



Samuel Johnson's
Dictionary of the
English language
(1755):

"Lion:

*The fiercest and most
magnanimous of the
four footed beasts."*

Donations can be made to
ALERT as follows:

African Lion and Environmental
Research Trust
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1. Latest Report from the Chief Operating Officer

These are exciting times for the Lion Rehabilitation & Release into the Wild Program!

On August 29th this year we will be releasing our first pride of lions into stage two of the program at the Dollar Block Reserve in Zimbabwe. The pride will be made up of two males and five females, who have all benefited from time out in their natural environment at Antelope Park and in Victoria Falls in stage one of the program. The release will be attended by ALERT & African Encounter staff as well as special invited guests including Sir Ranulph Fiennes, described by the Guinness Book of Records as “the world’s greatest living explorer”. A number of media agencies will also be covering the event.

Our staff have been working hard at the release site, and building work is right on schedule. The last few upright poles to support the double fence are being placed, water pans are being built and observation towers are being constructed for research purposes. Working with our consultant vets, and with advice from the Zimbabwean Wildlife Veterinary Service, the necessary vaccinations and disease testing is about to commence and the DNA testing has been completed by Jean Dubach at the Chicago Zoological Society.

On May 17th a scoping meeting was held in Livingstone as the start of an Environmental Impact Assessment (EIA) of our proposed release site in the Dambwa Forest in Zambia. The meeting, attended by government agencies, local communities and other interested groups, gave the chance for the various stakeholders in the Forest to air concerns about the intended development. These concerns will be considered within the EIA to negate or limit negative impacts and maximize positive ones. The EIA is being conducted by Envsol Consult. We plan to build 2 stage two and one stage three release site within the Forest. We hope to start work on the first of the stage two release sites later in 2007.

Applications have been made to the Zimbabwean government to export 19 lions to Zambia. This is the final part of the process before we can move the lions over, having already received the import permit from the Zambian government back in March of this year. We are working with the Zimbabwean government to ensure that they are happy with all the arrangements we are making for the transport of the lions as well as the conditions under which they will be kept once moved.

ALERT continues to thank all the supporters of the project that have helped us to get so far towards our goals.

David Youldon

ALERT Chief Operating Officer

The evidence is too great to deny that action must be taken now to ensure the future of the African lion

2. Why is it Important to Save the African Lion?



One of the greatest threats to global biodiversity is the degradation of ecosystems. The lion, *Panthera leo*, occurs in all African habitats and is therefore an important element of those eco-systems; its presence is an indicator of an area's wild and natural integrity.

Historically, lions were widely distributed in Africa from the Atlas Mountains of Morocco, to the Cape of South Africa, from the coastal regions of the Gambia and to the vast savannas of Tanzania, but their range has been dramatically reduced as more and more land is given over to agriculture and livestock to support an ever-growing population.

“There is probably no other species whose distribution range has shrunk over historical times to the extent shown by the lion” (Smithers, 1983)

Over 200,000 lions roamed the African continent as recently as 1975 but in 2002 two surveys provided evidence of a dramatic decline estimating that only 23 to 39,000 remain, with the lowest estimate being just 16,500. Many believe the number is even lower than this. This represents an 80 to 90% population decline in less than 30 years. It is widely accepted that the population has continued to decline in the subsequent years.

As one of Africa's “Big 5”, the lion is a flagship species for research, tourism and trophy hunting; a huge draw card for visitors from around the globe, helping to fuel the economies of Africa's developing nations.

The lion is also a powerful symbol, and its disappearance would represent a great loss for the traditional culture of Africa. Its name or image is used in coats of arms, heroic names of former kings, frescos, names of football teams, commercial products, proverbs and sayings.

Action must be taken now to ensure the future of the “King of Beasts”

3. What has caused the dramatic decline in the number of lions in Africa?

At the World Conservation Union Lion Strategy Workshop (see Appendix 1) in Johannesburg in January 2006 over 100 problems facing the African lion were noted, but can be categorized into three main areas:

1. First and foremost, it is the increase in human habitation and the consequent decrease in the area available for lions – and in fact, all wildlife species to live. Lions are now restricted mainly to large private conservancies, National Parks and Game Parks.
2. Illegal hunting, snaring and poaching of the lions and its prey species is rife across Africa.
3. Disease outbreaks such as Anthrax or Incurable Bovine Tuberculosis have the potential to decimate lion populations in these areas. Canine Distemper wiped out 1,000 lions in the Serengeti (one third of the population) between 1994 and 1997.



4. The African Lion & Environmental Research Trust - ALERT

The African Lion & Environmental Research Trust (ALERT) is a non-profit organization working with governments, wildlife authorities and private organizations to identify suitable release sites for African lions. ALERT will also provide infrastructure to those sites to facilitate the release and to protect local communities. It was founded in 2005 to support the work of the African Encounter Lion Rehabilitation and Release into the Wild Program.

ALERT also carries out scientific research through the Conservation Centre for Wild Africa (CCWA), either in its own right or in conjunction with external conservation organizations and educational institutions. CCWA engages in a diversity of research and conservation related programs, not just for lions but on a wide range of African wildlife to ensure that we can pass on balanced eco-systems to future generations.

In addition, the ALERT Communities Trust is a means to give back to communities bordering conservation areas such that they receive tangible benefits for supporting those conservation programs. A primary element of this is our community education and awareness program to further understanding of the importance and relevance of sound conservation practices. Local communities are involved in eco-tourism ventures related to the conservation programs, and money generated by those programs goes back into development schemes agreed as priorities with the local community, such as building schools or providing medical supplies.

ALERT Mission Statement

The African Lion and Environmental Research Trust (ALERT) is dedicated to the facilitation and promotion of sound conservation and management plans of the African lion (*Panthera leo*). In recognition of sharply declining lion numbers across the continent and with acknowledgement of the crucial role that lions play in the maintenance of diverse ecological systems and related income-generating ecotourism ventures, ALERT will:

- In consultation with governments and wildlife authorities, determine research needs for lions in protected areas across Africa. Research will include, but not be limited to, assessments of population numbers and trends, disease prevalence, reproductive parameters, and suitability of prey base.
- In further consultation with governments and wildlife authorities, determine which protected areas have been depopulated in terms of lion numbers in the past, assess the suitability of such areas for reintroduction programs, and enable reintroduction of lions with the best information and scientific expertise available.
- Conduct specific research into means and modalities of lion rehabilitation and release using a staged program for lions raised in captivity.

- Ensure with the best available expertise that lion reintroduction programs are conducted with cognizance of population genetic trends and genetic diversity, animal health, animal ethics, and international veterinary standards.
- In conjunction with local communities and government agencies, assist in the identification of ecotourism ventures that will provide sustainable activities to benefit and promote community participation and economic empowerment, maintain biodiversity, and conserve land mentioned above.
- Disseminate results from reintroduction programs to enable independent scientific assessment of progress and achievement.
- Make public the aims, intentions, progress, and financial needs of research and reintroduction programs, and to raise necessary funding to conduct programs relevant to local communities, local and national governments, and international conservation concerns.
- Conduct research and reintroduction programs with lions to the highest scientific standards by collaboration and consultation with national and international centres of scientific expertise and excellence.
- Promote secondary and tertiary education opportunities for community members and national wildlife agency officers to ensure the longevity and continuity of programs, and to ensure the relevance of programs to local and national needs.
- Facilitate wildlife education programs at the primary school level in specific regions of activity to ensure relevance to future generations.
- Reserve the flexibility to engage in a diversity of research and reintroduction programs of other African predators, such as but not limited to African Wild Dog, jackal, hyena, caracal, serval, cheetah, leopard, etc.
- Reserve the flexibility to engage in research, conservation and education for any of Africa's wildlife for the benefit of all Africa

The evidence is too great to deny that action must be taken now to ensure the future of the African lion

5. Conservation Status of the African Lion

Lions (*Panthera Leo*) are listed in the Convention of International Trade in Endangered Species (CITES) Appendix II and are regarded as 'vulnerable' by the International Union for the Conservation of Nature (IUCN) Red List [Version 3.1 2001].

