

# News



Photo: Mikhail Berezin/Moscow Zoo

## Contents

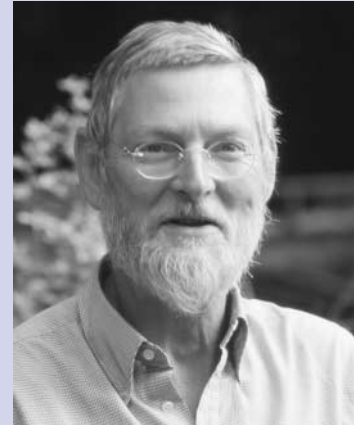
- 07** Talking turtle
- 13** Making toys for beasts
- 16** Zoo animals bridge political boundaries
- 21** African experience in central Europe
- 22** Land of the lemurs
- 29** 'European' lions?

**EAZA Shellshock Campaign very well received**

# From the Chairman's Desk

Dear colleagues,

The composition of EAZA's Executive Committee changed dramatically during the last EAZA Conference in Kolmarden, September 2004. Four members of this important committee, which steers the day to day running of the association on behalf of the EAZA Council, were not available for re-election for diverse reasons. Our vice-chair, Hans-Ove Larsson, after two years of service was not re-eligible because of health problems. Esteve Tomas, secretary for the past two years was no longer eligible for a council position because he had given up his position as EAZA's representative for Spain. Roland Van Bockstaele had to resign from his post as he had completed two full terms as treasurer. Last but not least, John Stronge, who had been the chair of the EAZA Membership and Ethics Committee (and consequently an important member of the Executive team) for six years, had to give up his EAZA position because he was retiring from Belfast Zoo. On behalf of all of EAZA we cordially thank these four colleagues for their hard work and valuable input in the EAZA Executive Committee over the past years!



I am most pleased that EAZA's Council elected/appointed four dedicated and capable colleagues to fill these Executive Committee officer positions. Simon Tonge (Paignton Zoo) is our new vice-chair, Eric Bairrão Ruivo (Lisboa Zoo) is secretary, Lubomir Moudry (Decin Zoo) is treasurer and Lars Lunding Andersen (Copenhagen Zoo) is chair of the EAZA Membership and Ethics Committee. Additionally, it was decided to revitalise the EAZA Legislative Committee (the chair of which is a member of the Executive Committee) by appointing Ulrich Schürer (Wuppertal Zoo) as its chairman. Bengt Holst (EAZA EEP Committee chair), Jürgen Lange (EAZA Aquarium Committee chair) and myself will continue our Executive Committee work. Consequently, the executive team now numbers eight persons.

I am also most pleased that this team of eight represents an interesting variety of aspects of our membership. Geographically, North, South, Central East and West are represented. The Executive Committee is no longer dominated by representatives of large (capital) city zoos as it was in the early years of EAZA, there is now an interesting mixture of representatives of large, small, society, city and private zoos. Moreover, different views regarding how EAZA should develop in the future are represented in this executive team.

The new Executive Committee awaits a mountain of work. The next EAZA Council meeting (Jerez, Spain in April 2005) needs to be prepared. A possible new structure for the EAZA Membership and Ethics Committee needs to be discussed, the EAZA Legislative Committee needs revitalisation, membership accreditation, fundraising, EEP and EAZA partnerships, an EAZA Mediterranean Workshop and many other items are on the list of Executive Committee items. A task force to prepare the European launch of the new edition of the World Zoo and Aquarium Conservation Strategy has already conducted intensive e-mail discussions in preparation of the new committee's first meeting on 28 January 2005. The task force consists of several Executive Committee members plus the new chairmen of the EAZA Education and Exhibit Design Committee (Henk Hiddingh, Emmen Zoo) and the EAZA Committee on PR and Marketing (Jörg Adler, Münster Zoo). The launch of the new strategy, and its introduction to EAZA's membership, are challenges of utmost priority, and great interest.

Leobert de Boer  
Chairman

A handwritten signature in blue ink, appearing to read 'Leobert de Boer'. The signature is fluid and somewhat stylized, with a long horizontal stroke at the end.

