

II International Seminar and Workshop on the Conservation of the Iberian Lynx, 15-17 Dec 2004, Córdoba, Spain.

Meeting report

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Two years after the first seminar on the conservation of the Iberian lynx in Andújar, Spain (29-31 October 2002), a follow-up meeting took place in Córdoba on 15-17 December 2004. The main objectives of this meeting were to review the status of the remnant populations and the progress made since the first conference, and to discuss the future challenges to conserve the Critically Endangered Iberian lynx. The goal was that GOs, NGOs and scientists working on the conservation of the Iberian lynx would inform each other on their approaches and activities, discuss problems and possible solutions, and hence work towards a comprehensive conservation strategy for the Iberian lynx. During the first day, representatives from different institutions summarised the state of the art. During the second day, six working groups addressed specific questions, and the last day was dedicated to the compilation of the information and opinions. It was suggested that another conference with international participation to review the conservation of the Iberian lynx should be hold again in two years.

15 December 2004 – Plenary session

The Second Seminar and Workshop on the Conservation of the Iberian Lynx was organized by the Regional Government of Andalucía (Junta de Andalucía, LIFE Project), the Spanish Ministry of Environment (MIMAM), WWF, IUCN/SSC Cat Specialist Group, Council of Europe and the Large Carnivore Initiative for Europe LCIE.

The **first day of the meeting** (15 Dec), was open to a broad audience and gathered more than 150 participants: scientists, environmentalists, representatives of governments and NGOs, students, and journalists. The present status of the remnant lynx populations, the progress in the *in situ* and *ex situ* conservation programmes, and the conceptual approaches were summarised in a series of presentations:

- The representatives of **Portugal (Pedro Sarmento)** and of the regional administrations of **Castilla la Mancha (Antonio Aranda Moreno)**, **Extremadura (Javier Caldera)** presented the **current situations in their regions**. There are no viable population of lynx in any of these areas, not even single observations were confirmed. Thus, the main conservation priorities are conservation of the potential lynx habitat, conservation and restoration of rabbit populations, cooperation with the captive breeding programme, preparation or implementation conservation actions plans, recovery plans or strategies.

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• **Nicolás Guzmán** presented the **current status and trends of the Iberian lynx populations in Spain**. The table given below summarises the national monitoring census for the Iberian lynx populations (general numbers represent animals older than 1 year).

Population	Census 1988	Census 2002	Census 2004		
			general	reproductive females	kittens
Eastern Sierra Morena (Andújar-Cardena)	518	60-100	60-70	2 nuclei 4 ♀♀ + 19 ♀♀	24-32
Doñana	49	24-33	20-24 (40)	6-8 ♀♀	9
Montes de Toledo	148	?	not detected		
Huelva	53	not detected	not detected		
Sierra Morena of Sevilla	17	not detected	not detected		
Sierra Morena of Córdoba	60	not detected	not detected		
Guadiana-Picón	65	not detected	not detected		
South-East of Badajoz	51	not detected	not detected		
Sierra de San Pedro-Cedillo	46	not detected	not detected		
Villuercas-Monfragüe	8	not detected	not detected		
Western Sistema Central	90	not detected	not detected		
Madrid and Valle del Tiétar	31	not detected	not detected		

• **Miguel Ángel Simón Mata** presented the “**Strategy of the Iberian lynx conservation in Andalucía**”. This strategy has been elaborated in coordination with the conservation actions and priorities of the national environmental agency (MIMAM), NGOs (Adena/WWF, Ecologistas en Acción) and other institutions (ex. Fundación CBD-Habitat). Main goals of the strategy are: 1) maintain current nuclei of lynx presence (Sierra de Cardena-Andújar and Doñana), 2) eliminate human-caused mortality, 3) support and develop the captive breeding programme, 4) plan re-introductions in favourable areas, 5) promote knowledge and awareness in Andalusian society to finally secure species’ conservation in large scale and long-term.

