

Turn back the tide ZOOS' ROLES IN THE FIGHT AGAINST CLIMATE CHANGE

Gather round A SPECIAL REPORT ON EAZA'S 2009 CONFERENCE

Get your teeth in HOW YOU CAN GET INVOLVED IN THE CARNIVORE CAMPAIGN



Without whom none of this INCOMING CHAIRMAN SIMON TONGE PAYS TRIBUTE TO HIS PREDECESSOR BERT DE BOER



THE BIG CATS OF NUREMBERG AN INSIDE LOOK AT THE RENOVATED CARNIVORE HOUSE

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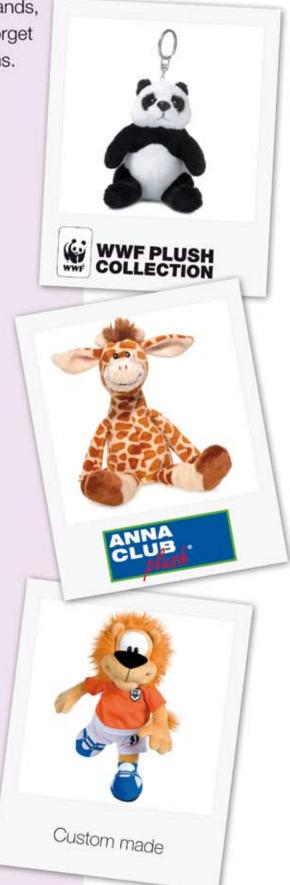
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### Zooquaria

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# Council Members 2009-2012

Below is the complete list of EAZA Council Members for the coming three years, followed by the newly elected EAZA Executive Committee

COUNTRY	<b>COUNCIL MEMBER</b>	INSTITUTION	COUNTRY	<b>COUNCIL MEMBER</b>	INSTITUTION
Austria	Michael Martys	Alpenzoo Innsbruck	Latvia	Rolands Greizins	Riga Zoo
Belgium	Linda van Elsacker	Antwerp Zoo/Planckendael	Lithuania	Vacovlas Dumcius	Kaunas Zoo
		Animal Park	Luxembourg	Guy Willems	Parc Merveilleux
Croatia	Davorka Malkovic	Zagreb Zoo	Netherlands	Hans van Weerd	Zodiac Zoos
Czech Republic	Vladislav Jirousek	Jihlava Zoo/Fed-UCSZ		Frank Rietkerk	Apenheul
	Dana Holeckova	Dvur-Kralove Zoo	Norway	A Kees Oskar Ekeli	Bergen Zoo
Denmark	Lars Lunding Andersen	Copenhagen Zoo	Poland	Aleksander Niwelinski	Plock Zoo
Estonia	Mati Kaal	Tallinn Zoo	Portugal	Arlete Sogorb	Lisbon Zoo
Finland	Seppo Turunen	Helsinki Zoo	Slovakia	Miloslava Savelova	Bratislava Zoo
France	Françoise Delord	ZooParc de Beauval/ANPJZ	Slovenia	Zdenka Ban Fischinger	Ljubljana Zoo
	Pierre Gay	Zoo de Doué	Spain	Jose Maria Aguilar	Jerez Zoo
	Michel Hignette	Aquarium de la Porte Dorée,		Laura Agüera	Barcelona Zoo
		Paris/UCA	Sweden	Bo Kjellson	Boras Zoo
	Thierry Jardin	CERZA Lisieux		Mats Höggren	Kolmarden Zoo
Germany	Bernhard Blaszkiewitz	Tierpark Berlin	Switzerland	Alex Rübel	Zurich Zoo
	Andreas Knieriem	Hellabrunn Zoo	Russia	Vladimir Spitsin	Moscow Zoo
	Achim Johann	NaturZoo Rheine	Turkey	Gunay Demirbag	Bosphorus Zoo
	Thomas Kauffels	Opel Zoo	Ukraine	Vladimir Topchy	Nikolaev Zoo
	Ulrich Schürer	Zoo Wuppertal	United Arab Emirates	Paul Vercammen	Arabia's Wildlife Centre
Greece	Jean-Jacques Leisueur	Attica Zoo	United Kingdom	Bryan Carroll	Bristol Zoo
Hungary	Miklos Persanyi	Budapest Zoo		Mark Pilgrim	Chester Zoo
Israel	Shai Doron	Jerusalem Zoo		Ken Sims	Thrigby Hall Wildlife Garden
Ireland	Leo Oosterweghel	Dublin Zoo		Simon Tonge	South West Environmental
Italy	Cezare Avesani Zaborra	Parco Natura Viva			Parks/BIAZA
				Mark Challis	Belfast Zoo
Co-opted	Bengt Holst (chair EEP Committee)		Copenhagen Zoo		
	Philippe Jouk (chair Aquarium Committee)		Antwerp Zoo		
Observers	Theo Pagel, (chair Education Committee)		Koln Zoo		
	Alastair Macdonald (chair Posoarch Committee)		University of Edinburgh	TAN	ON OF 2

 Alastair Macdonald (chair Research Committee)
 University of Edinburgh

 Jacques Kaandorp (chair Veterinary Committee)
 Safaripark Beekse Bergen

 Wim Verberkmoes (chair Technical Assistance Committee)
 GaiaPark Kerkrade Zoo



EAZA Executive Committee (2009-2012) Chairman: Simon Tonge (Paignton Zoo) Vice-chairman: Lars Lunding Andersen (Copenhagen Zoo) Secretary: Miklos Persanyi (Budapest Zoo) Treasurer: Frank Rietkerk (Apenheul Primate Park) Legislation Committee: Thomas Kauffels (Opel Zoo) Aquarium Committee: Philippe Jouk (Royal Zoological Society of Antwerp) Membership and Ethics Committee: Alex Rübel (Zoo Zurich) EEP Committee: Bengt Holst (Copenhagen Zoo)



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ZOOPROFIS	(www.zooprofis.de)				

### From the Director's Chair



Welcome to Zooquaria, our renamed quarterly magazine. The new name reflects, we believe, the EAZA of today, in that our magazine is read not only by our members but by anyone interested in modern zoo and aquarium best practice. This best practice also extends, of course, to our collective work in the wild for conservation. Zoos and aquariums now work with a dizzying array of conservation partners, and bringing our work to an even greater audience can only be a positive step forward. With the advent of a full colour magazine available for download from the public area of the website we hope that Zooquaria will be read by a much wider audience.

In my last letter the EAZA Executive Office was in the final flurry of manic activity in the lead up to the 26th EAZA Annual Conference. The activity of the office, our colleagues at Copenhagen Zoo and all who took part was however well worth the effort, a fact borne out by the results of our post-conference survey, in which about 90% of the 240 respondents rated the conference overall as either 'good' or 'very good'. We enjoyed some truly inspiring plenary sessions with guest speakers including Simon Stuart of the IUCN SSC, Gordon McInnes of the European Environment Agency and Paul Pearce-Kelly of the Zoological Society of London. These speakers made abundantly clear the active role that the EAZA community can and does play in global conservation efforts and I urge all members who were not able to attend the meeting to look at the presentations on the conference proceedings website, (accessible to conference delegates and EAZA members only, via www.eaza.net). One delegate approached me at the end of the meeting to say that they truly believed that the EAZA Annual Conference had now turned a corner and was about real issues of importance for the world today and our crucial conservation role. We hope to make every EAZA conference as relevant and vital.

At the conference Council approved a number of new documents that will be available on the EAZA website. They include an updated Code of Ethics, an EAZA Lobbying Strategy and an EAZA Fundraising Strategy. The latter two documents support the full EAZA Strategy and Action Plan 2009-2012 which was approved and made available earlier this year. I urge all members to familiarise themselves with these important documents.

In the last edition of the magazine you may recall we thanked the members who had made extremely generous donations to the EAZA Development Fund. Since then further donations have come in and the fund now tops a fantastic €51,567.45. Many thanks to all of the additional

donating members\* for their support of EAZA. The Executive Committee and Council agreed in Copenhagen to devote this fund in 2009/10 to carrying out a Socio-Economic Impact Assessment (SEIA) across the EAZA community. This SEIA will be an important document for EAZA if lobbying aims are to be met - for the first time we will be able to discuss in detail with the EU the real social and economic value of EAZA zoos and aquariums. In the very near future all EAZA members will receive a comprehensive survey by email, compiled by the company we are working with, Triple Value. This will be an important foundation for accomplishing the SEIA, leading on to more focused work with representative members. For this exercise to be a success for all of us we need as much detail as possible in the survey responses - and we need a 100% response rate. Please take the time to complete the survey, making it easier for EAZA to represent you, the member, at the EU. The remaining fund will also be devoted to improving communication channels with the EU. The AGM also recognised the need to implement the EAZA Strategy as effectively as possible, and to do so approved a 10% increase in membership fees and a new budget for 2010/2011. We thank the AGM for their support in ensuring EAZA's strategy can be implemented.

As we approach the end of the year the whole of the EAZA Executive Office wishes all members a happy and peaceful holiday season and look forward to an even more productive 2010 – International Year of Biodiversity. Let's ensure that our work is at the heart of promoting biodiversity to the world.

