13 – 16 March 2017







## DIVERSE TOOLS TO ENGAGE AUDIENCES WITH NATURE How creative design sparks conservation education diversity in EAZA zoos and aquariums

#### POSTERS

## Cátia Oliveira, Antonieta Costa; Lisbon Zoo; Lisbon Zoo Holiday camps - a bridge between child development and environmental education

To run, play and create are children's natural principles. Zoo Holiday camps promote a space where children can express their movements with greater freedom and creativity; they are an excellent opportunity to body education and environmental awareness.

Children, don't worry about moral codes of beauty, they receive uncensored sensations of nature directly. This characteristic, along with curiosity, predisposition to play and the need for movement, are important allies of education, but in most cases are considered as elements that difficult discipline. Children create their own experiences, which contributes to an emotional connection with the environment, building a body identity in the development of autonomy and creativity. Visual arts, theatre and music serve as a stage for the construction of a new knowledge, they learn how to be part of nature and stop looking at it from an outside perspective. We abuse of the natural resources because our identification with nature is lost. If the approach and emotional connection to nature are restored, along with an education that promotes this reconciliation, we can reverse the process of loss and destruction of nature.

This poster explains and illustrates with real images this association between educational practices and infant development theories in Lisbon Zoo Holidays Camps.

Ludwig Deur, Fanny Blais; Académie de Fauconnerie du Grand Parc du Puy du Fou; How to improve the cohabitation with a protected local species, the barn swallow

The "Grand Parc du Puy du Fou" shelters every year a large wild barn swallow population during the summer season. This migratory species makes its home in the park during its breeding season. The barn swallow especially likes to nest in open spaces, along the wooden beams, such as our sanitary

blocks and restaurants.

Its coming is a very good thing for local biodiversity, but cohabitation with visitors can sometimes be difficult. Indeed, the swallows quickly dirty the common spaces and their babies occupy quickly all the space!

The teenagers of the Académie Junior Nature Fauconnerie worked on this issue during several animations

(knowledge of the bird, meeting with the local associations for the protection of nature called C.P.I.E, to find solutions, creation of adapted layout allowing a better cohabitation).

13 – 16 March 2017

Hosted by Paris Zoo, France

Jasper Hughes; RZSS Highland Wildlife Park; The Wildlife Wombles and RZSS Highland Wildlife Park 2014-2017

There are many people (both children and adults) who visit RZSS Highland Wildlife Park that have special education needs and disabilities. One of our partners is the Wildlife Wombles, their aim is to enhance the well-being of local participants and to promote greater engagement within their local community in the Highlands. Special education and mental health can come with unseen barriers of mistrust, misunderstanding, prejudice and stigma which can reduce their social interactions. The Wombles want to change people's perceptions and to promote greater acceptance and understanding within the public realm.

The Wildlife Wombles have engaged with marginalised and potentially disenfranchised people and along with our partnership has allowed them to have a voice and gain better understanding of their own abilities and their place within their local communities and the environment. It has allowed them the opportunity to meet like-minded people in a safe and controlled environment to learn about animals, conservation and sustainability. They have gained many social skills and have had experiences that many people do not get on a typical visit to the Park. The Wombles have gained knowledge about animals and zoos by participating in a wide variety of activities both with the public and specific events for themselves.

#### Cathriona Hickey; ZSL Whipsnade Zoo; Innovative projects at ZSL Whipsnade Zoo

The Discovery & Learning team at ZSL Whipsnade Zoo have begun an exciting new partnership with two different schools.

- A six week programme for students to research the role of Zoos and scientific careers. D&L collected data from the students on their beliefs, attitudes towards Zoos pre and post course. Results showcased that students changed their attitudes towards Zoos and increased their knowledge around scientific careers in the Zoo community.
- 2. The second project is an innovative project that brought together science, technology, engineering and maths.
  - The students designed enrichment devices, and presented these designs to Zookeeper and a member of the D&L team via a digital platform
  - Once critiqued, the students worked together to further design, 3D print and model the enrichment.
  - The students visited the Zoo to monitor the impact of the enrichment device.
  - A Zookeeper gave a tour of the facility and described the length of time enrichment captures the imagination of the animal – usually 3min. The enrichment device designed by the students kept the animals attention for three hours!