Historically, lions were distributed throughout the Mediterranean, the Near & Middle East as far as India, and all of Africa. Lions were eliminated from their last European stronghold of Greece by 100 A.D., but survived until the 20th century in Syria, Iran and Iraq; the Asiatic lion now only exists as a population of around 300 in the Gir Forest of India. In Africa, the last wild Cape lion of South Africa was shot in 1865 and the last Barbary lion of Northern Africa was shot in 1942.

Myers (in 1975) wrote, "Since 1950, their numbers may well have been cut in half, perhaps to as low as 200,000 in all or even less". Later, Myers (1984) wrote, "In light of evidence from all the main countries of its range, the lion has been undergoing decline in both range and numbers, often an accelerating decline, during the past two decades". In the 1990s, IUCN/SSC Cat Specialist Group members made "guesstimates" of 30 to 100,000 (Nowell & Jackson 1996).

Two recent surveys provided the first current estimates of the African lion population, with some ground-truthing. The African Lion Working Group, a network of lion specialists affiliated with the IUCN/SSC Cat Specialist Group estimated a population of 23,000, with a range of 16,500 - 30,000 (Bauer and Van Der Merwe 2004 from data collected in 2002). The second survey carried out by Philippe Chardonnet estimated the larger figure of 39,000 lions in Africa, with a range of 29,000-47,000. (Chardonnet 2002).

Summary of the most recent lion population estimates for sub-Saharan Africa:

Area	Minimum		Maximum		Estimate	
	Bauer & Van Der Merwe, 2004	Chardonnet, 2002	Bauer & Van Der Merwe, 2004	Chardonnet, 2002	Bauer & Van Der Merwe, 2004	Chardonnet, 2002
West Africa	450	968	1,250	1,358	850	1,163
Central Africa	500	2,092	1,550	3,538	950	2,815
East Africa	8,000	11,268	15,000	18,811	11,000	15,744
Southern Africa	7,500	14,526	12,500	23,425	10,000	19,651
Total	16,500	28,854	30,000	47,132	23,000	39,373

Many leading specialists in the field believe that lion populations may well have fallen further.



6. Supporting the African Encounter Lion Rehabilitation & Release into the Wild Program

African Encounter Mission Statement: Conservation of the African Lion

- Through researching the reintroduction into the wild of the wild-borne offspring of rehabilitated captive bred lions
- Through working with all interested stakeholders in the above
- To ensure balanced ecosystems for the benefit of future generations

The reintroduction of lions into their natural habitat is very difficult, and previous attempts have had limited success. There are several reasons to explain this: the animals were not given pre-release training, their dependence on humans was not curtailed, they were released as individuals with no natural pride social system and that they had no experience of predatory or competitive species.

To overcome these problems, African Encounter developed a 4 stage rehabilitation & release program in 1999 at Antelope Park in Zimbabwe and has since then been actively researching the breeding and rehabilitation of lions. Its aim is to provide a reserve pool of lions that can be re-introduced into areas where lions once used to roam freely and where conditions still exist to support those re-introduced lion populations:

Stage One

In stage one, cubs born in our breeding centres, are removed from their mother at three weeks old. We take the place of dominant members of their pride and train them to the point that they are safe for us to walk with.

The young cubs, from six weeks old, are taken out into the African Bush as often as possible in groups, accompanied by experienced handlers and volunteers. The lions are given every opportunity to build their confidence in their natural environment both during the day and at night. As their experience grows they start to take an interest in the game species they encounter on the walks and by the age of 18 months are able to stalk and bring down many of the smaller and young antelope.

By 2 years old the lions are already seasoned hunters, and we give them plenty of opportunity to hone their hunting skills.

Stage one is already being carried out at a number of different locations and allows eco-tourists to be a part of the rehabilitation program by attending the lion walks, conducting research and raising funds which are ploughed back into the program.



Stage Two

In stage two the lions are given the opportunity to develop a natural pride social system in a minimum 500 acre enclosure. They have plenty of game to hunt, and their progress is monitored closely, however all human contact is removed. Lions remain in stage 2 until such time that the pride is stable and self-sustaining.

Prior to release into stage 2 the lions are radio-collared, micro-chipped for identification, DNA & disease tested and vaccinated.

Stage Three

In stage three the lions are radio collared and translocated as a pride of between 5 and 10 lions into a managed ecosystem of a minimum 10,000 acres, where:

- there are no other lions or resident human beings
- there are sufficient prey species for the lions to hunt and survive on.
- there are competitive species such as hyena

The lions in Stage 3 will give birth to cubs, which will be raised by the pride in the managed ecosystem, which is very close to their natural environment. These lions, born in Stage 3 will develop the skills that should enable their re-introduction into appropriate game reserves, conservancies and National Parks across the African continent.

Stage Four

In stage 4 lions born in stage 3 can be released into the wild in several natural social groups as required by the needs of the release area. We are able to provide:

- self-sustaining mixed gender prides
- female only groups that can be integrated with existing wild prides
- male only coalitions to add gene flow to an existing wild population.

7. Ambassadors for African Wildlife & its People

All four stages of the rehabilitation program will have the potential to generate much needed income for the lion project and other wildlife conservation programs through the Conservation Centre for Wild Africa and ALERT Communities Trust. Hence, the lions themselves will also be a fundraising ambassador for Africa's wildlife and its people.



8. Rehabilitation Program Progress

Stage One Progress

Stage one of the rehabilitation program has been underway since 1999 at Antelope Park and since June 2005 in Victoria Falls in Zimbabwe.

We have, through our sister organization African Impact, been taking self-funded eco-tourists on our lion programs (as well as other conservation & community programs in various African countries). Since the start of the eco-tourist program, and the resulting additional time that we are able to keep the lions out in the Bush on any day, we have seen a marked improvement in the lions' confidence and their hunting skills. (Visit www.africanimpact.com for more information). In addition, with our consultant ecologists, and the help of the eco-tourists out with the lions we have been able to greatly improve our research efforts.

We intend to open a further stage one site within the Mosi-oa-Tunya National Park at Livingstone in Zambia. Confirmation that we can commence this activity was provided by ZAWA on 27th October 2006, and the import permit to move the lions to Zambia was given on 7th March 2007. Applications have been made to the Zimbabwean government for the required export permit. We have already built one enclosure and are in the process of raising funds to finance additional enclosures.

Four lions will be taken to Zambia to start stage one;



Mana



Musasa



Luangwa



Lozi

A further six lions are being taken for the breeding program;



PK



Puma



Cheeky



Emma



Lulu



Maximus



Stage Two Progress

Building for a 1000 acre stage 2 at Dollar Block in Zimbabwe is almost complete with an intended completion release date of 29th August 2007.

We intend to build a further 1500 acre stage 2 release site at the Dambwa Forest in Livingstone, Zambia, the timing of which will depend on available finance, however we hope to complete this in early 2008. A further 500 acre stage 2 release site, also in Dambwa Forest, will be built in 2008.

