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ZOOQUARIA

WINTER 2011/12

ISSUE 76

Inland seas
MANAGING ENVIRONMENTS FOR MARINE MAMMALS

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PETR COLAS

Help to halt the extinction crisis in Asia

For the first time in our campaigning history, EAZA has joined forces with IUCN/SSC. Both EAZA and IUCN/SSC want to draw attention to the extinction crisis in Southeast Asia: many large Southeast Asian animal species face imminent extinction. The main threats are commercial trade in animals and animal parts, and ongoing habitat loss.

The threat of extinction really is on our doorstep: a month ago WWF and the International Rhino Foundation confirmed that the Javan rhinoceros (*Rhinoceros sondaicus*) has become extinct in Vietnam. The last Javan rhino was poached for its horn in April 2010.

The EAZA IUCN/SSC Southeast Asia Campaign aims to respond to the crisis by raising funds for Southeast Asian *in situ* conservation initiatives, educating the European zoo-going public about the extinction crisis (and what they can do to help), and highlighting to the EU and other bodies the ongoing need for strict trade controls and effective enforcement of existing legislation. In total 166 Southeast Asian animal species are recognised as campaign-eligible species: they weigh over 1kg and are either Endangered or Critically Endangered.

Many of the campaign-eligible species can be found in EAZA members' collections. If your zoo hasn't signed up yet, do so as soon as possible! The more zoos that participate, the more effective we will be as a conservation-minded zoo community. The campaign DVD info-pack has been distributed to all members along with this issue of *Zooquaria*, containing a whole range of new and inspiring campaign materials, including face-painting designs, masks, species factsheets, images of campaign species, and information panels.

Signing up is very easy. The EAZA IUCN/SSC Southeast Asia Campaign website is now fully up and running. Simply visit www.southeastasiacampaign.org and make your way to the sign-up section. Fill in the required information and your zoo will be listed on the website as a new campaign participant. After successfully signing up you will receive a password that grants you access to the protected resources section on the website.

As a zoo community we can make a stand and effectively contribute to halting the decline of these beautiful and enigmatic species. Join the EAZA IUCN/SSC Southeast Asia Campaign today! If you have any questions or suggestions about the campaign, please contact us at: info@southeastasiacampaign.org.

Zooquaria

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From the Director's Chair

So another busy conference season has passed and I would like to take this opportunity to thank our colleagues at Montpellier for their hosting of our Annual Conference 2011. Thanks also to all those delegates who took the time to fill out the strategic planning postcards and the post-conference survey. Feedback from our members is invaluable, both for planning our longer-term future and also ensuring we can continue to deliver a successful and effective annual conference. I also attended in quick succession after our own conference the annual meetings of CBSG and WAZA in Prague.

A busy summer over, I took the opportunity to enjoy a long-awaited 40th birthday present – a hiking trip to the Grand Canyon. We were lucky enough to see a pair of introduced Californian condors there, truly stunning birds and testament to the importance and efficacy of captive breeding for conservation by zoos. This species was down to 22 birds in the wild in 1985 and had last reliably been seen in the canyon in the 1920s before its reintroduction in recent years.

As we travelled down through the canyon, from ponderosa pine forest on the rim to desert at the canyon depths, we passed though millions of years of geology before arriving at the cold and turbulent Colorado River, relentlessly cutting its way through these geological layers. Along the banks you find the dark Vishnu schist, intercut with flashing pink seams of Zoroaster granite. These rocks are 1.8 billion years old, over a third of the age of our planet. I repeat: a third of the age of our planet.

Standing in this amazing place I thought a lot about time and the time running out for the wild places on our planet and the animals that rely upon them. This is the first year of the UN International Decade of Biodiversity, with the new 2020 biodiversity (Aichi) targets being eagerly endorsed by governments around the world. There we have it: 10 years to save the biodiversity of the planet. Ten years to save our current faunal assemblage that took hundreds of millions of years to evolve, on a planet that has been spinning through space for 4.5 billion years. But of course the urgency is because we as a species have been so effective at cutting out great chunks of this biodiversity and fragmenting it to the point of it breaking down in a little over 200 years of industrialisation and runaway population numbers, a miniscule fragment of time.

The condor is a fine example of how zoos can use their expertise in breeding endangered species for recovery. This is covered in our responsibilities to reach Aichi target 12, but target number one is about communicating biodiversity – something that responsible zoos do every day.

Communication is a complicated thing as was highlighted to me a few weeks ago. I sat in a restaurant one Sunday lunchtime and watched as the table next to ours was filled by a family of five; mother, father, two teenage daughters and young son. During the 30 minutes that our visits overlapped the father and both girls spent the entire time on their mobile phones, texting or looking at the internet. The table was almost entirely silent apart from occasional mechanical noises: a remarkable example of how the inventive species that we are has created tools that have transformed long-distance communication for the better, but at the same time are corrupting the way we relate to each other face to face.

What do we do as zoos to counter this dislocation from genuine communication by the ever more powerful virtual world? Well, perhaps we need to be ever more bold and inventive. What about having areas of our zoos in which mobile signals are blocked, telling our visitors this in advance, letting them know that what we believe in is real communication, dialogue, a passion for the living world. And perhaps also a reminder that in their busy working lives, zoos are places where families actually talk to each other, concentrate on what each other is saying and can discuss their role in our world and saving biodiversity for the future.

Rock and time and a soaring condor. We have 10 years to play our part in saving the worlds biodiversity – please sign up to become partners in the UN Decade of Biodiversity (go to http://www.cbd.int/2011-2020/ or via the front page of our website). Additionally please sign up to the EAZA/IUCN-SSC Southeast Asia campaign, one of the most high profile ways the EAZA community can support the Aichi targets.

Thank you.

Dr Lesley Dickie
Executive Director, EAZA

NOTICEBOARD

THOMAS JERMANN, ZOO BASEL

WANTED: NEW HOLDERS FOR THE PYGMY HIPPO EEP

AS THE YEAR 2010 BEGAN, the global captive population of the pygmy hippo (*Choeropsis liberiensis*), one of the two extant hippopotamus species from Africa, stood at 330 individuals, *writes Thomas Jermann, Zoo Basel*. Many of these are held at private institutions or zoos that do not participate in any formal captive breeding programme. With 120 individuals in the EEP as of 1 January 2010, the European captive breeding programme thus has a special responsibility for the captive population of this species. The only other official breeding programme we know of is in the US which has approximately 30 individuals. If we want to achieve the goal of preserving 90% of the gene diversity within the EEP over 100 years, we will need to increase the population size to approximately 140 individuals. Therefore, we urgently need new holders for the pygmy hippo EEP to ensure that the population is viable in the long term and has a sound genetic base.

In captivity, pygmy hippos need heated indoor housing, pools inside and outside as well as a mud wallow and plenty of shaded areas. They are a crepuscular and solitary species and pairs often need to be kept separately.

On the IUCN red list, the pygmy hippo is classified as Vulnerable. Its main threats are deforestation, hunting for meat, persecution by people and oil pollution. In 2010, a pygmy hippo conservation strategy workshop was held in Monrovia, Liberia, where the status of the wild population and its threats were reviewed. A resolution was drafted for the heads of state of the range countries and cooperation in research and conservation was agreed. In addition, various conservation projects for this species were presented, all of them in need of support. The pygmy hippo is thus an ideal species for raising the visitors' awareness of the need for nature conservation and for providing an insight into the role that zoos and EEPs play in the protection of species.

If you are interested in keeping the threatened pygmy hippopotamus, please contact Beatrice Steck, Pygmy Hippo EEP, Zoo Basel, Switzerland, steck@zoobasel.ch.

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ZOOPROFIS	(www.zooprofis.de)
ZooTrend	(www.zootrend.com)

EAZA APE CONSERVATION FUND: AN UPDATE

THE EAZA APE CAMPAIGN was officially brought to a close at Montpellier 2011, *writes Mirko Marseille, Executive Coordinator of Communications and Membership*. A total of €100,000 has been distributed and granted to the pre-selected projects in Kalimantan (orangutan), China/Vietnam (cao-vit gibbon), Cameroon (chimpanzees/gorillas) and Democratic Republic of Congo (bonobos).

Project updates for the four pre-selected projects will be made available through the Ape Campaign website. Campaign participants have so far generated more than E400,000 for the conservation of the apes. It is anticipated that even more funds will become available as not all participants have transferred their donations yet. Furthermore, many zoos have stated that they will continue raising funds for the EAZA Ape Conservation Fund.

The selection committee of the EAZA Ape Conservation Fund is preparing for the first application round opening in December. Further information and application forms will soon be available on the EAZA website. All EAZA member zoos will receive an application invitation from the EAZA Ape Conservation Fund selection committee.

EAZA APE CAMPAIGN

NOTICEBOARD

DAVE ROLFE

NEW TAPIR APPEARS

THE KEEPERS AT PORT LYMPNE Wild Animal Park in the UK were delighted when Kejutan, an extremely rare Malayan tapir, was born this autumn. The new arrival is the ninth successful tapir birth at the park.

Malayan tapirs are born after a gestation period of approximately 13 months and are brown with white spots and stripes. As they reach maturity the distinctive black and white colouring comes through, which gives excellent coverage in moonlit forests.

'Kejutan means surprise in Malaysian and this little chap is surprisingly advanced for his age', says Head Hoofstock Keeper Bob Savill. 'It is a sad fact that the Malayan tapir is in decline in the wild and there are very few in animal collections, so when Kejutan grows up he will hopefully go on to breed and help ensure the continuation of these wonderful animals through our captive breeding programme.'

BREEDING SUCCESS FOR THREE CAT EEPS

ANTHONY TUAL; AURORE GUIET

CLOCKWISE FROM ABOVE: SAND CAT CUBS, GEOFFROY'S CAT HILARIA, CLOUDED LEOPARDS PARENTS AND CUB

2011 WAS A VERY GOOD YEAR in Pont-Scorff Zoo (France) for felids, with births aking place among no fewer than three EEP species: sand cat, clouded leopard and Geoffroy's cat.

Staff had been working with sand cats and Geoffroy's cats for two years without breeding success, and the team have put this year's great results down partly to a new policy on environmental enrichment, which included creating a new post to run this aspect of the animals' lives. The sand cat enclosure had been moved into the Reptile House to provide the animals with more suitable temperature and humidity, while increased enrichment for the Geoffroy's cats was a factor in the two animals' good relationship.

The clouded leopard, however, was perhaps the highlight, as zoo births among these animals are rare. By creating a number of maternity boxes, staff gave Chien, the female, plenty of birthing options. Two cubs were born (Tempokele and Tenshi) and rapidly became the new stars of the zoo.

LOCAL WOOD SCHEME FOR GORILLAS

A SPECIAL COLLABORATION between Nürnberg Zoo and timber certifier Holz von Hier is focusing on the protection of gorilla habitats, and raising awareness of deforestation issues. The redesign of the zoo's own ape house is part of the overall aim to draw attention to the importance of ensuring that timber comes from sustainable sources.

The zoo's exhibition on the subject and the ape house itself are proving extremely popular with visitors. At the entrance stands a life-size gorilla made of indigenous oak (very popular for photographers) while the exit is shaped like a huge tree trunk, through which the visitors walk. Inside the exhibit are examples of indigenous timber species that are used in many ways within the ape house, from paneling and benches to a writing desk.

Holz von Hier certifies climate-friendly, ecologically sound use of timber products via low transportation rates throughout the whole production process, as well as the promotion of indigenous timber from sustainably managed German forests.

Welcome to the new members approved by Council in Montpellier on 23 September 2011.