Going through the development process, these two projects are being rolled out to be offered to other schools in the UK.

#### 13 – 16 March 2017

Hosted by Paris Zoo, France

Linda Ferrante<sub>1</sub>, William Ellery Samuels<sub>2</sub>, Simona Normando<sub>1</sub>, Daniela Florio<sub>3</sub>, Federica Bordignon<sub>4</sub>, Lieve Meers<sub>5</sub>, Barbara de Mori<sub>1</sub>; 1 University of Padova, Padova, Italy, 2 The City University of New York, New York, USA, 3 University of Bologna, Bologna, Italy, 4 Safari Ravenna, Ravenna, Italy, 5 Belgian Institute for Animal Assisted Therapy, Assenede, Belgium; What do Italian visitors think about zoos?

The investigation of visitors' profiles and attitudes is a crucial starting point for planning an effective conservation education strategy as it's pointed out in EAZA Conservation Education Standards. We investigated if Italian visitors are aware of the potential of zoos and ready to support their actions. This abstract focuses on 4 of the 24 questions of a questionnaire (n=1233) administered in Safari Ravenna (Italy) in 2016. 76% of visitors agreed that Safari Ravenna can contribute to the protection of seas and 54% suggested that it should be active in local networks of environmental associations. We questioned about the maintaining of animals in captivity and visitors answered that this practice can be justified only for the opportunity to educate (778) and for the conservation of endangered species (770), but not for entertainment (170). Similar opinions were found when we asked about the role of zoos: 578 visitors ascribed to zoos an essential role in the conservation of species, 493 in education, only 72 visitors replied that zoos' essential role is entertainment.

The study confirmed that visitors are aware of the potential of zoos in conservation education. Moreover, zoos are expected to play a more important role in conservation in the future.

Natalia Álvarez Montes, Tanja Ruch and Paul W. Dierkes; Goethe University Frankfurt – Bioscience Education & Zoo Biology, Opel-Zoo Kronberg; **Evaluating visitor attitudes in the field of conservation biology** 

The aim of the study is to see the habits and self-motivations of zoo visitors and non-zoo visitors in seven different European countries in order to evaluate their attitudes in the field of conservation biology.

This study is part of a larger survey-based evaluation of educational impacts of visits to zoos around Europe. Procedural and sampling guidance documents were produced for all participating institutions to promote consistency in data collection and organization at each site. Zoo recruitment spanned eleven months (March 2015-February 2016). The data used in this poster are derived from these visitor interviews.

Current studies point to a complex interaction of sociocultural and psychological factors behind human responses to wildlife. Under this principle, zoos can provide visitors with positive emotional experiences that are rich and varied. Several of the emotions seen relate to a positive orientation towards animals, and especially to the desire to save the species observed mainly by the regular zoo visitors.

13 – 16 March 2017

Hosted by Paris Zoo, France

Katerina Zareva-Simeonova, Marcel Fens; Sofia Zoo; The people beside animals in Sofia Zoo – storytelling in photo exhibition

The photo exhibition "The people beside animals in Sofia Zoo" is a unique project of Sofia Zoo and a Dutch photographer Marcel Fens. The impressive photos gives the chance to have a glimpse behind the curtain and to feel the deep emotions, love, trust and bonds between keepers and animals in Sofia Zoo. Also, under each photo, one can find interesting information and curious facts. The exhibition consists of 25 panels and have been already shown in various other places such as National Museum of Natural History and in Cultural Center in Burgas of the Black sea coast.

Katerina Zareva-Simeonova, Rositsa Gyurova-Lubenova; Sofia Zoo; Arts and culture events in Sofia Zoo

Sofia Zoo is a traditional venue for carrying out musical, artistic and educational events for children and adults. In the heart of the zoo there is an amphitheatre with open stage where the annual concert for the adopters and friends of the zoo is taking place in spring. In the last years this was the place for various musical events – Folk festival, Jazz concerts, art workshops for visitors dwelling on the relationship between animals and humans. In the five day programme of the summer zoo school, organized by the Educational department there is a special Art day. Children learn about the history of art and have the chance to show their creativity. In our World Rhino Day campaign we have used for storytelling famous pieces of art, such as "The Rhinoceros" of Albrecht Dürer.