Conservation actions of the Junta de Andalucía are realised mainly through the LIFE programme. As most lynx in the Sierra Morena (Sierra de Cardena-Andújar) live on private hunting estates, JdA, Fundación CBD-Habitat and Adena/WWF all sign agreements with estates owners. The contracts incorporate a moratorium on rabbit hunting, proper management methods and the preservation of habitat suitable for lynx. The conservation institutions maintain numerous *in situ* projects to improve the habitat and to increase the local rabbit density. The Veterinary Faculty of the University of Córdoba and Doñana National Park perform projects on epidemiological aspects of rabbit conservation and management.

• **Carlos Calvete** presented the **current status and trends of the rabbit populations**, there is, however, very limited baseline data on the rabbit population and its dynamic available. Calvete’s presentation revealed that we lack basic knowledge about rabbit population status, dynamics, epidemiology, and interaction between the two diseases (rabbit hemorrhagic disease and myxomatosis). Such information is urgently needed in order to define management and conservation approaches such as translocations and re-stockings of rabbits.

• **Astrid Vargas** (director of the conservation breeding programme and captive breeding centre El Acebuche) presented **status, organization and plans for the conservation breeding programme**. The programme is supervised by the Bilateral Commission (representing the Spanish Ministry of Environment and the Regional Government of Andalucía), with an executive director and an advisory committee of national and international experts on captive breeding. The recent plan had been revised in 2004, was approved by the Bilateral Commission and is now being implemented.

The projection of the possible captive reproduction with the animals now in captivity and a presumed very careful incorporation of new animals into the captive stock suggests that 85% of existing genetic variability will be preserved within the next 30 years. To fulfil this plan, it is needed to incorporate an additional 4 kittens from the wild (from both existing populations) per year, in order to create a captive population of 60 individuals within the next five years. Such a population would allow reassigning 12 individuals to reintroduction programs, starting in 2011. At present there are 12 animals incorporated in the breeding stock (4 males, 8 females), of which 5 (2,3) are in breeding age.

There is a need to create a system of coordinated breeding centres (exclusive and associated) in Spain and Portugal. Furthermore, detailed reintroduction plans must be elaborated, including an assessment of suitable habitat, healthy prey populations, clear protection status and human acceptance.

The El Acebuche centre team prepares a manual of all concepts, procedures, protocols and activities of the captive breeding centre (husbandry, veterinary, sanitary and genetic aspects) in order to assure a quality management system (most documents are available in the Iberian Lynx Conservation Compendium).

- **Francisco Palomares** presented **how to integrate scientific approach into conservation work**, using long-time experience of research work on lynx ecology in Doñana area. On one hand, urgent action is needed to save the two remnant populations, on the other hand, it is crucial to **understand** the effect of measures taken on the population dynamics of the lynx and its prey. The approach chosen by the Estación Biológica de Doñana is to perform conservation measures as scientific experiments with clear predictions and a strict monitoring of the effect on the populations. This will not only allow identifying the critical biological and ecological factors, but also to optimise the conservation procedures.

- **Borja Heredia** reviewed **the efficiency and implementations of the recommendations from the Andújar seminar in 2002**, how those recommendations had been followed, and where progress was made. The general impression is positive – mainly in regard to the co-operation between different organisations – and we can observe significant progress in actions and coordination, but there are still many urgent activities to be taken (basic studies on rabbit ecology and diseases, habitat improvement work, etc.).

- **Urs Breitenmoser** demonstrated **how to use the IUCN/SSC Red List approach and re-introduction guidelines to define a recovery strategy for the Iberian lynx**. According to the Red List criteria, IUCN up-listed the Iberian lynx to Critically Endangered in 2002), with following justification: “With the population declined to less than half of the 1,200 estimated in the early 1990s, the Iberian Lynx is close to becoming the first wild cat species to go extinct for at least 2,000 years. Based on estimates of density and geographic range (Nowell and Jackson 1996), the total effective population size of the Iberian lynx is estimated at 250 mature breeding individuals, with a declining trend due to habitat and prey base loss and persecution, and no subpopulation containing more than 50 mature breeding individuals”. The IUCN criteria to classify a species (or to change its classification, respectively) consider the size, the structure and the fragmentation of the population, the dynamic (rate of decline), and the threats. These criteria can also be used to define goals and intermediate goals for a recovery strategy. The talk presented possible recovery scenarios for lynx populations, allowing a step-wise down-listing of the species to Endangered, and then Vulnerable.