All African Encounter Lions (except our most recently born cubs) have been DNA tested in conjunction with Dr. Jean Dubach at the Chicago Zoological Society, and have been vaccinated and micro-chipped for identification purposes by our consultant vets.

The release pride for stage 2 at Dambwa Forest is confirmed as;

Cleo, Elsa, Ariel, Mickey, Milo, Paka, Amy, Athena & Melanie





The release pride for stage 2 at Dollar Block is confirmed as;

Maxwell, Luke, Mampara, Muti, Kenge, Ashanti, Phyre



In addition, two all male coalition prides will be released into stage two locations when funds become available. These are confirmed as:

Apollo, Kwezi, Achillies & Phoenix, Mamba, Mambo, Penduka





Stage Three Progress

Two sites have been confirmed for a stage three release; the Dambwa Forest in Livingstone, Zambia and Dollar Block in Zimbabwe. These releases will proceed in 2008 subject to available finance. Further sites are under consideration and will be announced shortly.

The Dambwa Forest Release Site - Zambia

The Dambwa Forest release site is 10,000 acres of land located just outside the town of Livingstone in Zambia. 3 km from the Zambezi River it has a 4 km long border with the Mosi-oa-Tunya National Park. The spray from the Victoria Falls and parts of the Zambezi River can be seen from most high lying areas of Dambwa Forest.

The area comprises uninhabited indigenous forest area, combined with undulating open savannah grasslands, however at present it is denuded of game species.

The land is owned by the Zambian Forestry Commission and leased to ALERT for a renewable period of 25 years for a lion release under stage two & three of our rehabilitation program.

The application to lease the land was confirmed and signed on August 10th, 2006 at a ceremony attended by ALERT trustee Mr. Andrew Conolly, along with members of the Zambian Forestry Commission, Wildlife Authority and the Zambian Ministry of Justice. The period from application to signing is the fastest confirmation of a conservation project in Zambia's history.

Dambwa Forest currently has no game species for the lions to hunt, so applications have been made to the Zambian Wildlife Authority to restock the area with a wide range of species that historically occurred in the area, turning it into a complete mini-ecosystem.

The Dollar Block Release Site – Zimbabwe

Dollar Block is a reserve of 64,000 acres located between Bulawayo and Gweru. The reserve is full of game including elephant, leopard and many types of antelope. The reserve was bought in 1996 and is part owned by Peter Cunningham with a group of Indonesian investors.

The reserve is currently used for ethical, sustainable, monitored hunting as part of the reserves game population management policy. Hunting also brings in revenue necessary to secure the long term survival of the abundant game in the park. The owners are seeking to remove hunting practices, made possible by additional revenue from tourism brought by the presence of lions. By turning the reserve into an internationally acclaimed Big Five reserve, the presence of more predators will also allow for population control through natural means rather than hunting.



Antelope Park and Dollar Block first cooperated in 1997 when a number of lions were given, the offspring of which can still be found at Antelope Park. The lions given to Dollar Block are held captive at present, but the hope is that they will also be released back into the wild as part of the program.

Dollar Block currently has a perimeter game fence, and unusually, no internal fencing except for an electrified buffalo area which was for an abandoned plan to introduce disease-free buffalo. This area, located right in the centre of the reserve will form the basis for the stage 2 lion release. At the right time, lions will be released into the wider reserve as stage 3 of the release program.

Our lions will never be used for hunting of any kind.

Stage Four Progress

Release of lions into stage four is some ways off, however we have much interest from governments & private reserves in Zambia, Malawi, Mozambique and Zimbabwe, as well as other countries interested in restocking areas that have lost their lion populations.



9. African Impact



Eco-tourists from all over the world visit Antelope Park and Victoria Falls to help with the ALERT & African Encounter Rehabilitation & Release into the Wild Program. They also assist the research and conservation efforts of the Conservation Centre for Wild Africa and the community programs of the ALERT Communities Trust. These eco-tourists, who have been vital to the sustainability of the project, remain for a period of between three weeks and three months.

The eco-tourists not only contribute by providing their time to help with activities but also contribute to the projects through the fees they pay, which not only cover their living costs but also provides a donation to the program. These eco-tourism opportunities will continue throughout all stages of the program to generate much needed funding.

Activities undertaken by eco-tourists whilst on the project include:

- Lion walks to ensure the lions in Stage 1 get as much time as possible in their natural environment.
- Record data on lion walks and at feeding times on lion behaviour for research purposes.
- Cub feeding/meat preparation
- Enclosure cleaning
- Fence making and preparing poles for new enclosures and stage 3 sites
- Boundary patrol and snare sweeping
- Game counts

Eco-tourists are attracted from all over the world, from all walks of life and of all ages. They include gap year travellers, students, career breakers and helping holidaymakers.

For more information on these and other eco-tourism programs visit www.africanimpact.com



Appendix 1: World Conservation Union Lion Strategy Workshop

Andrew Conolly, owner of African Encounter and trustee of ALERT attended the World Conservation Union Lion Strategy Workshop in Johannesburg in January 2006. The global headline grabbing conference was attended by conservationists and academics from around the world, including: Chairlady of the Specialist Species Group, President IUCN southern African region, Chairlady, IUCN Cat Specialist Group, Chairman, African Lion Working Group, Acting Director General Zambian Wildlife Authority and the Chairman of the Born Free Foundation.

“After spending three long days with conservationists and academics, literally from across the globe, for us the most striking point was that the future of the African lion is extremely bleak.” “When I spoke to a couple of the conservationists as to why proper and professional counts of lions were not conducted across the African continent, the answer I received was 'BECAUSE EVERYONE IS TOO AFRAID TO FIND OUT HOW MANY LIONS ARE REALLY OUT THERE'. If they really knew the numbers and distribution of the remaining lions in Africa, then the lion would immediately be placed on the endangered species list. The upgrading of the lion from vulnerable to endangered would immediately put in question a great deal of the wildlife management policies presently in place and supported by conservation organizations and governments.” “We believe that we were able to play a part in formulating the goal statement issued at the end of the workshop, which is "TO SECURE, AND WHERE POSSIBLE, RESTORE SUSTAINABLE LION POPULATIONS THROUGHOUT THEIR PRESENT AND POTENTIAL RANGE WITHIN EASTERN AND SOUTHERN AFRICA, RECOGNIZING THEIR POTENTIAL TO PROVIDE SUBSTANTIAL ECOLOGICAL, SOCIAL, CULTURAL AND ECONOMIC BENEFITS." We felt that we were able to play a part in the "RESTORE" section of the goal statement. This is obviously where the ALERT & African Encounter rehab program will play its biggest role.” Andrew Conolly

Some interesting facts that came out of the workshop:

- 70% of lion population estimates have a 40% error
- Conservationists admitted the off take of lions could be double that of current estimates - the extra unaccounted for animals being taken off by local hunting, illegal hunting and illegal trade in trophies, skins and body parts
- There have been drastic increases in lion poisoning in large parts of Kenya and East Africa in general
- The attitude of many indigenous people throughout Africa is, "Kill all the lions". This is understandable when one considers that the indigenous people derive very little benefit - if any - from trophy hunting of lions. Yet it is these same people who suffer major losses to livestock and even their own lives.
- Wildlife management policies in Africa are highly political. As such the policies are not always rational. Decisions such as allocation of land for agriculture, hunting etc often take precedence over allocation of land for wildlife conservation. Obviously the former would win a lot more votes.
- Over 100 problems facing the African lion were noted: agricultural development, politics, disease, illegal hunting, poaching, cub and lion body parts trading, over population of elephants which cause destruction of vegetation for lion prey species etc etc etc



Appendix 2: Frequently Asked Questions

Are the numbers of lions in Africa really threatened?