Guillaume Romano, Brigitte Annereau; Natur'Zoo de Mervent; One zoo, One school, one association...to save Bamboo lemurs

For several years, the Nerv'Zoo de Mervent has been supporting Helpsimus.

We wanted to go further in this support.

In 2014, a correspondence was set up between the school of Mervent and that of Sahofika, a Madagascan village present in the territory of bamboo lemurs.

In 2015, the French school organizes, with the support of the town hall and the zoo, collections for Malagasy children (books, pencils, games, clothes ...). An exhibition is organized at the Natur'Zoo to sensitize the visitors.

Money was raised to build a school canteen through the zoo and school children.

Today, the Natur'Zoo and the school of Mervent help the 5 schools of the bamboo lemur zone in partnership with Helpsimus.

This poster will tell the different stages of this help and the complementarity between the Natur'Zoo, the school and the association Helpsimus.

13 – 16 March 2017

Hosted by Paris Zoo, France

Guillaume Romano, Brigitte Annereau; Natur'Zoo de Mervent; Let It Grow for a small zoo

The Natur'Zoo is a small zoo with 6 employees (keepers, welcome ...). Despite this, the team has set up, with the local recreation center, forest activities with professionals and a large exhibition throughout the park for visitors:

- the tale "small tree wants to grow" for young visitors
- real-size forest animals (made of wood and painted by children)
- games on leaves, age of trees, beaks of birds, fingerprints, insects.
- the forest of the 5 senses.
- the day's forest and the night forest ...

The inauguration made it possible to bring in the politicians and the press. Our manager to plant trees with children ...

A full and rich campaign that our visitors have enjoyed.

Paula Calatrava, Noelia Benito, José Vicente de Lucio; Zoo-Aquarium de Madrid and UAH (Universidad Alcala de Henares), Spain; Evaluation of the Educational Message in Madrid Zoo Summer Camps

This study has two parts: the first is the educational program designed for the Madrid Zoo summer camps. This program relates to gorilla conservation and Smartphone consumption (coltan) through a set of educational activities. The second part is the evaluation of the educational effects on the participants (150 children aged 8 to 13 years old). This was done by using the children's experiences that they projected in drawings, and measuring on a metric scale their percieved capacity to contribute to conservation problem solving. Children did the survey on the first day of the summer camp (before the educational intervention), and they did the same survey on the last day of the summer camp (after the educational intervention).

The main finding of this research is that participants in the Madrid Zoo summer camps assimilate the educational experience projecting it in different ways in their drawings. After the educational intervention, 20% of the participants drew elements related to recycling, 8.7% to coltan, 18.7% to smartphones or electronic devices and 18% to sustainable consumption. These percentages were significantly higher than those before the educational intervention. We can conclude that we observe significant changes in understanding and sensibility as well as conscious desire to positively intervene in resolving the environmental problems raised.

## Elena Agafonova, Maria Sokolovskaya; Leningrad Zoo, Saint Petersburg, Russia; A long-standing Zoo programme introducing the students of the young zoologists' club to the local biodiversity

The experience gained over the many years of working with children aged 11-12 who join the Research Club at Zoo, has shown that the majority of them are less knowledgeable about the local fauna and flora. Therefore, a special programme introducing the wildlife of the native region to the children was developed. Considering that children remain members of the Club for about 4 years, the programme covers several stages and besides Zoo-based sessions includes 1-3-day field trips. Classroom sessions and special trainings during which the children learn to use field guides, binoculars and a spyglass, take place at the Zoo and later greatly facilitates the instruction in the field. In many

13 – 16 March 2017

Hosted by Paris Zoo, France

games and quests the children learn about local bird and mammal species that are part of the Zoo animal collection. In addition to Zoo-based sessions, the Club educators arrange interactive excursions to the Zoological Museum of the Russian Academy of Sciences where the children complete some tasks and thus learn about the fauna of the region. Thanks to the field sessions conducted throughout the whole year, the children are introduced to seasonal changes in the life of the local fauna, taught to recognise many plant species, mushrooms and lichens, as well as distinguish traces of animal vital activities. The assessment of the outcomes of this programme shows a high effectiveness of such a complex approach to teaching children about the local biodiversity.

