

## **Report on the visit to the Lynx Conservation Breeding Centre El Acebuche, Doñana National Park, Andalusia from 15-18<sup>th</sup> February 2004**

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The purpose of my three-day visit to the breeding centre was to provide professional help with all aspects of the set-up and running of the captive breeding of the Iberian Lynx (*Lynx pardinus*).

**Sunday 15<sup>th</sup>** was spent travelling from Wuppertal, Germany to Matalascañas, Spain, only 3 km from the breeding centre. The evening was spent together with Dr. Astrid Vargas and Luis Diez Klink discussing the working and meeting schedule for the following days.

**Monday 16<sup>th</sup>** started with a meeting with of all four people staffing the breeding centre at the research office:

Dr. Astrid Vargas, Director of Ex-Situ Conservation Project

Fernando Martinez, Head veterinarian

Luis Diez Klink, Administrative co-ordinator

Juana Bergara, Keeper

Discussion points and recommendations were about: keeper schedule, cleaning routine, feeding routine, pairing of lynx, behaviour of lynx in mating period, nest box design etc.

We went to work at the breeding centre: We started with the careful examination of all five Iberian lynx present, followed by thorough examination of the main enclosures. Especially we jointly checked the enclosure security: I recommended attaching extra mesh against lynx pushing their paws through the large chain-linked mesh; also it was important to close the gaps above the vertical sliding doors to avoid lynx on both sides of the door to push their paws through to the other side. We removed discarded wire that has been left there for attaching camouflage items to hide the mesh for filming and photography. We removed tree stumps that could have served as escape ladders for the male lynx from the main enclosure. We released the male lynx from the management cage into his main enclosure. Further we jointly checked the breeding enclosure and mother-cub outside enclosures. We discussed the design and favourable alterations to be made before use. Some of my recommendations were to renew the shade cloth, remove all unnecessary debris and wire, exchange the soil for new one, all this at least two weeks before the expected birth of future cubs, in order not to disturb the future mother to close to the birth.

Afterwards we went to the quarantine building: we discussed about furnishing of two interconnected enclosures and I recommended adding more ledges and also to reduce the echo, which causes auditory stress to wild-caught quarantined animals. Brush can be stuck in big moveable pots that break up the sound and give the lynx the ability to hide partially from the viewers. These pots can be removed and discarded quickly and cheaply for the next quarantined animal. I suggested to change and to add a security of the counterweights of the connecting sliding doors. We talked about the necessity to build a second, possibly adjacent quarantine building, by extending the present building, that would allow housing two lynx comfortably, but not in direct contact to each other.

Back at the research office we examined the two in-house indoor and outdoor cages that were built for future Iberian lynx hand-raising: Recommendations were to renew the current outside furnishing, add more ledges for exercise and I pointed out possible sources of injury to curious cubs. In the adjacent laboratory room we talked about the acquisition of basic equipment for hormone research, buying capture nets and a selection of equipment for chemical capture

(blowpipes, darts, possibly a light dart gun, drugs) and a table for quick examination for minor injuries of sedated lynx.

I observed the keepers feeding routine in the afternoon and the specific reactions of the four females. The females are: 1) the old wild-caught lynx, “Morena” 14-year old, 2) the three-year old “Esperanza” - hand-raised without con-specifics – just sexually mature and kept in the enclosure adjacent to the mature male. 3) and 4) the two jointly raised two-year-old females “Aura” and “Saliega” – possibly also ready for mating.

Back at the breeding centre we decided to bring one of the two youngest females next to the male enclosure to allow for mutual stimulation into breeding condition. We chose to attempt to trap the old female to give her enclosure to one of the younger females with a higher likelihood for breeding. We made up some small alteration on the tomahawk-style trap and put it overnight inside the old female’s management cage for her to get used to it. It is important to develop a suitable trap, so that future shifts of animals amongst the different enclosures can be made more easily. It would be ideal to install interconnecting corridors to allow a lynx to move from one row of four interconnected main enclosures to the opposite row.

I suggested a video surveillance system for being able to observe the reactions of the male to the females and vice-versa. During my visit the male was still very shy and thus impossible to observe in a relaxed state in human presence, due to his recent transfer into captivity and into the breeding centre. The possibility to see his reactions at night, without the keeper’s presence is very important to decide when to pair up the male with the female, i.e. when does friendly contact through the mesh take place? Recording “head butting”-greeting. After pairing the lynx they could even be filmed while mating.

**Tuesday 17<sup>th</sup>** started with further joint checking of enclosures vacated after shifting of the two youngest females. Like the previous day we jointly went through the 500 m<sup>2</sup> main enclosures looking for possible sources of injury to the lynx and danger of escape. After this we made several attempts to trap the old female, but she did not enter the tomahawk-style trap. Change of tactics with different types of bait. Further we discussed the genetic management and structure of the breeding programme. We observed the two jointly raised younger females and their reaction to each other after their physical separation for several months. They were surprisingly friendly towards each other, head-butting through the separating mesh and vocalizing. After seeing this I recommended temporarily joining them up physically for some days, then separating them again, for behavioural enrichment and social contacts with con-specifics, even when they were not yet ready for mating. This will positively influence the hand-raised lynx in their reaction to strange male lynxes in future. Even shifting the young females between their enclosures will keep them behaviourally flexible and open to new situations while allowing them to examine each other’s scent marks.

**Wednesday 18<sup>th</sup>** started with discussion about future work of the ex-situ project and my involvement in coming visits and participation in workshops. I left in mid-morning back to Málaga and later Germany.

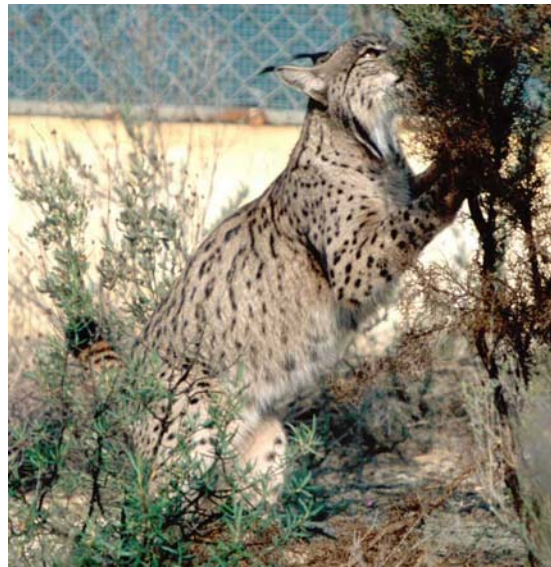
**Summary of visit and outlook:** I am impressed by the staff of the centre, who despite starting with their new tasks of managing captive Iberian lynx only recently, show good progress and exceptional dedication. They are on the way to become proficient, and will profit from careful guiding in small details given on the ground and hands-on. The centre is very well designed and its use offers excellent prospects for a successful breeding programme for the Iberian lynx. The staff of the breeding centre stated that my visit gained them a great deal of new insights and they grew more

confident with dealing with the lynx making steps towards successful captive breeding. I believe that temporarily recurring visits of similar duration to the breeding centre with ongoing discussion about management with all staff involved will benefit the breeding programme. Repeated visits will be spent to assess progress and discuss about small details of improvement.

P.S. After my return from the visit I could give instant advice to the staff via telephone, due to my detailed knowledge of the centre and the animals. This has assisted the successful introduction of the adult male Iberian lynx “Garfio” to the hand-raised female “Esperanza”. Mating may even be expected in the coming weeks!



Male “Garfio” after release into his main enclosure.



Female „Saliega“ checking scent marks of female „Aura“ after switching enclosures.