# Contents

Cover	01	Rhinoceros beetle ( <i>Xylotrupes gideon</i> ) Photo: Mikhail Berezin/Moscow Zoo
From the Chairman's Desk	02	
Contents	03	
From the EAZA Office	04	Successful EAZA Breeding Programme Management Course • IZE Conference 2004
From the EAZA Office	05	CITES COP 13 • WZACS approved • Continued support for tiger conservation • Invitation to the 22nd EAZA Annual Conference
EAZA Shellshock Campaign	06	News from the frontline by Kevin Buley
EAZA Shellshock Campaign	07	Talking Turtle
EAZA Shellshock Campaign	08	
EAZA Shellshock Campaign	09	Hatchling presentations at the launch of Shellshock in Münster
EAZA Shellshock Campaign	10	Opening new tortoise enclosure at Shellshock launch in Ostrava • New IUCN Red List reflects the plight of turtles
ISIS	11	Meeting of ISIS Board of Trustees in Taipei
News from Members	12	Activities of the Moscow Zoo Insectarium
News from Members	13	Making toys for beasts; successful behavioural enrichment for animals and people
News from Members	14	Husbandry and breeding of the comet-tailed moth at Rotterdam Zoo
News from Members	15	
News from Members	16	Zoo animals bridge political boundaries; cooperation between Ramat Gan Safari in Israel and Kalkilia Zoo in the Palestine Territories
Interview	17	Gábor Gösi
Births and Hatchings	18	Moscow
Births and Hatchings	19	Zürich • Basel • Hamburg
Births and Hatchings	20	Hilvarenbeek • Madrid
New Enclosures	21	African experience in central Europe
New Enclosures	22	Elephant park inaugurated Land of the lemurs
New Enclosures	23	
Education	24	Educators pop up in Kolmarden • Committee changes
Education	25	First EAZA Training Seminar for zoo educators • EZE Conference 2005
Research	25	Vogelpark Marlow supports research on the Socorro dove
Research	26	
Zoohorticulture	27	Why should zoos be interested in the Global Strategy for Plant Conservation?
Conservation	28	CBSG Annual Conference, Taipei 2004; a big success
Collection Planning	29	'European' lions?; an update on the Asian lion EEP and request for additional holders • New Programmes
Publications / Directory Updates	30	Personalia
Books	31	
Who is Who in EAZA	35	
EAZA News	36	EAZA News review

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## COLOPHON

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### Editorial Board

Chairman EAZA:  
Bert de Boer  
Executive Director:  
Koen Brouwer  
Chairman Membership & Ethics Committee:  
Lars Lunding Andersen

### Managing editor

Jenny van Leeuwen

### Editorial Staff

Corinne Bos  
Koen Brouwer  
Bart Hiddinga  
Catherine King

EAZA Executive Office  
c/o Amsterdam Zoo,  
PO Box 20164,  
1000 HD Amsterdam,  
The Netherlands  
Website: [www.eaza.net](http://www.eaza.net)

### e-mail:

[jenny.van.leeuwen@nvdzoos.nl](mailto:jenny.van.leeuwen@nvdzoos.nl)  
Membership Services & Accreditation:  
tel: +31 20 520 0753  
fax: +31 20 520 0754  
Collection Coordination & Conservation:  
tel: +31 20 520 0750  
fax: +31 20 520 0752

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Jantijn Ontwerp bno,  
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## Successful EAZA Breeding Programme Management Course

Fifteen participants completed the bi-annual EAZA Breeding Programme Management Course at the EAZA Executive Office from 22 to 26 November 2004. The two groups were trained in a wide range of aspects relevant to managing an EEP or ESB, e.g. population genetics, demographics, working with SPARKS and PM2000, as well as politics and policies. Apart from a number of Executive Office staff, two external docents made a significant contribution to the course: Kristin Leus of Antwerp Zoo once again taught genetics and demographics, while Tanya Langenhorst of Marwell Zoo provided training in working with the relevant software programmes.



The next EAZA Breeding Programme Management Course will be held from 28 February to 4 March 2005. Those who are interested in participating in this or another future course are welcome to contact William van Lint ([william.van.lint@nvdzoos.nl](mailto:william.van.lint@nvdzoos.nl)).

## IZE Conference 2004

The 17th IZE Conference 2004 was perfectly hosted by Ocean Park, Hong Kong from 4 to 9 September. Jenny van Leeuwen participated on behalf of EAZA. Attending the more than 25 sessions of oral presentations, workshops and posters made participants aware of the high-standard level of education in zoos world wide. The IZE meetings remain important for further inspiration through exchange of different ideas, approaches and practices of education in zoos and to set common goals for the future. A big challenge for zoo educators today is to combine bringing the conservation message with a tangible action for the public to take home. Other challenges are to measure the results of education campaigns and how to provide feedback to the public about the results of the campaigns.

The first day of the IZE Conference 2004 was held in conjunction with the South East Asian Zoo Association's (SEAZA) Conference, which provided a perfect opportunity for both parties to meet and greet, but – even more important – to learn about each others' activities and to improve relationships and cooperation. The EAZA Shellshock Campaign was presented by Kevin Buley, and was received by the conference participants enthusiastically.



Seventeen IZE Scholarships awardees from developing countries were able to attend the meeting, thanks to generous donors such as Apenheul Primate Park, Chester Zoo and EAZA. During the IZE Conference 2004 Chris Peters (Rotterdam Zoo) became the new IZE President. The IZE Conference 2006 will be hosted by Pretoria Zoo, South Africa.



## CITES COP 13

The 13th Meeting of the Conference of the Parties to the Convention was held from 3 to 14 October 2004



in Bangkok, Thailand. It was attended by some 1,200 participants from 154 governments and many observer organisations. Representatives of EAZA, AZA and WAZA were present at the conference and worked closely together throughout the meetings.

The conference gave more protection to five Asian turtles and tortoises and 11 species of Madagascar's leaf-tailed gecko by listing them on Appendix II. Many turtles from South, Southeast and East Asia are traded in significant quantities for regional food markets, Asian traditional medicines and international pet markets.

The great white shark and the humphead wrasse – two fish species of great commercial value – were also added to CITES and can now only be traded with permits. Another marine species, the Irrawaddy dolphin, was transferred from Appendix II to Appendix I, which forbids all commercial trade.