Estimates on lion populations left in Africa vary enormously; the two most quoted studies producing a range of 16,500 to 47,132. In truth, no-one knows for sure, and this is due to the lack of a complete survey of range state lion populations, coupled with the complications involved in counting lions.

What is clear, and has been stated by the IUCN and CITES is that a population decrease of 30 – 50% is suspected in just the last 20 years, a decrease sufficient to grade the African lion as a “vulnerable” species. We believe, even without a definitive lion population count, that the reduction in lion numbers is too great to deny that action must be taken now to ensure a solution is found to reverse this trend before it is too late. Most species on the vulnerable list end up on the endangered list. Our program aims to create a reserve pool of lions that can be released into national parks and reserves across the African continent as and when needed to restore lions to areas where they used to roam freely, and where conditions still exist to support those re-introduced lion populations.

In addition, we are recommending to governments and conservation bodies that a complete census of lion populations across all range states is carried out to confirm the actual conservation status of the lion, therefore allowing more effective and suitable management policies to be put into place. Further, we are working towards better census techniques: at Antelope Park we have been conducting the field work for a study by the University of London to identify individual lions from their tracks.

Predator reintroductions in the past have had very limited success. What is different about the African Encounter Lion Rehabilitation & Release into the Wild Program that will make it work?

Several reasons have been put forward as the main causes for the limited success of past predator release programs;

1. that the animals were given no pre-release training,
2. that their reliance on humans was not curtailed,
3. that lions were released as individuals with no natural pride social organization,
4. and that they had no experience of competitive and predatory species.

Our program seeks to rectify these problems by using a staged rehabilitation program during which the lions are given every opportunity to build their confidence in a natural environment and to practice and perfect their natural hunting skills. Once the lions are too big for commercial lion walks in stage one, during which vital funding is raised towards the cost of the later stages of the program, the human contact the lions experience is reduced until they can become self-sustaining hunters.

Further, lions are released into stage three as breeding groups that have already been given the chance to form a pride social system in stage two.

Finally, stage three release sites will be stocked with a variety of game species that form a sustainable prey base, as well as competitive species such as cheetah and hyena.

It is the cubs born in stage three that will be released into the wild in stage four. These lions will have been born and raised in a near-natural environment.

We believe that through the introduction of this staged program that we will be able to avoid the problems faced by past release programs. Since it's inception we have received a lot of support from influential conservationists and ecologists, who, having seen the program working first hand, have come to appreciate that this is a workable solution to the problems faced by the African Lion;

"Through years of self-funded and determined effort, [the African Encounter Lion Rehabilitation & Release into the Wild program has] developed a program of re-introduction that has a very good chance of success. Predators of any description are notoriously difficult to reintroduce, but now we have at least a workable plan....the future of African lions is in African hands. Let us salute those who have been steadfast to ensure this future, and recognize that any action is better than the currently looming extinction of an African icon if we do nothing." Ecologist Dr Pieter Kat

Can this program really produce enough lions to make a difference to the conservation of the African Lion?

Working with the assumptions that our lions released into stage 3 and 4 will reproduce at similar rates found in wild lion populations, we believe that we are able to produce a reserve pool of lions that can be released into suitable habitats that can make a real difference to the long term survival of the species. Female lions start to reproduce at around the age of 4 and with a birthing interval of just under two years, an average of 7 or 8 reproductive years, an average litter size of 3 of which 50% are female, we believe that just one stage 3 release site could produce over 1500 young lions for release in stage 4 over a 20 year period. We have a number of stage 3 locations planned throughout Africa. That is more lions than are currently estimated to be present in Cameroon, the Central African Republic, Chad, Benin, Burkino Faso, Ghana, Guinea Bissau, Mali, Niger, Senegal, Rwanda, Swaziland and Mozambique, put together.

Release of lions into stage 4 can be reduced or increased as necessary at each of a number of planned stage 3 locations. Controlled breeding ensures that we are able to create a strong gene pool for release into the wild, avoiding the restricted gene flow and inbreeding common to most existing lion populations, resulting in birth deformities, reproductive problems and weakened immune systems.

What about over-production in any of the stages of the release program?

Our intention is to provide a reserve pool of lions that can be used to repopulate areas of Africa where lions once roamed freely, and where conditions still exist to support those re-introduced lion populations. We do not foresee a situation given the precipitous decline in the number of lions across the African continent whereby we will experience over-production in the different stages of the program, however, controls are possible in each stage to reduce the number of cubs born, and if necessary, commercial walks can be suspended at any of our lion walk locations until such time that the demand for lions in stage 4 increases.

There are numerous lion breeding programs in Africa, many of which are criticized for breeding lions purely for commercial gain, either through allowing tourists to interact with the lions or for canned hunting. Is the African Encounter Lion Rehabilitation & Release into the Wild Program not just another commercial breeding program?

Unfortunately it is true that there are many breeding programs involved in unethical practices using the cloak of conservation to hide their true intentions.

There has to be a business aspect to our work, as the lions have to eat, and personnel with considerable training need to be employed. The infrastructure for release sites is also very expensive to put into place ensuring that the area is properly fenced to protect the lions inside from being illegally hunted and to protect local communities on the outside. In addition, water sources for the lions need to be created and where necessary, the release site needs to be stocked with suitable game.

As ALERT is a non-profit making trust, all commercial activities are undertaken by African Encounter (also trading as Lion Encounter). Money from those commercial activities pays for stage one of the program. Donations are also given to ALERT to assist in the funding of stages two to four of the program.

Our lions are not bred for use in the movies, they are not walked with clients just to make a profit, nor are they, or will they ever be knowingly given over for hunting of any kind, canned or otherwise. Our aim is simple; to breed lions for rehabilitation and release back into the wild in order that we can pass on balanced ecosystems to future generations.

Why have you chosen Victoria Falls for the lion walks and release site?

This is very simple. It is to create international exposure to the project and the plight of the African Lion. The Victoria Falls is one of the seven natural wonders of the world and one of Africa's foremost tourist attractions. People from all walks of life and all parts of the world visit the Victoria Falls. It is also a destination for international government and business conferences. We want to make everyone aware of the program and Victoria Falls provides an ideal location.

Do you consider the genetics of the lions and the implications to biodiversity in your program?

Lions are most commonly described using 7 or 8 subspecies classifications, although 24 have been suggested, however these descriptions have been based not on substantial genetic diversity but on external morphological differences of lions in different geographical regions, such as body size, coat thickness & colour, retention of juvenile spots, mane size, density and colouration.

Recent studies have shown that external factors influence morphological differences such as nutrition and physiological stress. For example, West and Packer (2002) scientifically demonstrated a strong positive correlation between mane size and cooler temperatures. A lion translocated to a European zoo for example would have a larger mane than a lion from its warmer home region.

In the 1980s advancements in molecular phylogenetics proposed that modern lions share a common ancestor in the recent past, estimated at between 55,000 and 200,000 years ago. A question arose therefore about the status of lion subspecies. Genetic studies have shown that European cave lions differed far more from modern populations in East and South Africa than those modern populations do from one another (5% sequence divergence vs. ca. 1%). Since the late 1980s the main trend has been towards sorting all previous lion subspecies into two, African and Asiatic.