BURSA ZOO

Director: Nermin Sigirci
Contact: Sila Smith, Yakın Çevre Yolu 2.km Soğanlı, 16190 BURSA, TURKEY
FULL MEMBER
Tel: +90 224 211 28 30
Email: bursazoo@yahoo.com
Website: www.bursahayvanatbahcesi.com
Shortname: BURSA

Bursa Zoo is a mid-sized municipal zoo located on the outskirts of Turkey's fourth most populous city. With support from a mentor appointed under the EAZA Candidate for Membership system and considerable advice from external consultants the zoo has developed in an impressive way since opening in 1998. It has a mixed collection featuring a range of African, Asian and European species kept in spacious, well-designed enclosures. There are plans to build a number of significant new enclosures in the coming years and considerable increases in visitor numbers are anticipated.

Date of opening: 1998 (original zoo in Culture Park opened in 1955)
Size: 20ha
Staff: 82
Number of species: 74
Number of visitors: 368,334 (2010)
Organisational type: Municipal

JARDIN ZOOLOGIQUE TROPICAL

Director/Contact: Jean-Michel Dupuyoo, Saint-Honoré, 83250 LA LONDE-LES-MAURES, FRANCE
TEMPORARY MEMBER FOR 2 YEARS
Tél: +33 4 94 35 02 15 **Fax:** +33 4 94 05 27 79
Email: info@zootropical.com
Website: www.zootropical.com
Shortname: LA LONDE LES MAURES

Jardin Zoologique Tropical is a small family-run business situated some 100km east of Marseille. It comprises an area of 6ha and its collection focus lies on birds, plants and recently added lemurs – which is the reason for the recent name change from 'Jardin d'Oiseaux Tropicaux' to 'Jardin Zoologique Tropical'. The park is well maintained, nicely located and pleasant.

Date of opening: 1989
Size: 6ha
Staff: 6
Number of visitors: 36,246 (2009)
Organisational type: Private

PARC ANIMALIER DE SAINTE-CROIX

Directors: Laurent et Pierre Singer
Contact: Jennifer Lahoreau, 57810 RHODES, FRANCE
FULL MEMBER
Tél: + 33 3 87 03 92 05
Email : info@parcsaintecroix.com
Website: www.parcsaintecroix.com
Shortname: SAINTE-CROIX

The Parc Animalier de Sainte-Croix is a family-run zoo situated in the Department of Moselle and part of the Regional Natural Park of Lorraine. It was transformed in the 1980s with the aim of introducing people - especially children - to European fauna and flora. The park covers 120ha, has 5km of trails and is characterised by huge enclosures with mixed European species exhibits. There is also a strong emphasis on education which is extensive, creative and exemplary. The extension of the veterinary station and the quarantine facilities added to the improvements and updating of some specific enclosures will increase the already very high level of this park.

Date of opening: 1980
Size: 120ha
Staff: 23.5 (including part-time positions)
Number of visitors: 214,775 (2009)
Organisational type: Private/Family owned

ZOO DE MAUBEUGE

Director/Contact: Goulven Rigaux, Avenue du Parc, 59600 MAUBEUGE, FRANCE
TEMPORARY MEMBER FOR 2 YEARS
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Email : contact@zoodemaubeuge.fr
Website: www.zoodemaubeuge.fr
Shortname: MAUBEUGE

Zoo de Maubeuge is a traditional zoo in the centre of Maubeuge, a city in the north of France, close to the Belgian border. The zoo is built in and around a fortification: the ancient city walls. In the last decade, with renewed support from the municipality and with a new team consisitng of young, skilled and highly motivated staff members, Zoo de Maubeuge has worked on improving and modernising the zoo to what it is today.

Date of opening: 1955
Size: 18 acres
Staff: 30
Number of visitors: 149,348 (2009)
Organisational type: Municipal Government

SHEPRETH WILDLIFE PARK

Director: Terry Willers
Contact: Rebecca Willers, Station Road, Shepreth, HERTS, SG8 6PZ, UK
TEMPORARY MEMBER FOR 1 YEAR
Tel: +44 1763 262 226
Email : rebecca@sheprethwildlifepark.co.uk
Website: www.sheprethwildlifepark.co.uk
Shortname: SHEPRETH

Shepreth Wildlife Park was created as a rescue centre and subsequently developed into a small zoo southeast of Cambridge. The park is characterised by natural and realistic looking enclosures, enabling the animals to perform their innate behaviours. Most species, more particularly the exotic ones, come from rescue centres for unwanted pets and/or were given to this institution by zoos which were closing down. The positive and constructive attitude shown by the management team demonstrates the strong willingness to further their already excellent work performed towards educating visitors in the field of conservation of environment and endangered species. This message is also strongly conveyed by the very motivated and innovative education team.

Date of opening: 1984
Staff: 21
Number of species: 38
Number of visitors: 71,058 (2009)
Organisational type: Private/Family owned

YORKSHIRE WILDLIFE PARK

Director/Contact: Cheryl Williams, Warning Tongue Lane, Doncaster, SOUTH YORKSHIRE, DN4 6TB, UK
FULL MEMBER
Tel: +44 1302 535 057
Email : info@yorkshirewildlifepark.com
Website: www.yorkshirewildlifepark.co.uk
Shortname: YORKSHIRE

Yorkshire Wildlife Park is a new, private zoo that has been developed from scratch, on a farm of some 115ha. Cheryl and Neville Williams and John and Stephen Minion founded the zoo in 2008 and it was opened to the public in April 2009. The vision was to create a walk-through safari park, which they have realised to very high standards. The zoo is slowly and steadily growing and there is further space and funding available for expansion. In the distant future a tropical house will be built to offer an indoor experience to visitors in winter as the zoo is currently closed during the cold months.

Date of opening: 4 April 2009
Size: 115 ha
Staff: 68
Number of species: 52
Number of visitors: 110,000 (2010)
Organisational type: Private

Additionally, Blair Drummond Safari and Adventure Park in the United Kingdom and Zoomarine SpA Italia, in Italy were both upgraded from Temporary member to Full member of the association.

Southeast Asia Campaign: The Mesangat Wetland

THE EAZA IUCN/SSC SOUTHEAST ASIA CAMPAIGN COMMITTEE HAS SELECTED SIX FIELD CONSERVATION PROJECTS AS EXAMPLES OF THE KIND OF WORK THAT WILL BE SUPPORTED BY THE CAMPAIGN FUNDS. THE SIX PROJECTS ARE EVENLY DISTRIBUTED AMONG MOST ASEAN (ASSOCIATION OF SOUTHEAST ASIAN NATIONS) COUNTRIES AND COVER A WIDE AND DIVERSE RANGE OF SOUTHEAST ASIA SPECIES INCLUDING MEKONG GIANT CATFISH, SAOLA AND RUFOUS-HEADED HORNBILL. EACH PROJECT WILL BE INTRODUCED IN *ZOOQUARIA* IN THIS NEW SERIES, WHICH BEGINS HERE WITH A LOOK AT THE MESANGAT WETLAND IN EAST KALIMANTAN, INDONESIA

Mirko Marseille, Executive Coordinator Communications and Membership, EAZA

The Mesangat wetland sits in East Kalimantan, four hours east northeast of Samarinda, the provincial capital, and its 20,000 hectares are widely considered to be an extraordinary place with high biodiversity value. Despite heavy timber extraction and unsustainable agricultural practices that surround the site, most Endangered species have so far managed to survive. In fact, in 1997, the IUCN Crocodile Specialist Group survey located healthy populations of the Endangered tomistoma (*Tomistoma schlegelii*) and Critically Endangered Siamese crocodile (*Crocodylus siamensis*). Mesangat is potentially one of the most important sites for the conservation of the Siamese crocodile, as knowledge of its biology can be gathered easily here, and applied to isolated Siamese crocodile populations elsewhere in Kalimantan. The survey also confirmed the presence of other Endangered species, including proboscis monkey (*Nasalis larvatus*), flat-headed cats (*Prionailurus planiceps*), Storm's stork (*Cicionia stormi*) and the giant river terrapin (*Orlitia borneensis*).

In 2008, development plans to convert the wetland area to oil palm plantations were put forward. Fortunately, the plans were suspended, and based on an initiative by Yayasan Ulin (Ironwood Foundation), approximately 6,000 hectares of the area were set aside for permanent conservation management. Yayasan Ulin develops and supports forest and wetland conservation management initiatives outside the protected areas of Kalimantan. In 2009, they started to develop a long-term conservation management strategy for the most important endangered wildlife species in Mesangat. Funds raised by the EAZA IUCN/SSC Southeast Asia Campaign will support the further development and implementation of the Mesangat conservation project.

SPECIES SURVEYS

Crocodile surveys for tomistoma and Siamese crocodile are carried out at night via standardised spotlight surveys, and each encounter site will be marked with GPS coordinates so that the habitat distribution of individual crocodiles can be mapped out. The approximate size of each crocodile is also estimated. When appropriate, juvenile crocodiles will be carefully photographed, measured, weighed, sexed, ID-tagged and then released at the site of capture.

Hardly anything is currently known about the natural diet of wild Mesangat crocodiles: when circumstances are favourable stomach contents will be examined and identified. This crucial knowledge will contribute to a tailored conservation management approach for the crocodiles. Yayasan Ulin will also survey crocodile and turtle nests. If nests have not been disturbed (nests are routinely raided by local people for food) intact nests will be guarded until the hatchlings appear, or the eggs will be removed for artificial incubation in accordance with existing protocols. Hatchlings from a guarded nest will be transported to a head-starting facility in order to prevent the usual mortality rate of 90% during the first year of life. Head-starting facilities for crocodiles and turtles are designed in accordance with expert advice from the IUCN Crocodile and Turtle Specialist Groups.

Flat headed cats and other scansorial (ground living or semi-aquatic) mammals will be photographed, using automated field cameras, covering a wide range of the Mesangat wetland. Camera trap data will be analysed to obtain the distribution pattern and frequency of encounter for each species photographed, as little information is currently available on many Borneo wetland species, especially semi-aquatic mammals. Bird surveys will be carried out by Indonesian students supervised by avian experts, while camera traps will be set in order to record larger local species (such as the lesser adjutant stork and Storm's stork) foraging at specific sites in the wetland.

LOCAL DEVELOPMENT

The presence of several rare and endangered faunal species in combination with the unique beautiful flora offers opportunities for sustainable ecotourism practices that will also benefit the local communities. Part of the project is to develop a nature tourism programme by building a visitor's lodge on the lake and a visitor education centre, while offering ecotours, hosted by local guides, to provide wildlife-watching opportunities for tourists.

Another important focus of the project is to strengthen and stabilise the local economy, following the principles of sustainable practices. The traditional economic activity on which most of the villagers depend is subsistence fishing, which has considerable potential for further development. The project intends to assist the fishermen in preserving their catch by applying solar powered dryers for salting fish. This technology is especially needed during peak harvest periods as cool or partially overcast weather conditions are not amenable for drying the fish in the

THIS PAGE AND TOP: PAULI HIEN; OPPOSITE: RALF SOMMERLAD

outdoors. Yayasan Ulin also aims to analyse and improve the market system for the Mesangat subsistence fishery. Subsistence fishing using traditional methods is remarkably productive and, if properly managed, could provide a more sustainable source of local income.

Local involvement is stimulated through stakeholder meetings and conservation education. Every three months meetings are organised for the local communities in either a local school, or the local 'balai masyarakat' (town hall), during which conservation project information is disseminated. Local residents have the opportunity to comment on the project and give feedback. Schools are regularly visited by staff and scientists from Yayasan Ulin who give presentations on the conservation project and the importance of sustainable use of the wetland. The project also organises conservation education camps at the station and on appropriate sites in the wetland, during which the wildlife is surveyed by groups of school pupils. Educational material such as field guides, conservation leaflets and posters are also provided to the local schools.

