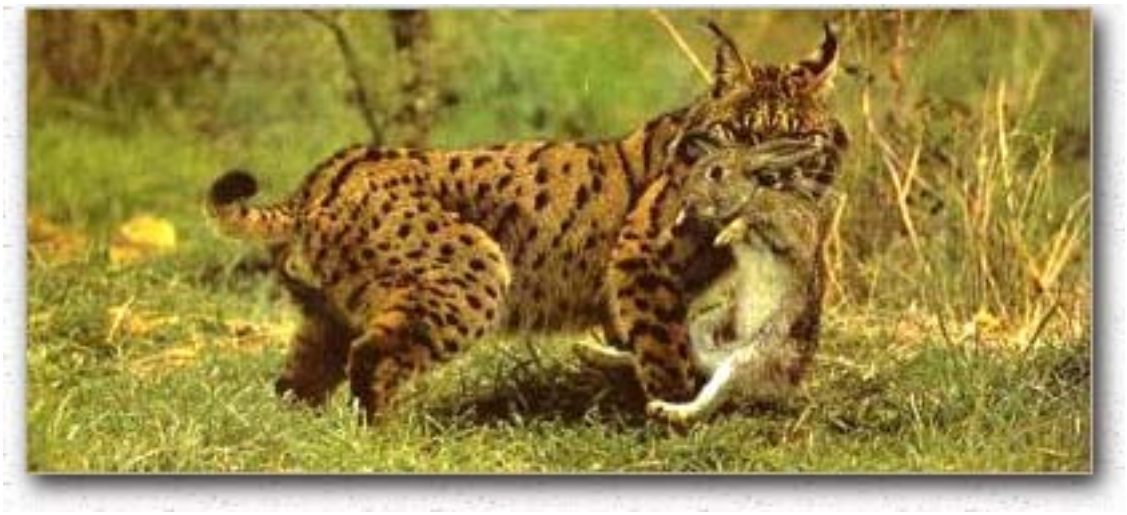

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Saving the Iberian Lynx: The way forward?

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Executive Summary

1. The Iberian Lynx is in critical danger of extinction, with **100-120** surviving mature individuals in the wild, and 37-47 cubs born this year from just 21-26 reproducing females. **It is the most endangered big cat species in the world.** For comparison, there are around 8,000 surviving tigers in the wild and 10,000 cheetahs.

2. The Iberian Lynx lives only in Spain and Portugal, where it has declined drastically in numbers and range over the last 100 years. At the beginning of the 20th century, it is estimated there were approximately 100,000 Iberian Lynx throughout the Iberian Peninsula. Now there are just two small and isolated populations with confirmed breeding, both in Andalusia, in southern Spain. They inhabit an area of approximately 35,000 hectares, equivalent to a medium-sized city.

3. The Iberian Lynx remains the only feline in the world with IUCN 'Category 1' conservation threat status. Were the Iberian Lynx to go extinct, this would be the first time a wild cat species disappeared in modern times. The last known feline extinction was the sabre-tooth tiger, which is thought to have gone extinct 2-10,000 years ago.

4. One of the two surviving lynx populations is in Andujar, northern Andalusia, containing around 80 mature individuals. 33-39 cubs were born here this year, and the population is seemingly stable, being well managed and monitored, and could be recovered in the future by reconnecting two sub-populations, expanding the population into neighbouring areas, and creating a viable "metapopulation" along the Sierra Morena or between Andujar and Monte Toledo, where lynx survived until recently.

5. The Andujar population, however, remains very vulnerable to forest fires and crashes in the local rabbit population (e.g. from rabbit diseases), particularly given its small range. A plan for increased urbanisation north of Andujar and two motorway proposals also threaten the Andujar population and plans for its recovery.