Elena Agafonova, Svetlana Alexandrova, Maria Sokolovskaya; Leningrad Zoo, Saint Petersburg, Russia; In situ conservation projects of the Zoo as a foundation for education programmes aimed at various audiences

Over the last 15 years, the Department for Science at Leningrad Zoo has been cooperating with the 'Valaam Archipelago' nature park (a group of islands in the northern part of Lake Ladoga – the largest freshwater lake in Europe) to carry out conservation projects aimed at research and preservation of the local biodiversity. The research data has become a foundation for a number of educational programmes developed for various audiences. For family groups and individual visitors, there is an interactive game-playing platform introducing the wildlife of Lake Ladoga and the islands to the public. Children and their parents can go on a short journey under ice, encountering fish and invertebrates that inhabit Ladoga, or find themselves in a den of the lake's endemic species – Ladoga ringed seal (Pusa hispida ladogensis). From video and audio files of the seals' calls collected in the expeditions organised by the Zoo, both adults and children learn more about the behaviour of the species. The players of different games learn about aquatic and semi-aquatic birds, their migration patterns, colonies on the Ladoga islands, marine species nesting at Ladoga. As part of formal education, an interactive session "The Ladoga journey" is conducted for junior schoolchildren during which they learn about the origin and characteristics of the lake, its unique fauna. For older schoolchildren, students, and adult visitors, a special lecture hall is running. To assess the effectiveness of the programme education, a system of tests and tasks was designed.

#### Svetlana Alexandrova, Svetlana Antonova, Liubov Pripisnova; Leningrad Zoo, Saint Petersburg, Russia; «The Zoo Academy» where adults and children can learn about the work the Zoo staff do

Certain members of the public – mostly people aged 16 to 40 – are currently being somewhat skeptical towards zoos in general. These people, as a rule, actually know very little about modern zoos and their major lines of work. It was precisely adult visitors who we wanted to engage in active learning about the Zoo staff work that is aimed at providing a high level of animal welfare and sustainability. Considering that more than 50% of the Zoo visitors are family groups with preschoolers and junior schoolchildren, we decided to design a programme called "The Zoo Academy" which would encourage parents and children to learn together. The purpose of the programme delivered on the

#### 13 – 16 March 2017

#### Hosted by Paris Zoo, France

Zoo birthday was to introduce as many visitors as possible to the complex and amazing daily practice of the Zoo and to the variety of jobs here. We arranged 18 interactive meeting points where, while playing and with the help of their parents, children could acquire some skills and knowledge about the Zoo staff of various jobs. They included keepers taking care of different animal groups, a trainer, an educator, a collection manager, a logistics manager, a translator, a veterinarian, a research officer, a librarian, an archivist, a horticulture expert, a zoo nutritionist, and others. More than 60 members of the Zoo staff and trained volunteers helped the Zoo educators deliver the programme. The results of the survey completed by the public on that day showed a significant increase in the number of adults appreciating the Zoo work.

#### Svetlana Antonova, Aleksandra Lupanova, Liubov Pripisnova; Leningrad Zoo, Saint Petersburg, Russia; Contrasting two different approaches to working with preschoolers at the Zoo

In 2016, the Education Department team conducted a research aimed at comparing the effectiveness of two main approaches to working with children aged 5-6. The two approaches are currently in use for the deliverance of the Zoo formal education for groups of preschoolers. A test programme was selected – the one introducing children to various aspects of relationships between animals and humans. For four groups of children, the educators employed the method of 'look and listen', which took the form of a story told by an educator. The story was interspersed with presentations of tame animals, pictures and videos, as well as with talks with the children where they could ask the educator questions. For four other groups of children of the same age, the programme was delivered in the way of 'think and do'. In class, the same tame animals were demonstrated, in addition to materials and videos just like for the first four groups. The approach, however, was different as the children were supposed to learn new things by doing some work themselves, in discussions, role-plays, research projects supervised by an educator. One, five, and ten days after each class, the educators conducted tests to assess how much the children have learnt and remember. Besides, the children's emotional state in class and their involvement in the process of learning were observed. The educators at day-care centres who work with these groups as well as the parents were also surveyed.

Rizzelli Daniele<sup>1</sup>, Durazzi Daniela<sup>2</sup>; 1: Zoomarine Italia Spa 2: Ass. Acondroplasia, insieme per crescere (Achondroplasia, together to grow up); **Interviewed, the bee said: "I will survive!"** 

Honey bees and other pollinators are dying off at unprecedented rates around the world. First in France, then in the U.S. and elsewhere, colonies have been mysteriously collapsing with adult bees abandoning their hives. Honey bees pollinate 71 of the 100 most common crops that account for 90% of the world's food supply, making managed honey bees the most economically important pollinator.