\*Our thanks go to the following members for their donations to the EAZA Development Fund; Chester Zoo, Espace Animalier de la Haute-Touche, Parc Ornithologique de Villars les Dombes, Paradise Wildife Park, Parc Paradiso, Parc Zoologic de Barcelona, Parc Zoologique de Champrepus, Menagerie du Jardin des Plantes, Parc Zoologique de Paris, Tierwelt Herbestein, Zoo Aquarium Madrid, Zoom Torino, Zooparc de Beauval.

piley/pla

# Welcome to the three new EAZA Members approved by Council in Copenhagen on 18 September 2009

**ZOO D'ASSON, FRANCE** Contact : Luc Lorca 64800 Asson, France **TEMPORARY MEMBER FOR 2 YEARS** Tel: +33 05597 10334 Fax: +33 05597 10155 E-mail: zoo-d-asson@wanadoo.fr Website: www.zoo-asson.org Shortname: ASSON

#### BLAIR DRUMMOND SAFARI & **ADVENTURE PARK, SCOTLAND**

Contact: Gary Gilmour Blair Drummond, Stirling FK9 4UR, Scotland **TEMPORARY MEMBER FOR 2 YEARS** Tel: +44 (0)1786 843100 Fax: +44 (0) 1786 843104 E-mail: gary@blairdrummond.com Website: www.blairdrummond.com Shortname: BLAIRDRUMMOND

Asson Zoo was opened to the public in 1964 at a time when the zoo grounds were fairly small and most species exhibited were birds and a few primates. The zoo's collection grew and it became known for its breeding of lemurs in captivity. Since 2001 Asson Zoo has new owners; new species have been added (Siberian tiger, snow leopard, lesser panda, maned wolf) to the collection; and new exhibits were built as well as new facilities for visitors.



Currently the zoo covers five hectares and the core of the collection is still dedicated to primates and birds.



Blair Drummond Safari and Adventure Park mostly holds classical species for a safari park such as chimpanzees, ostrich, waterfowl, large carnivores, elephants, rhino, giraffe, zebra, cattle, antelope, deer and some domestic animals. The park also holds several bird of prey species, some smaller mammals (lemurs, common marmosets, meerkats, etc.) and sea lions. With around 400,00 visitors each year the park is among the top five tourist attractions in Scotland. The park

changed direction in recent years, improving animal welfare conditions and upgrading the facilities to modern zoo standards. Some major improvements to animal facilities have been implemented and several other improvements are planned.

**Founded**: 1964

Size: 5 hectares

privately owned

Number of species: 80

50,200 in 2007, 51,300 in 2008

Organisational type: for profit,

Number of visitors:

Staff: 7

Founded: 1970 Size: 49 hectares

Staff: 38 (including 16 animal keepers, a chief warden (curator), education officer and environmental officer) Number of species: 51 species of birds and mammals Number of visitors: 406,000 in 2007 and 390.000 in 2008 Organisational type: for profit, privately owned

**ROMANIAN ZOO AND AQUARIA FOUNDATION (RZAF), ROMANIA Contact** : Dana Canari Str. Vadul Moldovei Nr.4, Sector 1, Bucuresti, Romania **TEMPORARY ASSOCIATE MEMBER FOR 2 YEARS** 

**Tel**: +40 21 269 06 00 Fax: +40 21 269 06 05 E-mail : optmartie@yahoo.com Shortname: FED-RZAF

The Federation was reorganised in 2007 and therefore re-applied for EAZA membership. RZAF is working on a 5 year plan including: raising the standards of Romanian zoos, participating in EAZA campaigns, organising its own campaigns, the development of conservation and research projects, the continued development of the relationship with the Environment Ministry and collaboration with Parliament members in order to implement EU legislation in Romanian zoos effectively.



**Founded**: 1977 Members: 22 + 1 corporate member Organisational type: Federation

Additionally, Le Parc des Felins, France; Stiftelsen Atlanterhavsparken, Norway; The Torun Zoobotanical Garden, Poland; Goteborg Universeum, Sweden; and Blackbrook Zoological Park, United Kingdom received an upgrade to Full Member (all are former Temporary Members).

Why the empty space?

Because we're waiting for your letters.

Get something off your chest, respond to any of the articles in this issue, let us know what you think about the magazine, tell us about an interesting project... this is your chance to communicate.

Please send your letters to malcolm.tait@eaza.net.

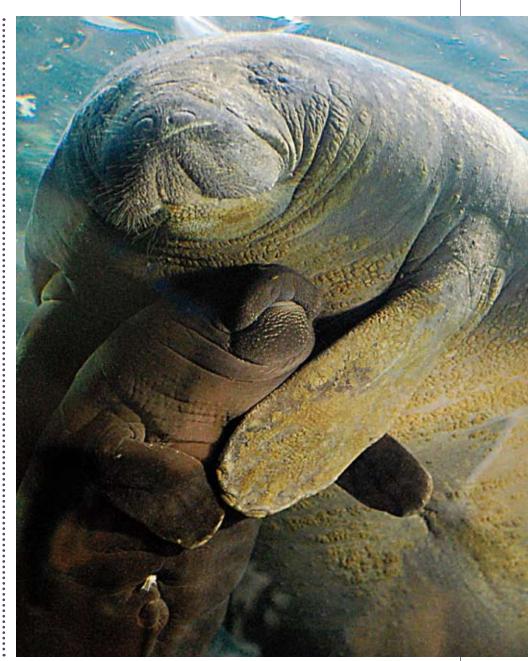
## **BIRTHS AND HATCHINGS**

## SPANISH FIRST FOR MANATEES

The pair of Caribbean manatees (*Trichechus manatus manatus*) at Faunia (Parques Reunidos Group), the only such pair in Spain, has recently given birth to a youngster writes *Technical Director Agustín López Goya*. It's the first time that manatees have ever bred in the country, making this a very significant event due to the threatened status of the species. The Caribbean manatee is an aquatic mammal on the verge of extinction with an estimated wild population of just 2,000 individuals.

After a 12-month gestation, the male cub – who will be named by children that visit the Park – was born on 30 July before staff arrived in the morning. An animal care team is now keeping a close eye on the new family, which remains on display in the main enclosure. He will feed from his mother until his 18th month, and has also started to feed on small quantities of plants. His mother will nurse him for up to two years, and she is displaying a highly protective behaviour towards the cub.

Both manatees arrived in Spain on 13 October 2007 from Georgetown Zoo, Guyana, as a result of an agreement between environmental authorities of Guyana and Spain. To obtain this agreement Faunia carried out almost two years of arduous negotiations, with essential collaboration from the National Museum of Natural Sciences, and the Spanish Minister of Education and Science. The result was a Memorandum of Agreement with the National Park Commission of the Guyana Government.





### LOOK WHAT THE STORK BROUGHT!

You're looking at two Czech successes. Yellow-billed storks (*Mycteria ibis*) first hatched in the Czech Republic's Zoo Zlin-Lesna in 2007, but with 2008 being an unsuccessful year, the zoo took a different approach for 2009, *writes Roman Horský*. The zoo brought together two different pairs of birds (one from Tanzania, the other three from Germany). The first pair laid eggs in May, and on 5 June the chicks' voices were first heard from the nest. The second pair was nearly as successful, with one of its eggs hatching, so the Zoo is now the proud home of three parent-reared young, each ringed at the age of 14 days.

Other avian successes at Zoo Zlin-Lesna this year have included Darwin's rhea (*Pterocnemia pennata*), great white pelican (*Pelecanus onocrotalus*), roseate spoonbill (*Ajaja ajaja*), and various ibis species. Another Lesna highlight was the first rearing of a Eurasian griffon vulture (*Gyps fulvus*) after 10 years.

### **NOTICEBOARD**

# NEW LOOK ON THE WEB

AT THE BEGINNING OF SEPTEMBER, amid the rush and tumble of final preparations for the EAZA Annual Conference, we flicked the 'on' switch for the new EAZA website. Visitors to www.eaza.net were suddenly presented with a fresh new look and a restructured site where information can be found more easily than in the past. The development of the new website has been a long running project and the September launch represents only the first phase.

The member area of the old website has been kept active at www. eaza.nl until such time as the new workspaces for TAGs, committees and working groups are fully up and running. (The Available & Wanted list will remain at that domain on an ongoing basis.) The bulk of the workspace development was done during October and the first users were able to gain access during November.

The new EAZA website is hosted by ISIS, the International Species Information System, and is therefore part of a growing family of sites <image><complex-block><complex-block>

and portals on the same platform, including, for example, a portal for CBSG. In practice

this means that although the address for the site is still www.eaza.net and all of our information is stored in dedicated EAZA folders on their servers, user management and authentication – the part that controls who can log in and what they can see – is fully integrated with the wider ISIS community. So while many users will be required to register and create a new user profile before accessing the member area of the EAZA site, some users that already have accounts via either ISIS or CBSG will need only to request access to the EAZA site via their profile.

In the coming weeks and months we will be encouraging TAG chairs, EEP coordinators, studbook keepers, and those chairing committees and working groups to start updating the relevant workspaces themselves. They will be able to upload documents directly to the site, add useful web links, and add announcements of interest to their TAG or committee. Please feel free to let us know what you think about the new site – and don't be afraid to dive in and start using it. *Eoghan O'Sullivan, EAZA Executive Office* 

## HOME NEEDED FOR HIPPOS AND COATIS

**THE PARC ZOOLOGIQUE DE PARIS** was first opened in 1934, along the lines of Hamburg Zoo's innovative model: natural barriers, plentiful vegetation, technical buildings and shelters hidden in false rocks.

With a few exceptions, the Zoo has not been renovated since, and one consequence has been the steady degradation of the false rocks over the years. In 2004 some of the exhibits had to be closed to the public for safety reasons, which marked the beginning of the evacuation of some animals (approximately 40% of the collection) and the closure of most of the public galleries. This was a turning point, and the Zoo resolved to rebuild in its entirety, requiring the relocation of almost all its animals. The evacuation began in 2008, and all have now been found new homes – bar two species.