6. The other surviving lynx population is in Doñana, South Western Andalusia, and contains just 20-40 mature individuals. Only 4-8 cubs were born here this year and the population is not being well managed, is still declining and is already too small, fragmented and isolated to be recovered in the future, without drastic intervention. Very few lynx survive in Doñana National Park, where rabbits remain very scarce and hunting and other illegal activities are still being reported. Outside the national park, lynx and lynx habitat are threatened by further agriculture and road development proposals and at least two lynx have been killed over the past year by road traffic.

7. High rabbit densities are crucial for lynx survival and breeding. However, rabbits remain scarce over much of Spain and Portugal, surviving in isolated patches at high density. At present there remains little understanding of the causes of these high density patches, and increasing this understanding will be crucial for developing successful assisted rabbit recovery. Vaccinations and rabbit reintroductions have not been effective and habitat improvement may actually impede rabbit recovery by increasing disease transmission. A newly produced and effective vaccine, LapinVac, is unlikely to be approved and, if used, could be damaging to public health and the environment as it is a genetically engineered live virus.

8. No lynx are known to have been killed by hunting over the past year, and personnel in Andujar no longer find many traps and snares in lynx areas. However, lynx around Doñana mainly survive in hunting areas where vigilance and adherence to legislation is poor, and where it is known that lynx are being injured (if not killed) by hunting activities. Moreover, there may still be *unreported* hunting deaths, and increasing hunting controls will be important for the survival and expansion of both populations, as hunting is an extensive land use in Iberia and has in the past killed many lynx.

9. The Iberian Lynx Captive Breeding Programme now contains 12 animals (8 females, 4 males) spread across several centres, and a new centre is being built in Jaen, Andalusia. There has still not been a lynx bred in captivity, although there is some optimism that there will be this year. Current plans envisage increasing the captive population to over 70 by 2010, through captive breeding and capturing more wild individuals (cubs and injured adults), when reintroductions could begin (12 per year), provided that *in situ* conservation and planning has significantly advanced by then.

10. There is a need to secure long term funding to allow planning and implementation of long term projects. At present there is some doubt as to whether EU funding, and particularly LIFE funding, will be available in the future, and more private funding should be sought. Captive breeding and reintroductions should be able to attract funding more easily than other lynx conservation activities, particularly from zoos.

11. Outreach work has increased awareness and support for lynx conservation amongst land owners and hunters, particularly in Andujar. However, more outreach work is needed, particularly in Doñana, and to reduce or counterbalance public pressure for development and hunting that threatens lynx, lynx habitat and lynx recovery.

12. Political co-ordination of lynx conservation has increased over the past year, particularly given that the same Socialist party now governs both Spain and Andalusia, and that there is now a political agreement between Spain and Portugal concerning lynx conservation. Political *support* for lynx conservation, however, remains inadequate. Many areas still lack approved recovery plans, and many of the more political components of previous plans and strategies have not been implemented. In addition, many official policies still contradict rabbit and lynx recovery, and there are several problematic development proposals around Doñana and Andujar, which should be the priority for targeting future lobbying activities.

13. In order to prevent the extinction of the Iberian Lynx it will be necessary to:

- Remove hunting and road kill pressures on the Doñana lynx population and in areas where the lynx could be recovered in the future.

- Protect existing and potential habitat from intensive agriculture and forestry developments, dams, roads and urbanization.

- Restore habitat and recover rabbit populations in Doñana and Andujar, and in areas where the lynx could be recovered in the future.

- Expand the wild populations by improving habitat and rabbit availability, and decreasing human impacts, in neighbouring areas.

- Reintroduce lynx from a successful captive breeding programme, and translocate animals between wild populations, to increase the number, size, diversity and viability of Iberian Lynx populations in the wild.

14. Important urgent actions required to achieve these goals include:

- Avoiding the implementation of a number of existing development proposals for new roads, agriculture and urbanisation in lynx areas.

- Decreasing the speed and number of vehicles using particular roads around Doñana, where many lynx have already been killed.

- Reviewing transport, water, agriculture and forestry policies to ensure that they are compatible with long term lynx and rabbit recovery in Spain and Portugal.

