching its prey. Ironical as it may seem, in such an area of plentiful prey, a predator could starve! Thus, it is not so much how much prey is available to a predator (prey abundance) but just how many prey individuals are susceptible to being caught (prey catchability or vulnerability). So in evaluating the potential of the East to support a cougar population, white-tailed deer abundance becomes secondary to the cougar's ability to catch them!

This then raises the question of just how much "land of opportunity" for cougars is there in the eastern forests of the U.S. and Canada? The answer is, we really don't know! We have good estimates of the number and acreage of areas with low human and road density and high deer abundance, but these only tell us how much POTENTIAL cougar habitat there is. It cannot tell us if the vegetation in these areas provides adequate hunting habitat for cougars. If we assume that cougars re-colonizing the East, either "naturally" or released, will be edge hunters like their western relatives, their survival will depend on just how much edge habitat exists in these potential areas. Under the landscape of fear model, large tracts with low human and road density may not be well suited for cougars if they consist primarily of unbroken forest habitat. If we incorporate the ideas behind the landscape of fear/opportunity model, we could better define high quality areas based on cougar hunting behavior. To ignore the landscape of fear puts any restoration effort for cougars in the East in peril.



Figure 1: Observing Cougar



Sept. 7, 2006, outside of Denver. Only a few minutes earlier, a cougar seized one of the does and dragged it up the hillside (insert). Probably it had taken advantage of shrubs in its successful stalk. The fearful deer will remember this incident and may avoid the vicinity in the future. For the rest of this remarkable sequence, visit Ramon Bisque's website, <http://www.bisque.com/ramon/cougar/Cougar%20Kill%20Photos.pdf>. Here you can order a copy of Bisque's book LIONS OF THE LYON, which describes the many close-up cougar encounters that he and his neighbors in Golden, Colorado, have had over the years.

An Overview of Livestock Depredation by Cougars

Julia B. Smith

Among the conflicts between humans and large predators, livestock loss is the most severe and is the main reason these predators have been eliminated from much of their original ranges¹. In fact, mortality of predators perpetrated by antagonistic humans may be as significant a threat as habitat loss and fragmentation. Specialized to prey on wild ungulates, some felids will readily kill livestock if the opportunity is available. In Latin America, most adult felid mortality (75%) results from conflicts with humans². Here, large felids tend to range widely and their habitats are rapidly being deforested, so they are coming into contact with humans and livestock much more frequently. Cougars are blamed for livestock depredation in areas where their habitat overlaps with ranches and grazing land. In the western United States, most cougar mortality is caused by sport hunting; some state wildlife agencies promote hunting as a means of reducing attacks on livestock and humans³.

However, it is unclear how much livestock depredation is actually caused by cougars. Few studies of livestock depredation by cougars in the United States are available. In southwestern Utah a study aimed to quantify sheep losses sustained due to predation on ten ranches over a period of three years⁴. Predation accounted for 5.8% of total lambs docked (inventoried by ranchers) or 62% of the total lamb loss. Coyotes were deemed responsible for 94% of all sheep depredation, while bears, domestic dogs, pigs, and cougars were responsible for the remaining losses.

A more recent study in California analyzed incidents of livestock depredation by cougars from 1972 to 1995⁵. Cougar hunting had been banned in California in 1972, but in the same year the state began issuing permits to property owners to kill cougars involved in livestock depredation incidents after departmental verification of such events. During the 24-year study period, depredation incidents increased from 4 to 331. However, the human population also grew during this period from about 20 to 32 million people. When two women were killed in separate cougar attacks and two adults injured in another attack in 1994, requests for depredation permits increased by 73% (328 total permits issued), suggesting greater public concern about cougar attacks rather than a significant increase in livestock depredation. The number of permits issued in 1995 was similar in 1994. The number of permits issued during 1989 to 1993 (180 and 200 permits per year) had leveled off, suggesting that actual depredations were fewer.