Species	Individuals	Comments
Hippopotamus Hippopotamus amphibius	36 years old male and about 25 years old female	Breeding pair, good breeders
<b>Ring-tailed coati</b> Nasua nasua	4 males born in 2006 and 2007	4 compatible males Several behavioural studies (social organisation, management of a male group) including these gaimals are available

## We need some help!

If you think that you can help us to find a place for these two hippos and four ring-tailed coatis, please contact Delphine Roullet, on tel: 00 33 1 44 75 20 38; fax: 00 33 1 43 43 54 73; email: roullet@mnhn.fr





### WINNING WAYS

The traditional award ceremony was held at the EAZA conference, with three awards presented to:

- Klaus Rudloff of Berlin Tierpark, in recognition of his work in the Small Mammals TAG
- Dominique Tropeano, CEO of Colchester Zoo, for his many years as chair of the Technical Assistance and Animal Welfare Committee
- Ulrich Schürer of Zoo Wuppertal, who had just stepped down as chairman of the EAZA Legislation Committee, a difficult job that he undertook with great skill for almost 20 years. Photos below by Michael Petersen show EAZA Chair Simon Tonge with (from left) Ulrich Schürer, Dominique Tropeano's son Anthony, and Klaus Rudloff.



## COME ON BOARD THE AMPHIBIAN ARK

Nearly one third of the world's 6,000 amphibian species are threatened with extinction and nearly one half are experiencing population declines. These figures represent more threatened amphibians (frogs, salamanders and caecilians) than birds, fishes or mammals, making them the most threatened class of vertebrates on the planet. In the past few decades, as many as 159 amphibian species may have gone extinct, and all experts involved know that this is an underestimate.

The successful Amphibian Ark 2008 Year of the Frog campaign brought news of this amphibian crisis to the world, and began to catalyse an organised, global response. Scientists and conservationists around the world learned a great deal about the state of amphibians on a global level and are working to attack the threats facing these very important and diverse creatures. This is only the beginning and there is much to do!



We are happy to announce that Amphibian Arkis now a formal membership organisation open to ANYONE interested in keeping amphibians on the planet. Boarding the Ark does not require that you work at a zoo, hold a PhD or bring in a six-figure income. Anyone can be a part! Join us in helping to save amphibians, a challenge that will ultimately be quite important to all! Your support is critical to help us reach our goals and protect species on the brink.

Please visit www.amphibianark.org/ membership.htmandjoin us today! For more information please contact Kevin Johnson, Communications Director, Amphibian Ark at kevinj@amphibianark.org.

Photo: Brad Wilson

Photo: Brad Wilso

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Photo: Montezuma and Lopez-Lopez

To mark the tenth anniversary of EAZA's focused conservation campaigns, and to celebrate the International

# Bushmeat Campaign: lots done, plenty to do

Chairman of the Bushmeat Campaign steering group, Bryan Carroll, Bristol Zoo

The Bushmeat Campaign, launched in September 2000, was EAZA's first conservation campaign. Its success in bringing EAZA members together with other campaigning groups to address the bushmeat crisis created the template for the campaigns which followed over the next 10 years. The campaign aimed to involve visitors to zoos in three ways:

- raise awareness of the devastating impact that the hunting of wild meat has on great apes in Africa
- gather signatures for a petition urging leaders both in Europe and in Africa to address the crisis
- raise funds to support great ape conservation projects

Even though we still face a huge challenge to prevent the loss of apes in the wild in the next 20 to 50 years – and EAZA comes full circle to address this challenge again in a campaign that will be launched next year – the Bushmeat Campaign can nonetheless be seen as a success.

The campaign resulted in one of the largest petitions ever submitted to the European Parliament, with 1.9 million signatures gathered. This represented a phenomenal effort on the part of the 170 institutions that participated, almost doubling the original target of one million signatures. After negotiating the usual, seemingly endless rounds of committees, meetings, working groups and presentations, the Petitions Committee finally debated the petition in January 2003. The resulting report was adopted by the European Parliament in January 2004. Considerable support in achieving this result came from the International Fund for Animal Welfare, EAZA's partner throughout the Bushmeat Campaign.

Through adopting this report the European Parliament recognised the issue of bushmeat as important in relation to wildlife conservation, human food security and livelihoods, and human health, and that it supports efforts to resolve the bushmeat crisis.

The adoption of the report was

really the 'end of the beginning', as its resolutions were not binding on the European Commission. There followed a period of intense lobbying to ensure that the measures were adopted. As a result, the impact of the bushmeat trade has now been included as one of the factors to be considered in assessing applications for EU funding. In parallel the campaign partners have worked with African governments, for example in Cameroon and Ghana, to help them to secure EU funding to address the bushmeat crisis in their countries.

### PLAYING A MAJOR ROLE

The EAZA Bushmeat Campaign, in particular the adoption of the parliamentary resolution, played a key role in the granting of €3.4 million to UNEP-GRASP (Great Ape Survival Project - see www.unep.org/grasp). This ambitious project aims to lift the threat of extinction for great apes through intergovernmental dialogue and policy making, conservation planning initiatives, technical and scientific support to range state governments and fund and awareness raising in donor countries. In an earlier article in EAZA NEWS (issue 46), commenting on the adoption of the parliamentary resolution, I said that 'all EAZA members should be very proud that they have helped to achieve this

highly significant development in the fight against the bushmeat trade. The 1.9 million signatures also give a measure of the huge effectiveness of the awarenessraising aspect of the campaign. We know that at least that number were affected by what they read and saw. As a result the word bushmeat became a mainstream term to describe the trade in wild meat.

Over €100,000 was collected during the campaign and distributed among several projects. This is a modest sum compared to later campaigns, but it was a great achievement for the first EAZA campaign, and even better to see the campaigns get more successful at fundraising year on year. EAZA Conservation Campaigns don't ever really come to a close – as long as the problems they address remain problems the campaigns must continue their work. For the Bushmeat Campaign this means continued lobbying in Brussels both of the Parliament and the Commission, continued engagement with African governments to address the issue of bushmeat trade, and also lobbying of national government development aid bodies. The continuing commitment of EAZA members is also required – the problem of bushmeat has not disappeared and we should ensure that our visitors know this.





Year of Biodiversity 2010, Zooquaria launches a new series on those campaigns and what they have achieved.

# Rainforest Campaign: exceeding all goals

Bengt Holst, Director, Copenhagen Zoo

In September 2002 the second EAZA conservation campaign in a row, the Atlantic Rainforest Campaign, was closed to give way for yet another campaign. When the campaign was launched in 2001 three main goals were listed:

- To raise public awareness about conservation needs and conservation programmes in the Atlantic Rainforest.
- To raise public awareness about European Breeding Programmes (EEP/ ESB) for species from the Atlantic Rainforest with the four lion tamarin programmes used as models.
- To raise money for the Lion Tamarins of Brazil Fund (LTBF).

A total of 97 EAZA zoos from 20 different European countries participated in the campaign with activities ranging from poster exhibitions to a total transformation of the zoo into a South American landscape as was seen in Antwerp Zoo.

Common to all activities was that they were launched with big enthusiasm and had a significant impact. They transformed the abstract conservation concept into specific activities people could relate to, such as planting a corridor, paying field assistants for monitoring the animals, educational events, reintroduction of animals etc. So, the first goal was certainly met.

The same can be said for the second goal. The three existing lion tamarin ex situ breeding programmes (golden lion tamarin, golden-headed lion tamarin and black lion tamarin) all received more attention, and EAZA institutions saw the benefit of using these as flagship species for their conservation activities in general. One zoo, Parco Zoo Punta Verde in Italy, even chose to make a special exhibition for the black-faced lion tamarin - the only lion tamarin species that is not in captivity. The exhibition was a huge success and clearly shows that zoos also can play a role for species not kept in zoos!

But the most successful part of the campaign was no doubt the fundraising part. The official goal for the campaign

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was to raise  $\in$ 150,000. But at the end of the campaign a total of  $\in$ 240,456 was raised, and money kept coming in during the years. For the Lion Tamarins of Brazil Fund that was established in 1991 it was quite an accomplishment, and even exceeded the total amounts collected by the Fund over the ten years it had existed by then. It also showed the true commitment of European zoos to conservation and how much can be achieved when zoos work closely together with experts and authorities from the region on which they are focusing.

### WHAT HAS HAPPENED SINCE THEN?

Due to the increased focus on the Atlantic Forest and its fauna partnerships between zoos in Europe and conservation projects in the Atlantic forest were established. Based on the 'Adopt a group' model of Copenhagen Zoo five more zoos entered such a partnership with conservation projects for all four species of lion tamarins. The zoos paid an annual amount of US\$5,000 to the respective projects and received in exchange regular reports from the field – not big scientific reports, but diary-like reports from the field assistants working in the field and writing about what happens now out there. The zoos could then use these reports in their conservation interpretation and thereby making their interpretation much more

alive. A true win-win situation for projects and zoos.

So from being able to collect around US\$20,000 a year for lion tamarin conservation the fund could now generate around US\$80,000 a year for the same purpose – all due to the awareness effect of the EAZA rainforest campaign. And the money has been used according to the joint agreement between EAZA, IBAMA and the Lion Tamarins of Brazil Fund, using the lion tamarin species as flagship species for the Atlantic Forest. Until now around additionally €500,000 has been collected and used for lion tamarin conservation.

