

## Testimony

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**H.R. 1464, The Great Cats and Rare Canids Act of 2007**

Committee on Natural Resources, Subcommittee on Fisheries, Wildlife & Oceans

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Madame Chairwoman, Members of the Subcommittee: Thank you very much for the opportunity to come before the committee again to discuss the importance of the Multinational Species Conservation Funds, and in particular to comment on the *Great Cats and Rare Canids Act of 2007*. I would also like to extend my great appreciation to Representatives Tom Udall, John Tanner, Hal Rogers and Ed Royce for championing this bill in the last three Congresses and to the long list of Members of Congress who cosponsor this important piece of legislation.

My name is Dr. Joshua Ginsberg and I am the Vice President of Conservation Operations at the Wildlife Conservation Society. I have served as Deputy-Chair of the Canid Specialist Group of the Species Survival Commission (SSC) of the World Conservation Union (IUCN) and was the lead author on the first IUCN Action Plan for Canids in 1990. I have extensive field experience working on African wild dogs and was a co-author of IUCN Action Plan for African wild dogs. As Director of the WCS Asia program, I helped make the Wildlife Conservation Society's portfolio of tiger conservation projects the largest field-based conservation program for tigers, and co-authored *Setting Priorities for the Conservation and Recovery of Wild Tigers: 2005–2015*, which establishes conservation priorities for tigers across their range.

I am here today to represent the views of the Wildlife Conservation Society (WCS), a US-based membership organization, founded in 1895. The Wildlife Conservation Society saves wildlife and wild lands around the world by understanding critical issues, crafting science-based solutions, and taking conservation actions that benefit nature and humanity. We manage the world's largest network of urban wildlife parks led by our flagship, the Bronx Zoo. WCS has a long history of field conservation, and the largest professional field staff of any international conservation organization - with nearly 300 field projects and 2500 staff in 60 countries across the Americas, Asia, and Africa. We have a keen interest in protecting the 13 species addressed in the *Great Cats and Rare Canids Act*.

WCS is proud of its commitment to work in some of the most remote and difficult places on our planet. We partner with a wide array of actors including local communities and indigenous peoples, national governments, local, national, and international NGOs, universities and research institutes. We are also proud to be working with the Government of the United States through whom we have developed partnerships in countries around the globe.

With respect to *the Great Cats and Rare Canids Act*, I would like to thank Chairwoman Bordallo and the Subcommittee, for recognizing the importance of protecting wildlife in lands beyond our

own borders. Charismatic species like Lions, Cheetahs, Ethiopian wolves, African wild dogs and the nine other species mentioned in this bill are culturally important, iconic and inspiring wild animals. They inspire people in the countries in which they occur, and are inspirational and iconic to many Americans. *The Great Cats and Rare Canids Act* will create a new fund modeled after the highly successful Multinational Species Conservation Funds, efficiently run through the U.S. Fish & Wildlife Service, that will provide timely direct financial support and leverage to high priority field efforts. I therefore urge this Congress to pass this bill and help protect some of the rarest, most threatened and ecologically important species of cats and canids. Their loss would be a diminution of our biological richness, our natural heritage, and our own spirits.

Key threats to these charismatic carnivores include:

- Habitat loss: Many large predators require large parks and reserves – or areas with very low human population density – to survive. More directly, as human populations expand and impact diverse ecosystems – something WCS has described as the “Human Footprint”, these animals are among the first to disappear. Core conservation strategies are also challenging and sometimes insufficient to ensure long term persistence of these species, as many of them range widely in national parks and other protected areas.
- Disease: Wild canids and felids are susceptible to the same diseases as our domestic dogs and cats. Rabies and distemper have decimated the Serengeti lion and African wild dog populations. Repeated rabies epidemics threaten the world’s rarest canid– the Ethiopian Wolf – with extinction.
- Loss of prey: Cats need cat food, and dogs need dog food. But wild canids and felids both eat things that are also highly prized by people, and this means that wild prey have been depleted by human hunting. Hence, loss of prey for wild carnivores is a global concern.
- Direct persecution: Outside of protected areas, lions have nearly disappeared from many areas across Africa because they are shot, speared and poisoned. African wild dogs are often killed on sight despite little evidence that exists that they are a threat to livestock. Snow leopards are persecuted where native prey have been reduced or eliminated.