Concentrations of livestock depredation by cougars were not associated with areas of higher human density⁵. However, pet depredation was more frequent in counties where livestock depredation was less frequent and human densities higher. Torres et al.⁵ suggested that pet depredation could be used as an indicator of cougar proximity to human development and potential public safety issues. This observation provides evidence that it would be beneficial to manage cougar populations regionally instead of statewide.

Studies on the Spider and Cross U ranches in Arizona⁶ showed that cattle comprised about 30% of cougar diets. Cougars strongly preferred calves and avoided mature bulls and cows. All the cougars in the study area appeared to feed on cattle at some point. Shaw⁶ hypothesized that the number of cattle predated by cougars was inversely proportional to the number of deer available. If more deer had been present, cattle losses may have fewer. Shaw also noted that only the southwestern states have a significant problem with cattle loss, with Arizona experiencing the most depredations, followed by New Mexico and California. However, sheep loss occurs throughout the western United States.

Ranchers are unwilling to support the conservation of animals that are responsible for their economic losses, but they may become more receptive if compensated for such losses. Economic compensation for livestock loss due to cougars has been suggested as an alternative to predator control systems⁷. Compensation programs are already in effect in fourteen states and four Canadian provinces⁸. In addition, Defenders of Wildlife, a private conservation organization, reimburses livestock owners for losses caused by grizzly bears in two and wolves in three western states⁸. In Colorado and Wyoming, total annual compensation amounts to less than \$50,000, but compensation is not paid unless the landowner allows hunting on the property⁹.

Pen designed by Mountain Lion Foundation to keep hobby livestock safe at night.



Conflicts between cougars and humans caused by livestock depredation are bound to continue as long as ranchers feel that cougars present a significant threat¹⁰. Cougars are definitely implicated in livestock depredation, but other animals such as coyotes and domestic dogs present far more danger to livestock¹¹. Further, livestock depredation is largely preventable by instilling more stringent livestock husbandry practices¹². Though some depredation is probably inevitable in areas where cougars encounter livestock, programs that compensate livestock owners are much more cost effective than those that call for eradication of offending animals¹³.

Humans created the conflict with cougars over depredation when they introduced livestock into cougar habitat, and it is our responsibility to solve the problem with an approach that is mutually beneficial. The issue of coexistence of cougars and humans is increasingly important as both human and cougar populations grow and cougars push eastward. More studies in the United States quantifying the impact of livestock depredation by cougars and public attitude surveys toward cougars must be completed in preparation for making future wildlife management decisions if cougars are to make a successful comeback.

Editor's Note: If viable breeding populations of cougars are to be restored to the central and eastern United States by natural recolonization or officially sanctioned reintroductions, fear of attacks on humans and livestock must be addressed. Julia Smith, a zoology major at Michigan State University in East Lansing, was the Eastern Cougar Foundation's intern in the summer of 2008. Under the direction of our Intern Advisor Dr. Marcella Kelly, she did a literature survey of livestock depredation and public opinions on cougars in the western hemisphere. This article is extracted from her research.

Literature Cited:

- ¹Mazzolli, Marcelo, Mauricio E. Graipel, and Nigel Dunstone. 2002. Mountain lion depredation in southern Brazil. *Biological Conservation* 105: 43-51.
- ²Michalski, F., R.L.P. Boulhosa, A. Faria, and C.A. Peres. 2006. Human-wildlife conflicts in a fragmented Amazonian forest landscape: determinants of large felid depredation on livestock. *Animal Conservation* 9: 179-188.
- ³Papouchis, Christopher. 2006. Living with lions: does sport hunting. mountain lions reduce attacks on people and livestock? http://www.pumaconservation.org/html/lwl_safety.html
- ⁴Taylor, R. G., John P. Workman, and James E. Bowns. 1979. The economics of sheep predation in southwestern Utah. *Journal of Range Management* 32: 317-321.
- ⁵Torres, Steven G., Terry M. Mansfield, Janet E. Folev, Thomas Lupo, and Amy Brinkhaus. 1996. Mountain lion and human activity in California: testing speculations. *Wildlife Society Bulletin* 24: 451-460.
- ⁶Shaw, Harley. *Soul Among Lions: The Cougar as Peaceful Adversary*. Boulder: Johnson Books, 1989.
- ⁷Verdade, Luciano M., and Cláudia B. Campos. 2004. How much is a puma worth? Economic compensation as an alternative for the conflict between wildlife conservation and livestock production in Brazil. *Biota Neotropica* 4: 1-4.
- ⁸Bruscino, M.T., and T.L. Cleveland. 2004. Compensation programs in Wyoming for livestock depredation by large carnivores. *Sheep & Goat Research Journal* 19: 47-49.
- ⁹Busch, Robert H. *The Cougar Almanac: A Complete Natural History of the Mountain Lion*. New York: Lyons & Burford, 1996.
- ¹⁰Franklin, William L., Warren E. Johnson, Ronald J. Sarno, and J. Agustin Iriarte. 1999. Ecology of the Patagonia puma *Felis concolor patagonica* in southern Chile. *Biological Conservation* 90: 33-40.
- ¹¹McCall, Karen, and Jim Dutcher. *Cougar: Ghost of the Rockies*. San Francisco: Sierra Club Books, 1992.
- ¹²Polisar, John, Ines Maxit, Daniel Scognamillo, Laura Farrell, Melvin E. Sunquist, and John F. Eisenberg. 2003. Jaguars, pumas, their prey base, and cattle ranching: ecological interpretations of a management problem. *Biological Conservation* 109: 297-310.
- ¹³Hansen, Kevin. *Cougar: The American Lion*. Flagstaff- Northland Publishing. 1992.

Wilderness Wildlife Week, Pigeon Forge, Tennessee--Jan. 10-15, 2009. A representative of ECF will speak on Thurs, Jan 15th, 12:30-1:30: "Bringing Back a Legend---Cougar Recovery in Eastern North America". The WWW is a major event attracting hundreds of nature lovers to the western edge of the Great Smoky Mountains National Park. Nearly 100 experts on nature and the great outdoors will host walks, hikes, seminars and lectures on a wide variety of topics, including Smoky Mountain history and plant and animal life. A number of Wilderness Wildlife Week programs are designed for children.

Wilderness Wildlife Week activities are offered free of charge. Music Road Hotel & Convention Center is the headquarters for the event. For a brochure outlining all the activities of Pigeon Forge Wilderness Wildlife Week, call 1-800-WINTERFEST or the Pigeon Forge Office of Special Events at (865) 429-7350. Or visit <http://www.mypigeonforge.com/winterfest-wilderness.asp>. A complete list of lectures, hikes, etc. is in "Class Listing."

ECF NEWS

Jay Tischendorf stepped down as ECF president on October 1st but his work on behalf of cougars of the East and Midwest has not ceased. He and our webmaster **Jim Solley** designed a new flier for ECF; ECF member **Brian Donovan** of EMD Systems of Fairfield, New Jersey printed them at cost. Jay flew from Montana to Pennsylvania in early October to join **Kerry Gyekis** at Hawk Mountain Sanctuary to give a PowerPoint presentation on cougars in the East to a capacity group on October 11th. **Ben Shrader** supplied a copy of the giant banner comparing the size of a cougar, bobcat, and housecat; he had originally designed it for the Outdoor Show in Bedford, VA in early March. Jay also found the time to write an article for the Nov-Dec issue of *A.T. Journeys*, the periodical of the Appalachian Trail Conference. You can read it online by Googling the ATC website. The ECF wants articles on the need for cougar restoration published in periodicals and newsletters read by environmentalists, conservationists, hikers, and naturalists. If you are a writer or researcher, please help.