In 2005 it was decided that all future donations to lion tamarin projects should be awarded in accordance with the priorities listed in a newly developed lion tamarin conservation action plan. Actually the EAZA money turned out to be the driving force behind the implementation of many of the listed action steps and thus EAZA became a key player in the planned conservation activities.

### CONCLUSION

:

The Rainforest Campaign did not only achieve its stated goals. It surpassed them and even managed to keep up the momentum as a campaign should do. The campaign itself should be considered merely the big bang – the event that starts the whole machinery. But the biggest effect will come afterwards when the impact of all the activities born during the campaign period becomes visible and they start living their own lives. For the Rainforest Campaign the many exhibitions and events during 2001-02 were the necessary start. Many of these events turned into partnerships and regular support structures that are still alive today and that have even grown since then. So, today no one can anymore talk about lion tamarin conservation without mentioning EAZA as one of the major key players - a status we can be proud of and of course also can learn from.

# COME JOIN THE CARNIVORE CARNIVAL

If you thought that the Carnivore Campaign was drawing to a close in 2009, think again. Not only has it been extended to 2010, but a further four animals have been added to the main focal species, and there are now new ways in which you can get even more involved than before.

First of all, why the extension? The move was approved at the EAZA Annual Conference in 2009, and a new unifying theme - Stop Poison in Europe - developed for the coming year. The detrimental effects of poison in various shapes and forms can be seen on carnivores throughout Europe. These effects are indiscriminate, with animals suffering both as the direct targets of poisoning and as indirect victims. In addition to supporting individual projects for each of the species covered by the campaign, a more general Europe-wide project will also be initiated to address the impacts of poison on carnivores in each individual country.

At the conference, Angela Glatston, Chair of the Campaign Committee, introduced 'The Fantastic Four', the four species added to the original twelve carnivores covered by the campaign, and the ones particularly affected by poison issues. The newcomers are the harbour porpoise, the Egyptian vulture, the European black vulture and the imperial eagle. Awards were also presented to three institutions that made a significant effort during 2009: Dortmund Zoo, Zoo Zagreb and Woburn Safari Park.

Yet one of the key elements of the extension is an emphasis on greater



### **NINE FOR TEN**

Ways that you can help the carnivores in 2010 SMALL

- Add a link make sure there's a link to the carnivore campaign website positioned prominently on your institution's website
- Your newsletter can you include a short paragraph about the extension of the campaign in your institution's newsletter or magazine
- Add a link to the Facebook group 'Help the European Carnivores' and maybe even join yourself and invite your friends
   MEDIUM
- Collect money place Carnivore Campaign branded collection boxes at the displays of some of the featured species in your zoo
- Create an information panel for your visitors to read about the campaign and about the featured 16 species
- Create a link from the education section of your website to the kids carnivore factsheets (available in a number of languages)

### LARGE

- Host a Carnivore Carnival day at your institution next year more info will be available on the website in early 2010.
- Significant donation would your institution consider making a substantial donation to the Campaign
- Take an active stance against poisoning of animals in your country



involvement in the Campaign for the zoos themselves. You'll be finding out more about the Carnivore Carnival in the months ahead (and there'll be plenty to get your teeth into, there), but to help you on your way, Zooquaria has drawn up a list of nine ways you can help the campaign gain even greater successes in 2010. If you can tackle them all, that would be wonderful, but don't worry if not. We've divided our suggestions into small, medium and large contributions, so why not pick at least one from each category? Or perhaps take on all the 'medium' suggestions? Whatever you do, however, make sure you do something. The Carnivore Campaign has been extended for another year, but it's up to us all to make it work.

For more information, simply visit www.carnivorecampaign.eu.

# Putting on a show

HOW DO YOU PREPARE FOR HUNDREDS OF EAZA ANNUAL CONFERENCE GUESTS? EDUCATION AND ENTERTAINMENT WERE THE TWO MAIN THEMES OF COPENHAGEN ZOO'S APPROACH One thing was clear from the outset. With more than 600 visitors attending the conference, guided tours were not on the agenda. Leading such huge numbers would never work, and besides, people tend to break away from large groups, wander off on their own, and miss the events we really want them to see. So we made a virtue of that fact, and set up activities all over the zoo, all taken from the 'normal zoo day', which visitors could discover at their own pace.

The next question was: what types of activities should we lay on? One of the key concepts we wanted to stress was the importance of environmental enrichment, including our use of 'breed

and cull' in our daily management of the animals. Of course we couldn't just cull some animals to show our colleagues how this is done. They know that already. But what we could do was to show how culled exotic animals can become feed - and how they should be fed - to our carnivores. So, we fed our lions an entire eland cadaver and - very important, this - gave a talk about this for our guests, telling them why we do it, why it is so important and that we have done it here for so many years without complaints from the public. We wanted to show that it can be done, and should be done in all serious zoos. It's the message we provide to the usual daily

zoo visitors, and we have trained our students and keepers to get it across. It's what we stand for, and that is how our guests should see us.

As to the enrichment issue we wanted to have it as an integrated part of our daily management. So, we didn't conduct special enrichments activities, instead just getting on with the normal activities at the various enclosures. There was one exception, however. We ran a special event at the polar bears where our enrichment coordinator stood during the whole visit explaining to those that were interested why we do it and how we do it. Providing a horsehead for the polar bears is always good for



# Polar bear conservation and how to unify it

IN JULY, OUWEHAND ZOO, RHENEN, HELD A SYMPOSIUM ON ASPECTS OF POLAR BEAR THREATS AND SURVIVAL IN THE WILD, CAPTIVE BREEDING, AND HOW TO LINK *EX SITU* AND *IN SITU* CONSERVATION ISSUES. HERE IS A REPORT

### Dr Lydia Kolter (Cologne Zoo) & José Kok (Ouwehand Zoo/Alertis, fund for bear and nature conservation)

Keynote speaker Andrew Derocher (University of Alberta/member of the IUCN SSC Polar Bear Specialist Group) presented an overview of the evolution and natural history of polar bears, and their specific adaptations to the marine environment, adaptations which are not suitable to meet the challenges of climate change. Thus populations most probably will decrease. Geoff York (WWF and Polar Bears International [PBI]) reported on the 'Umky Patrol', a brigade in the Russian Arctic, which engages with people living on the Arctic coast, walrus and polar bear researchers, and environmental organisations. Randi Meyerson (SSP coordinator, Toledo zoo and PBI) outlined goals and current issues for the North American Polar Bear Sustainability Alliance between zoos, authorities and conservationists. The second session started with an update on challenges and major issues in the polar bear EEP presented by Janos Szantho (EEP coordinator, Amsterdam Zoo). Marion Schneider (Cologne Zoo) introduced infrared thermography to non-invasively examine thermoregulation in captive polar bears. Lydia Kolter (Cologne Zoo) presented demographic data and results of first video analyses by Karin Linke (ISB) on rearing and ontogenetic milestones in

polar bears. Two major questions for discussion were formulated: 1. How to fix the problems of captive breeding - husbandry of polar bears in the 21st century. 2. How to link in situ and ex situ Polar Bear conservation efforts. 1. The EEP and SSP populations are decreasing because of the combined effects of low birth and neonatal survival rates. High incidence of stereotypic behaviour was considered as indicator for stress. Derived from former studbook and survey analyses, from ex situ behavioural studies and field results, social and nutritional stress was considered to affect reproduction. Andrew Derocher sees closeness of males as a strong stressor. Wild females strictly avoid males outside of the breeding season. Flexible enclosure settings, which allow separation of sexes without denying permanent access to outdoor facilities or bachelors groups with males 'travelling' to single females should be tested. According to A Derocher the critical weight of females is around 190kg. Below this they do not reproduce. Thus diets allowing females to put on fat during/spring summer might influence

reproduction positively. Additional factors impacting rearing success might be noise and den dimensions. Advanced statistics are necessary to analyse data from past surveys and to assess the relevance of different factors. 2. Potential contributions of zoos to polar bear conservations were seen in the field of research, conservation education and housing of homeless wild polar bears, which are expected in increasing numbers due to shrinking habitats. Temporary housing of polar bears was considered reasonable only in sanctuaries close to their natural range. Nevertheless zoos should play a role in an action plan to be developed by the IUCN Polar Bear Specialist Group Meeting and the range countries. In order to be ready for co-operation and to offer excellent conditions in case wild polar bears come into captivity the Bear TAG and the EEP should continue advising zoos on how to improve their facilities, grouping, husbandry and management. Andrew Derocher outlined those research fields where tests under controllable conditions are necessary: development of new technology (radio collars and ear tag transmitters); feeding studies on isotope and fatty acid signatures, mass gain & growth patterns; physiological studies on stress markers (urine, faeces, blood), pregnancy (urine, faeces), fasting (blood).

# Shades of grey

AS WARNING BELLS SOUND FOR THE FUTURE OF THE GREY CROWNED CRANE, SO THE OPPORTUNITIES INCREASE FOR CAPTIVE COLLECTIONS TO HELP ITS POPULATION TO RECOVER



Kerryn Morrison, Manager of the International Crane Foundation / Endangered Wildlife Trust Partnership for African Cranes

The grey crowned crane (Balearica regulorum) is an icon of the African savannas and grasslands, but its life there is not what it used to be. We know that its population has declined by 41-53% between 1985 and 2004, a collapse that has uplisted the species to vulnerable status, but more recent analyses suggest that the situation might be even worse. In Uganda, the crane has declined by 80% over 30 years and it is likely that Kenya shares a similar fate. Data from Tanzania suggests a 75% decline over 25 years. Although habitat loss and poisoning have played a role in this threat, it is the illegal removal of the bird from the wild for food, domestication and particularly for international trade that has driven this decline.