- Developing new techniques to recover rabbit populations in Spain and Portugal.

- Improving legislation, and the adherence to existing legislation, concerning the timing, extent and location of rabbit hunting, particularly in lynx areas.

- Improving techniques, and the adherence to legislation, in the control of common rabbit predators, such as foxes, so that lynx are not also killed by these activities.

- Increasing monitoring to establish the exact number and causes of decline of the Doñana population, and the fate of young cubs in Andujar.

- Increasing planning to establish where lynx should be reintroduced in the future, and habitat protected, to recreate a viable “metapopulation”.

- Expanding the fledgling captive breeding programme to include centres in Portugal, and Castilla de la Mancha and Extramadura in Spain, to spread risks, increase the effectiveness of the programme and maintain an *Iberian* Lynx.

- Approving and implementing official lynx recovery plans, and sufficient Natura 2000 areas, to cover all existing lynx areas, and areas for recovery in the future.

- Increasing and maintaining current “outreach” efforts towards hunters, land managers and the local population in lynx areas, to alter their activites, and demands for development, making them compatible with long term lynx recovery.

- Providing more financial incentives for nature conservation and sustainable development on private land, where most lynx now survive.

- Increasing and sustaining financial support for rabbit and lynx conservation and recovery from regional and national governments, and the European Union.

- Increasing co-ordination between organisations campaigning to save the Iberian Lynx, to improve lobbying, and counterbalance conflicting policies and interests.

Introduction

The Iberian Lynx is the most endangered big cat species in the world, and lives only in Spain and Portugal, where it has declined drastically in numbers and range over the last 100 years. At the beginning of the 20th century, it is estimated there were approximately 100,000 Iberian Lynx throughout the Iberian Peninsula. Now there are just two small and isolated populations with confirmed breeding, both in Andalusia, in southern Spain.

This report provides an update on the Iberian Lynx, and issues in lynx conservation, drawing particularly upon information presented at a recent International Seminar on the Iberian Lynx held in Cordoba, Spain in December 2004. More details about the lynx and the history of its decline and conservation can be found in the previous "Iberian Lynx Emergency" report available from the SOS Lynx website: **www.soslynx.org**

1. Update on remaining lynx populations

There remain just two confirmed breeding populations of Iberian Lynx. One is found in the mountains north of Andujar in Northern Andalusia, and the other is centred around Doñana National Park, in South Western Andalusia.

Over the last year the Andujar population has seemingly stabilised, with some 77 mature (at least 1 year old) individuals confirmed, and 33-39 cubs being born from 17-21 reproductive females. There is a high degree of confidence and agreement over these figures between the various individuals and organisations involved, given that there are now 200 camera traps covering the area (about 1km apart), and that each mature lynx has been photographed a number of times. Camera traps use live pigeons as lures and individual lynx are identified, recorded and named by coat patterns.

The regional government of Andalusia has around 80 agreements with landowners, and NGOs have 17. Between them, these agreements cover most (but not all) of the Andujar area, including all the important areas. Supplementary food is already being given to particular lynx who are weak or have large numbers of cubs, and personnel on the ground know exactly where lynx nests are and how many each has: at least for some nests.

The main problem with the Andujar population is its small geographical range (18,000 ha) and that although rabbit densities have remained high in the area, there is no confidence that they will remain so in the future. In particular, a large forest fire or significant incidence of rabbit Haemorrhagic Pneumonia Virus could wipe out the lynx population.

On the positive side, plans have been drawn up to significantly increase the provision of supplementary food, should rabbit densities decrease, and objectives for the next few years include to re-connect the two sub-populations (Andujar and Cardeña; which remain connected by dispersing individuals but not by overlapping breeding territories) and to expand the whole population.

To achieve this, conservation personnel are working with landowners between and around the two sub-populations, as well as those in the lynx areas. In addition, personnel on the ground now find few, if any, illegal snares in Andujar, particularly compared with the large number they discovered two years ago, and no lynx were killed by road traffic in the Andujar area over the last year.