Preliminary data from other surveys shows that the degraded natural beauty in the core area of Lake Mesangat can be restored, perhaps within ten years. Key indicators of this optimistic scenario are a significant reduction of illegal harvest, a healthy and continuous population growth of target species, and local and sustainable economic improvement. It is hoped that the EAZA IUCN/SSC Southeast Asia Campaign will make a significant contribution to the conservation and management of the Mesangat wetland.

For more information about this project and many others please visit www.southeastasiacampaign.org.

LONG-TERM GOALS

The Mesangat conservation project is under the supervision of Yayasan Ulin, via a formal Memorandum of Understanding with a local oil palm company, in which Yayasan Ulin is assigned the responsibility to take over conservation management of the core area of the Mesangat wetland (6,000 hectares), with emphasis on areas occupied by the tomistoma and Siamese crocodile. The project objectives are:

- to acquire long-term land-use rights under Indonesian law, or a permanent land lease that will provide the potential for long-term conservation management of both Lake Mesangat and its connected wetlands;
- to publish long-term conservation management plans for the combined Mesangat Wetland and Kenohan Suwi areas;
- conservation of Critically Endangered and Endangered species and management of harvested species and invasive exotics;
- development of long-term participative school conservation programmes, including natural history education, and quarterly conservation awareness town meetings to establish channels for a permanent dialogue;
- to establish local economic benefits from disciplined and structured use of wetland resources; long term planning to stabilize income and encourage sustainable livelihoods.

'I'm constantly inspired by the work you do'

IN HIS ADDRESS TO DELEGATES AT THE 2011 EAZA ANNUAL CONFERENCE, ARCHBISHOP TUTU GAVE A TIMELY REMINDER OF THE POWER THAT EAZA MEMBERS CAN EXERT BY PULLING TOGETHER. HERE IS HIS SPEECH IN FULL

The Most Reverend Desmond Tutu, Archbishop Emeritus of Cape Town

It gives me great pleasure to participate in the 2011 annual conference of the European Association of Zoos and Aquaria in Montpellier. Of course, I would have loved to have been with you in person, but I have begun the process of stepping out of public life. It is time for younger voices to be heard. I send my very warmest greetings from Cape Town to all of you wonderful people gathered at Le Parc Zoologique de Montpellier, especially to our hosts the municipality of Montpellier, to Dr Lesley Dickie, the director of EAZA, Mr Simon Tonge, chair of EAZA, and John Regan who invited me to speak.

The role of zoos and aquaria in the modern world, your role, is a very important one indeed. It carries a very heavy responsibility. More and more people around the world are living in cities and losing contact with wildlife and wild places that are their heritage, their roots.

Most people cannot afford to travel into the wild to see wildlife, so your sites are often the only opportunities for urban populations to be with animals, to learn about them, to see, to hear, and to smell a tiger, or a giraffe, and, very importantly, to know that the tiger or the giraffe is seeing, hearing and smelling them.

Zoos and aquaria fulfil many important roles, stimulating a passion for nature in young people among them. I'm constantly inspired by the practical work you do in breeding endangered species as an insurance against their complete loss in the wild. This is a particularly poignant issue where I come from, as Africa's wildlife is being ravaged by poachers. I'm told that later in your conference you'll hear from scientists who are experts on the topic of wildlife poaching, but perhaps you will allow me to add an old man's perspective.

Around the world, but particularly in Africa and Southeast Asia, populations of wild animals, already endangered, already facing extinction, are being slaughtered for private gain. The hunters are not just local people seeking to feed their families. No, many of them are associated to professional, international, organised poaching gangs: criminals hunting wildlife to put money in their pockets, and reaching professional, anonymous middle men far away in Europe, Asia and elsewhere. In India, wonderful animals such as the Tibetan antelope are killed to turn into shawls. In areas of South America, trafficking in monkeys and parrots has become so economically attractive that drug traffickers are turning their attention to animals rather than drugs. In Southeast Asia just one single raid by the authorities revealed 22,200 dead pangolins.

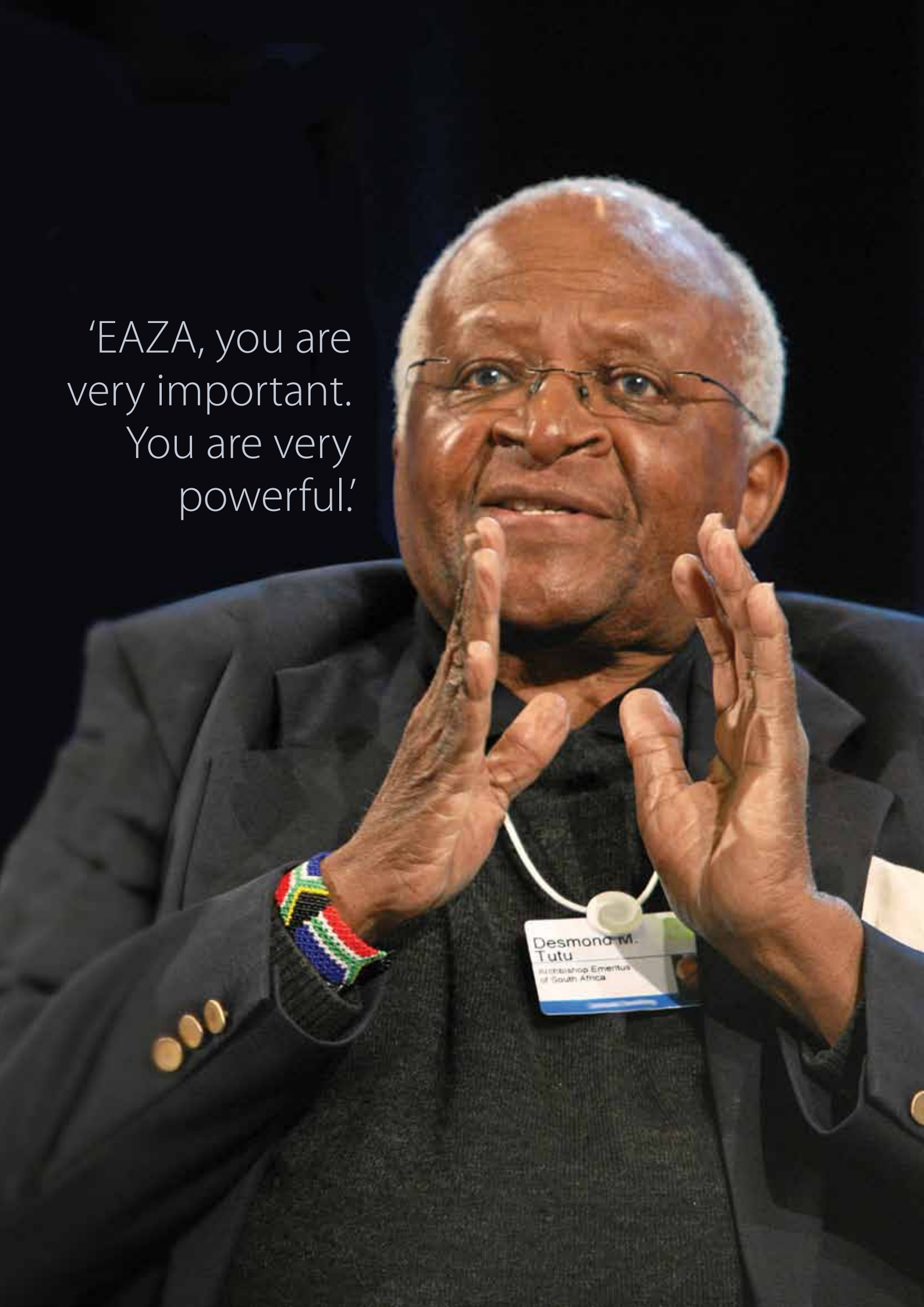
In my own country, South Africa, tragically, the butchering of rhinoceroses continues. Just last year more than 300 black rhinos were slaughtered, tipping the species ever closer to the extinction brink. What can zoos and aquaria in Europe do to help stem the poaching tide? Educate your visitors. Make them aware of the illegal products that may be offered to them at home and abroad. Ensure that nobody leaving your premises does so without your having planted a seed of knowledge about the poaching scourge.

Until I received this invitation to speak, I never really considered what might be achieved if all the people who enjoy your zoos in all the countries of Europe pool together. When you pool your audiences, your expertise, your energies, your commitment... Wow!

EAZA, you are very important. You are very powerful. For the sake of wildlife, for the sake of knowledge, for the sake of people, for the sake of us all, please make your combined strength count.

God bless you.

You can watch Archbishop Tutu's speech on YouTube by visiting www.youtube.com/watch?v=jsFf6h9QcXc.


‘EAZA, you are very important. You are very powerful.’
Desmond M. Tutu

Merci Montpellier

EAZA'S ANNUAL CONFERENCE 2011 IN PICTURES

Michael Sullivan, Communications and Membership Manager, EAZA

'It's gone off like a rocket!' These were the words of Chairman Simon Tonge during the closing plenary of EAZA's Annual Conference 2011, and he was absolutely right. Over the course of five days in September, 640 delegates participated in nearly 100 working meetings, all in the beautiful surroundings of the French Mediterranean city of Montpellier. Feedback from the working sessions has been overwhelmingly positive, suggesting that once again the conference struck the right balance of hard work alongside an opportunity to meet and mingle with colleagues. For this, on behalf of EAZA, we thank our host, Parc Zoologique de Montpellier; Laurence Colas and Luc Gomel, for all of their hard work; the municipality of Montpellier; and, all of the conference centre staff at Le Corum. Merci Montpellier.

One of the week's highlights was an afternoon visit to Parc Zoologique de Montpellier. The photographs on these pages were taken by conference delegates during the visit. On arrival, delegates were given access to la serre Amazonienne, the beautiful Amazonian greenhouse. Swapping Mediterranean for tropical heat, the twisting paths of the greenhouse opened upon some enchanting discoveries and provided a delightful start to the visit. On emerging from the greenhouse, delegates were greeted with drinks and nibbles in the sunshine before being given the opportunity to explore the rest of the park. Unfortunately, a late departure from Le Corum combined with the distractions of food and networking at the entrance to the park meant that some of the animals had already been taken inside by the time delegates reached the enclosures – the animals obviously didn't share our stamina! However there was still a chance to view the park's distinctive, spacious enclosures, including the awesome lion enclosure (where the inhabitants could be heard if not seen).

The conference itself opened with an inspirational plenary session featuring two very special guests. Firstly, delegates were treated to a surprise video address by Archbishop Desmond Tutu. In a passionate speech, the Archbishop set the tone for the conference by urging the European zoo community to work together to tackle poaching and illegal trade in wildlife: 'when you pool your audiences, your expertise, your energies, your commitment – wow! You are very powerful, you are very important.' You can find a full transcript of the Archbishop's speech on page 10. Next onto the stage was our keynote speaker Dr. Elizabeth Bennett, Vice President for Species Conservation at the Wildlife Conservation Society (WCS). Liz has been involved with hunting and wildlife trade issues in 65 projects and currently oversees WCS's species conservation programmes in more than 60 countries across the globe. Liz gave an impassioned account of the threats facing Southeast Asia, opening the conference with a strong call to action.

Other plenary sessions during the week focused on conservation campaigns, sustainability and sustainable animal populations. In response to feedback from previous conferences, attention to time-keeping ensured all presenters had enough time to speak, and sessions kept to schedule.