An updated version of the Appendices to the Convention is now available on the CITES website ([www.cites.org](http://www.cites.org)). This new version includes the amendments to Appendices I and II as adopted by the Conference of the Parties at its 13th meeting in Bangkok, and changes necessitated by the adoption of standard references as well as an updated version of Appendix III.

The next CITES Conference of Parties will be held in 2007 in the Netherlands.

Source: CITES press release/website

## WZACS approved in Taipei

The final draft of the World Zoo and Aquarium Conservation Strategy (WZACS) was approved by the WAZA membership at its annual conference in Taipei, Taiwan in November 2004. WAZA plans to launch the strategy in May 2005 at its mid-year meeting in Melbourne, Australia. At the EAZA Annual Conference in Kolmarden a working group was assigned with the task of preparing an action plan for the European zoo world, based on the recommendations listed in the WZACS. This action plan will be presented to Council in April 2005 and should be available for consideration by the EAZA membership at the next EAZA Annual Conference in Bristol, September 2005.

## Continued support for tiger conservation

Despite the fact that the EAZA Tiger Campaign closed officially at the EAZA Annual Conference in Kolmarden in September 2004, conservation efforts for tigers will still continue. Consequently, 21st Century Tiger invites all EAZA members to continue their awareness and fundraising efforts towards tiger conservation. More information on how to continue your support through 21st Century Tiger has been distributed to the membership and can be found on the Tiger Campaign section of the EAZA website.



Photo: Jan Thomsen/Kristiansand Zoo

## Invitation to the 22nd EAZA Annual Conference

On behalf of Jo Gipps, EAZA would like to invite all members to the EAZA Annual Conference hosted by Bristol Zoo, 6 through 10 September 2005. The conference itself will take place at the Bath University, located some 20 km from Bristol. All members of EAZA, as well as TAG chairs, EEP coordinators and studbook keepers will receive an invitation in January 2005. More information will also be made available on the EAZA website.



See it · Sense it · Save it





# EAZA Shellshock Campaign



## EAZA Campaigns

The EAZA Shellshock Campaign has been very well received by the membership. Additionally much interest has been shown by international conservation organisations, other regional zoo associations and individual zoos and aquaria elsewhere in the world, especially in Asia and Australia. A number of EAZA members have already initiated their first campaign activities, within just a few months of the campaign's launch at the Kolmarden Annual Conference. Some of these activities are summarised below. Edinburgh Zoo already earned a platinum fundraising award by donating UK£15,000 (about €22,000) to Shellshock from their Royal Zoological Society of Scotland Conservation Fund. More information on the different fundraising awards is provided on page 10. For more information on the EAZA Shellshock Campaign, please refer to the relevant campaign section on the EAZA website.

## NEWS FROM THE FRONTLINE BY KEVIN BULEY

### First European hatching

The spiny hill turtle (*Heosemys spinosa*) from Southeast Asia is on the Amber Alert Priority Species list of the EAZA Shellshock Campaign. The majority of animals in the current EAZA ESB for this species originated from the massive Hong Kong customs seizure in 2001. Despite proving relatively easy to maintain, the spiny hill turtle has been incredibly difficult to breed. Until very recently, there had been only one documented captive-breeding of the species in the entire world: at Atlanta Zoo in 1992.

However, Jersey Zoo was delighted to announce the first European hatching on 30 September 2004 following a 145 day incubation period. It can be clearly seen from the photo of this 37 g baby just how the species gets its common name. Although adult turtles have serrations around the edge of the shell, they are nothing in comparison to the cog-wheel teeth of the juveniles. It is thought that this incredible shell shape has evolved as a defence mechanism against predators.



Photo: Mathias Goetz / Duell Wildlife Conservation Trust

### Suitcase tortoises rescued

Two Egyptian tortoises (*Testudo kleinmanni*) smuggled into Australia in a suitcase and facing death if a suitable home could not be found for them within 48 hours, were rescued in a dramatic race against the clock and are now safe and well at Chester Zoo. An Egyptian woman was caught with the Critically Endangered tortoises in her suitcase by customs officers at Sydney Airport. As it is illegal to take any reptiles into Australia, the animals would have had to be destroyed had a home not been found for them outside of the country. Fortunately CITES I Export and Import paperwork was arranged within record time and the two tortoises are now in quarantine at Chester. Hopefully they will take a very active part in the Egyptian tortoise EEP once out of quarantine.

### Turtle trail

The British and Irish aquarium community has shown interest to join forces and provide support to the EAZA Shellshock Campaign. A giant inflatable leatherback sea turtle will be sent on a grand tour around twenty different aquaria in the United Kingdom and Ireland to help publicise the EAZA Shellshock Campaign and raise funds for the priority Shellshock Conservation Projects. There will be a number of exciting events associated with the inflatable turtle's terrestrial journey, of which details will follow in the new year.



# EAZA Shellshock Campaign

## Free educational resource on leatherback turtles

The EAZA Shellshock Campaign has recently been contacted by the coordinators of the 'Save the Leatherback Campaign' in the USA. They are very generously offering a free copy of the new, fifty-minute documentary 'The Last Journey for the Leatherback?' to all EAZA Shellshock Campaign participants.