An assessment of the trade figures from 1985 to 2005 derived from the CITES trade database, UNEP World Conservation Monitoring Centre, showed that 33 - 35% of all traded grey crowned cranes are wild caught (although this is likely to be an underestimation as 43% of all records had no information on the source of the

individuals). Tanzania is by far the biggest exporter, with the Netherlands the biggest re-exporter. Interestingly, Sudan is also a significant exporter of this crane despite the fact that these cranes are not found there. The majority of cranes have been imported into the Netherlands, with the UAE and China recently becoming the biggest importers. During the last year or so significant progress has been made to address this threat. The first was the endorsement of a motion 'minimising the trade in wild caught African cranes' at the IUCN World Conservation Congress in Barcelona in 2008. Countries were asked to ensure that cranes being imported were not wild caught, that a viable captive population be developed and that CITES be called to action. Secondly, both the grey and black crowned cranes were included in the CITES Significant Trade Review process at the 2009 CITES Animals Committee meeting. Essentially, this means that all countries exporting wild caught cranes have to show that the trade is having no negative impact on wild populations. Thirdly, two of the regional zoo

associations have started a process to better understand the current situation within their regions: through the establishment of a stud book (the Association of Zoos and Aquaria) and an assessment of husbandry practices and breeding productivity (Chinese Association of Zoos and Aquaria). To ensure a genetically and demographically sustainable captive population though, we're going to need managed programmes. Besides actively managing your cranes institutionally or regionally, EAZA zoos can become involved in an awareness campaign called the 'Endangered Explorer' that is launching in 2010. A number of fluffy toy cranes will be travelling around the world, as ambassadors with a story to tell. Their travels will be linked to a website with more information on the cranes and the places that they visit.

If you would like to obtain more information on the project or be included in the itinerary, please contact kerrynm@ewt.org.za. By working together, the future of the grey crowned crane can be secured (see www.savingcranes.org).

# The climate change challenge

### Paul Pearce-Kelly Zoological Society of London

As was reviewed at our recent EAZA annual meeting in Copenhagen, and subsequently at the WAZA conference, the severity of the climate change threat to biodiversity is unfortunately all too evident. When we also consider the very small window of opportunity remaining for us to avoid entering a state of runaway climate change it becomes clear that humanity is faced with a profoundly challenging engagement issue. Unfortunately all evidence to date indicates that - from world leaders through to the general public - this engagement challenge isn't anywhere near being adequately met. This stark reality highlights the necessity of the zoo and aquarium community to realise our truly tremendous potential for addressing this crisis. Although daunting, this endeavour will be greatly assisted by a number of timely developments.

### **TOOLS TO TACKLE THE JOB**

Much progress has been made in our ability to incorporate climate change threat factors into our evaluation and conservation planning. For example we can now add climate change vulnerability scores to our species collection plans. This would be extremely useful in identifying the most vulnerable and robust species in our collections and conservation programmes so as to best prioritise our all too finite resources.

We also have greatly enhanced direct access to key reference materials and associated specialists – especially through the development of the biodiversity and climate change information tool Bioclimate (www. bioclimate.org). This user friendly information tool has thousands of references across a comprehensive range of subject areas and has been developed with our community's technical and public engagement needs in mind, so do be sure to check it out.

### CRITICAL ISSUES TO RALLY AROUND

In addition to the impacts of global warming (rising temperatures and sea

levels, salinity changes and shifting currents etc) the marine environment is facing increasing ocean acidification which directly threatens a vast range of species that make their skeletons from calcium carbonate. The severity of these two highly synergistic threats is personified by the plight of the reef forming corals. At last year's CBSG meeting the concern was raised that the Great Barrier Reef may already have entered a state of committed non-viability as a result of current levels of  $CO_2$  in the atmosphere (we are currently at 387 parts per million). On the 6 July of this year a specially convened working group including the world's leading coral reef specialists together with climate scientists and conservationists) met up at the Royal Society of London to clarify the CO<sub>2</sub>ppm threshold for coral reefs.

This review confirmed that the viability threshold is <350ppm CO<sub>2</sub>. The resultant working group statement can be seen in full on the EAZA website and on Bioclimate, together with scientific support materials and a most engaging and authoritative Royal Society video presentation by Professor JEN (Charlie) Veron.

These key public awareness issues highlight the extreme threat facing natural systems which are of course so important for humanity's wellbeing. In addition to the domino effects on sea-grass and mangrove habitats, there are very similar direct vulnerability thresholds for many plankton species that play critically important roles in food chains and the oxygen cycle). Iconic terrestrial biomes such as the Amazon are almost certainly in equally sensitive tipping point states.

### A VITAL ENGAGEMENT ROLE FOR ZOOS AND AQUARIUMS

The need to convey such critically important issues to our visitors and our wider audiences must surely be of the highest priority and, as Bert de Boer stressed in his EAZA presentation, the zoo and aquarium community is uniquely placed to take the lead on this engagement challenge. We know the urgency of the situation. We have the evaluation ability and information access. We have a range of well worked up engaging aquatic and terrestrial case studies and above all we have the opportunity to realise our collective potential to help humanity stay within safe planetary boundaries. As the WAZA Council statement urges, we must take up this challenge while there is yet time to make a difference.

The author would like to offer sincere thanks to EAZA, CBSG, WAZA and Royal Society Working Group colleagues for their help in the compilation of this article.

### WAZA RESPONSE TO THE GLOBAL CLIMATE

This is an urgent request from the Council of WAZA and from its Conservation and Sustainability Committee to the directors of its members (zoos, aquariums and regional associations) to support the following statement.

### An urgent message to world leaders.

Through our organisations, we, **directors of the international zoo and aquarium community**, collectively engage with and educate 600 million visitors each year, and conduct extensive conservation activities in the wild and in our zoos and aquariums. We send an urgent message to world leaders, stressing the extreme gravity of the climate change threat facing **wildlife and natural systems**.

Agreement in Copenhagen to reduce atmospheric  $CO_2$  to the safe level of **<350 ppm** is the only way to give the international conservation community a real chance to manage the negative effects of climate change on the natural world.

Through concerted and immediate action, **this target is achievable**. To avoid potentially catastrophic consequences for humanity and wildlife, it is **essential**.

starting discussion - again, something we normally do and have had only a very few negative comments on.

So, all events actually reflected a normal zoo day, with the one change being that for this occasion they were conducted in English.

When hosting a conference you want to ensure that people feel comfortable and welcome. We put up special welcome banners at the entrance, which also helped to inform our normal visitors about this important event (they turned out to be as proud as we were that we were the hosts of a Europe-wide conference).

Next up was food and drink. We

sited three bars for our special guests placed at strategic places, which turned out to be extremely popular, but it was the provision of food that really got us thinking. Should we invite them for a full dinner in the restaurant, then put them in taxis back to their hotels? Not a particularly exciting approach. So, instead we decided to provide a buffet containing good, Danish organic food. We focused on quality products from various areas of Denmark, marking the food with small maps showing where it came from and then letting the chefs explain all about it. It worked really well: the visitors could see that organic food can be of very high quality, and the chefs could get an opportunity to talk about their products of which they are of course very proud. A win-win situation. Then, after the buffet, we took all our guests to Copenhagen's famous Tivoli, a fine end to an enjoyable evening.

All in all, the guests were able to bring back the many important messages from the zoo such as 'breed and cull', get to taste what a 'green zoo policy' can produce and also have a fun evening in Copenhagen, the Capital of Scandinavia (don't tell the Swedes!). It was a great day for us, and we hope for the guests too.

Not least as we had the weather on our side!



# Green conference: Green visions

#### Frands Carlsen and Ann-Katrine Garn, Copenhagen Zoo

THE HARD WORK BEHIND THE SCENES TO ENSURE THAT EAZA'S ANNUAL CONFERENCE WAS AS ENVIRONMENTALLY FRIENDLY AS POSSIBLE

Years ago when the planning for the 2009 Conference in Copenhagen started, the one issue which was always kept up front and given a very high priority was 'sustainability'. Sustainability is not only a key element in the Danish way of life but also the image of the city of Copenhagen. It has had a key position in the management philosophy of Copenhagen Zoo for many years and especially so after the Zoo was granted ISO 14001 and EMAS certification in 2002. With Copenhagen hosting the COP15 conference in December 2009 it seemed only fitting that a special effort should be made to make the EAZA conference in the same city a green and climate neutral event - of course without the risk of compromising the element of quality.

Previously, the only sustainability opportunity when attending an EAZA conference had been an optional CO2 compensation but we were certain that more could be done. Embarking on this voyage Copenhagen Zoo made serious efforts to set new standards for the environmental friendliness of EAZA conferences, looking at every aspect of the conference where it was deemed possible to incorporate elements of sustainability and climate considerations. In the end this produced a long list of measures and solutions including:

#### **Conference related activities**

- Conference registration online (no paper)
- Highlight use of public transport in conference materials
- Certified conference venue & local hotels (Nordic Ecolabel)
- Food and drink at all venues with high percentage of organic and local produce
- Paper waste recycling

#### **Conference materials**

- Conference bag reusable and made from 100% parachute grade polyester, UVa degradable
- Name tag made from





environmentally friendly PET instead of PVC

- Lanyard (cord) made from 100% biodegradable bamboo fibres
- Notepad the cover made from recycled polypropylene; the paper was recycled
- Pen made from recycled CD covers
- Conference paper materials were sponsored by a printing company with an eco profile and all paper materials were printed on both FSC mixed and Nordic Ecolabel paper. Despite the efforts to minimise

emissions caused by conference activities, some level of emission is unavoidable. Therefore, in order to make the conference a climate neutral event, it was decided to offset these unavoidable emissions by supporting an emission reduction project certified by the UN. With the help of a third party company who assisted with emission calculations and the purchase of certified emission reductions, emission offsets were calculated for various transport, food and accommodation matters.