Between plenary sessions delegates got down to the real





PREVIOUS PAGE: TOP: EUROPEAN OTTER, BY FLORENCE PERROUX LEFT: OCELOT, BY GIORGI DARCHIASHVILI; MIDDLE: (PERSON?), BY RACHEL SANDERS; RIGHT: SCARLET IBIS, BY FLORENCE PERROUX; WHITE RHINO, BY ALEX KANTOROVICH. THIS PAGE, CLOCKWISE FROM TOP LEFT: GREEN BASILISK, BY STEFAAN LEMAY; ADDAX, BY KLAUS RUDLOFF; SYRIAN BROWN BEAR, BY ALEX KANTOROVICH; LOWLAND TAPIR, BY CATHERINE WARDZYNSKI; SPECTACLED CAIMAN, BY GIROGI DARCHIASHVILI

work of the conference in TAG and EEP meetings, often up to seven running in parallel. Again, chairs kept meetings to good time for which we thank them, and feedback from delegates indicates a great deal of work was achieved during meetings. However, this year's conference survey makes it clear that delegates still feel that some information could be circulated electronically prior to the conference to free up time in meetings for more discussion.

This year's exhibition was located in the main foyer, giving delegates the opportunity during coffee breaks and free sessions to mingle with exhibitors. The exhibition is an important part of the Annual Conference not only for the income it brings to the association but also for the opportunities to make new contacts, learn about new products and potential suppliers. There were fewer exhibitors at this year's conference than last year which may be a reflection of tough economic times, but we do hope that members will help us to promote the benefits of exhibiting to their business contacts to ensure these opportunities can be maximised next year.

Both during work and leisure, Montpellier proved a relaxed and easy location for this year's conference. Almost all delegates were accommodated a short walk away from the conference centre, and Le Corum provided a light and airy environment during the day. The venue also treated delegates to a delicious three-course sit down lunch each day, although it is recognised that some delegates found this a constraint and would prefer a buffet lunch in the future. With any event on the scale of EAZA's Annual Conference there is always room for improvement, but the fact that such an intense programme of work was achieved by so many people over so short a time is a testament to the commitment of host and delegates alike, and we thank both for your enthusiasm and support.

Next stop, Innsbruck 2012!

Sustaining a new session

A SPECIAL REPORT ON THE AQUARIUM SESSION AT THIS YEAR'S MONTPELLIER EAZA CONFERENCE – A SESSION THAT'S NOW HERE TO STAY

Dr Heather Koldewey, Zoological Society of London

HAPLOCHROMIS

The Aquarium Session was introduced to the annual EAZA conference in 2010 to give EAZA members an opportunity to discuss pertinent issues relating to aquariums. In the pilot session in 2010, participants discussed how aquariums could effectively implement the newly published WAZA Aquarium Conservation Strategy, Turning the Tide. This year, 2011, the focus of discussion was sustainability of aquarium collections. While this is a topic that applies to all taxa, there are particular challenges facing aquatic collections:

- taxonomic diversity, with public aquariums and zoos exhibiting over 3,500 fish and aquatic invertebrate species from over 15 phyla;
- aquatic collections tend to rely more heavily on wild-sourced animals, including those obtained from commercial sources;
- many species (particularly marine) are challenging to breed, hampered by a lack of knowledge, resources and expertise;
- captive bred animals are not always the best choice for sustainability, particularly mass-commercial cultures of freshwater species.

Each of the points in the box shown here was discussed at the EAZA Aquarium Session to establish any region-specific issues and to gain general feedback from the EAZA aquarium community. As EAZA becomes increasingly more proactive and effective within the European Union, participants felt we could provide a clearer brief to EAZA on legislative matters that may affect aquariums, as these are often associated with fisheries and aquaculture legislation rather than wildlife legislation. The identification of sustainable suppliers generated the most discussion, with EAZA participants feeling that any such list would need to be monitored and managed carefully and only contain suppliers who were in complete control of every step of the supply chain or culture process. Several suppliers within the European region meet these criteria and would be proposed for further consideration. Extractive reserves were discussed and thought to be an idea that would benefit from further research, especially due to the potential risks if not properly managed. All comments are now being incorporated into a final draft of the Action Plan which will then be submitted for EAZA endorsement.

Feedback from participants at the meeting suggested that the Aquarium Session was a welcome addition to the EAZA conference schedule, offering an additional discussion forum for organisations and individuals who cannot always attend the EUAC conference (the technical forum for aquarium curators) but with a strong interest in aquariums. We are now looking at this meeting being a regular fixture in the EAZA conference programme.

NINE-POINT PLAN

The WAZA Aquatic Collection Sustainability Action Plan was developed from an AZA initiative lead by Dr Dennis Thoney (Vancouver Aquarium) and Doug Warmolts (Columbus Zoo and Aquarium). The aim of the Action Plan is to complement and support Regional Collection Plans and to provide clear guidance on sustainable approaches. This includes the following nine points.

1) Monitor government legislation that might affect acquisition.
2) Develop tools to guide acquisition decisions.
3) Identify sustainable suppliers.
4) Support community-based sustainable aquarium fisheries.
5) Research and explore extractive reserves.
6) Promote sustainable captive breeding.
7) Improve aquarium breeding of sharks.
8) Feed sustainably.
9) Increase conservation efforts associated with aquatic collections.

GOOD LOOKS AND PERSONALITY

COULD THERE BE A GLIMMER OF HOPE FOR THE CRITICALLY ENDANGERED CITRON-CRESTED COCKATOO?

Sandra Molloy, EEP Coordinator, *Cacatua sulphurea citrinocristata* and *Cacatua moluccensis*, Dublin

With an estimated wild population of possibly just 3,200, the citron-crested cockatoo (*Cacatua sulphurea citrinocristata*) fully deserves its Critically Endangered status. With just over 70 individuals currently in the EEP, these zoo birds can therefore be considered an important genetic reserve, while providing a basis for educating visitors, particularly now that efforts are under way to boost both the *in situ* and *ex situ* populations.

The citron-crested is a subspecies of the yellow-crested cockatoo, (*Cacatua sulphurea*), itself Critically Endangered, and endemic to Indonesia and Timor-Leste. The citron-crested is only found on the Indonesian island of Sumba, where it is heavily dependent on primary lowland forests, although it will range into open forests. It eats a variety of foods including fruits, flowers and seeds, and the fact that it sometimes takes cultivated food has meant that, at times, it has been regarded as a crop pest.

Yet this is not its only threat. Citron-crested cockatoos suffered a drastic decline in the last quarter of the 20th century partly due to trapping for the pet trade: their good looks and clever personalities make them attractive pets. In 1986, a population survey put numbers at 12,000 birds. By 1992, the same year the EEP was established, the population had dropped to just over 3,000 birds.

Habitat destruction is another threat. Forest cover in Sumba fell from 55% in 1927 to 8% by 2000, and to just 6% today. Two national parks have been created by the Indonesian government in recent years on Sumba; Manupeu-Tanahdaru and Laiwangi-Wanggameti. These protected areas along with the ban on trade have seen some increase in numbers.

ZGAP (Zoologische Gesellschaft für Arten-und Populationsschutz; a German conservation organisation) and Burung Indonesia (Birdlife Indonesia) have been working on various conservation initiatives for the bird since 2002. These include confirming that poaching of birds continues, population monitoring, public awareness programmes and law enforcement. Despite the positive outcomes of this work, reproductive output remains low within the wild population and densities remain below that observed in other cockatoo species. In 2011, Dublin Zoo teamed up with ZGAP and Burung Indonesia to investigate the limiting factors to reproduction by examining in depth the behavioural ecology of breeding birds. We anticipate that findings from this research can help direct conservation measures to increase wild numbers.

Closer to home, the EEP population of citron-crested cockatoos stands at 71 birds in 21 institutions. The EEP needs to grow to ensure long-term sustainability but deaths have outnumbered births in the past five years. Since 2006, 39 cockatoos have died and many of these birds were not old. No cause of death was found or reported for over a third of these birds, while another third of the deaths resulted from trauma, derived from cohabitating citron-crested cockatoos or from accidents within their environments. The remaining third died from a variety of ailments.

To counter the high mortality, efforts are being made to improve reproduction such as changing mates in non-reproducing pairs and establishing juvenile flocks. There are several zoos that have pairs of citron-crested cockatoos who seem to be 'just friends' with no fertile eggs or even no eggs at all being laid over the years. It is hoped that moving these birds around will result in more fruitful pairings.

The establishment of juvenile flocks is a recent initiative of this EEP. Keeping flocks of young cockatoos together can be beneficial to their social development and may also allow a more natural form of mate selection. We anticipate that juvenile flocks will produce pairs of citron-crested cockatoos that will reproduce well in the future. In addition to this, human-imprinted birds have often been cited as the cause of aggression in pairs or the reason why a pair of citron-crested cockatoos is not reproducing. Citron-crested cockatoos growing up in a juvenile flock are less likely to be human-imprinted.

To conclude, the situation in the wild for citron-crested cockatoos is not good but it is improving. The EEP is small but has great potential to grow and become a conservation arm for the wild population, either through education and/or a genetic reserve. If your zoo would like to begin keeping citron-crested cockatoos, please get in touch. This subspecies can be challenging but the rewards are well worth it – helping a critically endangered species with the added bonus of having beautiful and intelligent birds in your collection.

SERGEY CHICHAGOV, RIGA ZOO

Michael Sullivan

Position: EAZA Communications and Membership Manager
Hobbies: Anything to do with the great outdoors, plus cooking, films, books and music.
Last book read: *Sword of Honour* by Evelyn Waugh
Last movie seen: *Jane Eyre*
Last concert attended: Patrick Wolf at the Roundhouse in London.
Last trip made abroad: From Amsterdam, where I live and work, to London and Liverpool, my hometown.

QUESTIONS:

Could you describe your career path to date?
After graduating with a BA in Drama from the University of Hull and spending a summer season working in the French Alps, I joined the International School of the Hague (ISH) in the Netherlands in 2003 as an administrator. During my time at the ISH I greatly enjoyed working as part of a truly international community with over 70 nationalities represented at the school, and I developed a passionate interest in international affairs. This interest led me to return to the UK in 2004 to study for a Masters in Public Administration (MPA) at the University of Liverpool. On graduating in 2006 I was employed by the Royal Institute of British Architects (RIBA) on secondment to regeneration agency RENEW Northwest in a communications role. Whilst working for the RIBA I studied for a Chartered Institute of Marketing (CIM) Professional Diploma, and in 2008 I was seconded to public sector architectural consultancy Places Matter! as Marketing and Communications Officer. My experience at the RIBA and Places Matter! allowed me to work alongside dedicated professionals with a great mission.

What is the most memorable or fascinating event in your career so far?
While I was with the RIBA I worked on the Architecture for Everyone project alongside the charitable Stephen Lawrence Trust (SLT). Founded in memory of murdered London teenager Stephen Lawrence, whose ambition was to be an architect, the SLT aims to make architecture more accessible to young people from deprived backgrounds, and to identify architects of the future. For two consecutive years I watched groups of teenagers from Liverpool and Manchester work in teams alongside professional architects, gaining skills, confidence and aspirations. Many of those teenagers are now studying architecture at university, an option they might never have considered without the SLT.

You are moving from a different type of membership organisation. What attracted you to this job in EAZA?
It has always been important for me to work for an organisation with a clear mission. As a layperson, wildlife conservation has always been passion of mine and the opportunity to work not only in support of this but alongside professionals who have dedicated their careers to the conservation of nature is the combination of interests I've always been looking for.

You have only just arrived in the zoo and aquarium community, but what are your first impressions?
Although communities like zoos and architects like to think they are different or even a little eccentric, they are more similar than you might imagine. My first impression is of an international community of dedicated professionals with a common purpose, working together towards common goals. I'm also aware that this is a community of many well-known names, and I'm lucky to have had the opportunity to meet a few at the annual conference in Montpellier. I hope to meet many more in the months to come.

What do you need from the EAZA members in terms of communication for this community?
EAZA is its members, and my role is to facilitate and support their activities. My aim is to ensure that we are communicating with members in the most effective way, and providing them with the tools and resources that they need. In order to do this effectively, I need our members to communicate with me. Let me know what works and what doesn't, and how we can work together to achieve our common goals. I've already met or made contact with many of our members since I started, and over the coming weeks I hope to meet many more, so do get in touch.