Two studies of extracted mitochondrial DNA by Dubach et al (2005) and Barnett et al (2006) have produced genetic distinctions between lions of different geographical regions. The former study, concentrating on samples from more southern regions of the lions range shows 6 haplotypes within two distinct clades of lions; those in south western Africa and those to the east, extending from eastern Kenya south to KwaZulu-Natal. The eastern lions can be further subdivided along each side of the Great African Rift Valley that stretches into South Africa. A similar east-southwest dichotomy among genetic haplotypes was observed in seven African bovid.

The latter study produced similar results, but with DNA samples from a wider geographical range identified 11 haplotypes (including Asia and West Africa, areas not included in the former study). The results are consistent with previously determined phylogeographic patterns in Eastern–Southern African lions in which two major clades were identified.

These recent findings have implications for lion conservation. As lion populations are increasingly confined to reserves that are closed to gene flow, management of these populations must balance the need to maintain stable densities at or below the carrying capacity of the reserve and, at the same time, minimize loss of genetic variability through drift or inbreeding. Ideally, translocations to increase genetic diversity would mimic natural gene flow by moving only individuals from the nearest areas with similar haplotypes.

ALERT and our partner organization African Encounter are committed to research for a better understanding of genetic diversity in lions and maintaining such diversity within wild populations. As such, we have provided DNA samples of our lions to extend the research of Dr. Jean Dubach at the Chicago Zoological Society, Brookfield Zoo and will continue to provide support to this valuable project as and when we are able.

Breeding of “special” breeds of a species is common. Is this a practice of the program?

It is not uncommon for breeding programs to “force-breed” certain characteristics or a recessive gene such as breeding white lions, often through cross or inbreeding. It is done to gain a higher price available in the market for those traits. The result is usually animals with poor immune systems and impaired survival skills.

Our commitment is to breeding a reserve pool of lions with the maximum chance of survival in the wild and to preserve biological diversity. Our program therefore follows sound conservation management policies in terms of breeding, in line with the best available scientific knowledge.

Why do you remove cubs from their mother at three weeks old?

There are several reasons for this practice, the principal one being that the lions can be given the chance to experience the natural surroundings of the African Bush. One reason for the limited success of previous predator release programs is that the animals were given no pre-release training. By giving the lions a chance to spend time in the Bush we are building their confidence as well as giving them the opportunity to practice and perfect their natural hunting ability. The lions are also able to start developing a natural pride social system. As a result of this practice we have seen the lions becoming adept hunters, without human assistance, such that we are able to stop feeding the cubs as they are capable of catching sufficient prey to sate their appetites themselves.

Removing cubs from their mother does cause the mother to re-enter her oestrus cycle, which is a natural phenomenon in the wild when males take over a pride and kill all the offspring present. This allows them to start producing their own cubs

as soon as possible, therefore passing on their own genes. However, we do not take advantage of this natural event in order to produce higher numbers of cubs. Females within our breeding centres are not bred more than once a year, and as much as possible we allow them to maintain a natural cubbing interval of 530 days.

How many lions are released at a time?

Lions will be released into stage three of the program as a pride, typically of 2 - 3 males, and 5 – 8 females. The stage three release areas will be a minimum of 10,000 acres in size and be stocked with a sustainable prey base to avoid the need for restocking at a later stage. Prior to release an environmental assessment of the proposed release site will be carried out to confirm the carrying capacity of the site for both the lions and its prey base.

How do you protect wild lion populations from possible disease infection from released lions?

Disease is a huge problem to wild populations and it is vital that we never endanger those wild populations by introducing disease into an area through our release program. As such, all lions are vaccinated from a young age against rabies and 'cat flu 3 in 1' (feline rhinotracheitis, feline calici and feline panleukopenia).

Prior to release into an area with wild lions they will be quarantined and given a blood test to confirm the general health status of the animal including checking red and white blood cell health and organ function. They will also receive a feline viral screen, i.e., FIV, FeLV, corona, calici, herpes, and distemper as well as being tested for Bovine TB. Their stools will be sampled to test and if necessary treated for internal parasites (worms & toxoplasma) and they will be treated for external parasites (ticks, fleas, mange, etc). Further vaccinations and tests will be carried out as necessary under the recommendations, guidance and supervision by our consultant vets.

Should the African lion be upgraded to CITES Appendix I and listed as endangered?

Upgrading the status of the African lion to “endangered” would raise awareness of the plight of the African lion and end the international trade in lion trophies from sport hunting. There are well-founded arguments from both sides of the aisle as to whether upgrading to Appendix I is the most appropriate decision at this time.

Raising awareness of the sharp decline in the African lion population could kick start a continent-wide conservation effort with the additional funding that species listed as “endangered” attract. But it is not as simple as that. Unless wild animals have a value associated with them there is no reason to protect those animals. When those wild animals under consideration are as dangerous to livestock and to human life as the lion, local communities are likely to seek out and destroy those animals to protect their livelihood.

Both tourism and sport hunting give a value to wild animals. The tourist industry, the world's fastest growing, is vital to the economy of most African countries however tourists only visit the more easily accessible, picturesque parts of the continent, with the highest game densities; these areas are now fenced into protected national parks, conservancies and private reserves where lions and other wildlife can roam free and thrive.

Much of Africa however is not a picture postcard and the land is unable to support the wildlife densities that are required by tourists wanting to see the Big 5 in a day. For wildlife in these areas having to survive retribution killing by local communities that live alongside them, the situation is bleak. For animals to survive here the local communities and land owners need to have a reason to conserve their natural resources. The sport hunting industry attracts people who are

willing to travel to these more remote locations where wildlife densities are lower, that do not have fancy lodges, where people and livestock live, or where there are tsetse flies, and most will pay a premium for doing so. If you look at Kenya, for example, 70% of their wildlife occurs outside of protected areas (and is on a serious decline). That wildlife needs to have a value for it to exist. Otherwise why would people not kill lions when they eat their cows? There is a lot of land in Africa that is not suitable for ecotourism and in those areas trophy hunting is a viable land use. In the case of the white rhino where the population crashed to less than 20 individuals, many game ranchers wanted to breed them because of their trophy value. Alongside those rhino protected in national parks, private hunting concerns were carefully breeding and conserving their assets through limited hunting quotas so that the population could grow to its current level of 11,000 continent-wide. This is a success story made possible by responsible game managers.

However, the image of the sport hunting industry as a force for conservation has been severely tarnished by unethical and unsustainable practices; the canned hunting industry is an abomination; with most sport hunting very little of the money paid by the hunters ends up in the hands of the local communities having to live with these dangerous animals to compensate them for their livestock losses and hunting organizations & governments pay little attention to monitoring species population numbers to adjust hunting quotas accordingly. In Zimbabwe for example, according to CITES, the number of legally traded lion skins & trophies for the 10 year period up to the year 2002 was 1,708. The current estimate of the total lion population in Zimbabwe is between 1037 and 1686. Anyone can do the math! The sport hunting industry must get its house in order if it is to play a role in conservation.

On the one hand we believe the decline in the number of lions is sufficient for us to have grave concerns for the future of the species and the awareness and funding made possible by upgrading the African lion to Appendix I could foster enough concern that we could start to reverse this trend. However it is also likely that a ban on sport hunting could cause the majority of lions that are not living in protected areas to be killed by local communities unwilling to live with such dangerous animals to both their livestock and their own lives, causing an immediate and devastating crash to the already hard hit lion population.

We believe there is only one answer to this question at present; and that is for all lion range states to conduct a comprehensive study into the actual numbers of lions resident in their countries. Only once we know the extent of the problem can we make informed decisions about how best to conserve the African lion. ALERT is committed to working with governments and other conservation organizations to ascertain current lion populations throughout Africa, to source funding to carry out lion censuses, and to conduct and assist in research to make lion population counts more reliable.