The natural habitats of many of the 13 species in the *Great Cats and Rare Canids Act* are located in countries with extreme poverty, some of the highest human population growth rates in the world, limited economic opportunities, and rapidly changing political systems. This creates tremendous pressures on both people and natural resources. Recent reports reveal populations of all of these species are sharply declining and their historic ranges contracting. Two decades ago, WCS started the first efforts to save the Ethiopian wolf. These efforts met with initial success, but early improvement in population numbers were compromised by new threats – specifically increased prevalence of rabies and distemper borne into the area by domestic dogs. While direct intervention has helped stave off extinction, their populations have declined to crisis levels and fewer than 500 individuals exist today. In 2002, WCS and the Zoological Society of London began an initiative to save the Amur Leopard whose population is down to 40 individuals in the Russian Far East. Low population numbers have led to worries of inbreeding; hence habitat restoration, direct intervention, population supplementation from captive bred animals, and other radical strategies are needed to save this charismatic animal.

In 1978, the distinguished writer, Peter Matthiessen, wrote a book entitled *The Snow Leopard* about his sojourns in the Himalayan Mountains with WCS Vice President for Science and

Exploration, Dr. George Schaller. Matthiessen chose the title because snow leopards are iconic of wilderness in Central Asia, living in the most remote and inaccessible areas. Yet declines in prey, and direct persecution of snow leopards that come into conflict with the livestock grazed in the upper pastures, mean that snow leopards are also threatened with extinction.

The great cats and rare canids described in this act, like all large predators, act as keystone species providing top-down regulation of prey, and initiating cascading impacts on smaller animals, even affecting the vegetation structure of entire ecosystems and, hence, creating habitat for other animal species. Due to their wide-ranging movements and need for large tracts of intact habitat, these species can be used to define entire functioning ecosystems. Because they are at the top of the food chain, and because they so often come into direct conflict with people, the presence and persistence of these species may be an excellent indicator of stability in the relationships between humans and wildlife.

The IUCN Red List process commonly assesses extinction risks to wild species. Both canids and felids are significantly more threatened than mammals on average. The proportion of cat and dog species that are listed as threatened by the IUCN is deeply disturbing: 50% of the felids and 30% of the canids are listed in the IUCN Categories of Threat. While, overall, the proportion of threatened species in the canid family is smaller than that of felids, a higher proportion of canid species (20% vs. 14% for felids) is placed in the highest categories of threat (Endangered and Critically Endangered) (Table attached). Furthermore, while reasonable data exist on all of the felids, 6 species of canids, or nearly 20% of the known species are listed by the IUCN as “Data Deficient.” Such a listing indicates that there is so little known about a species that classifying it is impossible.

Of the 37 wild felid species worldwide, all are currently recognized as species in need of protection under at least one of the following: the IUCN Red List; the Convention on the international Trade in Endangered Species of Flora and Fauna (CITES); and or the Endangered Species Act of 1973 (ESA). Of the 35 wild canid species worldwide, nearly 50 percent are recognized as in need of such protection with many listed on CITES because of the high and potentially unsustainable volumes of trade in their pelts. Of the 13 species listed in the Act, eight are listed in the Endangered Species Act, and a further four species have sub-populations or sub-species listed under ESA.

Big cats have been used in many areas as focal species for conservation planning. As a result, many cats, and tigers in particular, have received significant funding and conservation attention. Although comprehensive data on conservation investment are lacking, rare canids have fared less well. The only exception to this is the investment made in the conservation and reintroduction of the gray and red wolf in the lower 48 States. None of the other wild cats and dogs supported by this bill have received, individually or in the aggregate, this kind of conservation attention or financial support.