What are you most looking forward to in this job?
The joy of working in a communications role is the opportunity to work in different industries alongside people with different expertise. During a recent zoo visit I had the pleasure of being accompanied by a member who talked me through each of the exhibits as we wandered around together. For many of you, this is your daily routine. For me, it was an invaluable experience which made me see things in a different way. I'm looking forward to using my skills to work with our members to pursue our goals of education, conservation and research, maximising the wealth of passion and knowledge our community possesses.

An inland sea

THE NEW DOLPHIN LAGOON AND MANATEE HOUSE AT NUREMBERG ZOO ARE A NEW STEP FORWARD IN MARINE MAMMAL HUSBANDRY

Lorenzo von Fersen, Curator Research & Conservation, Tiergarten Nürnberg

In recent decades aquatic mammals have played an important role at Nuremberg Zoo (Tiergarten Nürnberg) – all in all somewhat unusual for an inland zoo so far from the sea. Yet the tradition began nearly 100 years ago in the old Zoo 'am Dutzendeich' when Californian sea lions were housed in an 8,000m² exhibit. It wasn't until 1961 that the first successful breeding was recorded, but the zoo is now already up to its sixth generation of breeding sea lions.

The tradition continued in 1971 when the first dolphin exhibit was built, at which time only a few European facilities were keeping bottlenose dolphins, and so the objective of Nuremberg Zoo was to build up a self-sustainable population. The first breeding success began in the 1980s, with five dolphins being raised by their mothers.

With the opening of the Tropical House in 1977 the third aquatic mammal species, the manatee, was added to the zoo's collection. Since then, 19 manatees have been born in Nürnberg, 16 still alive today, a breeding record that helped us to gain a worldwide reputation within the zoo community. This is why the coordination of the new Caribbean Manatee EEP was delegated to Nuremberg in 2002.

In 2001 a new exhibit, the Aqua Park, was built for the sea lions, European otters and beavers. In the previous 40 years, however, only minor improvements for dolphins and manatees had been made to meet the needs of the animals and visitors. Because the old exhibits no longer met modern standards, and given the fact that aquatic mammals had become a main focus of visitors' attention, by the end of the century the zoo started to prepare plans for a new facility. A few years later and after a series of consultation meetings with experts from around the world, a design was finalised, and construction work started in September 2008. It was completed in July 2011, and consists primarily of an open lagoon for dolphins and sea lions, a tropical house for manatees and other tropical animals and a 'blue saloon' from which animals can be admired under water through large panoramic windows. The total area remodelled covers about 2.5 hectares.

THE NEW DOLPHIN LAGOON AND MANATEE HOUSE PROVIDE:

- a solution for keeping aquatic mammals in a zoo, created to meet and surpass international standards in the long term
- the opportunity for visitors to experience animals in a more natural setting including much-improved underwater viewing
- continuous and enhanced activities in the field of research and wildlife conservation
- the realisation of an eco-friendly technical concept paying particular consideration to running costs and energy usage
- the involvement in a modern education concept as well as improved conditions for dolphin therapy and research, in cooperation with the University of Würzburg and the Humboldt University of Berlin.

DOLPHIN LAGOON

With Dolphin Lagoon, a new dimension in keeping dolphins has been achieved. The lagoon is the first open-air dolphin exhibit in Germany, offering the animals the chance to gain natural experiences, representing a great improvement for the dolphins as well as the sea lions.

Dolphin Lagoon was planned as a multi-pool exhibit with five separate pools connected through different gates. This lagoon is also connected to the old dolphinarium, which remains functional throughout the year. While in spring, summer and autumn all the lagoon pools are available for the dolphins and sea lions, in the winter two pools, which are covered by an airdome, can be heated and used by the dolphins. Beside these two pools, in these colder months the dolphins can also use the old facility. In summary the lagoon has more to offer to its inhabitants than the old dolphinarium, as it includes both new, bigger and structured habitats. This results in new alternatives helping to meet the animals' needs and the expectations of the visitors.

Another important feature of Dolphin Lagoon is the development and installation of a state of the art life support system. While in the old dolphinarium chlorine was the main disinfectant agent, the life support system of the new lagoon and Manatee House uses protein skimmers and ozone contact chambers in order to maintain a clean and stable water environment for the animals.

For visitors the Dolphin Lagoon marks a zoo era without visible concrete walls and buildings. In accordance with the 'landscape character' of the Nuremberg Zoo the Lagoon was designed in near-natural manner with grandstands for approximately 1,400 visitors.

MANATEE HOUSE

This is the first real tropical house at Zoo Nürnberg. Even if the main goal of this exhibit was to provide a bigger and better enclosure for our manatees, the Manatee House is more than just a pool for these animals, as the main intention was to show visitors one of the world's most spectacular habitats: the tropical rainforest. In a house covering 700m2 with air temperatures around 28°C and with 80% humidity, conditions are perfect for housing tropical vegetation. More than 50 native plant species from South America have been planted, including well-known agricultural crops such as cacao, papaya, peanuts and pineapple, that will not only show the visitors where these well-known products come from, but what they actually look like. Other plants will enhance the rainforest atmosphere with their growth and foliation.

This tropical habitat also hosts other animal species from the neotropics to enhance the impression of stepping right into a flooded area of the Amazon region. Right from the beginning white-faced sakis, nectar eating bats, butterflies (some 30 species), birds (four species) and turtles have been housed together. A special highlight in the Manatee House are the leafcutter ants. They were placed in large panels, that show the typical fungus chambers, behind acrylic glass windows where visitors can watch them tending fungus or transporting bits and pieces of leaves.

The aquatic environment comprises 700m3 of water and is designed as a river surrounding a central island. The main attractions are the manatees, but as the Manatee House has been designed as a mixed species exhibit, the manatees share their environment with tambaquis, other fish species and turtles. These animals can be observed either from above while the visitor is in the House or through two big windows (each 5.5m x 2.7m) from underwater.

A few months after the inauguration we already know that the new exhibit has gone down very well. A significant increase in visitors is certainly the best corroboration for this. But we are also convinced that Dolphin Lagoon and the Manatee House are an excellent way to communicate specific messages concerning the biology of these unique species and the conservation problems these animals are facing in their natural habitat.

IT'S IN THE DETAIL

DOLPHIN LAGOON

Total water volume: 5.4 million litres salt-water

Water depth: 0.5m to 7m

Near-natural pools and landscape

Vast underwater viewing areas, featuring panoramic windows (12m x 4m)

Unique grandstand for visitors, blending into the natural landscape

MANATEE HOUSE

Width: 22.5m

Length: 32.5m

Height: 4.5m to 8.2m

Face: 700m^2 (thereof ca. 350m^2 sheet of water, 4.5m deep)

Temperature: water 23-27°C, air 25-33°C

Air humidity: 60-100%

Four-ply membrane roof, UV-transparency 95%

New dating aviaries for the marabou

MARABOU STORKS ARE WIDELY KEPT BUT NOT OFTEN BRED. SO THE ADVANCES PAIGNTON ZOO ENVIRONMENTAL PARK HAS MADE COULD BE VITAL FOR FUTURE WORK WITH THE BIRD'S CRITICALLY ENDANGERED RELATIVES, THE ADJUTANTS

Jo Gregson, Curator of Birds at Paignton Zoo Environmental Park, Vice Chair EAZA Ratites TAG and EAZA Pigeon and Dove TAG

In 2010 a new purpose-built aviary was erected at Paignton Zoo Environmental Park for the marabou stork (*Leptoptilos crumeniferus*). Marabou, along with many other animals can be difficult to pair-bond: misunderstandings often develop when they are placed together too quickly, and these hard introductions can result in attacks to the female. Once that has happened it becomes more difficult to bond the birds. Within our new enclosure, birds can be safely introduced yet still interact with each other.

The night holding area is 10m x 2.5m x 2m high, and divided into four stables which are separated by wire mesh. Each stable has a roosting pole or straw bale and a heater. The doors leading into the outside enclosure are fitted with clear glass panels. This allows the birds to always see each other in full length where ever they are in the holding. The inside stables are big enough for a single bird to roost and deliberately made narrow enough so birds roost closely together with mesh between them.

Although wild marabous live together in large numbers personal space is still crucial to them and they usually maintain a set distance from each other, unless breeding. When introducing birds, we give them access into the paddock separately until they are seen standing together on either side of the window. We consider that to be the right time to pair them. This outside enclosure is 15m x 25m x 15m high. There is plenty of vegetation and part of the enclosure is built over a lake: water is an excellent natural enrichment keeping birds busy, while vegetation is important as shelter and tall bushy evergreen plants such as *Lonicera nitidia* can form a refuge for nervous individuals to stand behind. There are also lots of options for our birds to spread out thanks to wooden perches at varying heights, and by allowing the birds to fly onto the stable roof.

The overhead net we use is a soft 100mm knot-free nylon. We chose the 100mm so that leaves and snow can easily fall through it. It also has the added advantage that grey squirrels can enter freely without the need to chew a hole. The net is attached to a 2m chain-link perimeter fence. This is also protected by an electric wire around the perimeter, placed 150mm above the ground. The cost of the stable and paddock built in 2010 was £12,500 (€14,576).

It can take time to adjust to new routines, diets, climate and housing. Our two adult birds came from Paultons Park and Marwell Zoo as part of an ESB recommendation, and had never previously been together. Marabous are intelligent birds that are easily managed when kept in a routine, but they will take advantage if that routine slips. For this reason care needs to be taken when keepers are changed. Our birds know which stable is their own, although they will raid one of the others when the relief keeper is on duty! During the winter months they are shut separately into the stables every night. There are no major dominance disputes in the morning because they have all been roosting side by side. We shut them in because off the frost, and that starts at about the end of October. In summer the birds are free to roam inside and outside.

For nesting we fixed two platforms at different heights on each side of the aviary; as it turned out these were mostly used for lounging on. The stable roof would have made a good nest site for them, but finally, like many birds they decided to nest inside one of the stables. We placed four straw bales inside to get them started. Marabous are surprisingly vocal when courting; even when in the house they could be heard squeaking, twittering and beak clattering to each other as they placed sticks into the nest. Two eggs were laid, both parents incubated and one chick was hatched during May, just 7 months after the birds were moved to the new enclosure. The chick fledged at the beginning of August, and is spending invaluable time with both his parents, learning to hunt, and to carry sticks to the nesting platform as well as the many social interactions of a marabou.

With the people, for the people

A COMMUNITY-DRIVEN CONSERVATION PROJECT IN ECUADOR IS APPROACHING ITS FIRST DECADE. HOW IS IT FARING?

Paul Bamford, Payamino Project

Since 2002, Aalborg Zoo has been working with the Lowland Kichwa community of San Jose de Payamino, Ecuador, to help protect the community's 17,000 hectare territory. The zoo has taken this on as an opportunity to put many of the goals set out in the World Zoo Conservation Strategy into practice, bringing the zoo, its staff and visitors into a closer relationship with field-based conservation, with practical benefits for the people and wildlife that inhabit the Payamino territory.

The community of 300 people lives along the banks of the Payamino River, in the upper reaches of the Amazon Basin. The Payamino Runas (people, in Kichwa) still preserve many pre-hispanic traditions: their language; the use of subsistence crops, such as manioc and plantain, farmed within a swidden (jungle garden) agricultural system; the ritual drinking of chicha (manioc beer) and traditional shamanic healing practices. They have an extensive knowledge of forest resource management, making use of wild fruits in their diet, medicinal plants for healing and preserving traditional crafts and construction methods that incorporate natural materials.

The Payamino territory is also very rich in terms of wildlife: ongoing studies by Dr Stewart White from the University of Glasgow have identified over 300 bird species within the territory to date, with the number expected to tail off at over 500. Large mammals including tapir, deer and peccary are abundant, along with predators such as jaguar and puma, and a variety of primates ranging in size from saddleback tamarins to howler monkeys.