Scientists predict that the giant Pacific leatherback sea turtle (*Dermochelys coriacea*), which has survived unchanged for over a hundred million years, could vanish in the next five to thirty years if current threats from wasteful industrial fishing are not curtailed. The leatherback is the largest sea turtle, adults measuring 2.8 m from head to tail, with the largest individual ever recorded tipping the scales at over 900 kg. 'The Last Journey for the Leatherback?' documents the incredible life of the leatherback – which can dive as deep as whales and migrate across entire ocean basins. Much of the story is told through interviews with leading marine scientists, including Sylvia Earle, explorer-in-residence at the National Geographic Society and named Time magazine's first 'hero for the planet'. The documentary also details the threat industrial fishing poses to this turtle's survival. Every year, industrial fishing boats set billions of baited 'longline' hooks and millions of miles of nets to catch swordfish and tuna. These hooks and nets are prime causes in the decline of the leatherbacks.

### 'The Last Journey for the Leatherback?'

A free teacher's kit of the film is available online at: [www.seaturtles.org/teachers.cfm](http://www.seaturtles.org/teachers.cfm). All registered Shellshock participants can order a free copy of 'The Last Journey for the Leatherback?'. For details please refer to the EAZA website (Shellshock Campaign / Materials & Activities).



Photo: M. Godfrey

## Talking turtle

by Jake Veasey, Woburn Safari Park, United Kingdom

With an academic background in behavioural ecology, working in a safari park with focus on large mammals, the Asian turtle crisis and Shellshock Campaign took me by surprise. Turtles have now become a bit of a passion for me, and I am particularly excited by the campaign not just because of its importance for turtle and tortoise conservation, but also for the role the campaign could play in enhancing the reputation of zoos across Europe and potentially helping to redefine the role of zoos and aquaria in the coming years.

In February 2004, Zoological Society of London in conjunction with World Conservation Society and Chester Zoo hosted the 'Catalysts for Conservation' meeting in London. Whilst I do not necessarily agree with the conclusions of that meeting (which were that zoos basically are not very good at *ex situ* conservation or education and as



Photo: Woburn Safari Park

a result their primary focus should be on *in situ* conservation), I do think the zoo community has a lot to learn from the meeting. If we look at the aims of the EAZA Shellshock Campaign they are at odds with the conclusions of the Catalysts meeting. The three key aims are building *ex situ* turtle arks (as requested by IUCN no less!), raising the profile of the plight of turtles and tortoises in the wild (i.e. education) and generating funds

# EAZA Shellshock Campaign

for *in situ* conservation where it is still viable. No other conservation interest group can fulfill these aims, and no one can turn leisure-spend into conservation-gain like zoos can. Shellshock represents a huge opportunity to demonstrate the worth of zoos in conservation, *in* and *ex situ*, and also in education.

Woburn's Shellshock efforts can be split according to the three aims of the campaign, and responsibility for specific areas has been split between the animal, education, marketing and retail departments.

## Building a turtle ark

Ever since hearing of the Asian Turtle Crisis, I was determined to develop turtle facilities at Woburn. Being a safari park known mainly for large mammals, turtles were a step into the unknown for us. We converted, what had previously been a 'penguin hospital', into a large tropical freshwater turtle vivarium. We also now have emergency turtle holding facilities should the need arise, and are actively investigating what other species we may be able to find homes for at Woburn.

## Raising the profile of turtle conservation

In raising the profile of turtle conservation, we are aiming to create a positive atmosphere about a campaign with many negative and potentially depressing messages.

The story that Woburn is trying to tell is that we have managed to make a small difference already by starting our 'Turtle Ark' and we have begun by rescuing just three giant Malaysian pond turtles (*Heosemys grandis*). We are telling the bad news, but at the same time, illustrating what positive actions are possible. The most important element of our PR campaign so far was getting photographs of our turtles out in the media. This was supported by press releases distilling pertinent information from the EAZA campaign info pack, and personal quotes from staff about turtles. Telling the story of the turtles in this way combined the facts with passion.

It is important to us to persist with the message – it was not just a one off press release. Every time we talk to the media about anything, we also mention the turtles. A local reporter visited to write an article about how we look after the animals in winter but ended up writing the story on the turtles. Top BBC children's programme 'Blue Peter', originally interested in filming the Park's new bear and wolf facilities, are now going to film the story of the Woburn turtles.



Photo: Woburn Safari Park

## Fundraising

The real fundraising effort and events which will be combined with push on visitor education will start with the main season next Easter. We have already commissioned a turtle costume to be made, and 'Myrtle the Turtle' will be a regular sight around the park this year, tasked specifically with raising awareness. We are in the process of establishing an online Shellshock information and donation portal on our website so that the public can easily make a donation to the EAZA campaign.

Internal communication is also very important – as we go into the main season we plan to make presentations to our staff on the campaign and explain how we plan to support it. At Woburn we are fortunate to have a great deal of visitor/keeper contact through the manning of our four walkthrough areas and numerous demonstrations, feeding times and keeper talks. Staff will be given the information and hopefully the inspiration to promote the turtle campaign at every opportunity. The great thing about campaigns such as this, is that it brings so many different departments together, and every member of staff within the park can be given opportunity to make a difference in terms of turtle conservation whether through promotion, fundraising or caring for rescued animals.