Fridolin Zimmermann and Jose Garcia Santiago prepared a preliminary analysis of the landscape of Southern Spain and Portugal, which revealed about 32 patches of >100km² of suitable habitat for lynx recovery. This would offer space for app. 1500 mature lynx individuals (mean density 10 animals/100 km²). Creation of population nuclei chain along Sierra Morena forming a meta-population would be possible. Still, some patches are separated, so “stepping stones” and habitat corridors should be maintained or re-created. Suitable habitat is an ultimate precondition for the existence of lynx and its main prey, the rabbit. However, habitat quality is not the only factor influencing the availability of prey, as the dynamics of the diseases may not or only partly be habitat related.

- The plenary session ended up with a **round table discussion on how to bring lynx conservation message to the society**.

16–17 December – Workshops

The next two days were dedicated to addressing specific scientific and technical questions in small working groups and were restricted to a limited number of invited attendants. The workshop exercise aimed to elaborate a position paper addressing urgent actions to be undertaken in short and long-term scale. **Jonathon Hornbrook** and **Yelena Yakovleva** facilitated the workshop and helped the participants to compile the results.

- **Manuela von Arx** presented the **Iberian Lynx Conservation Compendium** (see specific report), which is a collection of information, data, documents, maps, scientific and popular publications, news and many other

materials relevant for the conservation of the Iberian lynx. The ILCC was available in an offline version on a CD Rom at the workshop, and it will be made available to a general public in an online version.

Participants were invited to attend in one of six working groups' discussions:

WG 1. Lynx: Assessment of the conservation status of the remnant populations (Doñana and Andújar).
Convener: **Rafael Cadenas**.

WG 2. Rabbit: Survey, research and recovery of the rabbit populations. Convener: **Pablo Ferreras**.

WG 3. Space: Management of living space and habitat for the recovery of the Iberian lynx. Convener:
Francisco Palomares.

WG 4. In+Ex: Linking *in situ* and *ex situ* conservation efforts. Convener: **Astrid Vargas**.

WG 5. Outreach: Outlines for a common strategy for communication, awareness, and outreach. Convener:
Ricardo Gamaza.

WG 6. Funding: Financial needs and funding strategy for short-, mid- and long-term conservation activities.
Convener: **Magnus Sylven**.

Each working group discussed the present status of the understanding of its topic, the ongoing work, problems and progress, and the future needs. The working groups finally identified the following priorities:

WG 1. Lynx: Assessment of the conservation status of the remnant populations (Doñana and Andújar).

1. Adoption and implementation of recovery plans and update of the national strategy for the Iberian lynx conservation.
2. Increase population size and re-colonize to stable territories.
3. Continue actions aimed to improve rabbit population size and condition.
4. Maintain a permanent monitoring system of lynx populations.
5. Reduce non-natural mortality.
6. Stop and reverse habitat degradation and loss, using the 1990 distribution as a reference.

WG 2. Rabbit: Survey, research and recovery of the rabbit populations.

1. Creation of “rabbit working group” (similar to “lynx working group”).
2. Elaboration of standardized monitoring and management protocols for rabbits.
3. Improve knowledge on rabbit ecology and epidemiology of the diseases.
4. Promote adequate rabbit management practices.

WG 3. Space: Management of living space and habitat for the recovery of the Iberian lynx.

