

# Everland Zoological Gardens

October 10, 2014





# Introduction of Everland



An average of 11.7°C

-15~-2.5°C in winter

25~35°C in summer

In the Everland Zoo

The first 'Lion Safari' completed in 1974

\* Yong-In Farmland (Zoo & Lion safari) open

Theme of Zoological Gardens : ZOOTOPIA

\* Zoological + Utopia = ZOOTOPIA

(A place where animals and humans live in harmony)



# Introduction of Everland

## Everland

Being Korea's very first theme park, Everland contributes to the development of the nation's leisure culture with various seasonal celebrations, newest attractions, exiting zoo, welcoming lodging and many other programs and facilities. Our goals is to provide very special experience for each and every visitors.



1

2

3

- ◎ Attractions
- ◎ Entertainment
- ◎ Zoological Garden
- ◎ Home Bridge

1 T-Express

2 Herbivore Safari

3 Summer Splash



# Current Information

## Animal inventory

Number of species : 195

Number of animals : 2,100 (year 2014)

## Area of Zoo

12 hectares

They study the ecology and environment which the animal originate

Providing good clean and correct environmental ecosystem for animals

## Membership

Accredited by WAZA (institutional membership, 2002)

\* World Aquarium & Zoo Association



# Mission Statement

## Education

- Emphasis on conservation responsibility

## Research

- To bring public awareness of nature and animals that share our world

## Conservation

- Working closely with the College of Veterinary Medicine at Seoul National University to understand Korea native animals.

## Recreation

- Provides guest with inspiration and understanding of nature, while providing overall unique experience.



# The Role

Concentration on:

## **Natural Environmental Education**

and

## **Species Survival**

- Visitors can learn the importance of nature through various exhibitions and display of animal while having fun through positive edutainment with animals
- A broad range of education on nature for adults and especially children.  
An enhanced appreciation of nature.
- Understanding natural ecosystems in Korea.
- International programs to conserve habitat and protected species in the wild.



# Exhibition

- Various enrichments increase activity and strengthen friendships with keeper
- Environmental change on regular basis creates excitement and prevents stereotyped-behavior.
- Story-telling event provides interesting information about Animals.





# Exhibition









# Animal Conservation

- Korea's endangered animals (7 species 53 individuals)
  - Endangered Species Of Wild Fauna And Flora Ex-Situ Conservation Institutions
  - \* Designated by the Ministry of Environment in 2003
  
- Successful in breeding globally endangered animals
  - Natural monument (Korea goral, white-naped crane, Sealion, etc)





# Encounter Programs

- Founding of Animal kids Love (2006)
  - Protecting animals and spreading the significance of life
  - Annual membership education program designed for elementary school students with step-by-step curriculum(3 levels)
  
- Live Animal School, Lost Valley's Backside Experience Program
  - provides direct close encounter with various animals





# Encounter Programs





# Research

□ Nation-wide veterinary college field education (2007~)

- Total 71 attendants from 10 colleges,  
Total 14 attendants from foreign veterinary college
- Seoul National University veterinary college senior field education(2013~)  
: 2~4weeks of field education as the selected wild animal education facility



□ Kongju Nation University Department of Companion  
Laboratory Animal Science keeper field education(2013~)

- Performing basic animal breeding duty  
research of animal enrichment, nutrition, and reproduction





# Research





# Conservation

## ◆ Outline of Conservation of Everland Zoo

- Conservation efforts of Korean native animals  
Everland Zoological Gardens has preserved and kept these pure breeds under close watch. : Goral, White-napped crane, Red - crane





# Conservation

## ◆ Outline of Conservation of Everland Zoo







# Everland Animals

- ▲ Introducing and educating about new Habitat environment and exotic animals & strengthening animal-human bond

The world ' s first talking elephant, Kosik

Fruition of parent-like care and love, Zoo keeper, Kim Jong Gap.  
Ability to speak 7 words. ('Good', 'No', 'Lie down', 'Not yet', 'Foot', 'Sit', 'Yes')

- \* Thesis published on Kosik's vocal research case  
Famous Scientific journal 'Current Biology' Joint Research (Dr. Dinel, Austria)





# Everland Animals

- The world's first mammal that can mimic human speech
- He uses his trunk to imitate human speech

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### S.Korean Park Features Talking Pachyderm

South Korean park showcases 16-year-old male Asian elephant capable of humanlike sounds

SEOUL, South Korea, Sep. 8, 2006



**(AP)** He's no Dumbo the Flying Elephant but with his ability to "speak," perhaps as close to the Disney cartoon character as a real life elephant can get.

The Everland amusement park said Friday its 16-year-old male Asian elephant, named Kosik, can make sounds imitating up to eight Korean words, including "sit," "no," "yes," and "lie down."

The pachyderm produces humanlike sounds by putting his trunk in his mouth and shaking it while exhaling — similar to how people whistle with their fingers. But the park said it's unclear if Kosik knows the meaning of the sounds he makes.

Kim Jong-gap, who has been Kosik's keeper for 10 years, said he first heard the elephant speak two years ago.

**(AP)** "It was hard to believe myself at first," Kim said in a statement. "As I watched Kosik say something after that, I realized he was mimicking my words."

