

# ZooLex News & design for August

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Hello ZooLex Friend, We have worked for your enjoyment!

## NEW EXHIBIT PRESENTATION

Lynx Wood at the Zoological Gardens of Pistoia in Italy is a naturalistic display of the habitat of European lynx. The exhibit is located in natural deciduous mixed forest and was furnished with additional trees, trunks, climbing structures and a den in order to promote natural behaviours of lynxes & make the scenery more interesting for visitors.

<http://www.zoolex.org/zoolexcgi/view.py?id=1000>

## NATURALISTIC ENRICHMENT

Ideally, behaviour enrichment should not only serve the animals, but also the message that is meant to be communicated to the observing public. Obvious artificial enrichment devices can detract a naturalistic visitor experience. We are therefore pleased to present Jon Coe's article on naturalistic enrichment and to share his ideas with our readers: <http://www.zoolex.org/research.html> download here (1,28 mb): <http://www.zoolex.org/publication/coe/NaturalisticEnrichment2006.pdf>

## PUBLISHING IN THE ZOOLEX GALLERY

When you open a new exhibit please consider a presentation in ZooLex. The design brief, animal and plant list, illustrative plan and press releases are still at hand. This is the best time for publishing. The ZooLex template makes it easy to prepare a presentation: <http://www.zoolex.org/service.html>

Publishing in ZooLex is free. Submissions to the ZooLex Gallery can be done by zoo staff, someone from the design team or a volunteer. We publish only in agreement with the institution hosting the exhibit to be presented. The ZooLex Editorial Board edits all presentations before publication: <http://www.zoolex.org/editors.html> The ZooLex archive is saved at the WAZA Executive Office in Bern: <http://www.zoolex.org/archive.html>

## WHAT TO SUBMIT TO THE GALLERY

The ZooLex Gallery features all types of animal exhibits. We found that the ZooLex audience is very interested in the use of new technologies in exhibit design, and in new combinations of species. We also try to present exhibits for animals which are hard to keep or particularly rare. We like to show exhibits that provide animals with a suitable environment, keepers with an appropriate working place and visitors with a desirable experience. We particularly welcome presentations of low budget exhibits as role models for our professional audience. We think that plants and interpretation should play an important role in exhibit design and invite presenters of exhibits with a botanical or educational emphasis. We are also looking for exhibits focussing on conservation.

Exhibit presentations of these types are desirable contributions to the ZooLex Gallery.

We look forward to receiving your contribution to the ZooLex Gallery!

We keep working on ZooLex

The ZooLex Zoo Design Organization is a non-profit organization registered in Austria (ZVR-Zahl 933849053). ZooLex runs a professional zoo design website and distributes this newsletter. More information and contact: <http://www.zoolex.org/about.html>



**Zoological Gardens of Pistoia Lynx Wood** Francesca Bandoli, Zoological Gardens of Pistoia (author) Monika Fiby (editor for ZooLex)  
Published 2008-7-18

**LOCATION:** Via Pieve a Celle 160/a , 51030 Pistoia, Italy  
Phone: +39-0573911219  
Fax: +390573910343  
URL: <http://www.zoodipistoia.it>

**KEY WORDS:** feline, temperate forest

## ANIMALS:

**Family:** feline

**Species:** *Lynx lynx*

**Common Name:** European lynx

**Capacity:** 2.2.0



**Overview - Red highlights the European lynx's exhibit. The exhibit is located in the northern part of the zoo, ©Zoological Gardens of Pistoia, 2008**

**DESCRIPTION:** The European lynx was extinct in vast parts of Southern and Western Europe since the early twentieth century. During the 1970s the species was re-introduced in Italy and Switzerland. It has been one of the rarest and least known European mammal species up to now. Due to its critical conservation status and its educational value, the zoo has housed European lynx since 1972. In 2001 the institution started renovating many exhibits in order to assure animal welfare, to promote conservation education and to support conservation of threatened species. The new European lynx exhibit was constructed in 2007 by modifying and enlarging the enclosure where the Montecristo goats were previously housed. It is located at the beginning of the visitors' path through the zoo, near the wolf exhibit. In 2009 a new brown bear exhibit is being constructed in the same area. The zoo's goal is to let visitors gain experience of these rare and often dreaded animals and to increase public awareness of the importance of their conservation.

The exhibit covers a wooded hill and consists of an open top enclosure and an off-exhibit enclosure. The open top enclosure is connected with the off-exhibit enclosure. Both have natural soil with vegetation. The exhibit is confined with a 4 m high wire-mesh fence equipped with deflectors at the edge and hot-wires to prevent animal escape. The exhibit is located in deciduous mixed forest. The open top enclosure is furnished with trees, trunks, rocks, climbing structures and a den to display the lynx's natural habitat and to guarantee the animals' welfare. A pond and a creek were created to enrich the site. The creek leaves the open top enclosure and flows to a lake below, connecting the exhibit with the surrounding



**Piano wire construction** Piano wire was placed in front of the creek in the central part of the exhibit  
©Zoological Gardens of Pistoia, 2007

environment. Five glass panels and a viewing point, equipped with piano-wire, are available for visitors to observe lynxes from different points. The exhibit's location, the lush vegetation and the sound of the water offer visitors a naturalistic experience of a lynx habitat and are intended to raise their interest in conservation issues.

**SIZE:** The exhibit covers an area of 2300 m<sup>2</sup>.  
Space allocation in square meters: exhibit covers an area of 2300 m<sup>2</sup>.

**COSTS:**  
Euro 107,000 including 5% for design.  
Design: 5% of total costs. Maintenance: 5% of total costs. Construction: 90% of total costs.