Shellshock is a huge opportunity for zoos to prove their worth on the world stage, and a rare opportunity to start meaningful *ex situ* conservation programmes for species new to many zoos and in urgent need of conservation. I would like to urge all zoos and aquaria to seize this unique opportunity.



# EAZA Shellshock Campaign

## Hatchling presentations at the launch of Shellshock in Münster

by Martina Raffel, Allwetterzoo Münster, Germany

Even before the official launch of the EAZA Shellshock Campaign in Münster Zoo, we already held our first event in support of the campaign on 23 October 2004. Münster's well-known jeweller Nonhoff had donated about thirty precious gemstone animals to the zoo for supporting our conservation activities. These animals were put on display in show-cases of the zoo restaurant and visitors were able to bid for them. The public auction which followed, with director Jörg Adler as auctioneer, generated €700. This is our first revenue for the Shellshock Campaign for which Münster Zoo aims to raise €10,000 during the course of the campaign year.

The official launch of the Shellshock Campaign was combined with the presentation to the media on 18 November 2004 of the first hatchlings in the International Centre for Turtle Conservation (IZS). This breeding centre situated at Münster Zoo for critically endangered Asian turtles became operational in October 2003. Elmar Meier, the initiator of the project, who is furthermore taking care of all animals on a voluntary basis, was able to present the first five hatchlings in the new facilities. The start was made by a small Roti Island snake-necked turtle (*Chelodina mccordi*) which hatched just before the official launch of the Shellshock Campaign in Kolmarden. This species, considered to be one of the most endangered turtles in the world, only lives on the small Indonesian Roti Island in swamps and rice paddies. This turtle has been heavily exploited for the exotic pet trade so it is now classified as commercially extinct. Few breeding groups are currently existing in captivity in Europe or North America.

Our breeding group of yellow-headed box turtles (*Cuora aurocapitata*) has also recently increased by one member. With this newest addition, the world captive population of this Chinese species increased to about 110 animals, 27 of which are part of our breeding project in Münster. The species has been exploited by the Asian turtle trade for meat and traditional medicine and consequently has been classified by the World Conservation Union (IUCN) as commercially extinct. This also applies to the McCord's box turtle (*Cuora mccordi*), of which the Münster stock increased to a total of 18 individuals, including the current three new hatchlings.

Jeweller Nonhoff handed out the gemstone animals for auctioning to zoo director Jörg Adler



Photo: Stefanie Heeke

Besides the breeding of critically endangered Asian turtles in captivity, we also intend to help preserve the species in their countries of origin. Therefore, we hope that Shellshock will be successful in raising funds for several *in situ* turtle conservation projects. In the forthcoming months, several activities will take place to raise awareness of the zoo visitors for the imminent threat of extinction of many turtle species and to raise funds for conservation measures. One big event will be the opening of the 'Biocity' in Münster Zoo, i.e. the information and education centre adjacent to the IZS, which will inform the visitors about the threats to biodiversity in general and turtles and tortoises in particular. It also aims to inspire pupils for conservation. The opening ceremony is scheduled for May 2005 and will be followed by several events and presentations around Shellshock. 'Smaller' events throughout the year, such as exhibitions, auctions and sales or production of handicrafts etc. as well as 'hatchling festivals' will help to achieve our fundraising goal.



Photo: Ilona Zühlke

McCord's box turtle



Photo: Anton Visschedijk

Roti Island snake-necked turtle

# EAZA Shellshock Campaign

## Opening new tortoise enclosure at Shellshock launch in Ostrava

by Jirka Novák and Stanislav Derlich, Ostrava Zoo, Czech Republic

Ostrava Zoo presented a new enclosure, called 'Carstic Creek' to the public late September 2004. This enclosure connects botanical features with the exhibition of four endangered species of European tortoises: Hermann's tortoise (*Testudo hermani*), spur-thighed tortoise (*Testudo graeca*), marginated tortoise (*Testudo marginata*) and European pond turtle (*Emys orbicularis*).

During the festive opening we released the tortoises into the new enclosure in the presence of journalists. Children had the possibility to touch the tortoises and, at the same time, to obtain information about the EAZA Shellshock Campaign.

An information table, explaining about the threats to both land and water tortoises in Europe and urging visitors to refrain from collecting these animals from nature, is an integral part of the exposition. Information on exhibited species is also available.

Like most zoos in Europe, our main visitors' season occurs during spring and summer, which is why we will remind the visitors of the campaign again in 2005. Transport of our Aldabra giant tortoise (*Geochelone gigantea*) male from the service yard into his summer enclosure is one activity that can generate opportunities to present the campaign, as this transfer always generates a lot of attention from the media and visitors and is therefore a ideal moment to raise public awareness on Shellshock.

Besides the four earlier mentioned species, the following other species of tortoises can be seen in Ostrava Zoo: African spurred tortoise (*Geochelone sulcata*), Central Asian tortoise (*Testudo horsfieldii*), pig-nose turtle (*Carettochelys insculpta*), red-eared slider (*Trachemys scripta*), spiny hill turtle (*Heosemys spinosa*) and soon also the Malayan box turtle (*Cuora amboinensis*) which will be exhibited into a new enclosure named 'Indian Jungle'.