The Jaguari small hydro power plant project in southern Brazil was chosen from a long list of qualified UN certified projects. Because of its location in Latin America the project was especially fitting given the existing MOU between EAZA and ALPZA (the Latin American Association of Zoos and Aquaria). For more information on the Jaguari project please visit: http://cdm.unfccc.int/ Projects/DB/SGS-UKL1151529209.33/ view.

### THE FUTURE

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Looking at the greening measures above, these should only be the beginning of how we incorporate sustainability and climate considerations into our conferences, meetings and everything else we do. For example, we may be able to reduce the need for some of our international meetings through the use of constantly evolving web-based tools. Most of us have probably already participated in smaller teleconferences and some of us in web conferences with interactive capabilities. This is something we as EAZA need to look into more and learn from, and hopefully, this way, we can help limit emissions related to EAZA meeting activities to an absolute minimum in a not too distant future.

# **Philippe Jouk**

**Position**: General Curator and Curator of Aquarium, Reptiles and Marine Mammals, Antwerp Zoo; Chair of the EAZA Aquarium Committee

Hobbies: Scuba diving (if I ever find time to do it...)
Last book read: Coral Reef Conservation
Last Movie seen: The End of the Line – a powerful and important film about over-fishing

Last concert attended: I used to go to classical concerts, but I haven't managed to get to one for a couple of years, now Last trip made abroad: Visiting colleagues, friends and places in the UAE after the ISIS board meeting there

### **QUESTIONS:**

### Of which groups are you a member?

Quite a few actually. I'm President of the Belgian Scientific Committee of CITES (Convention on the International Trade in Endangered Species of Wild Flora and Fauna), and Secretary-general of the European Union of Aquarium Curators (EUAC). In addition, I'm a member of the Executive Committee of EUAC, the European Association for Aquatic Mammals (EAAM), the Belgian Society of Zoology, the Flemish Institute for Marine Research (VLIZ), the Belgian Society for Conchology (BVC), the Belgian Society for Malacology (SBM), and the Belgian Society of Paleontology (BVP).

# What is the most memorable or fascinating event in your career so far?

Basically, I consider the opportunity to start working at the Antwerp Zoo as the most memorable and fascinating event in my career. How many biologists can even dream of having such a job? And once you are doing this job, you are learning new things almost every day. And just think of all the challenges that still lie ahead...

### Back in the 1980s you obtained a teaching certificate for higher education. Do you see aspects of your current work as educational to the public at large?

Education, and raising public awareness is one of the most important (if not the most important) tasks of aquariums and zoos. This is especially true for aquariums, as most of the aquatic life is 'hidden' to most of our visitors (much more then terrestrial life), and, as such, rather unknown to them. Changes of terrestrial habitats are much more visible then what happens below the water surface (both in the oceans and freshwater habitats). As aquariums are visited by very large numbers of visitors, they are the most suitable places to inform and educate. And things can only change when enough people care.



### In which ways do you see marine life as being an indicator of the status of life on the planet in general?

The aquatic environment is by far the largest one on our blue planet, and scientists basically have just started to understand how this planet 'functions'. So all changes we witness at the moment (and unfortunately they are not changes for the good) clearly indicate that we are not moving in the right direction.

# What developments would you like to see in the future for aquariums and marine life exhibits?

Aquariums and other exhibits still need to reach out more to the public to make them aware of what is happening in the oceans and freshwater habitats, and how each individual is able to contribute to a change in the positive direction. Each small (individual) move counts, because all small moves together will finally make the difference.

Furthermore, aquariums need to work more on the breeding and propagation of aquatic species. Over the last few years, large steps have already been taken, but there remains a lot to be done.

# And finally, if you could be any marine creature, which would it be?

When I see what is happening with the seas and oceans, it seems not to be a good idea to become a marine creature – unfortunately, this is also the case for (most) terrestrial creatures.

'Raising public awareness is one of the most (if not *the* most) important tasks of aquariums and zoos.'

# Follow the code

WHAT DOES IT MEAN - AND WHAT DOES IT TAKE - TO BE AN ETHICAL ZOO OR AQUARIUM?

### Lesley Dickie, Executive Director, EAZA

Ethics is defined as a way of describing or encompassing the qualities of decency, belief, principles and standards. It is often interpreted as the scientific appraisal of these characteristics. However ethics and the outcomes of our ethical decisions are part of our everyday lives, not a remote concept but an essential part of being human. Each one of us has a personal code of ethics. Collectively, institutions and associations develop ethical codes to guide their staff and members, which in turn may influence public codes. As such, without ethics societies are unable to function effectively.

Why should we be concerned about ethics in the zoo or aquarium? Most obviously we need to have a strong ethical awareness, as we work with living animals, for which we have a duty of care. We also operate in the public domain. Every year approximately 140 million visitors spend their time, and money, in our zoos and aquariums, and our ethical standards should, at the very least, mirror those of our visitors, if not leading attitudes and invoking attitude change. But all zoos and aquariums have a number of constraints, such as the legacy of old buildings, financial constraints, different cultural standards across our continent. Despite these differences EAZA members must adopt common ethical approaches if the association is to continue to progress. It should also be noted that ethics change over time, and things that once may have been considered acceptable would not pass scrutiny in the 21st century.

To this end EAZA has been updating its Code of Ethics, which has not been revised since 2001. Since that time the threats of climate change have been further described, the World Zoo and Aquarium Conservation Strategy has been published, and EAZA's membership has increased by nearly 20%. This Code of Ethics is not a voluntary code, rather it is an obligation of membership, and one that must not be ignored or sidelined. At the EAZA conference in Copenhagen Council accepted this new Code of Ethics which will be available for download on the EAZA website. All members



must be aware of the contents of this document. This document is the preamble to a more detailed document that will be built over the coming months, focusing on many different areas of zoo and aquarium practice.

This new Code of Ethics still discusses the need for exemplary welfare for our animals, legal requirements and the conservation imperative. However new emphasis has been given to our environmental standards, how staff, volunteers, visitors and professional colleagues must be treated, how we should source goods for our shops, what financial investments we make, and the importance of the EEP 'spirit' as a precursor to success for EAZA's breeding programmes.

At any given point in time EAZA is dealing with an ethics complaint about a member institution. It is interesting to note that the majority of the complaints received are made by members about other members who they believe are not upholding the standards of the association in one way or another and therefore damaging EAZA as a whole. Ethics violations cost time (and therefore money) on the part of the Executive Office and the various committees, time that could be better spent on wider member needs and the promotion of the organisation. It should be stressed that ethical violations are not widespread throughout the membership but rather tend to occur only in a small subset of members. As a group we need to take our Code of Ethics seriously and consider at all times how our institutional actions, or even individual actions, negatively impact all. Only then will EAZA be a mature organisation that can fulfil all its goals.



### Join the EAZA Nutrition Group and ConZOOlting in Barcelona for the 6th European Zoo Nutrition Conference from 28-31 January 2010.

Dr Andrea Fidgett, Chester Zoo's animal nutritionist and Chair of the EAZA Nutrition Group says 'Nutrition is a vital element of animal care and everyone who should be talking to each other, namely animal keepers, nutritionists, vets, feed companies, and researchers studying species in their natural habitat, gather together to exchange knowledge, experience and ideas.'

Four invited speakers will talk about carnivore nutrition, vertebrate digestion, meeting nutritional requirements and behavioural needs, and the role of colour (carotenoids) in animal ornamentation and health.

In addition, going to press, almost 40 submissions have been received on species as diverse as cheetah, moose, anteaters, sifakas, penguins, salamanders, corals... and more! Presentations will also address practical aspects of feed composition and procurement, proving that zoo gastronomy in this economy need not cost the earth.

New for this meeting is an 'Experiences with diet changes' workshop, where participants summarise their practical experience of modifying diets and explain whether the transition was a success, failure, or help is required – come and share your thoughts, or learn what not to do – all input very welcome!

### For more information follow the link on the EAZA home page www.eaza.net



# Special methods give keepers a leg-up

RAINING SUCCESSES WITH SOUTHERN WHITE RHINOCEROS AT COLCHESTER ZOO

Jennie Cook, Qualified Keeper, Colchester Zoo, UK

The old saying goes that 'you can't teach an old dog new tricks'. The same does not apply to the southern white rhino at Colchester Zoo. A remarkable training practice here involves Flossie, an elderly female suspected to be in her early forties, willingly lifting her hind leg to receive medical treatment on her hoof, much as a horse lifts its hoof for a farrier. This procedure is evidently painful yet she daily submits to the treatment due to the familiarity and trust built up by our section team.

Flossie is one of three female white rhinos housed in a mixed species exhibit at Colchester Zoo. Flossie herself was wild born and has had foot problems for about the last ten years. Since coming to the UK, she has spent most of her adult life with a male, Simba, who sadly was put down earlier this year due to old age and failing health. In addition, the zoo is home to two much younger females, Emily who is approximately 9 years old and Cynthia who is around 11 years old. Both originate from a reserve in South Africa and were brought to the UK to boost the European breeding programme.