Kerry Gyekis gave his 31st talk on November 12th at Schuylkill Center for Environmental Education in Philadelphia. Keeping ECF's changing focus in mind, he interspersed his standard presentation with questions and answers as well as introducing some extemporaneous material, so that the talk became a give-and-take affair that began before the presentation and continued after it—touching on everything from the results of the presidential election to hunting, public attitudes toward large predators, and habitat preservation. He came away feeling that the night had been a success. Kerry says his talk can be summarized thusly: *“It's not just about the cougar. It's about us and our survival also. Complete habitat is good for all of us....the cougar as a keystone species.”*

Julia B. Smith, a zoology major at Michigan State University in East Lansing, was ECF's summer intern. Working under the direction of **Dr. Marcella Kelly** of Virginia Tech, she did a literature survey of public attitudes and livestock depredation, focusing on South America, where Marcella has been doing research. The article on livestock depredation in this newsletter is a spin-off of that project. Julia is interested in doing a public attitude survey on cougars in the Midwest or East. *Are there any grant writers out there who would like to help us get the funding?*

Donations: Thanks to **Ben Shrader** and to the **Great Crested Trading Company** of Atlanta, GA (**Amelia Fusaro** and **Bill Everitt**) for generous donations in June.

Would you like to see **Your Name** in the next issue of the newsletter? Please donate your time, expertise and/or dollars to the ECF.

BREAKING NEWS: Cougar Killed in Georgia. We have learned that an adult male cougar weighing about 140 pounds was shot by a deer hunter on November 16th at West Point Lake near the Alabama state line. Kevin Kramer from the GA Dept. of Natural Resources reported that the cat had no tags or tattoos and its claws were intact. Its stomach and intestines were empty, but its thick subcutaneous fat layer suggested that it had been feeding well. From fat density, pad wear, and low traces of parasitism the DNR concluded that the cougar had been a former captive. The carcass was being kept at the Southeastern Wildlife Cooperative Disease Study unit in Athens, where the necropsy had been performed, and from which DNA samples had been sent out for analysis. A tooth had been extracted to determine its age.

Because the cat might have been a dispersing Florida panther, Chris Belden from the Florida Panther Recovery Unit, US Fish & Wildlife Service, has been in contact with Georgia DNR. Though cougars are not a protected species in Georgia, Belden says that Florida panthers remain on the state's federal endangered species list. The ECF feels that the questions raised about taxonomy in this incident highlight the need for clarification of the Similarity of Appearance clause in the Endangered Species Act.

For more information, visit ECF's home page. A full report will appear in the February 2009 issue of the *ECF Update*.

Cougar Advocates Meet

Helen McGinnis

Twenty-five cougar advocates from 16 states and British Columbia met at the Dumas Bay Centre in the City of Federal Way, Washington, on November 5th-7th. The conference was organized by Sharon Negri of WildFutures. Its goal: *Improving Our Prospects for Cougar Conservation: Clarifying goals, identifying problems, seeking solutions.* A facilitator and three experts joined us. At least two other participants have eastern or midwestern addresses, but I was the only person interested specifically in cougars in states and provinces without breeding populations.

Some of the advocates are employed by large NGOs (non-governmental organizations), while others have worked for decades essentially on their own. Most are paid by grants or salaries, but some, like myself, are volunteers. All seek more responsible management of cougars.

One common goal is greater protection for adult females. For most of her life, a female puma is either pregnant or caring for dependent kittens. Because they must acquire the skills to kill ungulates larger than themselves, cougar kittens are dependent on their mothers for at least a year. If a mother is killed, her kittens will starve. To spare females, hound hunters must know how to distinguish a treed female from a male. An online course in sexing cougars is now mandatory for Colorado. Another goal is persuading state agencies to include known human-caused mortalities, such as road kills, into their quotas for cougar hunters.

Conference participants were asked to share recent successes. Wendy Keefover-Ring of WildEarth Guardians reported one of the most notable. Thanks to her work, the New Mexico Game Commission agreed in early October to adopt a voluntary cougar-sex identification program--the second state, after Colorado, to do so. They will also limit the mortality of females at a 10% benchmark in each hunting zone. Once this percentage is reached, hunting will stop. The state also agreed to stop a cougar-snaring program that has been carried out in the Guadalupe Mountains since the mid 1980s. A trapper was being paid to kill 20 cougars annually at a total cost of close to one million dollars as a preemptive move to prevent possible sheep depredation. But over the past few years sheep production has declined 71% in that zone due to global economics.