In the meantime, we believe that the evidence is already too great to deny that action must be taken now to ensure the future of the African lion. ALERT therefore supports the African Encounter Lion Rehabilitation & Release into the Wild Program which aims to create a reserve pool of lions that can be released into suitable areas of Africa that no longer have sustainable wild lion populations.

The evidence is too great to deny that action must be taken now to ensure the future of the African lion



Appendix 3: Speech given at the opening of the African Encounter Rehabilitation & Release into the Wild Program at Victoria Falls (June 2005) by ALERT & African Encounter consultant ecologist, Dr Pieter Kat.

A few years ago, at a meeting of the IUCN Conservation Breeding Specialist Group, a number of parties concerned about the population status of lions formed the African Lion Working Group. As an urgent first order of business, this Group was charged with identifying locations where lions still exist, and to determine population numbers. After consultations with researchers, biologists and wildlife authorities in all range states, the Working Group's best estimate ranged between 16,500 and 30,000, with an average of 23,000. The reason for the difference between the high and low estimates is that there are considerable challenges to counting wild lions. Some private reserves in South Africa will know every individual in their relatively small populations, but in much larger national reserves like the Selous in Tanzania, estimates had to be based on approximations. I actually believe the estimate of 23,000 is rather enthusiastic, and would propose an African total of about 18,000. Twenty years ago, experts estimate there might have been about 200,000 to 230,000 lions in Africa, and thousands of years ago, lions occurred not only in Africa, but also ranged across southern Europe, the Middle East, and Central Asia. The IUCN currently classifies African lions as "facing a high risk of extinction in the wild"; I believe the IUCN is negligent in not classifying lions as "endangered" given this level of decline.

It is consequently difficult to comprehend the lack of concern by world conservation bodies and the general public when presented with these numbers. I believe that even a 50% decline in numbers over twenty years of any species should have sent alarm bells ringing all over the world. Instead, everyone has remained complacent, including the governments of lion range states. However, last year Kenya took a bold step and applied to CITES to raise the status of African lions from "vulnerable" to "endangered". CITES is the Convention on International Trade of Endangered Species, and to date there are 166 member states. The aim of CITES is to ensure that international trade in specimens of animals and plants does not endanger their survival – such trade worldwide is worth billions of dollars each year. Kenya's reasons to be concerned about trade were clear – they noted the precipitous decline in lion numbers, and that not a single population today contained more than 1000 reproductive individuals. In fact, the Kenya proposal mentioned that in 40 of the 89 locations where lion populations exist today, there are reported to be 70 or fewer individuals. Their proposal document to CITES was carefully constructed and meticulously researched – and received very little support. The status of lions will now be considered at a CITES Animals Committee Meeting this year.

The severe drop in numbers is to some extent not surprising. Lions are dangerous predators that continue to be shot, snared, and poisoned in large numbers as "problem animals" by cattle owners. As an example of the scale of what can be accomplished with firearms, a single family of cattle owners in Botswana has shot 408 lions since the 1920s to protect their livestock. In addition, the teeming herds of prey animals that used to sustain lions in the past are now gone. These herbivores disappeared because they were a cheap source of meat for local communities, as a consequence of disease control programs to protect cattle, as "threats" to crops, and for no better reason than being resource competitors for domestic livestock. Similar eradication programs of wild herbivores occurred in Europe and the Americas as human and domestic animal populations increased. And finally, many of the "protected areas" for wildlife in Africa exist in name only. Civil strife, poverty, and hunger have stripped these reserves of their resources.

As a documented example of the numbers of lions that can be killed as problem animals, let me give you some data from our own study area in northern Botswana. Kate Nicholls and I have been researching lions there for the past nine years, and our results have challenged many ingrained but incorrect aspects of lion biology. As you might know, a moratorium was instituted by Ministerial decree in Botswana at the end of 2000, largely in response to the number of lions that were being killed every year as problem animals. This decree was later amended to include trophy hunting as well. Farmers had always been compensated for livestock losses due to lions, but now had to leave problem animal control in the hands of the wildlife department. Within months of the ban, we began losing study lions to poisoning, and over a period of four years, we have lost two entire prides and most members of a third – a total of 77 lions, almost all females and cubs. Problem animal control now accounts for 70% of all study animal mortality, compared to 13% in previous years. Poisoning took place along the veterinary cordon fence and was centred on one settlement in particular – all radio collared animals were recovered within a few kilometres of this small cattle post. The wildlife department took no action, and the hunting ban was rescinded in 2005.

But is it fair to say that the decline in lion numbers can entirely be attributed to expanding human and cattle populations and their resulting conflict with large predators? Keeping track of how many lions are killed each year in Africa to protect cattle is almost impossible. Very few countries enforce adequate reporting of “problem animal” incidents. Even in Botswana, the only country in Africa that still pays compensation for losses incurred by predators, and where the Wildlife Act requires that skins and skulls of “problem lions” be surrendered as Government trophies in order to claim compensation, reporting is at best voluntary. Nevertheless, Botswana exported 720 adult lion skins between 1992 and 2000, all of which were Government trophies, and all of which were derived from problem animal control. It is likely that during the same period many more lions were killed and their skins not exported.

Trophy hunting, however, can be monitored more accurately. The hunter who has paid significant amounts of money to come to Africa to shoot a lion is highly desirous to export the trophy. And such exports have to be carefully recorded and tracked according to the requirements of CITES - African lions are classified as “vulnerable” under CITES regulations, and each export has to be accompanied by a CITES permit issued by the member state.

During 1992 to 2002, twenty countries in Africa were recorded by CITES as exporting lion trophies. During that ten-year period, some countries like Senegal and Togo only exported one lion each under the trophy category. Other countries came in significantly higher. The top five exporting countries reported the following figures for those ten years: Tanzania 2791, South Africa 1456, Zimbabwe 1347, Zambia 595, and Botswana 478, for a total of 6667. These five countries accounted for over 90% of the total of 7354 lion trophy exports reported to CITES from 1992 to 2002. These were not all adult males – some countries allow hunters to shoot females as well. In addition, these five countries exported a total of 2097 skins during the same ten-year period.

If we accept the rather optimistic estimate that 23,000 lions of all ages remain on the continent today, the CITES export figures indicate that 31% of that total were exported as listed trophies alone in ten years. As a comparison, the International Species Information System lists 1179 lions held in zoos all over the world. This would mean that in ten years, six times the entire world zoo population was shot and exported as trophies from Africa.

Another comparison can be made by looking at the total number of trophy exports from the top five exporting countries versus the estimated lions remaining there today in protected areas. For Zimbabwe - During 1992-2002, 1347 trophies were exported, and it is estimated that currently only 1037 lions remain in protected areas.

I believe these numbers are convincing proof that lion trophy hunting has had a significant impact on the decrease of lion populations in southern Africa. However, not all would agree with this assessment. The World Conservation Monitoring

Centre of the United Nations Environment Program looked at these same figures, and concluded that there was no need to recommend African lions for review of their CITES status because “South Africa, Tanzania, and Zimbabwe are the main exporters for this species and show relatively high but stable levels of trade over time. These are countries where the lion is most abundant”. I believe the WCMC is badly out of touch with reality, and this should become very obvious if Zimbabwe, for example, continues to export an average of 170 adult lion skins and trophies per year as it did from 1992 to 2002. Stability in trade can easily be maintained at the expense of a resource, but not for long. The WCMC statement was quickly interpreted by World Conservation Force, an organization directly lobbying for trophy hunting interests, to mean that “trade is relatively insignificant where it occurs”, and concluded that trophy hunting is “not significant, nor could it be of real biological consequence” to lion populations. I would remind you that Zimbabwe exported more lion trophies than live lions remaining today.