The situation in Doñana is more pessimistic, both in terms of the confidence given to the official figures and to the situation that those figures portray. An official study has concluded that there are only 20-24 mature lynx in and around Doñana, with 4-5 reproducing females, giving birth to 6-8 cubs this year.

Local researchers have concluded that there are more lynx, suggesting up to 45 mature lynx in and around Doñana. The

reasons given to explain this disagreement include that:

- There are still only 4 camera traps in the Doñana area
- Some researchers still rely on foot print surveys which are known to be unreliable
- Problems persist with co-ordination between institutions in Doñana

Whatever the explanation for this uncertainty, what is certain is that the Doñana population remains very small – probably already too small to be genetically viable in the long term – and that it is not stable, and probably declining. Illegal activities (e.g. off road vehicles and some hunting) have been reported in the National Park, and rabbit densities in the area have not been recovered.

Rabbit densities in the National Park are now very low, and seemingly lower than outside (particularly in the Coto del Rey in the neighbouring Natural Park), such that most of the lynx in the Doñana area now live outside the National Park and Biological Reserve.

This is problematic, both in terms of questioning the management of the National Park, and because lynx resident outside the park are very vulnerable to road traffic and loss of habitat to agricultural developments.

Two lynx were killed by road traffic in the wider Doñana area in 2004, and there are plans for further road and agricultural developments that will impact lynx. Moreover, even if the Doñana population survives it will be very difficult to reconnect it with the Andujar population, some 300 km away and separated by numerous roads, dams, towns and intensive agriculture developments.

Taking the data from the two areas together, there are now between 100 and 120 mature lynx surviving in the wild, with 21 – 26 reproducing females. These figures are slightly lower than those estimated two years ago and mean that the lynx remains critically endangered.

Moreover, as reproductive rates are strongly influenced by rabbit densities, recruitment rates of new lynx can actually be even lower than these figures imply (as they were in 2003 when less than 30 cubs were born, compared with over 40 this year) due to fluctuations in rabbit densities caused by poorly understood rabbit disease dynamics.

2. The Rabbits situation

Rabbit decline has been an important, but not the only, cause of lynx decline. Understanding the causes of rabbit decline, and how to conduct successful rabbit recovery will be crucial for lynx recovery, particularly in the longer term and in Andujar. Unfortunately there is still a lack of understanding of rabbit decline and recovery.

It is known that rabbits have declined due to a combination of diseases (mixomatosis and rabbit Haemorrhagic Pneumonia Virus), habitat loss and hunting. However, there is still a lack of understanding as to how these factors interact with each other, and natural predator pressure, to bring about rabbit decline. In particular there is no good explanation at present as to why rabbits survive quite abundantly in some areas but are almost absent from other areas quite close by.

Fig 1: habitat management, increasing available grass for rabbits to feed on.

Professionals working in rabbit recovery at present see understanding and exploiting the factors that have led to these surviving "patches" as crucial to longer term rabbit recovery. Conversely, there is little

confidence that either vaccines or rabbit reintroductions will be effective.

Current vaccines only last 6 months and a much publicised new vaccine "LapinVac" is being held up at the approval stage and is unlikely to approved[1], or to be as effective as some hunting organisations have suggested and hoped.

Although some rabbit reintroductions have been effective in the short term, in the longer term released rabbits simply disperse beyond the introduction area or are killed by resurgent disease epidemics.

Developments in habitat management for rabbit recovery have also been questioned particularly by one rabbit expert who has found that rabbits survive best in either poor or excellent habitat, with intermediate habitat being the worst.

Improving habitat from poor to intermediate for rabbits could thus actually be detrimental for rabbits as it tends to increase contact rates between rabbits and thus increase disease transmission.

Poor habitat allows rabbits to survive as contact rates are low, and good habitat (e.g. Coto del Rey, Doñana) allows rabbits to survive as reproduction outstrips disease mortality.