Photo: Ostrava Zoo



## New IUCN Red List reflects the plight of turtles

The recently issued 2004 Red List update highlights how many freshwater species are seriously threatened with extinction. Researchers found that more than 40% of the turtle species are 'officially' threatened, mainly as a result of humans harvesting their eggs and the destruction of their natural habitat. One tenth of these are now categorised as Critically Endangered.

A fully updated Red List can be found at [www.redlist.org](http://www.redlist.org)

The report speculates that the threat is likely to spread. As populations of turtles disappear from Southeast Asia, for example, people may begin harvesting the animals' eggs more heavily in the Indian subcontinent.



Painted river turtle

Photo: Doug Hendrie



Photo: ISIS



## Meeting of ISIS Board of Trustees in Taipei

by Nate Flesness, ISIS, Minnesota, USA

*The ISIS Board met on 30 October 2004 in conjunction with Conservation Breeding Specialist Group (CBSG)/World Association of Zoos and Aquariums (WAZA) meetings in Taipei, Taiwan.*

### ZIMS

The board discussed the ZIMS Project, summarising the five ZIMS design sessions that have been held worldwide and noting that the first ZIMS data standards work is beginning with a November 2005 meeting in Perth, Australia. ZIMS data standards workshops will be held in Europe and North America, and potentially also in Japan, in 2005. The Japanese Zoo Association (JAZA) has stopped further investment in its separate JAZA animal information system and is discussing details of joining ISIS and using ZIMS in Japanese.

IADISC and its regional ADISC committees are working hard as user representatives on ZIMS design issues, spending long hours on the ZIMS Project. ISIS will endeavor to bring more members into the ZIMS design process to share the workload, provide additional expertise and to engage more ISIS member institutions.

### Data Access Policy Development

Looking forward to when ZIMS Phase 1 is operational, the ISIS Board established a Data Access Policy Development working group to develop policy proposals for the ISIS Board regarding external scientific access to information such as pedigrees, average lifespan etc.

### Data Quality Campaign

The ISIS Data Quality Campaign was launched three years ago in response to stakeholder requests. Substantial progress has been made by members on one data quality target – linked records – which has increased from 48% to 74% across the entire ISIS database.

Unfortunately, little progress has been made by members to date on the other data quality targets. Almost one-quarter of the comparable records – representing 100,000 animals – differ in facts important for management. The Australasian Regional Association of Zoological Parks and Aquaria (ARAZPA) and EAZA are training their studbook keepers to use the ISIS Studbook/Institutional Data Reconciliation Tool. ARAZPA is the first region to show significant improvement in data quality scores. The ISIS Board is concerned that other regions are investing money in ZIMS, but are not adequately preparing their data for ZIMS.

### ISIS Capital Campaign

The US\$10 million campaign has now reached US\$5.3 million (about €4 million). This includes US\$4.0 million verbal and written pledges from 132 donor institutions, US\$800,000 in ISIS-generated grants, including a prestigious US\$500,000 National Leadership Grant through the US Institute of Museum and Library Services.

**Note:** three weeks after the Board Meeting ISIS received an additional US\$500,000 for ZIMS from the US Congress!

### ISIS 2005 budget

The ISIS Board approved the proposed 2005 budget, including a substantial deficit to be covered by a bridge loan against written campaign pledges. The 2005 budget is consistent with the seven-year ISIS Business Plan approved at the May 2004 ISIS Board Meeting. The ZIMS development project is two years, most pledges are five years, so a loan is needed for cash flow. Also, the capital campaign is going well, but has not yet raised enough funding to complete development and deployment of ZIMS. The board noted we are taking risks, but they are necessary ones.

### ISIS Trustee election and appointments

The ISIS Board Nominating Committee considered new nominees, giving preference to those who could help with fundraising and represent aquariums and underserved geographic regions. The board recommended the following Institutional Trustee candidates for 2005: Jeff Bonner, St. Louis Zoological Park, USA; Yolanda Matamoros, San Jose, Costa Rica; Pete Hoskins, Philadelphia Zoological Garden, USA and Philippe Jouk, Antwerp Zoo, Belgium. In addition, the board renominated ARAZPA for one of the Association Trustee positions. The American Zoo and Aquarium Association (AZA), EAZA and WAZA trustee positions are automatically renewed by the board because they each include more than 16% of ISIS members. Ballots will be sent to all ISIS institutional members. The nominating committee also proposed appointment of IADISC chair Sue DuBois (one year); Maria Clara Dominguez (Cali Zoo, Columbia; president of the Latin American Association of Zoos and Aquariums - ALPZA; three years). The committee also asked that JAZA would suggest a name for appointment to the ISIS Board. The ISIS Board approved these recommendations.



**ISIS Membership** The board approved new ISIS membership applications and terminations, noting a net increase of 37 new ISIS institutional members for 2004. Much of the growth is in Europe.