Conservation Force and others also dispute the number of lions on the continent. First, they describe the estimate of 200,000 twenty years ago as “preposterous”. I believe the estimate is quite reasonable, as it was based on what could be expected given the total area available to lions at that time. Then, Conservation Force quotes an estimate of 40,000 lions in Africa today compiled by “the 50 most authoritative experts on African lion of our time”. I wonder who those 50 experts are, and if we accept the optimistic figure of 23,000 compiled by biologists in the range states, where do these remaining 17,000 lions occur? Perhaps there is a remote corner of Rwanda that was not surveyed, or maybe those 17,000 lions are hiding in the tropical rain forests of the DRC? I would remind you again that in almost half the locations where lions occur today, there are less than 70 individuals. And that the 2600 lions in Botswana represent more than all the lions in western and central Africa combined.

In addition to problem animal control, loss of habitat, and trophy hunting, there are also disease threats to the remaining lion populations. There are possibly only three lion populations left in Africa with more than 1,500 individuals. These occur in the Serengeti/Mara in Tanzania and Kenya, in the Kruger and adjoining reserves in South Africa, and in northern Botswana. In 1994, over 1000 lions died in the Serengeti as a consequence of an outbreak of canine distemper. There is a significant problem with tuberculosis among lions in the Kruger. And all three populations are infected at very high rates (>90% of adult lions) with lion lentivirus, a virus closely related to feline immunodeficiency virus among domestic cats and HIV in humans. Initial studies among wild and captive lions infected with this virus indicate that their immune systems are compromised compared to uninfected lions. Much more work needs to be done on the direct consequences of infection (we believe, for example, that reproduction of infected lions is significantly compromised), but already, there is recognition among those maintaining captive populations and those introducing lions that lion lentivirus-infected individuals should be excluded. Predictably, vested interest groups like Conservation Force dismiss these concerns, and also dismiss the consequence of FIV infection among domestic cats despite literally hundreds of scientific publications detailing every phase and aspect of the disease. Conservation Force has the opinion that “for many years, cancer and AIDS researchers have been studying Feline AIDS to better understand why it does not have significant effects on cats, because it does not”. Their degree of wishful thinking here is equivalent to finding 17,000 extra lions in Africa. I think we need to be very concerned about questions of disease – I was amused to read an article in the world press, for example, that half the remaining Tasmanian devils in Australia had died of an unknown disease. I wasn’t amused that these poor little devils were challenged by disease, but that once more, we had to be reminded that disease is an important process in the challenge that limited populations need to be protected against to survive.

The picture I have painted here is not a positive one for the African lion. While absolute numbers are difficult and expensive to ascertain, **there is no doubt that a very significant decline has occurred over the past twenty years, and that the decline is continuing today.** This decline has perhaps largely resulted from loss of habitat and problem animal control, but there can be no doubt that trophy hunting has greatly contributed to the overall loss of lions. Despite

the alarming statistics, CITES, the UN, and other world conservation bodies have remained at best complacent to the predicament of African lions, and groups with vested interests have been spreading misinformation to suit their interests. Range state governments refuse to acknowledge the dire straights that lions are in today, and with the exception of Kenya, do little to protect lion populations while promoting short-term gains.

I therefore believe the future for lions is in African hands. If the international community does not support us, I suggest we come up with our own solutions. If governments continue to seek income from trophy hunting at the expense of wildlife resources for future generations, it is up to us to prevent such greed. If numbers are going to be disputed by different groups, let governments step in and ask dispassionate experts (not those 50 on the payroll of Conservation Force) to determine how many lions remain in their countries, and then justify offtake on a sustainable basis. Let these same governments decide where they want lions, and once that decision is taken, vigorously protect these populations and certainly not allow livestock zones and hunting concessions to border directly on national parks and reserves.

It is also up to us to come up with positive solutions to reverse the loss of lions. I believe we can do this by promoting directed research on disease threats and wild lion reproduction. Contrary to popular belief, the most basic aspects of lion biology are not even partially understood. In addition, we can begin programs of lion reintroduction in a wide variety of depopulated areas. Such programs will not only be immediately positive, but will also place lions squarely in the category animals like rhinos whose plight seems to be better appreciated by the international conservation community.

This is why I am appreciative and excited to be involved by the initiatives taken by Andrew and Wendy Conolly. Through years of self-funded and determined effort, they have developed a program of re-introduction that has a very good chance of success. Predators of any description are notoriously difficult to reintroduce, but now we have at least a workable plan. As I said, the future of African lions is in African hands. Let us salute those who have been steadfast to ensure this future, and recognize that any action is better than the currently looming extinction of an African icon if we do nothing.



Appendix 4: Relevant News and Journal Articles

Tanzania Sunday News, November 2006

“A major international conservation group has warned that lions could soon become extinct in large parts of Africa. Lion populations of West and Central Africa are too small to be viable. Lions used to roam freely around much of the world. They died out in Europe about 2,000 years ago and disappeared from Northern Africa and most of South-West Asia 150 years ago.

Africa's largest carnivore is not generally considered an endangered species. But as agriculture spreads through West and Central Africa, lions are losing their habitat. Animals need huge tracts of land in which to hunt.

Each male needs between 20 and 200 square kilometres to find food, but that sort of uncultivated space is disappearing rapidly. Lions are also being killed off by poisoning and hunting, which is still legal in some countries. Lion populations have fallen by almost 90% in the past 20 years, leaving the animal close to extinction in Africa.

There are now only 23,000 left, compared to an estimated 200,000 two decades ago. The only hope for lions and other predators is for humans and wildlife to live together. It's not just lions. Populations of all African predators are plummeting. The wild dog population has fallen to between 3,500 and 5000 and there are now fewer than 15,000 cheetahs. People know about elephants, gorillas and rhinos, but they seem blissfully unaware that these large carnivores are nearing the brink...

...In order to avoid inbreeding, which can lead to damaging genetic weaknesses, each lion population should contain at least 500 animals. But the largest populations in West and Central Africa have around 200 lions, and most have only about 50.

Lions are at the top of the food chain, and biologists have warned that if the big cats became extinct this could have a serious knock-on effect, with other species of animals coming under threat...

...Zoos are more and more becoming a safe holdout for predators. Far from the caged showcases they used to be, modern zoos seek to preserve and strengthen the bloodlines of the animals they care for. Many zoos try to keep their animals on tracts of land that resemble their natural habitat...There is a long way to go with lions, though, in terms of building population reserves of known bloodlines. Unfortunately, some of the efforts by the largest zoos has been nearly self-defeating due to an over bearing requirements for 'sub species purity' they have taken it too far the other direction).

The day may come when we will rebuild natural populations from zoo animals...The sad truth, however, is that suitable habitat for the African lion is disappearing; and we may someday only have captive lions...

...Another emerging resource in the battle to preserve the lion for posterity is the private animal owner. Although certainly not common place, there are quite a number of private individuals who raise big cats for a variety of purposes. Their expertise often exceeds that of large zoos. In fact, a substantial portion of lions captive genetic potential lies among these people, and the day must come when the large and the small facilities join together in preserving the captive genetic diversity of the African Lion.