Whereas all 13 species listed in the *Great Cats and Rare Canids Act* face threats that range from habitat conversion and loss of food sources to illegal trade and disease, I wish to place emphasis on the greater conservation needs for canids. While my personal research has been on canids, I am not being overly biased to say that the 6 canid species mentioned in this bill are, overall, in

greater need of conservation attention. Big cats have been used in many areas as focal species for conservation planning because of their large area requirements, and have also received significant global conservation funding. Many of the canid species addressed by this bill have not had such attention focused on them. A study I co-authored in the journal *Science* in the late 1990's showed that because canids have greater spatial requirements than cats, they are therefore more likely to suffer local extinction. The range requirements of a pack of African wild dogs is 12 times that of a pride of lions; Asian wild dogs, or dhole, have home ranges five times as great as tigers living in the same areas. The take home message of this study is that land-use planning, and specifically the establishment of large, well connected protected areas, is critical for the conservation of all large predators, but is particularly important for canids as well.

That said, we must act to conserve both great cats and rare canids because doing so can address different conservation issues. The threats to the two families are not identical. For instance, canid species face greater disease risks; great cats are more often threatened by hunting for trade. This means that conservation measures funded and implemented for cats may not sufficiently address threats to dogs, and vice versa. Therefore it is important that the US Government support efforts to conserve not just cats, but these canid predator species.

## SPECIES PROFILES

### **Ethiopian Wolf**

The global population of the Ethiopian wolf (*Canis simensis*) is estimated at perhaps fewer than 500 adults. The species is one of the rarest mammals in the world. The range of the Ethiopian wolf has suffered a 98% loss. The species is endemic to the highlands of Ethiopia and prefers altitudes of 3,000-4,400 meters. However, these highlands are among Africa's most densely-populated agricultural areas and the resulting human, agricultural, and wolf conflict has been devastating to the wolf population. Historically the species covered over 500,000 square miles of habitat in the highlands of Ethiopia; today that area has been broken into seven small fragments, which combined are less than 7500 square miles. Habitat loss is the key historical reason for the decline of the Ethiopian wolf. In recent years, remaining small and isolated populations of this species have been decimated by rabies and canine distemper outbreaks, introduced to the Ethiopian wolf through domestic dogs.

Twenty years ago, WCS helped initiate the first systematic studies of the Ethiopian wolf, and developed a conservation strategy for the species. Over the years, the base of support for this program has expanded with an increase in leadership of Ethiopian nationals. For the last 15 years leadership of the work has been spearheaded by the Ethiopian government in partnership with the University of Oxford. However funding has never been adequate, and a need for greater intervention and new, creative approaches to conservation of this unique species is needed.

### **African wild dog**

There are fewer than 6000 adult African wild dogs (*Lycaon pictus*) remaining in the wild, with no more than six or seven populations numbering greater than one hundred adults. Over the past century, African wild dogs have been lost from over 90 percent of their historical ranges. They are now found in only 14 of their original 39 countries. The African wild dog has been listed as Endangered by the IUCN for over a decade, and while the rate of decline of the species has

slowed, and one population is expanding, others are still in decline. Active conservation of the species remains a priority across sub-Saharan Africa. African wild dogs are extremely susceptible to diseases carried by domestic animals, and other wild carnivores; this contributed to their ultimate local extinction in the Serengeti ecosystem. Their small size, relative to lions and hyaenas, makes them easy targets for these larger carnivores to steal prey. As a result, they tend to range widely to avoid habitats with large amounts of prey where competing predators are more abundant. A widespread misperception of African wild dogs as livestock killers is responsible for persecution of the species by farmers and pastoralists despite studies that have shown they prefer wild prey over livestock if livestock are well herded.

WCS supported my work on the conservation of the African wild dog in the late 1980's and 1990's in Zimbabwe, and has supported a number of other conservation projects across Africa. In 2001, WCS began supporting the work of my co-author on the IUCN African wild dog Action Plan, Prof. Rosie Woodroffe, in northern Kenya. Prof. Woodroffe, of the University of California, Davis, has developed a research and conservation program to develop strategies for coexistence of African wild dogs with people and livestock. Wild dogs became extinct in Laikipia and southern Samburu during the mid-1980s, but recolonized much of the area, and their numbers continue to increase. The regional population is currently nearly 300 dogs, but suffers from repeated outbreaks of rabies and occasional persecution.