The action is now mandatory! For this the Conservation Education is to be done as quickly as possible and not only with children and young people, but also with adult because we cannot wait for children to become aware adults! Storytelling was the first tool we thought about. With a simple tale that

#### 13 – 16 March 2017

Hosted by Paris Zoo, France

explain the life of bees, how much they are important, all the work they do and all the challenges they face every day we brought them into the life of many persons for whom they were only dangerous insects!

Through social networks, website, blogs and live visits to recreational centres and special events at bars we spread seeds on honey bees conservation hoping at least few of them will germinate. The "Interview with a bee" is a published book; English version is on the way.

Laura Myers, Joni Hut; EAZA Executive Office; Introducing the European Professional Zookeeper Qualification Framework (EPZQF)

The EPZQF is an EU funded project co-ordinated by EAZA, in partnership with different zoos, regional associations, and educational institution. The goal of the project is to develop a framework identifying the key competencies required to be a professional keeper working in an EU zoo, and to design some training modules to help staff reach the expected competency levels.

This presentation will introduce the project, present the initial draft of the framework and progress made on the project to date, and highlight the importance of the project for educators. The framework can be useful for any educators whose role also includes animal care, and educators can also play an important role in helping keeping staff to develop their communication and education skills.

# Marta Tezza, Katia Dell'Aira; Parco Natura Viva Garda Zoological Park srl; Internship at PNV: a job for students to understand how a zoo works

One of the aims of Parco Natura Viva is the engagement of young people to be a little bit more aware of their surrounding. It is strictly necessary to create an environmentalist culture in the new generation living in the cities. We would like they will be able to wonder, discover, learn and go through this multidisciplinary experience. Because of this mindset and according to the governative regulations, Parco Natura Viva has been involved in the implementation of some agreements with some secondary schools. Students can come to our zoo and they can stay there for a period of two weeks or more. At the beginning, they follow some lessons about biology of the animals housed in the park and their management. During this period they can understand the different professional figures working in our zoo. This allow them to realize that the organization of the activities is multifaceted and the different approach of an educator, a researcher or a vet to the same subject.

They're involved in the organization of didactic activities in order to engage visitors, in the preparation of the enrichments, and in other different works depending on the season (summer camp or winter job). At the end of their internship, students can better understand how a zoo works, changing their way of thinking about it. They feel more close to themes in which we strongly believe, and they become aware they can make the difference.

13 – 16 March 2017

Hosted by Paris Zoo, France

#### Carola Polastri, Katia Dell'Aira, Marta Tezza; Parco Natura Viva Garda Zoological Park srl; Summer Camp at Parco Natura Viva 2016 - preliminary results

Zoos play a key role in ex-situ conservation of threatened species, in order to conserve them and their habitats. To reach this goal, one aim is to inform and involve the public in understanding this mission fundamental especially for young people, who could change the future of endangered animals. Because of this reason, for 9 years PNV's educational department organises summer camps for a period of 12 weeks, presenting a different theme each week and organising workshops, games and short lessons about nature and conservation. The way chosen to analyse children attending summer camp 2016 is a mix of quantitative and qualitative methods. Three questionnaires, one for each charismatic species previously chosen, were delivered to every child the first day and the last day.

In total six weeks and 177 children were analysed. Results prove the importance of PNV's summer camps in educating children about nature. Most of the analysed children improved their knowledge.

PNV summer camps are important to plan well-structured conservation education activities, to increase the learning of species and to help young people to have naturalistic thinking, in order to be aware of the mission of saving biodiversity. For the future of Nature, engaging people in conservation decisions will be necessary, and summer camp could play a great role for this aim.

Corinne Di Trani-Zimmermann, David Di Paolo; Parc Zoologique et Botanique de Mulhouse; Categorization, Systematics, Phylogeny and Evolution. How to treat unity and diversity of life with 3 to 18 aged children

The discovery of nature is accompanied by the natural need to name and to classify it. Working at different levels of comprehension requires adapting methods, examples and reasoning in order to understand both unity and diversity of nature. An increasing demand of activities about classification methods has encouraged us to develop different approaches based on children age.