On the positive side, it has been suggested that granite areas are important for rabbit survival, because they offer lots of places for rabbits to hide and breed.

Progress has been made in construction of effective artificial rabbit refuges, particularly using wooden pallets covered with soil, vegetation and rocks, which are cheap but effective.

Overall, the rabbit situation remains extremely problematic, with rabbit densities very low and little confidence of rabbit recovery in the near future.

In the longer term, it is felt that rabbits will recover naturally, but this will probably not happen quick enough to benefit lynx, and far greater understanding of, and expertise in, assisted rabbit recovery are required.

As a first step, it will be necessary to build up an accurate and high resolution map of where rabbits survive at present. An interesting technique in this area is for field officers to collect and count rabbit excrements, to estimate an index of excrements per m^2. This has been done for some areas in Doñana and Andujar, though not for long enough to allow for trend data, and not in wider areas important for lynx population expansion.

Improved rabbit surveying will be important for understanding how rabbit recovery could be conducted and for identifying areas where lynx may best be reintroduced.

There have been calls for a "rabbit working group" to be created, along similar lines to the existing lynx working group, to co-ordinate and share information on rabbit recovery and management. A crucial first job of this working group would be to elaborate an "Iberian Rabbit Strategy" to then be implemented at the regional level.

It has also been recommended that land managers be advised and urged to alter land management (e.g. forestry and agriculture) to favour rabbit recovery. Official rabbit hunting plans should take more account of the need for rabbit recovery and that the legal status of the rabbit should be reconsidered to reflect its ecological importance in the food chain and relative scarcity.

3. Hunting and mortality

Illegal hunting and non-selective predator control has long been, and probably remains, an important cause of lynx mortality.

[1] LapinVac is actually a genetically modified live virus and as such is very problematic for public health, ecological integrity and for attempts to eradicate rabbits from other countries such as Australia.

When professionals first started working on the ground in Andujar two years ago, they found a great many snares and traps. Fortunately this year there has been no recorded mortality from hunting, and professionals in Andujar now find far fewer traps and snares in the area.

However, a lynx run over near Doñana had a previous shooting injury, and it is quite possible that there have been further unrecorded deaths from hunting. There is thus a need to expand existing vigilance on the ground, particularly in and around Doñana where there is less of a co-ordinated and concerted effort to control hunting than in Andujar, and where (unlike Andujar) most hunting and predator control focuses on rabbits and rabbit predators.

Fig 2: A trap found in the field by lynx researchers

Failure to sufficiently address the hunting issue to date may be partly due to the fact that most lynx conservation has been driven by scientists, who usually do not focus on, or work to try and change, political issues such as hunting.

4. Development pressures

Problematic development projects and policies (roads, dams, agriculture, urbanisation, forestry etc.) have had a significant impact on the lynx.

Past examples (e.g. the Villamanrique – El Rocio road in Doñana) have shown that officially sanctioned and EU funded projects can have a detrimental effect on lynx, even though such an impact was foreseen and stressed by conservation groups and professionals at the planning stage.

Thus the current levels of outcry against current development plans that would threaten lynx are no guarantee that these plans will not be implemented. In particular, conservation groups and experts are concerned about current plans for:

- Upgrading the Almonte – Matalascanas Road (Doñana) to a dual lane motorway.
- Developing more intensive strawberry agriculture right next to the El Acebuche Captive Breeding Centre, Doñana.
- Plans for Urbanization from the ´Ayuntamiento de Andujar´ right next to existing lynx territories; sanctioning further development and legalising current illegal dwellings.
- Plans for a motorway Toledo – Cordoba; suggested by some as “paralysed”, whilst others suggest that this proposal could be approved “at any time”.
- Plans for a motorway Albacete – Linares; preventing northward expansion of the Andujar population and communication with lynx in Guadalemena (C. la Mancha).