All participants agreed on the need for protection of habitat and dispersal corridors linking suitable habitat, and some mentioned that such endeavors are likely to be more rewarding than wrangling with state wildlife agencies over cougar management policies.

When I told Sharon I would like to come, she told me she was uncertain if I'd be interested. I said I was sure I'd get ideas and inspiration to take back East with me. I was right. Here are the thoughts I took away with me:

- (1) The Eastern Cougar Foundation needs to focus its endeavors and campaign for reintroduction of cougars in the "Far East." We must also work to ensure the survival of dispersers and wild cougars of unknown origin in the East and Center, working with the state wildlife agencies to establish criteria to determine when a cougar is an actual risk to humans and when the likelihood of attack is exceedingly small.
- (2) Advocates of cougar recovery in the East and Center should start planning a facilitated conference using the Washington conference as a model. Until breeding populations are established, our focus must be different from that of cougar advocates in the West and in Florida.
- (3) Most of the individuals and organizations at the conference are funded by grants. The Eastern Cougar Foundation needs to pursue grants aggressively.

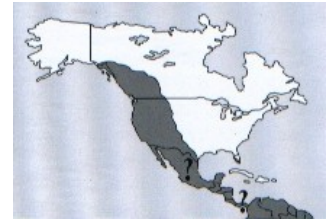
Thanks, Sharon, for envisioning and organizing this event and for the "scholarship" that paid my plane fare to the conference.



NEWS FROM THE BLANK SPACE

←Historic range of the cougar.

Range of the cougar ca. 1990→



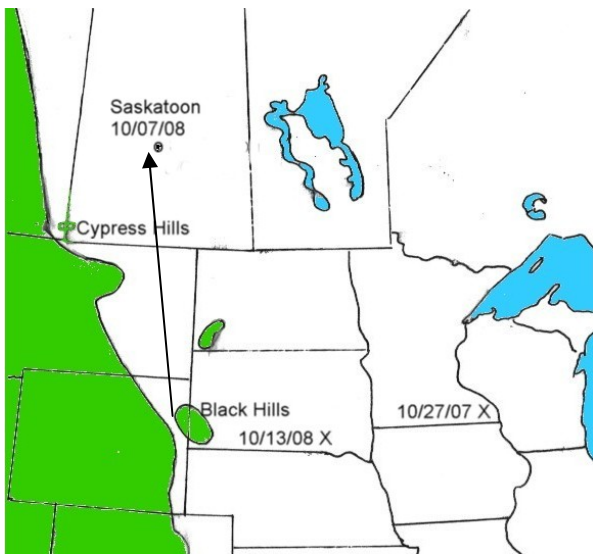
Maps of the cougar's range produced in the 1990s show a vast blank space in eastern and central North America—habitat that the big cat used to occupy before it was eliminated by persecution and near-elimination of its natural prey—the white-tailed deer. Above are maps from Kevin Hansen's 1992 book Cougar: The American Lion. The Eastern Cougar Foundation is dedicated to the restoration of cougar populations in suitable areas of the eastern portion of that blank space and advocates responsible management when they recolonize former habitat.

Saskatoon, Saskatchewan--Another Long Journey with a Sad End:

On October 7th John Rutherford was surprised to see a cougar lounging in his backyard within the city limits of Saskatoon. He called the police, who arrived and killed it. The dead cat, a male about 2 years old weighing approximately 120 lbs., was wearing a radio collar. It had been born in the Black Hills and collared as a kitten. According to Dr. Jonathan Jenks of South Dakota State University, the cat had last been located in the Wyoming section of the Black Hills in April 2008. It had thus travelled a minimum of 900 km (560 miles) from its birthplace. It was in good health.



As of November 2008, 81 cougars have been collared by students at South Dakota State. Jenks said that an estimated 90 per cent of young males disperse from the Black Hills.