### **TRAINING INITIATION**

Target training of the rhino was first proposed in order to make it easier to move the two tonne animals between their night quarters and in and out of the paddock. Each animal was introduced to its individual target, which is simply a plastic rod with different coloured balls secured to the end. Using the classic technique, a verbal cue ('target') is given, in response to which the rhino touches the target with its top lip, a whistle bridge is used and small pieces of bread given as a reward. In a short space of time each rhino was successfully touching their targets when asked. A white rhino's eyesight is relatively poor compared to their sense of smell and hearing, however

each animal recognises its own target and appears to actively enjoy each session.

### **PRACTICAL TRAINING USES**

This simple training method, widely used in zoos and aquariums with a multitude of species, has allowed our team of keepers the flexibility to change the rhinos' daily routine whenever necessary without causing undue trauma to the animal. It has greatly helped when introducing each rhino to a new experience, for example positioning an animal for injections by hand and to take blood from the ear, both of which are now carried out successfully with the rhino on a regular basis. The familiar 'game' of a session makes these new experiences less stressful for both the rhino and the keepers. The zoo recently had a new birthing den area and crush system integrated into the present rhino indoor living quarters. The zoo had also been



approached by researchers from the Royal Veterinary College looking into gait and weight distribution of large mammals. This seemed an ideal opportunity to use our new crush and further test our training. Targeting the rhinos repeatedly through the crush helped keep them focused and gave an unusual activity a recognisable feel. After a few weeks of training this resulted in all three girls happily walking through the crush over special electronic mats a minimum of 20 times each and the researchers were able to collect some really good data on the day with minimum fuss from the rhinos.

### **TRAINING BEGINS**

Flossie's foot had started to cause her serious problems. The source of the difficulty being a hole in one of her toes on her hind hoof. There were days where she would refuse to leave her stall due to the pain in her hoof and previous treatments, such as foot baths and mats soaked with disinfectant, were not effective. It was necessary to have direct access to the hole on the underside of her toe. Therefore a proposal was put forward, protocols drawn up and a new scheme implemented. This involved positioning Flossie in the yard, close to vital safety gaps (even an elderly rhino with major hoof problems can turn very quickly when spooked!) and encouraging her to lift and hold up her hind foot, a precarious stance for such a large animal. Thanks to the previously learnt target training, Flossie could be easily manoeuvred into the correct spot and she was already very used to, and indeed sought out, physical contact with her keepers.

Scratching Flossie's inside thigh (a popular pressure point for white rhino) resulted in the raising of her hind leg. A whistle bridge and bread

### ANIMAL TRAINING

CLOCKWISE FROM FAR LEFT: FLOSSIE UNDERGOING DAILY TREATMENT ON HER TOE; FLOSSIE HAVING BEEN TARGETED INTO POSITION IN PREPARATION FOR HER FOOTWORK; CYNTHIA BEING TARGETED OUT OF HER INDOOR AREA.

reward reinforced the behaviour. Over time this was developed until tapping the outside toe of the afflicted foot with the simultaneous cue of 'lift' generated the same response. When lifted, one keeper supports the foot while another performs treatment on the toe. Whenever the foot is raised continuous reward of apple and carrot, not to mention the ever-desired bread, is supplied to encourage her to continue holding her foot up. To start with a block of wood was used to support her foot throughout the treatment, however this interfered with the keeper's access to her toe and it was soon apparent that Flossie was happy to keep her foot raised and supported by keepers for long periods of time without the block.

This is now a daily routine for Flossie, occurring every morning before spending the day in the mixed species paddock. She often has an audience from the public viewing platform above the yards and will stand for treatment despite regular disturbances. Healing in such an elderly animal is, inevitably, a very slow process. However the remedy prevents infection within the toe, encourages healing and alleviates pain.

This method is a fantastic success for Colchester Zoo, one that we hope to build on as we progress the training further. Apart from the practicalities of training, our keeping staff have built up a very close relationship with the rhino in their care. To be able to have such a working relationship with white rhino is invaluable and, quite frankly, uniquely enjoyable.

This article was only possible due to the hard work and dedication of the staff at Colchester Zoo and in particular the rhino keepers – Joanne Row, Adam Gore, Deb Carter, Sarah Cooper and Tiffany Bailey and the Animal training co-ordinator Jez Smith.

# Big changes for big cats

IT COST MILLIONS OF EUROS TO RENOVATE, BUT THE NEW-LOOK BIG CAT ENCLOSURE AT NUREMBERG NOT ONLY MATCHES THE HIGHEST STANDARDS OF ANIMAL HUSBANDRY, BUT IS A TRUE CROWD PLEASER, TOO

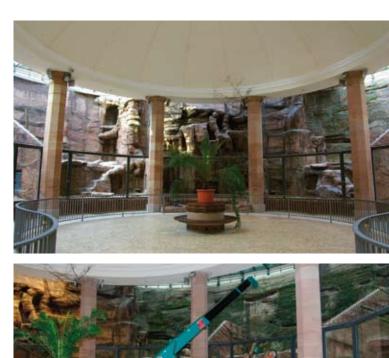
Helmut Mägdefrau, Deputy Zoo Director, Nuremberg Zoo

At the end of March 2009, after two years of renovation works, Nuremberg's lions and tigers were finally allowed to move back into their home. Renovation had become a necessity, as the decrepit carnivore house of Nuremberg Zoo (Tiergarten Nürnberg), built in 1939, no longer adhered to modern standards of adequate animal housing.

The now landmarked carnivore house was one of the first buildings to be constructed after Nuremberg Zoo was relocated to the Schmausenbuck hill in 1939. It was skilfully carved out of a vast layer of sandstone which hid the building, (11 m high by 30m in diameter) behind a solid rock face. This great design achievement meant that the carnivore house had effectively become invisible to the visitor's eye.

An open-air gangway for animals and keepers surrounds the circular building, and within this building all sections for the big cats are adjoined to a cupola supported by eight sandstone columns. Today several parts of the carnivore house are listed for preservation, including the sandstone columns, a sandstone relief depicting a lion and a bull, a mosaic floor, a forged handrail designed to keep visitors back from the exhibit, and entry arches.

They also include a cupola roof which replaced the original glass roof destroyed during WWII, but which itself had become leaky and dilapidated in parts. In fact, prior to the enclosure renovation, this roof was in an exceptionally bad condition, and so plans were drawn up for an enlargement during renovation up to the surrounding sandstone wall thus



canopying the whole basin. This meant that the sections for the big cats were extended from the original  $20m^2$  to  $47m^2$  by roofing over the former open-air gangway, connecting it to the cages and thus creating a second storey. The plant room as well as the concrete partition walls were masked with artificial sandstone constructions.

The roofing was just one stage of the renovation, however. Keeping the animals behind massive bars is no longer be regarded as appropriate caging, therefore glass windows of 2.2m height adjoined by a wire mesh construction were installed in exchange for the bars.

Visitors are now able observe the big cats at close quarters. Another striking change was the complete redesign of the enclosures themselves. Their floors, once covered in cold white tiles, now feature natural ground covered in chipped wood to a depth of 30cm. Boulders and tree trunks were added for climbing opportunities and enrichment.

### THE RENOVATION PROCESS

A first assessment of the basic structure of the building was only possible after Nuremberg's big cats had been moved to several other German zoos. This first assessment in spring 2007 showed that the plant room and animal boxes had to be torn down completely and be rebuilt as well.

Major problems occurred regarding the structural engineering of the glass windows and wire mesh construction linked with the roof structure. As no reliable data on impact forces of big cat collisions with glass windows could be found, and recently inadequate dummy-tests with irregular high impact forces of 38kN were run for another zoo, a more practical series of analogous tests at the same institution were run with cattle carcasses of some 250kg (as tiger dummies). These tests showed maximum impact forces of 20 kN resulting from an impact speed of 25km/h at an impact time of about 0.2s. After the study had been completed, windows of 2.2 x 3.7 m with a thickness of 3x10 mm heat-strengthened glass were installed along with a wire mesh construction of 4mm wire and 10 cm mesh, all in accordance with the test results.

The challenge regarding these renovation works was the need to find a compromise between historical preservation, the necessities of modern animal keeping, ease of operation, structural engineering requirements, and the wishes of an interested public.

As the big cats only occupy the building for one hour at feeding time each weekday, or in case of bad weather or cold spells the decision was made to use the carnivore house as an aviary as well.

A pair of asiatic Egyptian vultures is allowed to circle the visitors area freely and a group of red munias, can even slip through the wire mesh and built their nests within the cages high up in the rock face well out of reach of the big cats.

Due to the extensive new construction work and the redesign, the reopening of the carnivore house was delayed by 15 months. But on 24 March 2009 the tigers Jatar and Sigena, as well as the lions Thar and Keera moved back into their home in which their entirely new interior needed some time getting used to.

Looking at the new 'old carnivore house' we see a highly modern building which adheres to modern standards of adequate animal housing while meeting its historical preservation requirements and the visitors' expectations. They



THE TIGER ENCLOSURE AS IT LOOKED IN 1939 (TOP); WINDOW INSTALLATION (OPPOSITE, BOTTOM); AND THE VULTURES AND TIGERS IN THEIR NEW ENCLOSURE (THIS PAGE AND OPPOSITE).



can now experience standing next to big cats separated by nothing but a wall of glass. Doubled in size, the movement area for the big cats now covers 300m2 including six animal boxes and an area for sick animals. Long gone are the times when not only lions and tigers, but wolves, cheetahs, hyenas, Chinese leopards and more were kept in small spaces, often without any access to the grounds.