**OPENING DATE:**  
28 April 2007

**DESIGN:**  
Beginning: 8 May 2005

**CONSTRUCTION:**  
Beginning: 1 October 2006

- fences, viewing platforms, earthworks: Bacci Renzo & C. S.N.C., Via Lastricci, 43 51020 Pistoia Italy
- tree planting: Vivai Piante Angori Rossella, Via Traversa del Pillone, 4 51100 Pistoia Italy



**Lynx on Climbing Structures**  
©Zoological Gardens of Pistoia, 2007



**The Creek** The creek is located in the central part of the exhibit. It creates a pond in front of the piano wire and then flows towards the lake below. Through piano wire visitors can clearly hear the creek's sound and have a naturalistic experience into the surrounding environment  
©Zoological Gardens of Pistoia, 2007

#### PLANTS:

The site is completely surrounded by deciduous mixed forest of oak and pine. The existing plants were preserved. Other plant species, such as firs and hornbeams, were chosen to enrich the site with the typical flora of the temperate climate. Thus, the exhibit has become part of the surrounding environment and offers visitors a naturalistic experience of a lynx habitat.

#### FEATURES DEDICATED TO ANIMALS:

The exhibit was designed to recreate the lynxes' natural habitat in order to assure the animals' welfare and to satisfy their needs. So, the open top enclosure was furnished with luxuriant vegetation and naturalistic features like a creek, a pond and many rocks. Trunks, up to 3 meter high climbing structures and a den were also prepared to promote the lynxes' natural behaviours and to support their well-being. Thanks to the exhibit's structures, the animals can retreat from visitors, enjoy sunny areas during the winter where they can warm up and areas in the shade during the summer where they can refresh themselves.

#### FEATURES DEDICATED TO KEEPERS:

The exhibit is easily reachable by a service road. The off-exhibit enclosure is accessible through a corridor with two doors. The open top enclosure is accessible by vehicles through a gate at the top end of the exhibit. The gate is equipped with a door. If necessary, lynxes can be locked within the off-exhibit enclosure and keepers can easily control where they are.

#### FEATURES DEDICATED TO VISITORS:

The exhibit is easily accessible to everybody. Five observation points were created to let visitors observe lynxes in their natural environment. Through a large glass panel near the top of the exhibit visitors can see a wide part of the open top enclosure and have a good view of the climbing structures. On the left side of the exhibit another large glass panel was constructed whereas, on the right side, two small glass panels were created to let people look at the animals surrounded by the natural vegetation. Another small glass panel is located in the "house of researchers", at the top of the exhibit. The "house of researchers" is an education exhibit where visitors can observe and touch instruments used by researchers to study and protect wild animals, such as wolves and lynxes. Unusual objects and devices attract visitors' attention, promote interaction and facilitate understanding of information. In the central part of the exhibit, where the creek flows into a pond and then towards the lake below, piano wire was placed. A glass panel would obstruct the view of the animals due to the light reflection. Moreover, thanks to the absence of solid barriers, visitors can hear the creek's sound and enjoy a naturalistic experience in nature. In front of the piano wire children can cross the creek and have fun walking on the rocks. Visitors can use several big trunks surrounded by trees to sit down and rest.

#### INTERPRETATION:

Panels with facts and fundamental information about the European lynx were created in order to let visitors learn about the biology, ethology and conservation status of the species displayed. Every week-end, from March to November, zoo educators welcome



**Information about Lynxes** ©Zool. Gardens of Pistoia, 2007



**Open Top Enclosure ©Zoological Gardens of Pistoia, 2007**

visitors nearby the exhibit, display animal derivatives, such as skulls and furs, and interact with the public providing information about lynxes and conservation issues. Educators also explain the zoo's efforts in conservation, education and research and answer visitors' questions satisfying their curiosity. Night guided tours are also organized in order to let people observe animals, such as wolves, European lynxes and Eurasian eagle-owls, when they are active. Thanks to the strong emotional impact the guided tours promote a high involvement and interest of the visitors in biological conservation issues.

**MANAGEMENT:**

The exhibit is controlled and maintained by one keeper a day. Behaviour enrichment usually consist in encouraging natural foraging behaviour by hiding or hanging up food and changing the feeding time.

**CONSERVATION:**

Zoological Gardens of Pistoia is involved in programmes for nature conservation devoting itself to waste management and recycling. The exhibit



**Viewing Platform and Education Exhibit (Near the top of the exhibit a viewing platform equipped with a glass panel is available for visitors. Moreover, a small glass panel was placed in the "house of researchers", an education exhibit which is located near the viewing platform)**  
 ©Zoological Gardens of Pistoia, 2007



**Education Exhibit Here visitors can observe and touch instruments used by researchers to study and protect wild animals, such as wolves and lynxes. Unusual objects and devices attract visitors' attention, promoting interaction and improving understanding of information**  
 ©Zoological Gardens of Pistoia, 2007

promotes a system of water recycling. The water of the lake is utilized to create the creek in the lynx exhibit. The creek flows down to the lake below refurbishing it with water. Part of the water is used to irrigate plants.

**LOCAL RESOURCES:**

The construction companies were from Pistoia Province. Rocks, which were used to construct the central part of the exhibit, were extracted from stone pits in the Pistoia Province. Timber came from chestnut monocultures in Tuscany.



**Other Observation Points (On the right side of the exhibit two small glass panels were placed to allow people search for lynxes while being surrounded by the natural vegetation)**  
 ©Zoological Gardens of Pistoia, 2007