1. Maintain and improve habitats and sites for the existing tow populations.
2. Assure that the existing habitats with lynx are adequately protected and that protection is effectively implemented.
3. Create new nuclei of lynx populations in the Iberian Peninsula (southern Spain and Portugal).
4. Assure that lynx habitat conservation is considered in other sectors of land use policy for existing and planned sites.

WG 4. In+Ex: Linking *in situ* and *ex situ* conservation efforts.

1. Identify, improve and prepare habitat for eventual re-introduction projects in Spanish regions and in Portugal, using IUCN criteria.
2. Build adequate breeding facilities in sufficient number and extension, according to the established protocol.
3. Study genetics of both, the captive and wild population to design and implement a combined management approach.
4. Update the model for assessment of the impact on populations of existing lynx, using recent data.

WG 5. Outreach: Outlines for a common strategy for communication, awareness, and outreach.

1. Promotion of the Iberian lynx compendium as an instrument to share knowledge and improve the outreach.
2. “One coordinator and one strategy in one year” – clear and effective coordination of undertaken actions.
3. Knowing to be efficient: Do we know the real impact of our campaigns?
4. “Lynx goes to school” – education activities.

WG 6. Funding: Financial needs and funding strategy for short-, mid- and long-term conservation activities.

1. Estimate costs of lynx recovery for next 20 years.
2. Acquisition of significant future funds for the conservation of the Iberian lynx from EU.
3. Strengthen and expand funding at the national and regional level and maximise opportunities for obtaining private funding.
4. Maximise fundraising effort.

Results of the discussions were compiled in a standardised form and presented to the plenum on the third day. The conclusions and recommendations from the whole seminar were finally presented at a press conference by the Consejera de Medio Ambiente de la Junta de Andalucía, S^{ra} Fuensanta Coves.

Conclusions and next steps.

The situation of the lynx population in the wild is very critical, it has not improved compared to the situation two years ago. There are indications that the Andújar population has stabilised, and locally, the reproduction has even improved, but the Doñana population is still declining. However, compared to the 1st International seminar in October 2002 in Andújar, the “human dimension” is much better. We have now an atmosphere of mutual trust and cooperation, even though there are still considerable differences regarding the interpretation of data, priorities, and approaches. Most conservation actions are now coordinated by clearly identified institutions; central and Andalusian administrations work together on both, political and technical level; the conservation breeding programme has much improved with defined goals, clear methodology, and a cooperation with Spanish and international experts. Finally, all requirements for a successful breeding of Iberian lynx in captivity have been met. This year a national and Andalusian strategy for the Iberian lynx conservation and the recovery plan will be elaborated and updated, hopefully providing a larger and more comprehensive vision with conservation goals and actions for the whole Iberian Peninsula.

There immediate actions to be undertaken as a follow-up of the Cordoba seminar are:

- 1) Compile the presentations, discussions, priorities and recommendations of the Cordoba meeting into proceedings made available in English and Spanish.
- 2) Create a rabbit working group facilitating basic research on rabbit population ecology, diseases and their interactions and dynamics, rabbit conservation breeding and re-stocking actions.
- 3) Assure the continued work on lynx habitat improvement and protection through new/follow-up projects of the ongoing activities (e.g. a new LIFE project). Improve and expand the cooperation with other public or private sectors (infrastructure, agriculture, etc.).
- 4) Draft an outline plan for possible releases from the captive breeding programme and proper management of chosen areas by means of a more detailed analysis of the landscape and habitat, using a GIS modelling approach.
- 5) Further cooperation between Spain and Portugal and – within Spain – between the provinces.

All participants felt that the Cordoba seminar – compared to the Andújar meeting two years earlier – had been hold in a much more relaxed and productive atmosphere, and that more relevant details had been addressed and discussed. It was suggested that another meeting to review the progress and problems of the Iberian lynx conservation with international participation should be hold in about two years from now. In the meantime, the specific working groups should continue – or commence – their work. Besides the existing working groups for the *in situ* and *ex situ* conservation of the lynx, a rabbit working group and a habitat (modelling) working group were the most urgent.