One problem with private ownership is that there are occasional situations where a lion or other big cat is abused, or is improperly caged, allowed to escape, injures or kills someone, etc. It needs to be recognized that this is not the rule with these people, but the exception.

Unfortunately, animals rights groups and the media tends to blow incidents involving big cats way out of proportion in their goal to either ban ownership of all animals, or to sell newspapers. The damage that is being done to responsible owners by these actions must be recognized and stopped.

London Daily Telegraph, 15 September 2003

“MAN DRIVES KING OF THE JUNGLE TO BRINK OF EXTINCTION. Lions are frightening close to extinction, wildlife experts warn today. Twenty years ago, 230,000 lions roamed Africa, but today only 23,000 remain, many of them harbouring feline AIDS and bovine tuberculosis.

Dr Laurence Frank, a wildlife biologist at the University of California warns that populations of all African predators are “plummeting” but say lions are particularly threatened. His findings, published today in *New Scientist*, which warns that 23,000 is a “shockingly small number” are backed by Tricia Holford, the campaign manager for big cats at the Born Free Foundation.

Dr Frank says that until recently, no-one had noticed the population crash in lions. Although they appeared to be thriving in reserves, once outside the parks they often attack livestock and have been decimated by ranchers, farmers and hunters. A study in the Laikipia region of Kenya found that a lion attacks livestock worth 200 pounds a year on average, equivalent to one cow r three sheep. With better husbandry, solid gates and fences and a night guard, losses can fall. But Dr Frank says “bullets and poison are always cheaper than good husbandry”...

...Miss Holford of the Born Free Foundation said that with such small populations in reserves, male lions frequently failed to find new prides with which to mate...

...Dr Frank believes that if lions are to survive, there must be healthy populations living outside the parks. “The problem is not so much that predators kill people but that they kill livestock.”

He says that in the Laikipia Predator Project, ranchers put up with lions attacking their livestock because they are attraction for tourists. It is the only place in Kenya where wildlife is increasing. “Almost everywhere else big carnivores have had it already.” Dr Frank says “In Africa, it’s not too late to save the situation.”

Zimbabwe Chronicle, Thursday 19 August 2004, Elliot Siamonga, Environment Reporter

“Kenya has launched a fresh bid for the uplisting of the African Lion from the Convention on International Trade in Endangered Species (CITES) Appendix II which allows hunting, to Appendix 1 which bans sport hunting and places them under international protection.

Kenya cited as one of the reasons, the fact that lions were now facing extinction due to disease and over hunting.....

Kenya has also cited many factors supporting the ban, including the outbreak of the canine distemper and feline immune deficiency virus (FIV) in the lion prides in Southern Africa."

Tanzania Sunday News, September 2006, Gulamabbas Mohammedali

"LIONS in Serengeti national park were in grave danger from diseases that originated in dogs living in surrounding villages. One-third of the entire population of lions in the park had died from canine distemper from 1994 through 1997. Other predators such as silver - backed jackals, bat eared foxes and the very rare African wild dogs were also dying from the disease.

More than one thousand lions in the Serengeti had died from canine distemper since 1993. Dogs pass the disease to hyenas who then act as the primary carriers of the disease because they travel long distances and mix with other predators at kills...

...The effects of canine distemper are brutal. The fatal neurological disease is characterized by grand mal seizures. Stricken animals can suffer for days, weeks or even months before they finally succumb or are eaten by other predators.

This is not the first time a disease has spread from domesticated animals to wildlife in the Serengeti region. In the 1940s, a disease called rinderpest spread to wildlife from cattle and killed thousands of wildebeests and gazelle. Rinderpest was brought safely under control through cattle vaccinations, but the threat from canine distemper and rabies are still very real.

"Another outbreak of disease could devastate wildlife populations." It could also endanger human health. If rabies were to spread to wildlife in the Serengeti, the results could be catastrophic...

...lions in the Ngorongoro crater have been knocked severely by several bouts of acute disease over the past 40 years. Between 1994 and 2001, outbreaks of canine distemper virus had kept the lion population low, with numbers dropping to just 29 individuals in 1998...

...There are probably enough prey animals like buffalo in the Ngorongoro crater to support about 120 lions. But at various times over the last 40 years lion numbers have dropped well below that and in the last 20 years there have rarely been more than 60 in the crater. It is believed that disease is the biggest culprit in this population dip.

In 1962, the crater lion population crashed from about 100 to 12, which coincided with an outbreak of blood sucking stable flies. After this severe knock, the population climbed again, to reach over 100 by 1975. Lion numbers then simmered away at fairly stable proportions until 1983, when they went into decline again reaching a low point of 29 individuals in 1998. "Diseases appear to be the only factor that has held the crater lion population below its carrying capacity for the past 20 years."

Although any disease can threaten lions, canine distemper virus (CDV), which normally affects dogs, has been a particular menace to the big cats. The cause of the increase in level of disease is not known....Disease outbreaks could be exacerbated by climate change. In the last 20 years East Africa has suffered many more droughts and floods, which seem to coincide with bouts of disease...

...The 1962 (stable fly) plague coincided with heavy floods that immediately followed severe droughts in 1961, and the 2001 CDV epidemic followed the drought of 2000. Whatever the causes of the diseases outbreak, they put the fragile population of Ngorongoro crater lions at serious risk.

Endangered populations could remain at serious risk even with a large, stable food supply and no real threats from competing species.

Unless rural Africans benefit far more from ecotourism the "shocking" decline of the continents remaining lions will continue. Fewer than 20,000 lions may now survive in the whole of Africa, though they do not face immediate extinction."

Getaway Magazine, August 2005, Don Pinnock

"What would Africa be without lions? No tawny cat lounging under a savanna tree, no throaty roar in the night, no top predator to cull the herds, no king of the beasts. It could happen – in our lifetime.

Lions are becoming endangered, but a project in Zimbabwe is working on a solution.

In the normal course of events, trail guide Bobby Anders should have been seconds away from a bone crunching death. The lion had its paws round his shoulders and its mouth at his neck. Instead he reached backwards, hauled the lion's back legs from under it and it fell on its back with a thump, looking decidedly sheepish.

The lions around him (and the rest of us) weren't tame in the sense of circus docile. It's just that they'd been brought up to think of humans as part of their pride and you don't kill pride playmates. The place was a private game reserve near Victoria Falls in Zimbabwe and we were on a 'lion encounter', an innovative project to breed wild lions and educate the public about these marvellous cats.

Laurance Frank, a wildlife biologist at the University of California, has warned that populations of all African predators are plummeting but says lions are particularly threatened. His findings published in New Scientist earlier this year, claims that 20,000 is a shockingly small number. He said that, until recently, no one had noticed the population crash in lions.

Although they appeared to be thriving in reserves, once outside the parks they often attack livestock and have been decimated by ranchers, farmers and hunters. "bullets and poison", he said "are always cheaper than good husbandry".

Research on the Lion Encounter project began at Antelope Park near Gweru, where breeding and rehabilitation of lions was studied. It recently moved to the Falls where it's more accessible to the public. It's a great idea with some way to go.

Stage one, where the program is now, is the release of cubs born of captive lions into a fenced wild area. There they interact with handlers, guides, volunteers and the public while honing their tracking and hunting instincts. By accompanying the lions on their daily rambles you become part of the rehabilitation program. The fees you pay go towards the purchase of more land for the next phase of the breeding project.

At about 16 months the lions will be too big to hike with the public and will be translocated to largely people free areas in various African countries where they can raise cubs they may have as totally wild lions. These – the third generation – will begin to replace the continents' dwindling lion prides."