Our support for wild dog conservation also includes field research in the Okavango Delta of Botswana which serves as an important source of water which has sustained the agricultural and pastoralist livelihoods of the local people for millennia. Because wild dogs range across Botswana and come into conflict with cattle farmers, particularly in areas bordering the Delta, it is of paramount importance to work with farmers and herders to reduce that conflict as much as possible. We continue to work in Tanzania and Zambia in conservation landscapes critical to wild dogs, and have recently begun work – again with the support of the U.S. Government – to rebuild the national parks and protected areas of the South Sudan, an area of great potential importance to wild dogs. WCS also is proud to have sponsored a series of workshops, in collaboration with the Howard G. Buffett Foundation, and the Cat and Canid Specialist Groups of IUCN/SSC that are establishing regional and national conservation strategies for both wild dogs and cheetahs across their range.

### **Dhole**

In Asia, there is no good estimate of the population size of the dhole (*Cuon alpinus*), but certainly it is unlikely that more than 10,000 adults persist, and perhaps population numbers are as low as 5000 adults in the wild. In 1985, I helped initiate a project that surveyed people across the African continent for information on the status of African wild dogs; no such effort has been made for dhole, so our knowledge of their distribution, and abundance, remains sketchy. We know that the historic populations in Russia, Mongolia, Kazakhstan, Kyrgyzstan, and Tajikistan have been wiped out. Dholes, or Asian wild dogs, can be found only in the forests of central, eastern, and southeastern Asia and India most likely has the largest dhole population. In countries such as Laos, Cambodia, and Vietnam, the conversion of forests has greatly reduced the amount of prey for dholes, forcing them to turn to other animals, such as livestock, for survival. A study in the Kanha Tiger Reserve in India reported that 16 out of 24 tagged dholes were poisoned by livestock owners.

WCS supported a long-term study of the last population of dhole in Java, Indonesia, and photo-trap surveys by WCS across Southeast Asia and Indochina have helped improve our understanding of the current distribution of the dhole. While little work is directly focused on dhole conservation, other organizations like the Wildlife Alliance, a partner of Wildlife Conservation Society, is working to strengthen the link between monitoring data and effective carnivore management in Khao Yai National Park in Thailand.

### **Maned Wolf**

The global number of maned wolves (*Chrysocyon brachyurus*) is again, poorly known, but estimates range between 4,500 and 10,000 individuals. A large portion of the remaining population is in Brazil. Habitat loss is the biggest threat to maned wolves. The Cerrado, the Savannah eco-region in Brazil where most of the remaining maned wolf population resides, has been reduced to 20% of its historical area due to agricultural expansion and deforestation. Maned wolves have become isolated making them more susceptible to many threats including disease and hunting. In partnership with the Noel Kempff Mercado Natural History Museum, and the Smithsonian Institution, WCS has studied maned wolves in Bolivia to determine their exposure to infectious agents and to gather much needed baseline information on health parameters of these species. Domestic dogs both transmit diseases to the wolves and compete for food.

### **Bush Dog**

The global populations status of the bush dog (*Speothos venaticus*) has never been systematically estimated. Historically, the range extended as far north as Costa Rica and as far south as northern Argentina. However, they are now only found in central and northern South America. Nonetheless, the Bush Dog has a large extant range, spread throughout the forests and wetlands of twelve South American countries. Habitat conversion is believed to be the primary threat to the bush dog. Repeated attempts to survey this species and to identify sites for a much needed ecological study have failed to find a population sufficiently large that such a study is possible. Immediate attention is needed to determine both the status, and the prospects, for this species.

### **European Gray Wolf**

Since the early 1950s, European gray wolves (*Canis lupus*) have been exterminated from all northern and central European countries. They now exist mainly in the former Soviet states in Eastern Europe. Due to conservation efforts starting in the 1960s, the species is slowly beginning to repopulate parts of Western Europe, and in particular, are recovering in Italy and colonizing parts of Switzerland and France. Currently eight European countries have a wolf population of fewer than fifty animals, only 11 have more than 500 animals, and only six have more than 1,000 animals. Historically gray wolves had one of the largest geographic ranges of any species. However, the species has suffered a 25-40% loss of habitat in Eurasia due to deforestation and human encroachment. Despite their relative rarity, European Gray Wolves are often characterized as 'pests.' As a result, many European countries have little or no legal protection for the species.