Local conservation groups are not well connected to international organisations and key politicians, whilst organisations at the international level are keen to involve themselves more with lobbying, particularly on development issues but lack the information available at the local level on problematic developments. There is thus a need and opportunity for greater co-ordination in lobbying.

Fig 3: Autopsy of lynx run over on new road through its habitat (A. Sabater)

Agro-environmental funds, and the EU's Common Agricultural Policy (CAP) in particular, have been used to both restore and degrade lynx habitat and feeding resources. For example, some farmers have used environmental subsidies to clear land and plant intensively with monocultures of trees, which is poor habitat for lynx and rabbits due to a lack of vegetation understorey.

CAP is currently being revised and there is thus a real opportunity to target more EU funds towards developments that protect nature and support sustainable development compatible with lynx, particularly on private land, where most lynx now survive. This will require lobbying to counterbalance powerful vested interests in maintaining the status quo.

5. Breeding Programme

In the past there has been some disagreement between experts and organisations as to the importance and direction of Captive Breeding of Iberian Lynx. However, there is now broad agreement that a captive breeding programme is an essential part of lynx conservation efforts and individuals and organisations are now working well together to get such a programme underway.

The current situation is:

- There are now 12 lynxes in captivity (4 male, 8 female), spread over several centres.
- A new larger breeding centre is under construction in Jaen, Andalusia.
- There is some optimism that the first captively bred lynx may be born this spring.
- Plans for the future envisage capturing from the wild four cubs[2] per year until 2008 and one injured adult every other year until 2019, across Doñana and Andujar.
- Captured animals, combined with captively bred animals, should allow the captive population to rise to over 70 by 2010, when reintroductions could begin.
- Up to 12 animals could then be released each year, allowing for the captive population to be maintained at over 70 (provided *in situ* conservation is sufficient by then.)
- There is agreement on the need to involve new breeding centres in Portugal and Castilla la Mancha.
- A monthly *ex situ* lynx conservation bulletin is produced and circulated to people and organisations involved in the lynx conservation effort.

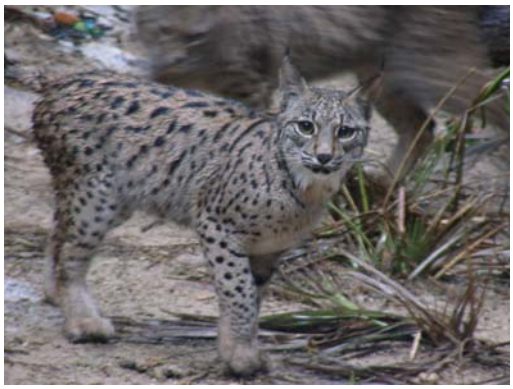

Fig 4: Aura may be the first Iberian Lynx ever to give birth in captivity

The captive breeding programme is currently well funded. Whilst significant extra funds will be required in the future, obtaining further funds for *ex-situ* conservation and reintroductions is not considered as problematic as other areas of lynx conservation as it is an area that can usually attract good funding and interest, particularly from zoos.

6. Recovery Plans

Although it will take several years to build up a captive population to supply animals for reintroductions, and although the two remnant populations remain extremely vulnerable, plans need to be elaborated now for how to conduct and fund wider lynx recovery.

[2] Cubs would only be taken from large litters where not all would be expected to survive in the wild.

One particular study has looked at existing habitat patches and attempted a rough guess as to where might be appropriate to create new populations in the future, either through reintroductions from a captive population or translocations from expanded wild populations. This study proposed that it would be best to create a viable "metapopulation" of connected breeding populations either by expanding the Andujar population to connect it to Monte Toledo or to expand the Andujar population west along the Sierra Morena, where lynx survived until recently.

These areas should thus be the targets for future reintroductions, and only after these metapopulations had been created would populations also be created in the Sierra Nevada in Andalusia and in Portugal, where large areas of habitat remain but where there is little chance of a continuous metapopulation linking through to Andujar, given existing habitat fragmentation and limits of lynx dispersal. Doñana would not even then be a priority due to its isolation and fragmentation.