## Activities of the Moscow Zoo Insectarium

by Mikhail Berezin, Elena Tkatcheva and  
Tatiana Kompantseva, Moscow Zoo,  
Russian Federation

*The history of the Insectarium at the Moscow Zoo dates back almost to the opening of the Moscow Zoo in 1864. The first insects in the collection were silkworms (Lepidoptera): silkworms and their breeding methods were already exhibited in 1868. The laboratory was closed due to financial problems at the end of the 1800's. The zoo's 'Educational Insectarium' founded in 1925 by the famous entomologist Boris Scherbakov existed until 1936. Its main goal was educating students and teachers, and the collection comprised approximately 130 species of European invertebrates. The breeding of insects to feed insectivorous animals at Moscow Zoo was taken over by the research department in 1982, and in 1999 the Department of Food Insects was established, which developed into the 'Insectarium', in 2003.*

### Education and exhibits

The modern exhibits of live insects at the Moscow Zoo: 'Honeybee colony', 'Bumblebee colony' and 'Leaf-cutting ant colony' were created between 1997 and 1999. 'Insecttopia', an exhibition of live invertebrates financed by the Institute for Sustainable Communities (USA), was

constructed in 2000. It consists of 36 terrariums with supporting equipment and coloured posters. Approximately fifty different species of arthropods and mollusks are exhibited in these terrariums. Insectarium educational activities include organising excursions in 'Insecttopia' and lectures for students and school children; helping to organise the children's event 'The Insect Day'; and providing assistance to the Invertebrate Hobbyists Club and the Young Biologists' Club.

### Exhibition collection

Department staff have been developing the exhibited collection of live terrestrial and freshwater invertebrates since 1997. At present the collection comprises over eighty species of invertebrates, and more than fifty species now breed at the laboratory. Most attention is focused on breeding tropical insects. Parents of our laboratory populations of bush-crickets (*Mecopoda* spp.), cockroach (*Neostylopyda* sp.), stick-insect (*Datames mouhoti*), rhinoceros beetle (*Xylotrupes gideon*) and some other insects were wild specimens brought to Moscow from southeastern Asia. Laboratory populations of more than ten species of European moths have been established since 1990. Some of these species are exhibited in the 'Insecttopia'.

### Food insects

Food insects bred include crickets (*Gryllus bimaculatus*, *Acheta domesticus*, *Gryllus assimilis*); cockroaches (*Gromphadorrhina portentosa*, *Blattica dubia*, *Shelfordella tartara*); darkling beetles (*Tenebrio molitor*, *Zophobas morio*); and locusts (*Locusta migratoria*, *Schistocerca gregaria*). Vertebrates from seven departments of the zoo consume more than 700 kg of live insects per year.

### Laboratory populations

The goal of the project 'Development of methods for keeping and breeding of rare insects' is to establish reserve laboratory populations of rare European species of insects that are included in the European, Russian, Moscow and Moscow region Red Lists, the IUCN Red List, and the Bern Convention. The project was started in Spring 2003. Efforts to breed the grasshopper (*Sagapedo*) and the rose chafer (*Netocia aeruginosa*) have recently begun at the insectarium. Laboratory populations of the silk moth (*Eudia pavonia*) and the European swallowtail (*Papilio machaon*) were established previously.

### EARAZA

The Eurasian Regional Association of Zoos and Aquariums (EARAZA) established an Invertebrates Working Group in 2003. During recent years the number of zoos and commercial facilities exhibiting invertebrates in the countries of the former USSR has been on the rise. Therefore the main goal of this working group is to coordinate zoos' efforts to develop husbandry protocols for terrestrial and freshwater invertebrates, to create educational invertebrate exhibits, and to promote conservation of rare European insects and other invertebrates.

The conservation programme of the EARAZA Invertebrates Working Group is being developed. We are planning to create laboratory populations of grasshopper, mountain cicada (*Cicadetta montana*) and hermit beetle (*Osmoderma eremita*), and to participate in programmes for breeding and conservation of the Fregate Island beetle (*Polposipus herculeanus*; EEP) and the beetles of the subfamily Dynastinae. This work will be conducted with the EAZA Terrestrial Invertebrate TAG.



Photo: Mikhail Berezin/Moscow Zoo



## Making toys for beasts; successful behavioural enrichment for animals and people

by Achim Johann, NaturZoo Rheine, Germany

*The annual event programme of NaturZoo Rheine of course emphasises animal-related topics, especially during guided tours and special days allowing a glimpse 'behind the scenes' of daily zoo-life. Our 'Early Bird Specials' have been a great success for three years now: on selected dates we guide a limited number of pre-booked visitors through the zoo, starting at 07:00 h. The visitors get an inside look at the work done before the zoo opens to the public, have opportunities to talk with the keepers, they watch tigers and hoofstock coming out of the night-quarters and can enjoy the peaceful morning-atmosphere in the aviaries. Additionally, this year we added the first 'Making toys for the beasts' day to the event programme.*

### Organisation

We launched this event via our printed event programme. Announcements were also made in the local newspapers and on our website, with the message that much can be done to enrich the lives of zoo animals by refurbishing enclosures and offering 'toys', and that YOU can help in this effort. Participants older than 12 years were welcome. A Saturday was chosen for the event to limit number of participants, as Saturdays are less-frequented. The duration of the event was 11:00 to 17:00 h. Our zoo inspector Michael Rolfs was in charge of organisation and of course all keepers were involved before and during this event.

Our goals were to give visitors an idea of behavioural enrichment and of the manifold nature of animal-keeper work, but most of all we aimed for a real output of 'toys for the beasts', augmenting and refurbishing some enclosure 'furnishings'.



Photo: NaturZoo Rheine

Workshop areas were prepared with attention to safety considerations.