I wish to reiterate that wolf reintroduction in the lower 48 states is one of the few areas in which canids have received significant conservation funding. The canid species potentially supported by this bill differ, manifestly, from the North American gray wolf which is widespread and

abundant across Canada and Alaska, and increasing naturally in the Great Lakes and Rocky Mountains; the canid species in this bill are in decline across their range; they have suffered large range loss, and in some cases range loss so severe we can deem it range collapse; and their remaining populations are often small, and frequently under severe threat. Targeted funding to study, and support directed conservation action for many of these species is limited, and in most cases non-existent.

Despite this conservation urgency and the need for specially-tailored programs to conserve such species, there has been very little attention paid to them and hence local capacity is extremely limited. Programs funded under the current Multinational Species Conservation Funds have had a phenomenal impact on developing and supporting, such local capacity. This funding fosters local interest, generates local attention, and helps spark off a positive feedback loop encouraging conservation action on the ground around the world.

In the face of human pressures on wilderness, large cats are often one of the first species to disappear. Like canids, their wide-ranging movements and need for large tracts of intact habitat are at once a reason for their tenuous persistence in the world, but also a reason why these species can be used as an effective tool for conservation planning and the design of protected areas. The Wildlife Conservation Society's Great Cats Program (GCP) draws on our expertise to develop and implement innovative strategies for studying and protecting jaguars, tigers, lions, cheetahs and leopards. We also aim to standardize collection techniques on cats, and to answer important genetic questions that currently face cat populations.

### **Iberian Lynx**

The Iberian lynx (*Lynx pardina*) is considered the most endangered cat species in the world, with an estimated population of around 100 individuals remaining in its small geographic range, limited to Spain and Portugal. Today there are no more than 38 breeding females in the wild. The primary cause of the species' recent decline is the decimation of the rabbit population, the lynx's main source of prey, from disease and loss of habitat—it is believed that Iberian lynx suffered an 80% range reduction between 1960 and 1990. Although it has been legally protected for over thirty years, lynx are sometimes killed by traps, guns, or snares intended for other animals. While support for their conservation remains strong, the Great Cats and Rare Canids Act could help catalyze a more global approach to both *in situ* and *ex situ* conservation efforts.

### **Clouded Leopard**

The remaining global estimated population of clouded leopards (*Neofelis nebulosa*) is poorly studied, but rough estimates suggest that there are fewer than 10,000 individuals. They are found only in the forests of Southeast Asia and very little is known about their ecology. Deforestation and habitat fragmentation are the foremost threats to their continued survival. No sub-populations with more than 1,000 individuals are thought to remain. The clouded leopard is also threatened by poaching—it is widely hunted for its teeth and decorative pelt, and for bones for use in the traditional Asian medicine trade. It is also featured on the menus of some up-scale restaurants in China and Thailand. On the island of Borneo, where there are no leopards or tigers, the clouded leopard is the apex or dominant predator; recent work by the genetic lab of Dr. Steve O'Brien at the National Cancer Institute suggests that this population may constitute an entirely separate species as a result of its millennia of isolation from mainland populations.

## **Snow Leopard**

The snow leopard (*Uncia uncia*) inhabiting the mountain ranges of Central Asia is another highly endangered big cat. When natural wild prey become scarce, as is happening across much of the cat's range due to human hunting, disturbance, and over-grazing of the meager vegetation, snow leopards may turn to domestic livestock for food. This creates conflict with local herders, resulting in killing of snow leopards. Combined with illegal killing for skins and trophies, the snow leopard population is now perhaps as low as 4,000 to 7,000 animals across the cat's enormous range that stretches from the Himalayas of Nepal to the Altai Mountains of Russia. Due to their cryptic nature, large home ranges and low population densities it is extremely difficult to directly monitor snow leopard populations. Because of this, sign abundance as an index of snow leopard density is often used to indirectly monitor populations.