This study has yet to be developed into a full proposal and there has not yet been co-ordinated work and planning amongst governments and NGOs in Spain and Portugal as to where best to recover the lynx. This is problematic as without an agreed future plan it will be hard to justify preserving an area of habitat for future lynx reintroductions in the face of conflicting interests and policies.

At present the only template for plans for recovery has been the 1990 reported lynx distribution, which itself did not constitute an adequate viable metapopulation, and is anyway not being sufficiently applied, e.g. to plans and approval of Natura 2000 areas for lynx recovery.

Beyond planning for a viable metapopulation it will, of course, also be necessary to secure sufficient funds to recover the lynx in the long term, and to ensure that the lynx survives through the short term by stabilising Doñana and expanding and reconnecting Andujar's populations.

7. Political coordination

Political co-ordination, particularly between the Andalusian Government and the Spanish Government has considerably improved over the last year.

This is due to the new Bi-lateral Commission and because both Spain and Andalusia now have Socialist Governments. Previous political difficulties in arranging lynx conservation have now apparently evaporated.

In addition, there is now a new political agreement between Spain and Portugal that should facilitate political co-ordination in lynx recovery, as might a possible new Socialist government in Lisbon.

8. Lobbying

Improvements in Political Co-ordination have not been matched with improvements in political support for lynx conservation.

In particular, although the Andalusian Pact now has 50,000 signatures, and although both the Spanish and Andalusian Environment Ministers have publicly supported lynx conservation efforts, both Spain and Andalusia continue to propose and support development projects that could harm lynx and destroy habitat, and fail to adequately control hunting.

In addition, official "lynx recovery plans" have still only been approved in Extramadura and Castilla de la Mancha, and not (e.g.) in Andalusia, and many of the more political aspects of past strategies, plans and agreements have still not be implemented.

There is thus a need to increase political lobbying to counterbalance conflicting interests and policies, and to:

- Ensure that plans, strategies and agreements are approved and implemented.

- Prevent development proposals and policies being implemented that threaten lynx.

- Ensure adequate funding for lynx in the longer term.

- Ensure stricter controls and implementation of existing legislation on hunting.

Co-ordination and effectiveness in political lobbying to date seems to have been partially frustrated by language barriers, by a lack of understanding at the international level of how the politics of Southern Spain and Portugal actually work in practice, and by a greater focus and priority given to scientific rather than political aspects of lynx conservation.

9. Outreach

Outreach efforts seem to be being effective in raising awareness and pride of the lynx, particularly amongst landowners and hunters in Andujar.

The situation for Doñana, however, seems worse. There remains a need to raise awareness amongst the hunting community in Doñana, to decrease pressure for hunting in lynx areas (both illegal and legal).

Similarly, there is a need to decrease public pressures for unsustainable development, which, along with political pressure, is driving further plans for problematic development (roads and agriculture).

In general there seems a need to raise awareness and concern amongst the population around Doñana that even if the lynx survives through breeding and in Andujar, it may be lost in Doñana.

10. Funding issues

Funding of lynx conservation is still lacking in Portugal in the short term, and throughout the Iberian Peninsula in the long term. Concerns have been raised particularly as to the lack of available long term funding, just at a time when it is necessary to plan and to begin to implement long term projects (e.g. captive breeding, habitat and rabbit recovery, reintroductions and translocations).

The existing EU LIFE project in Andalusia will run until 2006, and there will be an application for a following LIFE project (2006-11). However, there is uncertainty at present as to whether the LIFE system will exist beyond 2006. In addition, any EU funding for nature conservation will likely be constrained by rising applications from the new entry countries in Eastern Europe.

There is some optimism, within Andalusia at least, that the regional government is sufficiently committed to lynx conservation, and has sufficient funds, to maintain the current lynx-related activities, even if EU funding is reduced. However, this may be just optimism, and does not cover the need for expanding existing projects both within and outside Andalusia.