Rutherford was dismayed that the police killed the cougar. If it had shown up under identical circumstances in a western state such as California and Colorado, it might still be alive today. Law enforcement officers can't be blamed for killing a cougar that is reported to them. Last month alleged cougar sightings were reported in North Bay and Pickering in southern Ontario. Stuart Kenn, President of the Ontario Puma Foundation, hoping to avoid another incident like the one in Saskatoon, talked with a police officer in North Bay, who said, "A police officer's job is to protect the public. We are trained in 'use of force' and we are not trained to use tranquilizers or any other means to remove any animal. If the public is at risk we can only do what we are trained to do—remove the danger." Then she went on to say, "If the public doesn't like our means of protection, then don't call the police to deal with the situation".

State and provincial wildlife agencies are further constrained because even if the chance that a cougar in a certain situation *almost certainly* would not attack a human, there is always a slight possibility that it would. If that happened, the agency might be sued. State wildlife agencies need to decide in advance on the circumstances in which a cougar is a definite risk to humans and when it probably is not. They would then have to communicate with law enforcement officers in towns where cougars have been reported, even if the sightings are likely misidentifications.

Minnesota: The Cougar Network has announced that a remote camera photo from extreme southeastern Minnesota, in Houston County near Brownsville, was confirmed as a cougar on October 30, 2007. To learn more and see the photo, visit the Breaking News section of CN's website.

South Dakota: An archer in Gregory County, in the southeastern portion of the state, far from the recognized breeding population in the Black Hills, was in a tree stand on October 13th. A cougar showed up. He attempted to frighten it off but it returned, so he shot it. It temporarily escaped, but the archer and friends returned with firearms and dispatched it. They then saw that it seemed to have other wounds. The SD Game, Fish and Parks department believes that it was the cat reported hit by a vehicle about a month earlier. The terrain is forested and rugged.

* * * *

—**AERIE Mountain Lion Tracking and Ecology Workshops, Tuesday-Friday, January 20-23 and February 3-6, 2009.**



A few more participants can be accommodated in these four-day field sessions in the Rocky Mountains of Montana—some of the continent's most spectacular wildlife habitat. They will be conducted by Dr. Jay Tischendorf DVM, who has studied cougars in Idaho and has worked with Dr. Maurice Hornocker.

Geared toward wildlife biologists, managers and other natural resource professionals, participants will learn puma search and survey techniques (i.e., transecting, camera trapping, trail- and road-hunting, etc.), as well the definitive and often times subtle characteristics of puma sign (tracks, trails, gait patterns, scat, scrapes, kills, etc.), including differentiation of the different sexes and age classes of the cat. Field time will be supplemented with personalized instruction and training on puma ecology and behavior, carnivore capture techniques, immobilization science and philosophy, safe animal handling, and depredation investigation.

For more information, visit www.easterncougar.org or email or call Dr. Tischendorf at Tischendorf@Hotmail.com; 406-453-7233; cell 303-328-8414.

Join the Eastern Cougar Foundation

Eastern Cougar Foundation

PO Box 300
Harman, WV 26270
www.easterncougar.org

President: Christopher Spatz
ChristopherSpatz@easterncougar.org
845-658-9889

Vice President: Kerry Gyekis

Newsletter Editor: Helen McGinnis
HelenMcGinnis@easterncougar.org
304-227-4166

Newsletter Distribution: Ben Shrader

Send your check to the Eastern Cougar Foundation (address above). Don't forget to include your address and email address. If you prefer, you can join online from our website.

Become a Virtual Member! Let us send your newsletters to you via the Internet. You will get your copies earlier and they will be superior, with color photos, *AND* you will be saving us postage and printing costs. Newsletters typically occupy 500-950 MB of computer space. Even if you want a paper copy, send us your email address anyway so we can send you alerts on issues affecting the recovery of cougars in central and eastern North America.

Membership Categories

	<u>Individual</u>	<u>Family</u>
Student	\$5	--
Regular	\$15	\$25
Igmutaka*	\$25	\$35
Klandagi**	\$50	\$75
Catamount	\$100	\$150

*Lakota word for cougar

**Cherokee for cougar (Lord of the Forest)