For all its cultural and ecological richness, however, Payamino is changing. The Lowland Kichwas are not only the most numerous indigenous group in Ecuador's Amazonian territory, but also one of the most well-integrated into modern Ecuador. The Payamino Runas are also on the lowest rung of the poverty ladder; infant mortality up to two years of age averages around 50%, while only 16 people in a community of 300 have lived beyond the age of 50. The socio-economic gap between them and the colonos (non-indigenous Ecuadoreans) is enormous, and with ever-increasing contact with the modern market, the people of Payamino are well aware of the fact.

CLOCKWISE FROM LEFT: BROWN-EARED WOOLLY OPOSSUM (*CALUROMYS LANATUS*); THE SUMACO VOLCANO DOMINATES THE PAYAMINO SKYLINE; COLLECTING CHONTA KURU (PALM WEEVIL GRUBS) TO EAT; AMAZON TREE BOA (*CORALLUS HORTULANUS*); LINNAEUS'S TWO-TOED SLOTH (*CHOLOEPUS DIDACTYLUS*)

From the outset, the Payamino Project set out to be a conservation and sustainable development project, with funding being invested in areas such as education and healthcare as well as the conservation of, and research into, the territory's natural environment. As the project approaches its 10-year anniversary, however, a greater emphasis is being placed on the human element in order to relieve the anthropogenic pressures on the forest, and to promote cultural awareness whilst helping the people of Payamino achieve the socio-economic level that they aspire to. From mid-2010, the project began to focus funding into a variety of economic projects, including the creation of infrastructure for tourists and volunteers to visit the community, as well as working in partnership with government bodies and other agencies to secure training to improve the community's skills in developing and managing projects of this nature.

As a parallel to the zoo-funded work of the project, a team at Manchester University, headed by Dr Richard Preziosi, has recently given the research side of the Payamino Project a makeover, with a newly reconstructed research station to accommodate university groups, or for individual researchers who wish to carry out fieldwork there. To tie in with this, an agreement has recently been signed with Ecuador's Ministry of the Environment, in partnership an Ecuadorean university and the Ecuadorean Museum of Natural History in Quito, to ensure representation and approval from the government, participation from a national research body and in-country scientific expertise. The future is beginning to look brighter for Payamino, but the pressure is still mounting. In recent months a new threat has emerged: increased interest from petrol companies in the area around the territory, which carries the risk of devastating contamination to the local river system and groundwater supplies. With the future still in the balance, the project has a long way to go before it can begin to achieve its ultimate goal of creating a multidisciplinary approach to community-friendly conservation. For more information on the Payamino Project, visit www.payamino.org.

Keeping a balance

IF ELEPHANT COLLECTIONS ARE TO THRIVE ACROSS EUROPEAN ZOOS, WE HAVE TO TAKE A CLOSER LOOK AT THE NUMBERS OF OLDER ANIMALS AS WELL AS RESPONSIBLE BREEDING STOCK

Heiner Engel, EAZA Elephant TAG Chair, Zoological Director, Hanover Zoo

'Young adults looking to start a family preferred'. This, or something similar, would put the final flourish on an ad in the classified section if zoos had to attract elephants as tenants for their new enclosures. The copywriter would certainly lay it on thick with the goodies: extra stalls, bathing pool, expert veterinary care and plenty of public admiration guaranteed.

But just as in real life, no ideal candidates would appear; instead we'd get elephantine louts in the throes of puberty, bursting with energy and up for a rumble anytime: lusty, tusky but unfortunately, like all pubescent mammals, not entirely in possession of their senses.

What sounds like comic fantasy is actually no joke. One look at the elephant breeding programme studbooks shows that we're only just breaking even with as many young Asian elephants being born as old animals are dying within the EEP. We might be able to talk in terms of self-sustainability – or might not; maybe we can start hoping. And among African elephants the arrivals per year are unfortunately a long way below the departures; considerable efforts are needed here to achieve adequate birth rates. In the foreseeable future we will not be able to fall back on imports, and so we'll have to think about where we go from here, and how.

Let's look at the hard facts. The hardest of them all is the average life expectancy and age of the population as a whole. Both breeding programmes include a large number of old cows who arrived in their zoos years ago, have never bred, and just pass the time getting old. These animals don't count among the active elephant population and will simply disappear from our zoos in the foreseeable future. Such old animals, not really living in a herd environment, won't be replaced.

If we look at the age pyramids of the two populations we notice some odd formations: top right, like a flag, the old cows; below that a small pyramid that, with the Asians, spreads out at the base like a real pyramid. 'Like a real pyramid' means, however, that the lads on the left-hand side match the lasses on the right. This, then, is our active population, consisting of just as many male as female youngsters. Among the African population things don't look so rosy – there are simply too few animals to be able to build a proper pyramid.

There are even more inconvenient truths to be gathered from our look at the two populations – for example, the earliest breeding capability of the youngsters. Why should that be important? Quite simply, the pyramid will acquire an ever-broader base. More and more elephants are maturing under semi-natural conditions; the breeding zoo communities are gradually developing natural social structures with aunts and grandmothers in the female herd. Young cows are acquainted with bulls from childhood and learn to bear and rear their young by themselves early on. Statistically, many more cows born here in Europe are breeding actively than imported cows. We can, then, expect ever more elephants in our herd. That's the good news; the bad news is that half of these young animals will be bulls.

What next? The mortality rate among young elephants is still too high and the main problem is herpes. Here we depend on our veterinarians; if our hopes are not unfounded, in a few years we could have a vaccine that will not leave us entirely defenceless against this malignant disease.

What does this mean for the future of the two EEPs? What does it mean for the zoological gardens of Europe who wish the show their elephants to admiring visitors?

We'll have to rethink expectations of our 'tenants'. That young family looking to have lots of children is simply not available, and the oft-mentioned 'ladies in retirement' are literally fading away. The breeding establishments keep large herds of ten and sometimes more animals. There's a surplus, however, of young bulls, and some brave colleagues have already shown how this can work. Let's take Heidelberg as a shining example, where the lucky cloverleaf is complete; they keep four bulls together. This takes nerve, for real and reliable experience is not yet available.

It certainly makes a difference whether one keeps elephant bulls or cows; for one thing, the buildings and pens have to be markedly more robust. Keepers, visitors and management all have to get used to bulls coming and going, as it's to be hoped that they will be used as a reserve gene bank for the population. They arrive at the age of five or six, learn everything they can from their fellow-residents and leave the bachelor herd when they reach breeding maturity – or later, whenever they're needed somewhere in Europe. That sounds like a tricky business, and the city council or whoever else owns the zoo will have to get used to the idea that it also costs a bit more.

Whatever the case the good news is that, all being well, we'll be able to show elephants in zoos for a long time yet – thanks are due here to all those colleagues who've undauntedly worked on elephant breeding for years and years. Every zoo with a serious interest in showing elephants has the chance to acquire them, even if they're 'only' bulls, and here too it's a case of first come first served. It's also true that anyone planning elephant accommodation should get in touch with the respective EEP coordinator. It could be that they'll be asked to take on a bachelor herd or even to refrain from keeping elephants at all.

Watch this space.

SEBASTIAN BÄR

Earning their stripes

A DECADE OF GREVY'S ZEBRA CONSERVATION

Tanya Langenhorst, Conservation Biologist, EEP coordinator and international studbook keeper for Grevy's zebra and Hartmann's mountain zebra, Marwell Wildlife, UK

Grevy's zebra are in crisis. In the late 1970s around 15,000 Grevy's roamed through Northern Kenya, Ethiopia, Djibouti, Eritrea and parts of Somalia. While every tourist in southern and eastern Africa took zebra sightings for granted and viewers of wildlife programmes watched large herds of the familiar stripe patterns move over our screens, the largest and most beautiful of the zebra species headed steadily into decline. Today there are fewer than 2,500 Grevy's left in Kenya, their last stronghold. Numbers surveyed in Ethiopia hover around 100 individuals and they are believed to be extinct in all other countries of their former range. This decrease of almost 85% represents one of the most severe declines in numbers and range of any large mammal in Africa.

Yet these disturbingly low numbers do not paint the full picture. There is hope for this elegant species, and that their decline has been halted, if not yet reversed. And the EEP has played a major part in this. Encouragingly, the 2008 Kenyan national survey suggested that numbers which appeared to have dipped to an estimated 1,800 in 2004, had recovered to the near 2,500 mentioned above.

For more than a decade, Marwell Wildlife has been involved with *in situ* conservation efforts for the Grevy's. What began with financial support of the Lewa Wildlife Conservancy, a leader in Grevy's conservation, has grown into one of Marwell's main conservation projects, even supported by a member of staff now permanently living in Kenya. Marwell's activities were much aided by the increasing support of the Grevy's zebra EEP institutions.

Stakeholder workshops in 2004 resulted in a Task Force, known as Grevy's Zebra Technical Committee (GZTC), which now advises Kenya Wildlife Services (KWS) on conservation and management of the species including planning, survey techniques and monitoring. GZTC received the mandate to write a National Conservation and Management Strategy for Grevy's zebra in Kenya. This was published in 2008 making the seven represented organisations, including Marwell, responsible for its implementation.

In response to the general plight of wildlife in northern Kenya, Lewa spearheaded the formation of the Northern Rangelands Trust (NRT). This organisation was established to facilitate the formation of community conservancies aiming to protect wildlife and provide communities with jobs, education and income. The conservancies, numbering 19 and growing, are community-owned institutions responsible for the management of their natural resources, providing large and safe corridors for Grevy's and other species like elephant and wild dogs. Marwell has co-developed a system of wildlife and vegetation monitoring in this 6,000 km2 area, which holds half of the wild Grevy's population, and is regularly providing training for scouts and

INTERVIEW SURVEY IN NORTHERN KENYA: INTERVIEWS WITH LOCAL PEOPLE DURING THE 2010 SURVEY IN THE FAR NORTH OF KENYA

QUICK RESPONSE

The biggest challenge to date for Grevy's conservation came in 2006 when an outbreak of anthrax swept through Kenya, extensively affecting Grevy's populations. Colleagues in Kenya requested financial help from the zoo world to roll out one of the largest vaccination programmes of wildlife ever seen. Within two weeks, many members of the EEP and SSP gave generously and unconditionally, enabling Kenya to vaccinate over 600 Grevy's zebra. While 5-10% of this precious species were lost to anthrax, the fast response of the zoo world had undoubtedly avoided a disaster.

managers. This is in the use of GPS units and computers, flora and fauna monitoring, and data analysis, so they can manage their own land for the benefit of wildlife and people.

Together with the EEP, Marwell has built a research centre in Lewa providing a basis for Grevy's researchers and is offering MSc bursaries to Kenyan biologists. The objective is to build in-country capacity for conservation. Members of three partner organisations are working towards diplomas and degrees in conservation and wildlife management this year alone.

In 2007 a new organisation, the Grevy's Zebra Trust (GZT), was formed to focus on the northern Grevy's rangelands in Kenya and Ethiopia. They quickly became a close partner for Marwell and the EEP, collaborating on a wide range of research projects, surveys, collaring and stripe ID activities.

The stripe ID project is one of the longest running activities the EEP has been actively involved in. Marwell and the EEP were instrumental in the development of software that can identify the individual stripe patterns of Grevy's and its application for a national centralised photo database. From the early stages of the initial database build, to field testing and a database workshop hosted in Kenya, EEP zoos have provided hands on and financial support. We now employ a central database manager who is responsible for collating, entering and analysing pictures from several partner organisations representing core areas of Grevy's zebra range. This vital data is also being collected during dedicated photo safaris and we are starting to map Grevy's movements over the monitored range, enabling us to detect exchange between potential sub populations, and measure life span and foal survival among other factors.