Captive breeding and reintroductions should be relatively easy to fund, particularly from European zoos, and it is the less high profile and tangible activities of rabbit recovery, hunting controls and habitat protection and restoration that should be prioritised for any fund raising activities.

Fig 5: Esperanza, recovered at Zoo Jerez and now at the El Acebuche lynx breeding station in Doñana.

11. The Way Forward?

To prevent the extinction of the Iberian Lynx it will be necessary to:

- Remove hunting and road kill pressures on the Doñana lynx population and in areas where the lynx could be recovered in the future.
- Protect existing and potential habitat from intensive agriculture and forestry developments, dams, roads and urbanization.
- Restore habitat and recover rabbit populations in Doñana and Andujar, and in areas where the lynx could be recovered in the future.
- Expand the wild populations by improving habitat and rabbit availability, and decreasing human impacts, in neighbouring areas.
- Reintroduce lynx from a successful captive breeding programme, and translocate animals between wild populations, to increase the number, size, diversity and viability of Iberian Lynx populations in the wild.

Important urgent actions required to achieve these goals include:

- Avoiding the implementation of a number of existing development proposals for new roads, agriculture and urbanisation in lynx areas.
- Decreasing the speed and number of vehicles using particular roads around Doñana, where many lynx have already been killed.
- Reviewing transport, water, agriculture and forestry policies so that they are compatible with long term lynx and rabbit recovery in Spain and Portugal.
- Developing techniques to recover rabbit populations in Spain and Portugal.
- Improving legislation, and the adherence to existing legislation, concerning the timing, extent and location of rabbit hunting, particularly in lynx areas.
- Improving techniques, and the adherence to legislation, in the control of common rabbit predators, such as foxes, so that lynx are not also killed by these activities.
- Increasing monitoring to establish the exact number and causes of decline of the Doñana population, and the fate of young cubs in Andujar.
- Increasing planning to establish where lynx should be reintroduced in the future, and habitat protected, to recreate a viable “metapopulation”.
- Expanding the captive breeding programme to include centres in Portugal, Castilla de la Mancha and Extramadura in Spain, to spread risks, make the programme more effective and maintain an *Iberian* Lynx.
- Approving and implementing lynx recovery plans, and sufficient Natura 2000 areas, to cover all existing lynx areas, and areas for future recovery.
- Increasing and maitaining current “outreach” efforts towards hunters, land managers and the local population, to alter their activities, and demands for development, making them compatible with lynx recovery.
- Providing more financial incentives for nature conservation and sustainable development on private land, where most lynx now survive.
- Increasing and sustaining financial support for rabbit and lynx conservation and recovery from regional and national governments, and the European Union.
- Increasing co-ordination between non-governmental organisations campaigning to save the Iberian Lynx.

12. Conclusion

The Iberian Lynx is the crown of European wildlife. It is our only endemic big cat and is a beautiful and ecologically important creature, being a top carnivore and "super-predator". However, despite being native to two countries of Western Europe, the Iberian Lynx is the most endangered big cat species in the world.

It is not in Africa, Latin America or Asia where the first big cat extinction in modern times is likely to occur, but within the borders of the rich, supposedly "developed" and environmentally-friendly European Union. Moreover the EU´s own policies have, on balance, hindered rather than helped the survival of the Iberian Lynx by supporting new roads, dams, agriculture developments and forestry with far more funds than have been given to nature conservation.

It is not too late. By funding long term lynx and rabbit recovery, promoting nature conservation on private land, enforcing and improving existing legislation on hunting, and avoiding projects and policies that are incompatible with lynx, the EU and national and regional governments in Iberia can avoid the collective embarrassment and shame that the extinction of the Iberian Lynx would bring.

If you would like to learn more about the Iberian Lynx, or support lynx conservation please visit the SOS lynx website at: www.soslynx.org

SOS Lynx is a campaign organisation set up in Portugal in 2000, specifically to help save the Iberian Lynx, and works especially at the International level.

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