There have been studies that suggest elephants can mimic sounds, but the park claims that Kosik displays the ability to imitate a human voice.





# Everland Animals

Please cite this article as: Bogue et al., An Asian Elephant Imitates Human Speech, *Current Biology* (2012), <http://dx.doi.org/10.1016/j.cub.2012.09.022>

## Report

### An Asian Elephant Imitates Human Speech

Angela S. Bogue,<sup>1,2\*</sup> Deniz Mitchen,<sup>3,4</sup> Sukhan Oh,<sup>5</sup> Sherrin de Silva,<sup>6</sup> Christian T. Herbst,<sup>1</sup> Soonwhan Kwon,<sup>1</sup> and W. Tecumseh Fitch<sup>1,7</sup>  
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<sup>5</sup>Elephant Forest and Environment Conservation Trust, 215 A 3/7 Park Road, Colombo 5, Sri Lanka

**Summary**  
 Vocal imitation has convergently evolved in many species, allowing learning and cultural transmission of complex, conspecific sounds, as in birdsong [1, 2]. Scattered instances also exist of vocal imitation across species, including rockjays imitating other species or parrots and mynahs producing human speech [3, 4]. Here, we docu-

ment that an adult male banyan (*Delphinapterus leucas*) imitated his name "Luigo" [15]. Anecdotal reports further suggest that a male Asian elephant (*Elephas maximus*) in a zoo in Kazakhstan might have been capable of producing speech-like utterances in Russian and Kazakh [15], but documentation is lacking.  
 Human speech imitation in animals requires a complex match between vocal perception and production to perceive, decode, and reproduce the speech signal. Despite considerable effort, several attempts to train apes to imitate human speech provide little support for ape vocal imitation abilities [13]. The inability of our nearest living relatives to imitate speech apparently stems from poor cortical-motor control of the larynx and the vocal tract [14–16]. Despite lacking certain morphological structures that humans use to articulate speech sounds (e.g., having a beak instead of lips), some animals can overcome morphological constraints that might seem to preclude production of human sounds, as long as neuronal circuitry specialized for perceiving and reproducing an acoustic signal is available.  
 Here, we analyze human speech imitation by a male Asian elephant named Noshik from the Everland Zoo in South Korea, augmenting and extending prior evidence of vocal imitation in elephants [17].



<Current Biology>  
 Asian elephant mimics human speech

## BRIEF REPORT

### Changes in Fecal Estrogen Levels and Sexual Behavior in Captive Sichuan Snub-Nosed Monkeys (*Rhinopithecus roxellana*) Following a Male Replacement

Yena Kim,<sup>1,2</sup> Eunha Ko,<sup>1</sup> Susan Lappan,<sup>1,3</sup> Alan Kezefe,<sup>4</sup> Soo Whan Kwon,<sup>5</sup> and Jae Chun Choe<sup>1\*</sup>  
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Allopathic rhesus are generally seasonal breeders, although copulation can occur throughout the year. Previous studies suggest that estradiol modulates female sexual behavior during the mating season. However, the effects of social context on estrogen levels and behavior have not been fully explored. We studied the relationship between social behavior and fecal estrogen in a group of captive *R. roxellana* during a period of social instability. We collected behavioral data for six months and collected fecal samples at 2–3-day intervals for four months spanning the mating and nonmating seasons, and analyzed fecal estrogen levels via RIA. Females showed clear cyclic solicitation and copulation peaks in the mating season, which corresponded with sharp peaks in fecal estrogen. During the nonmating season, solicitation rates, copulation rates, and fecal estrogen were generally low. However, one pregnant female displayed a sharp peak in solicitation, copulation,



<Zoo Biology>  
 Golden monkey breeding

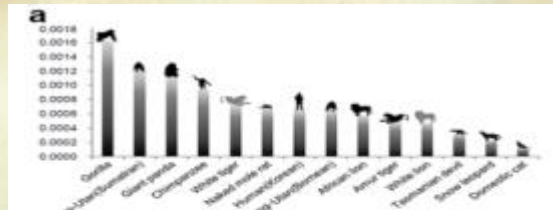


그림 4 | 대왕 고양이과 동물들의 유전적 다양성 (a)

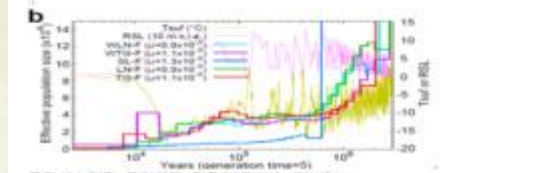


그림 4 | 대왕 고양이과 동물들의 개체수 역사 (b)



<Nature communications>  
 Genome analysis of Amur tigers



# Everland Animals

- ▲ Outstanding reproductive result in Large herbivores  
→ Animal conservation & Respect of life

Mother Giraffe 'Jang-soon' Set a World Record at Ever land Zoo

- \* Korea's delivery of giraffe twins ('97.8.31) : very rare probability 0.004%
- \* World record for fecundity ('13.8) : World record(Birth of her 18th calf)
- \* Accumulation of long-time breeding know-how : individual animal maintenance





**Thank you !**