But it wasn't just the old carnivore house itself that was renovated. The ample grounds were also redesigned in the process, with moats renovated and pumps installed to create brooks in both enclosures as well as a waterfall for the lions during daytime. New planting provides better hiding places and an enriching habitat for the big cats, with carex plants being particularly popular with the animals. During the first four months the vegetation remained almost entirely unharmed... although we will have to wait and see if it stays that way with cubs to come.

Judging by the reaction of the animals and visitors the renovation of the carnivore house has been a true success, rendering the construction sum of  $\in$ 3.8 million more tolerable. The biggest sum was paid by the city of Nuremberg to the tune of  $\in$ 3.4 million, while the Bayerische Landesstiftung subsidised the project with  $\in$ 260,000 and Nuremberg Zoo paid  $\in$ 180,000 for the renovation of the grounds and the building of the boxes.

# A founding father

INCOMING EAZA CHAIRMAN SIMON TONGE PAYS TRIBUTE TO HIS PREDECESSOR, BERT DE BOER

With Bert's retirement from EAZA and as Director of both Apenheul and GaiaPark the European zoo world has lost arguably its single most influential individual of the last 20 years. It is highly appropriate that his vision, intellect and management capability should be acknowledged in this issue of *Zooquaria*.

Following a distinguished and broadlybased academic career, with studies in widely spearate fields such as genetics, immunology and palaeontology, Bert first joined the zoo world in 1976. He was recruited as Head of the Biology and Education Department at the Rotterdam Zoo, a position which he held for 12 years and which gave him deep insight into the potential within zoos and the challenges involved in realising that potential. During his tenure Rotterdam's role as one of the leading research and educational zoos in Europe was consolidated.

In 1988 Bert moved to Amsterdam and became the first Director of the National Foundation for Research in Zoological Gardens (NFRZG), a position which gave him the opportunity to encourage and develop the conservation and education ideas which had arisen at Rotterdam to, initially, a wider Dutch setting, but soon afterwards to a pan-European one. Bert had quickly realised that Dutch zoos alone simply did not have the carrying capacity to hold genetically viable populations of endangered animals into the long term and that cooperation with colleagues in Germany, Belgium, and Denmark would be necessary to realise the potentials. Fortunately, similarly visionary colleagues, like Gunther Nogge and Fred Daman, existed in those countries so thus was born the European Endangered Species Programme (EEP) concept which has become the bedrock upon which European zoos contribute to the fight to save global biodiversity. Through various iterations the NFRZG eventually evolved to become the European Assosciation of Zoos and Aquariums (EAZA), which now has more than 320 members from 35 countries, and is arguably the leading zoo association in the world.

During his time at NFRZG arguably Bert made his greatest contribution to the zoo world when he single-handedly wrote the first draft of the World Zoo Conservation Strategy (1993), the first time that the roles and potentials of zoos had ever been set out clearly and strategically. The document became the mantra by which young and old zoo professionals defined their work and was widely adopted internationally.

Following his highly successful tenure of the NFRZG and oversight of its evolution into EAZA Bert became the Director of the esteemed primate park at Apenheul in 1993 and in 2002-05 conceived and constructed the highly acclaimed GaiaPark in Kerkrade. Despite his commitment to the hard edge of zoo management Bert contiued to play important roles within EAZA, initially as Chairman of the EEP committee, but latterly as Chairman of EAZA as a whole since 2003. Bert was initially reluctant to take on this role because of his long history within the association but peer-pressure, resulting from continent-wide appreciation of his vision, led him to accept. His tenure as Chairman has now ended and we are the poorer for it.

I worked as Bert's Vice-Chairman from 2004 and can confidently assert that I have never worked with anyone brighter, who works harder, or has a greater grasp of the detail and a broader understanding of zoo issues and potentials. He was an even-handed and magnanimous Chairman who could be fierce in defence of the EAZA vision and ideals. Perhaps what I enjoyed most about working with Bert was his breadth of knowledge and his ability to transmit that knowledge to the rest of us in entertaining unpredictable ways. His conference and presentations were legendary ranging from the video of the one-legged man dancing, to the four hour (!) lecture on the history of life and how it relates to the role of zoos. Virtually the last presentation he ever gave to EAZA, in Copenhagen, his Darwinian view of how the association evolved, using nothing more than hand drawn cladograms as visual support, was rightly rated the best plenary presentation of the conference by delegates surveyed afterwards.

Perhaps what I have learnt most from Bert was never to give up, keep talking, and eventually a way will be found through the most intractable problems.

He has been one of the founding fathers of our association and he will be hugely missed.



### GLOBAL VIEWS

# **A North American Odyssey**

EAZA IS REPRESENTED AT THE ANNUAL MEETINGS OF CAZA, CBSG AND WAZA

#### Lesley Dickie, Executive Director, EAZA

I have just returned from the annual CBSG and WAZA conferences, hosted by St Louis Zoo, where I represented EAZA's interests and took part in a number of valuable workshops and meetings. My first stop however was Edmonton as I was invited to be the keynote speaker at the Canadian Association of Zoos and Aquaria annual conference. At CAZA I gave a presentation about our new strategic plan, the progress we are making and what are some of our major challenges. It was interesting to note the similarities to the process that CAZA is currently undertaking as they develop their own strategic plan, with the same themes appearing for both our associations. It was a pleasure to meet our Canadian colleagues and we will continue our discussions as to how EAZA and CAZA can work together productively in the future.

This was however a whistle-stop visit to Canada, with less than 18 hours spent in the country before I had to leave to journey to St Louis, via Minneapolis for a long delay where the plane was present but had no crew to fly it! In St Louis I joined up with the Conservation Breeding Specialist Group meeting. CBSG continues to be one of the most stimulating and thought-provoking conferences of the year, bringing together zoo and nonzoo conservationists to discuss and debate matters of concern. With a mix of presentations and workshops CBSG achieves an excellent balance, and ensures participation by all, a feat not achieved at other conferences. During plenary sessions each of the CBSG Regional Offices report on their activities for the year, including the European region represented by Bengt Holst, Frands Carlsen and Kristen Leus. In addition, while presentations are not made by the zoo associations a report from each can be added to the briefing book for the conference and EAZA included reports of our association activities over the past year to both CBSG and WAZA

The workshops were an eclectic mix, as is the tradition at CBSG, with delegates having to make difficult choices on which of the parallel workshops to attend. This year's choices included; species conservation planning, collaboration amongst Asian zoos,



LENA LINDEN (SECOND RIGHT) WINNING HER AWARD, WITH, FROM LEFT TO RIGHT ONNIE BYERS (EXECUTIVE DIRECTOR OF CBSG), SVANTA (LENA'S HUSBAND), AND JO GIPPS (CEO BRISTOL ZOO AND CHAIR OF THE CBSG BOARD)

climate change, amphibian conservation planning, cheetah global programme planning, field project prioritisation and ex situ management planning. The latter workshop was led by Kristin Leus and picked up on the theme of the plenary session on this topic held at our own annual conference in Copenhagen in September. As with EAZA, both ARAZPA and AZA have scrutinised their breeding programmes and identified some worrying trends. This workshop sought to try and identify how to move forward and improve our programmes in all regions for sustainability and conservation needs. This was an extremely well attended workshop and stimulated much discussion. A fuller dedicated ex situ management meeting is being arranged by CBSG in 2010 such was the interest in this topic. At the EAZA Executive Office we are continuing to develop ideas as to how to improve our programmes, as identified in the strategic plan, and will keep the membership updated with progress and also our requests for assistance.

During the CBSG meeting a call for action was drafted and subsequently endorsed by WAZA asking that the zoo and aquarium directors of the world sign a petition calling on world leaders to agree that <350 ppm CO<sub>2</sub> is the safe level for future health of global natural systems and that they must take immediate action to reach this goal. You can read more about this initiative on p18. We have contacted all members with this information and ask that you highlight this on the front page of your website and encourage your visitors to also voice their concern. We also ask that EAZA members use the information provided and contact your own country

leaders stating the urgent <350ppm declaration. As you read this world leaders are meeting in Copenhagen deciding the future of our planet. Let's make sure that at the very least we have sent them the right message. During the WAZA meeting a task force on climate change was formed and I joined that group representing the WAZA Committee on Population Management of which I am a member. I hope to report more on the activities of this task force in 2010.

The Executive Directors of EAZA, AZA and PAAZAB attended the WAZA Council meeting as invited observers to ensure that regional views are considered by WAZA. This is particularly important if WAZA is to be an effective global umbrella organisation for zoos and aquariums. I also attended the board meeting of ISIS and was appraised on the progress of ZIMS. It is resolutely on track and will be available at the end of March 2010.

An impressive array of first day speakers at WAZA included Simon Stuart, Chair of the IUCN SSC, who also spoke at our own conference, Russ Mittermeier of Conservation International and Katie Frohardt, Chief Executive of Flora and Fauna International. Amongst the many other excellent presentations from our own community I particularly enjoyed and was impressed by the CEO of Zoos Victoria Jenny Grey's description of the campaigns they are running for gorillas and orangutans. The campaigns have not only alerted their visitors to how their own consumer choices affect the conservation of these species, but have led to Zoos Victoria gaining greater recognition as a conservation-led organisation.

During the week the delegates also got the opportunity to visit the St Louis Zoo, enjoying a wonderful evening barbecue with a highlight being the presentation of the CBSG Ulysses S Seal Award for Innovation in Conservation 2009. I am delighted to say that this award was given to a most deserving and inspirational woman, a member of our own zoo community, Lena Linden, CEO of Norden's Ark. We send the congratulations of the EAZA community to Lena for her dedicated work in conservation.

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