WCS has helped initiate a project which aims to independently estimate snow leopard density through a camera capture-recapture study and then compare results with sign abundance surveys and a simple predator-prey ratio model. Through this we hope to validate sign abundance as an index of snow leopard abundance and to develop a predictive predator-prey model. This will increase confidence in snow leopard monitoring techniques, ensure that population changes are detectable, and allow us to assess the value of interventions and see: do we have more snow leopards?

In collaboration with the International Snow Leopard Trust, WCS is presently at work in Kyrgyzstan – the Sary Chat Ertash Zapovednik and the Jangart hunting reserve and in the Tomur Protected Area in the Chinese Tien Shan. WCS' recent success at the Bronx Zoo was to welcome an orphaned snow leopard cub from Pakistan with the help of the U.S. State Department, U.S. Fish and Wildlife Service, the Pakistani government and other conservation groups, signifying global partnership and commitment to snow leopard conservation. As a world leader in the care of snow leopards, the Bronx Zoo will serve as a refuge for the cub until an appropriate facility can be constructed in Pakistan.

## **Lions**

For many years, conservationists thought lions, unlike tigers, would never face a serious conservation threat. They were abundant, widespread, bred easily, and could make a living eating almost any kind of large ungulate. Yet across Africa, lions (*Panthera leo*) and the other great predators are disappearing. In the last 250 years, lions have lost 80% of their range in Africa to people, and virtually their entire Asiatic range- now reduced to a tiny relict population of around 300 animals in India's Gir Forest. Across the whole of Africa, recent surveys suggest that fewer than 40,000 lions remain, primarily in national parks. There are now only 7 populations containing a minimum of 1,000 adults, all of them chiefly in parks. Lions are disappearing from areas outside of national parks where they kill livestock, especially where uncontrolled poaching has reduced their natural prey. Guns and poison are universally available in modern Africa, with the result that lions, leopards, cheetahs, hyenas, and wild dogs are heavily persecuted. Few parks are large enough to ensure the survival of these wide-ranging animals. Prides often wander across park boundaries and are poisoned when they resort to killing goats or cattle. Furthermore, parks are widely separated, and growing human populations make these widespread populations increasingly isolated.



Saving lion populations outside and between parks depends on three actions:

- 1) We need ways to protect livestock from predators,
- 2) We need biologically sound management of predator populations, and
- 3) Local people need to gain economic value from lions and other wildlife.

With these goals in mind, WCS is working with the Kenya Wildlife Service and the Laikipia Wildlife Forum to develop local and traditional predator conservation and management programs. Our studies have shown that, while traditional methods of livestock management are effective at reducing livestock losses, the development of new techniques may better serve the interests of the community and predator populations. We are working with commercial ranchers and traditional herdsman to identify weaknesses in their practices that can be improved at low cost. We have captured and released more than 100 lions, 65 of which have been radio-collared. A similar number of other large predators, such as hyenas, are also being monitored. Through radio-tracking, we are able to monitor the movements of the predators as well as the effects of human activities upon them. We are also collecting data on diet, group size, reproduction, causes of mortality, and habits of “well-behaved” lions as well as chronic livestock raiders. We are also monitoring the health of the population by screening for a variety of carnivore diseases. In Partnership with the Panthera Foundation, WCS is now applying these models and lessons across the range of the lion in ‘Project Leonardo’ a new initiative that aims to stem the decline of the African lion across its diminishing range

### **Cheetah**

The world's fastest land animal, the cheetah (*Acinonyx jubatus*) can reach speeds of more than 60 miles per hour in pursuit of its prey. But speed alone is not keeping cheetahs ahead of the threats that face them. Once widespread across Africa and Asia, the cheetah has become vulnerable, largely because of loss of habitat and human persecution and is found in low densities in sub-Saharan Africa. They are virtually gone from Asia, with perhaps fewer than 100 individuals in a single population in Iran. The global population of cheetahs has been estimated at less than 10,000 individuals. The species has suffered a 77% loss of historical habitat, and lost over 95% of its range in Asia. The principle threats to cheetahs are loss of habitat and direct persecution. Although cheetahs prefer wild prey over livestock, a misconception about the species as predators has led to their persecution by pastoralists and game-farmers.