An extensive survey of Northern Kenya in 2010 combined transect count data with questionnaires on people's attitudes towards Grevy's zebra and other wildlife. This investigated how tolerant different communities are and whether Grevy's zebra are still used for traditional medicinal purposes, rituals, food and skins. This survey was a follow up expedition to an earlier trip in 2005, also EEP funded, which had shown that these sub-populations were poorly understood and vulnerable to localised extinction. A preliminary report has been issued, confirming the 2005 findings, and this will be followed up by a full report to EAZA and the EEP later this year.

Recently, the EEP supported a radio telemetry project in which we plan to collar 25 Grevy's and deliver detailed information over two years on their movement and ranging patterns. This will enable us to determine the importance of key resources (eg water and vegetation) and critical seasonal ranges for the population. So far, the Grevy's Zebra Technical Committee has deployed collars on three trips in the Wamba area, and will carry on throughout 2011.

PREVENTION AND CURE

Experiences during the anthrax outbreak indicated that more information about the diseases in wild Grevy's is urgently required in order to develop early indicators for prevention or treatment. The immobilisation of study animals for collaring provides an opportunity to collect relevant disease-related data on Grevy's (eg blood chemistry and disease antibodies). We have begun collaborating with the Royal College of Veterinarians and the Zoological Society of London (ZSL) on a tick borne disease (Babesiosis) study comparing infection between pastoral domestic stock and wild Grevy's zebra. The project will also provide a wealth of background data for the development of standard indicators of susceptibility and infection of Grevy's by tick borne diseases.

While surveys, collaring and stripe ID data indicate that numbers of Grevy's are definitely increasing in key areas, we have yet to discover whether this represents an actual population size increase or is the result of migration to more favourable areas.

Meanwhile, Grevy's conservation is facing new challenges every day. Extended and repeated drought conditions in the Horn of Africa now necessitate rapid adaptive management to ensure survival. In the Laisamis area, direct species management methods such as supplementary feeding are being carried out, and we are taking great care to monitor this process of intervention to ensure that no deleterious effects on the Grevy's zebra result from the activity itself. Fortunately, we were able to act quickly since we had EEP funds available, but we are hoping that extra feeding will not be needed in more areas as the drought continues.

The conservation of Grevy's zebra has grown significantly over the last 10 years. Today it is supported by a network of organisations in Kenya, the backing of the Grevy's zebra EEP and colleagues from the SSP. There is still a long way to go before the future of this fantastic species is secured but we can be hopeful that we are on the right track.

GREVY'S COLLARING AND SAMPLE COLLECTION: REFERS TO THE COLLARING OF GREVY'S ZEBRA AND TAKING MEASUREMENTS AND SAMPLES FOR GENETIC AND DISEASE TESTING

PETER CROSS

Tamarins like chocolate, too

A CERTIFICATION SCHEME FOR CHOCOLATE MADE FROM BRAZILIAN CACAO PLANTATIONS COULD GO A LONG WAY TOWARDS SAFEGUARDING THE GOLDEN-HEADED LION TAMARIN

Leonardo C Oliveira, Lab Vertebrados, Departamento de Ecologia, UFRJ, Rio de Janeiro

Chocolate is one of the world's most popular food types and flavours. It is derived from the processed seeds of *Theobroma cacao*, a tree originated from Latin America, which is now grown in many places across the world.

Cacao is the most important agricultural crop in the south of Bahia State in Brazil, and the trees thrive best in the shade. In Southern Bahia, they are mostly grown under the shade of native trees and this culture method is locally known as cabruca. By 1990, the landscape in this region was dominated by cabruca (40%) compared to forested areas (30%) and the State was the largest cacao producer of Brazil.

The cocoa production region in Southern Bahia overlaps almost perfectly with the eastern portion of the geographical distribution range of the golden-headed lion tamarin (*Leontopithecus chrysomelas*). It is one of four lion tamarin species endemic to the Atlantic forest of Brazil, all of which are either Critically Endangered or Endangered. Lion tamarins are cooperative-breeding species and groups typically comprise one reproductive female, one to three adult males and their offspring. The average group size is four to seven individuals, but can be as high as 15. The groups occupy and defend home ranges that can vary in size from 22 hectares to up to 200 hectares with an average of 85 hectares.

Cabruca has long been considered an important component of Bahia's landscape, providing habitat and corridors for many species of invertebrates, such as ants and butterflies, as well as to vertebrates and plants. Given its dominance as a vegetation type across the golden-headed lion tamarin (GHLT) distribution range, understanding how GHLTs use this agroforest was highlighted as a conservation priority during the last Lion Tamarin Population and Habitat Viability Analysis (PHVA) held in 2005. This high priority was reconfirmed during the 2010 meeting for the production of the National Action Plan for the Conservation of the Mammals of the Southeastern Atlantic Forest.

Cabruca and the biodiversity it maintains are now under threat in Brazil. A long-term economic crisis due to – until recently – low cacao prices and the advent of the devastating witches' broom disease (*Moniliophthora perniciosa*) in Bahia in 1989, has been forcing landowners in Southern Bahia to extract timber from their cabrucas or even to convert them into other land use types to maintain their revenue. Furthermore, the long-term survival of native forest trees found in cabruca is at risk due to current management practices and the natural death of shade trees.

In 2007 I started up a project to study GHLTs in cabruca, supported in part by the Lion Tamarin of Brazil Fund, and thus benefiting from the funds raised during the EAZA Rainforest Campaign 2001-2002. A previous survey in many municipalities across the GHLT range demonstrated the presence of the species in many cabruca areas. Six areas (five municipalities) were chosen to start a radio-tracking study, during which GHLT groups were captured and one or two individuals per group received a radio-collar for subsequent monitoring. The goal of the study was to evaluate if GHLTs could live exclusively in cabrucas and how ecological and demographic characteristics would vary in cabruca compared to what we know from the literature about GHLTs living in other vegetation types. All tamarins we captured used cabrucas, although in four municipalities (five areas) there were forested areas nearby.

Based on 16 months of observation, I was able to demonstrate that GHLTs are not only able to live exclusively in cabruca, but that the tamarins that live there are also heavier and larger than lion tamarins that live in mature forest. In addition, lion tamarins in cabruca have somewhat higher reproductive outputs (twins in every reproductive season) compared to those that live in other vegetation types. The density of tamarins observed in cabrucas was also higher than densities described for other areas, despite the tamarin's group sizes in these areas being similar to those of

FAR LEFT: SHADED CACAO PLANTATIONS, LOCALLY KNOWN AS CABRUCA. THE NUMBER OF SHADE TREES VARIES FROM AREA TO AREA. AROUND 10% OF NATIVE TREES ARE LEFT TO PROVIDE SHADE FOR CACAO TREES

LEFT: REPRODUCTIVE PAIR OF GHLTS, IN CABRUCA AGROFOREST. RESEARCHES BELIEVE THAT BY SAVING THE CACAO PLANTATIONS THE LION TAMARINS WILL BE ALSO SAVED.

BELOW: GHLTS WITH A RADIO-COLLAR. THE RADIO ALLOWS THE RESEARCHERS TO FOLLOW THE TAMARINS FROM THEIR MORNING SLEEPING SITE (NORMALLY TREES), UNTIL THEY RETURN TO THEIR AFTERNOON SLEEPING SITES.

WHAT YOU CAN DO
Contributions by EAZA members to the LTBF (as lion tamarin holders or through the EAZA Rainforest Campaign) have been instrumental to the initiation of this and other important work in the Atlantic Forest. If you are interested in helping to continue this support, please visit www.ltbf.org.

groups living in other vegetation types. One possible explanation for these unexpected results may be the GHLT's frequent use of jackfruit (*Artocarpus heretophyllus*), a tree species commonly present in cabrucas. Jackfruit was the most frequently used fruit resource by the tamarins in cabruca and was spatially and temporally abundant inside the tamarins' home range. However, despite these optimistic findings, the economic situation of cacao in Brazil and the low level of productivity of cacao farms still threaten not only the GHLTs (which may lose a large part of their territory or suffer from reduced connectivity among forest fragments), but also the whole biodiversity that lives in or uses cabruca in different ways. According to the author's own observation illegal logging and conversion of cabrucas to cattle pasture is still a frequent practice in Southern Bahia.

One of the strategies to avoid further conversion of cabruca is to bring added value to cacao products. There is an international demand for certificated products and, in January, a group of researchers met in Ecuador during the International Conference of Cacao Certificate to discuss the creation of a biodiversity-friendly certificate for cacao. In Bahia a series of recommendations already exists for the certification of cacao. These recommendations include norms regarding the composition of cabrucas (number of (shade) trees, identity of trees etc), and most of these are expected to have a positive impact on the likelihood that tamarins will be able to use cabruca.

However, the vegetation structure of cabrucas (number of trees per hectare, density of trees per hectare, amount of shade) varies considerably over the tamarins' geographic range, which ultimately may affect the use of this agroforest by them. Thus, there is a need to identify which characteristics of cabruca may allow the tamarins to use it either as corridors, as part of their home range or as habitat. Once these minimum requirements (number of shade trees per hectare; presence of key resources) necessary for GHLTs, and many other species, to use or live in cabruca have been identified, they may be used to define the requirements of the certification process of biodiversity-friendly cacao for this region.

Some initiatives in this direction have already started. Researchers have been working to gather this information and a series of criteria for certification have already been established. Such certification may not only help the cabrucas to persist as they are right now, but also play a significant role in saving the last remnants of Atlantic Forest in the region. One criterion of environmental certification systems for cacao in Bahia is the compliance with environmental legislation which requires, among other things, that 20% of the area of each farm is kept under natural vegetation (so-called legal reserves). Increasing the demand for certificated chocolate may be a next step towards safeguarding cabrucas of Southern Bahia, and the Atlantic Forest. So let's start looking forward to a time when eating more and more (certificated) chocolate will help biodiversity conservation.

Let's change the world through chocolate!

Input is all

WHERE ARE WE NOW WITH THE CONSERVATION DATABASE PROJECT – AND WHY IS IT SO IMPORTANT?

Ann-Katrine Garn, Conservation Database Coordinator, EAZA

The official name of the conservation database is World Zoo & Aquarium Conservation Database (WZACD). The name was changed back in 2009 after it was agreed that the database, originally an EAZA project, should become global. As this is a rather long name the plan is to use the abbreviation WZACD as a working title and hopefully with time this will become the known acronym for both the project as a whole but also the database.

The database is designed to hold information on conservation projects and to facilitate collaborations between zoological institutions and other stakeholders. It is possible to enter new projects and get information about current projects via online access 24 hours a day.

For the database to work optimally it is important that project managers enter and update their conservation projects. Why? Well, the database is only as good as the data in it. This data reflects the output so any extracted reports will be based on what is entered or updated. For example, at the moment, the most popular project species is the Amur tiger, the geographical region with most supported projects is Africa, and the country providing most support is the United Kingdom. Does this reflect how the projects are distributed in reality? That will be difficult to conclude as it changes when data is being added or updated. However, it can point towards what kind of prioritisation the zoo community makes in its support and work for conservation and therefore it is of utmost importance that all members strive to add as many of their conservation projects as possible.

One exciting development to the database this year is that it is no longer a standalone entity. A website (see the link below) has been developed and launched to provide a 'face' and gateway for the database. This was mainly to make a platform available

to show the diversity of conservation projects supported by the zoo community. It is still early days for the website but the idea is to feature a monthly project as well as news about projects that have been entered.

MANAGEMENT STRUCTURE

After it was decided that the database should become a global tool, a management structure was implemented with a management board, a technical advisory group and the daily management.

Currently there are three partners in the project – EAZA, WAZA and CBSG Europe with the latter being the holder of the project. On the management board, which is the decision-making body, each partner has a seat. For a regional association to become a partner of the project a yearly fee has to be paid.