The first approach is for early childhood (2-5 years old). Mainly sensorial (sight and touch), it is the traditional Linnaean classification based on external characters derived from a common ancestor (feathers, hair, scales). The second approach (8-10 years old) is observational in a first time and takes into account the necessity to investigate the real nature of observations without being influenced by any previous knowledge; animals are then clustered together according to their similarities. With the third approach (11-13 years old), the "kin" concept is introduced and visualized both in a box-in-box system and on a simple phylogenetic tree. The Mulhouse Education dept. provides also special field observation sessions on Primates evolution including human evolution. Second degree students are then asked to practice phenetic methods at school (with the Phylogène Software) clustering organisms on the basis of shared derived characters (cladistics).

13 – 16 March 2017

Hosted by Paris Zoo, France

Corinne Di Trani-Zimmermann, David Di Paolo; Parc Zoologique et Botanique de Mulhouse; Hoplà Nature ! Feel the local nature at the Parc Zoologique et Botanique de Mulhouse

From April to October 2016 fifteen days were organised to make visitors aware of the local nature by different ways. People were invited to observe, within the park, local flora and fauna they can also find in their city and country, to plant seeds and grow plants, to create green spaces, to play and find recreation and relaxation, to taste leaves and flowers.

The zoo staff together with local partners for nature conservation raised awareness of the visitors on protection of local biodiversity by several ways: 1/ providing 20 different workshops: land art, role-playing games, birdwatching, batwatching and echolocation hearing, games of clue, origami, wild survival activities, composting, making nesting and feeding boxes; 2/ organising conferences and exhibitions with local associations for the protection of the environment, the zoo becoming a showroom for their activities not familiar to visitors.

Some questions have been raised such as: are our local species as important as exotic ones? How man is relied to them? How does nature sustain us?

Last but not least, the park is involved in local conservation programs for reintroduction of locally extinct or rare flora and fauna species (i.e. European pond turtle and many endangered local plants).

Ewa Zgrabczyńska, Anna Niewiada, Małgorzata Chodyła; Poznań Zoo; International campaigns and events in Poznań Zoo

Since 1989 more than 263 tonnes of ivory have been destroyed, typically by burning or crushing, during special events in 21 countries around the world. In 2016, at Poznań Zoo we burnt nine kilos of elephant tusks as a protest against illegal ivory trade. The deforestation of forests for palm oil industry in Indonesia and Malaysia was a topic of a very special multimedia educational show to say NO for products containing palm oil. The animal right to live without a pain was presented - in cooperation with Open Cages Association- to ban fur farms. We established an asylum for rescued foxes. Animals are ambassadors of an idea to stop using wild species for human pleasure.

Educational events - performance "taking life away", exhibition "price of fur", speeches with guests, lectures for children - told about conditions of keeping animals at farms and results for the natural environment.

13 – 16 March 2017

Hosted by Paris Zoo, France

Marion Cabrol; Amneville Zoo; Hay to preserve the fauna and the flora of the local meadow

To preserve the fauna and the flora of the local meadow, Amneville Zoo accompanied the creation of a marketing label "hay of remarkable grasslands", in partnership with the Regional Natural Park of Lorraine.

By feeding its animals with this hay, it contributes to preserve the territory.

This action was developed to preserve local nature and landscapes.

Vera Vrabcova; Usti nad Labem Zoo; Usti nad Labem Zoo and Campaign Let It Grow

The conservation story began in 1908. Heinrich Lumpe bought a six-hectare property from the town of Usti nad Labem to set up a bird reserve. Called Heinrich Lumpe Park, it became the first sanctuary of its kind in Central Europe. Heinrich Lumpe was devoted to ornithology in his leisure time; a naturalist of European importance, he won a number of merits and awards and was recognized by many experts. Those visiting the park could see that emphasis was put on education and awareness raising. Once World War 2 was over, a zoological garden began to emerge from HL Park. Although it holds mainly exotic wildlife, it still supports Heinrich Lumpe's legacy.

The zoo in Usti nad Labem joined the pan-European campaign dedicated to the protection of nature in people's neighbourhood. The aim was to show that any of us can take an action, no matter how great or small, to protect animals, plants and their native habitats.