In collaboration with the Zoological Society of London, WCS has conducted extensive research on Tanzania's cheetah populations, particularly in the world-famous Serengeti National Park, where studies of individual cheetahs date back to 1975. Now, researchers are enlisting the park's visitors and visitors across Tanzania, to help keep track of its cheetah population, in much the same way that ornithologists use photos and information from "citizen scientists" to monitor trends in bird populations. Because a cheetah can be identified by its spots, much as a tiger's stripes are unique, a photo taken by a tourist, coupled with the time and location, can provide scientists with valuable insights about how cats use their environment. For example, this project has revealed movement of individual cheetahs between Tanzania's parks, focusing conservation attention on critically important habitat corridors that will help maintain viable populations in future decades.

The Asiatic cheetah is on the verge of extinction with small populations remaining only in the Islamic Republic of Iran. The total number is unknown, but is likely between 50 -100 individuals. Iran considers the cheetah an important part of its natural and cultural heritage and as such has become a symbol of its conservation efforts, not only of that species, but of the environment as a whole. Because the future of the cheetah is so precarious, Iran's Dept. of the Environment (DOE) launched a major initiative in conjunction with the UNDP-Global Environment Facility, and with the assistance of WCS, to save the cheetah, its habitat, and prey. Under license from the Treasury Department's Office of Foreign Asset Control (OFAC) Drs. George Schaller, Luke Hunter, and other colleagues have assisted the DOE in implementing emergency measures to mitigate threats including preventing the killing of cheetah and ungulate prey species, the scientific planning of protected areas, the increase of staff and equipment for protected areas, and the control of livestock numbers and overgrazing in protected areas.

### **Jaguars**

For millennia, jaguars (*Panthera onca*) have served as potent cultural icons for many indigenous American people from the Mayans and Incas, to the Guaraní Indians of the Gran Chaco. Less than 50,000 mature jaguars exist in the world today. Wherever the jaguar lives in close proximity to people, it has generally been persecuted as a threat to humans and their livestock or pets. Yet only a few scientific studies have actually tried to assess how often jaguars prey on cattle.

Research suggests that healthy jaguars can range close to livestock without preying on them. Jaguar predation in some parts of Brazil accounted for only a small percentage of cattle mortality; most died from drowning, disease, and starvation. Part of the Wildlife Conservation Society's Jaguar Conservation Program (JCP), led by my colleague Dr. Alan Rabinowitz, focuses on working with ranchers to reduce predation on cattle by jaguars. Jaguars formerly faced intensive human hunting for the fur trade. In the late 1960s, the fur trade shifted to the cats of the Amazon region having depleted populations of large African and Asiatic cats and several thousands of jaguars were killed in a few months. The 1973 listing of jaguars in Appendix I of CITES, making it illegal to trade their skins or parts for commercial gain, has effectively helped reduce the trade in jaguar skins and reduced the pressure on jaguar populations in the wild. However, our findings indicate that over 2 million square kilometers or 31% of the jaguars' current range was threatened by indiscriminate killing of jaguars despite existing national and international legislation.

At the Second Mesoamerica Protected Area Congress held in Panama, environment ministers representing the seven nations of Central America and Mexico agreed to expand the region's network of protected areas and wildlife corridors to safeguard jaguar populations. WCS's commitment to building jaguar corridors dates back to 1990, when Dr. Chuck Carr launched a project called the Paseo Pantera (Spanish for "path of the panther"), a network of protected areas and wildlife corridors that became known as the Mesoamerica Biological Corridor (CBM) in 1997. The renewed political support for this project offers new hope for the conservation of Central America's threatened wildlife. Jaguar conservation in the new CBM will aim to balance human needs, sustainable development, and the conservation of some of the earth's greatest biodiversity. WCS is pleased that our work on jaguar conservation in the region has been

supported by an environmental grant from the U.S. Government under the Central America Free Trade Agreement.