The technical advisory group is, at the time of writing, a group of 18 representatives from the following regional associations:

- Latin American Zoo & Aquarium Association
- North American Association of Zoos & Aquariums
- Eurasian Regional Association of Zoos & Aquariums
- European Association of Zoos & Aquaria
- African Association of Zoos & Aquaria
- World Association of Zoos and Aquariums
- Zoo Aquarium Association Australasia

The main aim of this group is to modify the database so that it becomes a useful tool for all zoo regions. The group will focus on the technical part of the database and act as a discussion group.

However, making modifications comes at a price so for major changes to be realised funds are needed. The management board therefore hopes that with time more regional associations will become partners of the project and thereby become part of the decision-making body so that the database can evolve in the intended direction.

For further information visit the website (www.conservationdatabase.org) and feel free to browse the database. If you are unsure whether you can log-in to the database, contact the database manager at support@conservation-db.net.

GET INVOLVED!

For the database to be an effective tool we need your help:

- Logon to check that your institution has added projects in the database
- Logon to update your instiution's conservation projects
- Logon to add new conservation activities
- Visit the website for project news
- Contact support@conservation-db.net for access

Connecting keepers worldwide

IF YOU'RE NOT ALREADY INVOLVED WITH THE INTERNATIONAL CONGRESS ON ZOOKEEPING, THIS IS THE PERFECT TIME TO START LENDING YOUR SUPPORT

Rolf Veenhuizen, Safaripark Beekse Bergen

SCENES FROM SINGAPORE

ROLF VEENHUIZEN

The genesis for the first International Congress on Zookeeping (ICZ) took place at a meeting at the AAZK conference, held in Columbus, Ohio, in the US in 2000. Each of the seven major regional associations for professional zookeeping was represented, and they concluded that a common conference for zookeepers from around the world was needed. This would not only improve the levels of communication between keepers from different regions, but also serve as a basis for supporting the development of zookeeping as a profession in regions where professional zookeeping associations did not currently exist.

The idea was to promote the development and application of professional animal welfare and husbandry techniques amongst zookeepers and other zoo professionals, which would in turn benefit the wild animals under their care, and contribute to the conservation of wildlife, and three years later the first ICZ was held at Avifauna in the Netherlands in 2003.

Since then, the founding representatives have agreed to work together in developing the group into a formal association dedicated to the development of zookeeping as a profession at an international level, and assisting the establishment of professional zookeeper associations in those regions where such groups do not currently exist. The need to incorporate the ICZ as a non-profit association became evident and it is now incorporated in the US with by-laws and a constitution in place. Conference and paper guidelines have been produced to give guidance to people wishing to host an ICZ conference or to present at a conference.

The second conference, in what was now a three-year cycle, was held in Australia, at the Gold Coast in 2006, while the third took place in Seattle in 2009. By now, the Philippine Association (ZAP) and African association (AKAA) had also became members of ICZ, and attendance was up to 400. And now, preparations are well under way for the fourth conference, due to be held in Singapore from 9-13 September 2012. Wildlife Reserves Singapore is organising the conference in conjunction with the ICZ, with a theme of: 'Many Voices, One Calling'.

The ICZ will continue to develop a global network for zookeepers. Already, many keepers have developed lifelong friendships, with colleagues throughout the world, as a result of the ICZ. Additionally, there is greater opportunity to share expertise with colleagues on a global scale. The ICZ is also working towards developing and supporting conservation. It has many things to accomplish before becoming a major player in conservation; however, the future looks bright for the development of a global conservation effort for zookeepers. We envisage flagship conservation efforts that all the world's keepers can promote and take pride in. For information on the ICZ contact info@iczoo.org or for more information on the upcoming conference in Singapore contact congress@iczoo.org.

ICZ's vision: 'A global network of zookeepers with the highest standards of professional animal care contributing to a diverse and sustainable natural world where neither wild animals nor their habitats are in danger.'

THE SEVEN FOUNDERS OF ICZ

- American Association of Zoo Keepers (AAZK)
- Association of British & Irish Wild Animal Keepers (ABWAK)
- Australasian Society of Zoo Keeping (ASZK)
- Asociación Ibérica de Cuidadores de Animales Salvajes (AICAS)
- Association Francophone des Soigneurs Animaliers (ASFA)
- Berufsverband der Zootierpfleger (BdZ)
- Foundation Harpij (De Harpij)

JOIN US

The ICZ has had a lot of support from the regional associations, zoos and sponsors. There is also an option to become a supporting member. An institutional supporter membership is available for only US$250 pa or US$700 for three years. This will give you the opportunity to nominate a partner zoo needing improvement as a sponsored institutional supporter of the ICZ. Benefits include discount for institutional ICZ supporters at ICZ member conferences & association publications, plus use of the ICZ website to promote your relevant conferences and other keeper-related activities. Your institution will also be shown on the link page of the ICZ website with a hyperlink to your website. More information about the ICZ, the 'Call for papers' for the ICZ conference in Singapore and much more including the periodic e-newsletter, can be found at www.iczoo.org.

ZOOBOY27 IS ON A MISSION TO BROADEN THE THINKING AND INFLUENCE OF THE EUROPEAN ZOO WORLD, AND PULL NO PUNCHES IN DOING SO. HE REMAINS AT LARGE.

What, exactly, is Europe?

ZOOBOY27 CALLS FOR MORE CLARITY IN THE DEFINITION OF A 'EUROPEAN' ZOO OR AQUARIUM

Ever since Greek and Roman times debates have been going on about the geographic boundaries of Europe. Where does Europe begin and where does it end? Even modern geology cannot provide a clear-cut answer: what we call Europe is a mixture of tectonic (micro)plates that came drifting from various distant parts of the globe, and collided and grew together in our part of the world. Unlike, for instance, Africa, Australia and South America, Europe is not a geologic entity. Politically and culturally, Europe has never been an entity either. Leaving alone Europe's extremely complex history, even nowadays it includes three major countries crossing the Europe/Asia border: Russia, Turkey, and Kazakhstan.

The European zoo and aquarium community – when it started to organise itself – did not succeed in simplifying this complex picture. The European regional zoo association was established in 1988. The iron curtain was still closed, so there was no other choice than to restrict to western Europe, and the European Community (now 'Union') was chosen as a geographical basis. ECAZA was born. As such, ECAZA absorbed the Federation of British and Irish Zoos, which until then had been considered as a 'region of its own' by other regional associations.

When, a few years later, the iron curtain disappeared ECAZA dropped the 'C', and EAZA (1992) opened up for zoos and aquariums in all of geographical Europe, and rapidly many formerly 'Eastern European' institutions joined. Clarity in the end!

To everyone's surprise, however, in 1995 EARAZA was established: the Eur/Asian Regional Zoo Association. It wanted to bring together the zoos of all of the former USSR states, those in Europe as well as those in Asia. As far as Europe is concerned, EARAZA attracted members in the Baltic countries, Belarus, Ukraine, Moldavia, and – of course – the European part of Russia itself. Several of the zoos in these countries meanwhile had also joined EAZA. Strangely enough, six Czech/Slovak zoos (all members of EAZA) decided to join EARAZA as well, in spite of the fact that historically the Czech Republic/ Slovakia never had been or wanted to be part of the USSR.

Further to geography: Europe is divided into some 45 countries. Many of these have their own national zoo federation. A good thing, as – in spite of our wish to unite all of Europe – certain problems can be better solved at national levels. However, there are also three (quite logical) bi-national federations: Britain/Ireland, Czech Republic/Slovakia, and Spain/Portugal (Iberia). And we have the multi-national VDZ (Verband Deutscher Zoodirektoren), originally meant to bring together the zoos of (partly) German speaking countries (Germany, Austria, Switzerland), but now with members also in Denmark, Estonia, France and Hungary.

Pretty confusing again, in the end. Like in Greek/Roman times – as far as zoos are concerned – the question 'what is Europe' still seems to be unanswered. But what does it matter? What is wrong with it? The answer to this is that firstly it obscures the picture of how the European zoo community is organised, which confuses our fellow regional associations, the EU and the international conservation bodies with which we would like to cooperate. In the second place, it obscures the picture of what 'good' zoos are. Most of the aforementioned European zoo organisations have their own (accreditation) standards, but some even have none. Being a member of one does not mean that an institution qualifies for a common European standard. And finally, it confuses zoo representation in WAZA through membership of zoo and aquarium organisations. WAZA accepts almost any zoo and aquarium organisation in the world, whether national, multinational, or regional, and leaves accreditation standards to them. Consequently, certain zoos in Europe are four times represented in WAZA: as an individual WAZA-member, as member of their (bi-/multi-) national federation, of EAZA, and of EARAZA.

The difficulties this can cause have, of course, been recently highlighted and are the subject of on-going discussion among the associations. If a given zoo is not acceptable to one of the European organisations (or does not feel 'at home' in it), it can shift to another, and always remain part of WAZA. Does the global zoo and aquarium 'umbrella' not care about what Europe and European quality is? Perhaps, in the end the regional associations have to define what 'dual' membership means for them, what quality standard this represents, and ask WAZA to modify their admission standards and procedures accordingly.

Where does Europe begin, and where does it end?

7th European Zoo Nutrition Conference
University of Zurich, 27-30 January 2012

EAZA Academy Workshop
27 Jan 0900-1700
Feeding herbivores: forage quality evaluation, roughage hygiene, and herbivore diet formulation and assessment

Conference

27 Jan 1800	Icebreaker
28 Jan 0900-1700	Scientific and practical sessions (incl. topics 1,2,3)
29 Jan 0900-1700	Practical sessions incl. demonstrations, Question/Answer session, 'Round table' poster sessions (incl. topic 4)
30 Jan 0900-1200	Scientific sessions (incl. topic 5)

Specific topics:
(1) Diet imprinting and diet changes
(2) Feeding of primates
(3) Feeding of amphibians
(4) Feeding of bears
(5) Feeding of elephants ... and free topics

Oral presentations (10 or 20 minutes, 5 minutes discussion)
Poster presentations
Q/A-sessions (for question/answer sessions, participants can send their questions to the organizers in advance in PowerPoint format including - if available - photos)
Podium discussions on the specific topics (and on free topics if several submissions are made that relate to each other)
Demonstrations (body condition and faecal scoring, food presentation, intake measurements, commissary organisation)
Submission deadlines
Oral presentation/poster abstracts: 7 November 2011
Questions for Q/A session: 31 December 2011
(email to mclauss@vetclinics.uzh.ch)

The conference, including dinners, will be held at the Irchel Campus of the University of Zurich, with ample space for interactions and networking.

Registration fees (Euros)*	
Type	
Workshop	110
Workshop (student)	80
Conference	310
Conference (student)	280

**registration fees include*
- for the workshop: coffee breaks and a lunchbag
- for the conference: icebreaker, coffee breaks, lunchbags on all three days, dinner on Saturday and Sunday, 4-day public transport ticket, abstract book

Hotel Reservation
We recommend to book rooms (share a double room) at the
Hotel Ibis Zurich Messe Airport
Heidi Abel Weg 5, 8050 Zürich
Tel: 044 307 47 00, Fax: 044 307 47 47,
Email: H2980@accor.com, Homepage: www.ibishotel.com
When booking a room, indicate you come for "European Zoo Nutrition"
Prices (per night, including breakfast)

26–27 Jan 2012	Double bedroom CHF 116.30
	Single bedroom CHF 103.30
27–30 Jan 2012	Double bedroom CHF 95.30
	Single bedroom CHF 82.30

Parking CHF 18.00 per night
The hotel is in walking distance to the conference site.

Check also regularly http://www.eaza.net/activities/Pages/NutritionConference.aspx for updates
Registration for the conference starts July 2011 through the website

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