## **Leopards**

The remaining global leopard (*Panthera pardus*) population is estimated at over 50,000 mature individuals. However, some leopard populations, and some subspecies, are highly threatened. Forest leopard populations are declining due to prey depletion, direct hunting, and habitat conversion. Recent studies on tigers in India have shown that prey depletion can be the most important factor in reducing populations of large cats. Indeed, in areas of Central and West Africa where hunting for bushmeat is intense, leopard numbers appear to be rapidly declining. For example, although leopards once ranged throughout Nigeria, surveys conducted in the southeastern part of the country in 1997, revealed leopard signs in only 2 of 47 forest patches. Researchers report a similar situation in the rain forests of southern Cameroon, where leopards have disappeared from a number of protected areas within the past ten years. Comparisons of the results from the protected versus the hunted areas will allow us to document how the off-take of bushmeat from an area affects leopard population densities and the relative abundance of principal prey species, and to understand how leopards cope with the competition for prey with human hunters.

WCS is systematically surveying leopards in African forests as these animals are of vital ecological importance being the sole large mammalian predator in these habitats. It is often difficult to survey the secretive leopard. As a result, baseline knowledge of leopard ecology and responses to human disturbance in African forests remain largely unknown. To address this gap, WCS initiated the Forest Leopard Study in Gabon in 2000. The goal of the study is to accurately establish the status of leopards throughout the African rain forest belt for the first time

In the extreme northern part of the leopard's range, a rare subspecies of this cat lives in the temperate forests and harsh winters of the Russian Far East. Known as the Amur leopard, it is the most endangered big cat with only 25-40 left in the wild. In the north, extreme cold and deep snows prevented successful colonization and, in contrast, in the southern end of their range, the intensive development in China had destroyed leopard habitat. Thus, leopards occur only along the Russia-Chinese border, with the majority being found in Southwest Primorye, Russia.

WCS cooperates with Russian authorities, and the Zoological Society of London (ZSL), to increase the chance for this cat's survival in the region. Our research and conservation activities are focused on population monitoring, fire suppression in areas where habitat is compromised by habitat conversion, and working with local hunting groups, which are responsible for wildlife management, to identify ways to increase compatibility of human activities with leopard conservation. WCS and ZSL, both members of the Amur Leopard and Tiger Alliance (ALTA), are also working together to establish a wildlife health monitoring program in the range of the Amur leopard, and investigating the possibility of the reintroduction of captive bred animals from collections in Europe both to found new sub-populations, and to enhance the genetic diversity of the existing wild population.

In conclusion, on behalf of the Wildlife Conservation Society, I applaud the leadership provided by the U.S. government in protecting other iconic species such as tigers, rhinoceros, great apes,

elephants and marine turtles through the Multinational Species Conservation Fund. This has stimulated actions from the international community, local and national range state organizations, and range state governments to conserve these species. It has also allowed organizations like the Wildlife Conservation Society to leverage significant additional private and philanthropic support for their conservation efforts.

I wish to emphasize today that over 80 conservation groups, zoos and aquariums representing millions of Americans support the passage of *the Great Cats and Rare Canids Act*. This act authorizes \$5 million to help fund conservation projects across the globe. However, the actual need is far greater. The leverage potential for every dollar that the United States invests in conserving species covered by the Multinational Species Conservation Funds is three times as much with the help of private sponsorship and donations. A similar leverage potential exists with big cats and wild dogs.

The Wildlife Conservation Society is strongly supportive of conservation strategies that focus on individual species. We know that species-based approaches are appropriate on scientific grounds, rational on administrative grounds, and effective in field projects. In closing, the Wildlife Conservation Society urges the Subcommittee to move swiftly on this bill:

1. We strongly recommend the authorization of the *Great Cats and Rare Canids Act*
2. We, together with a number of other conservation organizations, strongly recommend maximum funding of this bill.
3. We strongly recommend that funds made available through this bill remain flexible in the range of conservation activities for which they can be used, including but not limited to, research, monitoring, planning, training, conservation education and on-the-ground implementation of conservation action.

The very survival of species like African wild dogs, Ethiopian wolves, jaguars, lions and nine other species addressed through this Act rests in the hands of our generation. Our world will be much poorer without these iconic species. Given the enormity of this responsibility, and the urgency of the need for increased conservation, we urge the Subcommittee and Congress as a whole to act quickly and positively on the authorization of this Act.

I thank you again for the opportunity to comment and to work with you on this critical piece of legislation. I would be happy to answer any questions.