There was also an exhibition of examples of enrichment items, e.g. rope-ladders, hammocks, mealworm- and honey-dispensers, wire-mesh-cubes and baskets, logs with drilled holes.

### Valuable output

Children referred to the examples to make additional items, assisted by keepers and also by their parents and grand-parents. Participants came and went, most stayed for at least one hour, some stayed for the full six hours. One elderly woman arrived expecting to make plush-toys. She began making rope-ladders and hammocks instead once the misunderstanding was cleared, and did so for three hours with considerable output! When more participants than could be supervised for more complicated projects turned up at the same time, we gave them the task of preparing nesting material. They cut masses of twigs for our breeding colonies of ibises, egrets and storks.

From time to time we called all the volunteers together and demonstrated the value of their efforts: the tigers got 'smell-bags' (sacks filled with dung or with hay 'perfumed' with spices), macaw aviaries were decorated with bundles of branches and the marmosets received honey-sticks. In the afternoon we

furnished several enclosures with rope-ladders, hammocks and food-dispensers which had been made in the morning. Again the volunteers were actively involved. The coati enclosure and the enclosures for gibbons, ring-tailed and ruffed lemur were really improved by these efforts.

We counted nearly eighty participants throughout the day, and all were really enthusiastic about doing this special job. Some experienced working with tools and in a workshop for the first time, and gained considerable self-confidence and abilities in a very short time.

### Successful event

The output was very high: besides refurbishing the above-mentioned enclosures we acquired a surplus of enrichment items which will be used over time, and we now have sufficient nesting material for a whole breeding season. Many participants were seen in the following days showing friends and parents the enclosures they worked in.

We will certainly repeat the 'Making toys for beasts' event. The only alterations we will make are to limit the number of participants and to have them register prior to the event. 'Making toys for beasts' was a successful enrichment activity for animals as well as for people.

## Husbandry and breeding of the comet-tailed moth at Rotterdam Zoo

by Louwerens-Jan Nederlof, Rotterdam Zoo, the Netherlands

*The comet-tailed moth (Argema mittrei) from Madagascar is regularly found in the butterfly house at Rotterdam Zoo. These truly remarkable moths strike the imagination; visitors sometimes think they are artificial and are often curious to know more about these animals.*

### Gaps in knowledge

Because of continuous, large-scale deforestation, the comet-tailed moth may soon be endangered. Many questions about its natural history and life cycle still remain unanswered. These moths generally reach the European 'market' as cocoons obtained from individual breeders on Madagascar; little is known regarding how these breeders work.

There is only limited experience in breeding this moth in Europe. There are very few butterfly houses in the Netherlands that breed butterflies and

none, except Rotterdam Zoo, breeds this moth. A few private butterfly houses that import cocoons have attempted to breed this butterfly by using the 'hand-mating method' in which the male and female are held in position for copulation by a human hand. Sometimes private breeders report a spontaneous mating and success in rearing some specimens, showing that non-assisted breeding of this species is not a 'mission impossible'.

### What do we know?

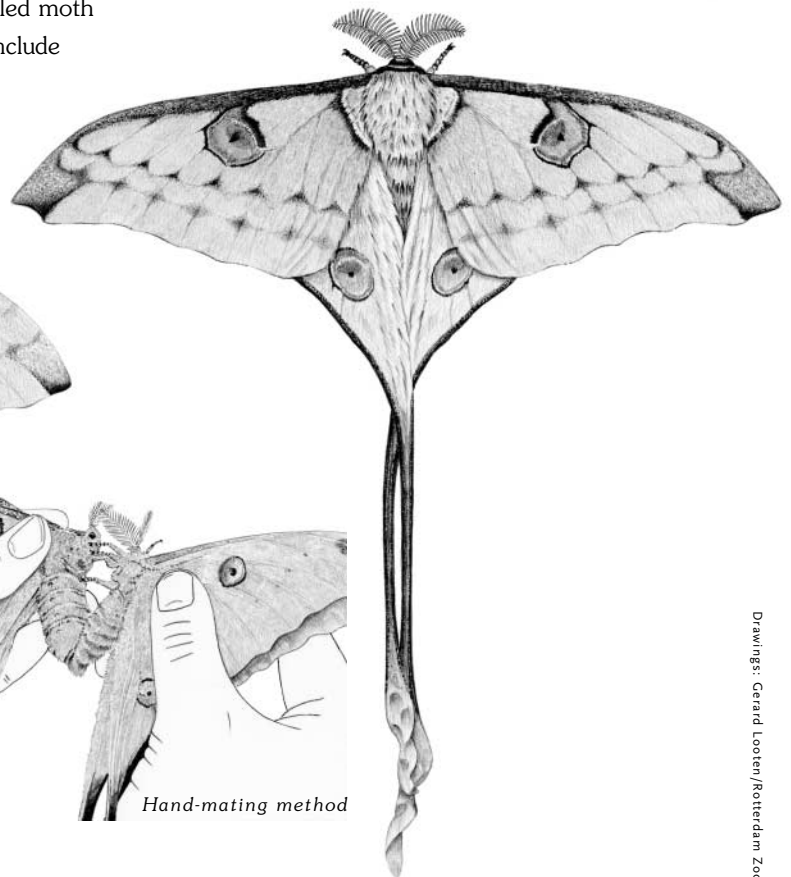
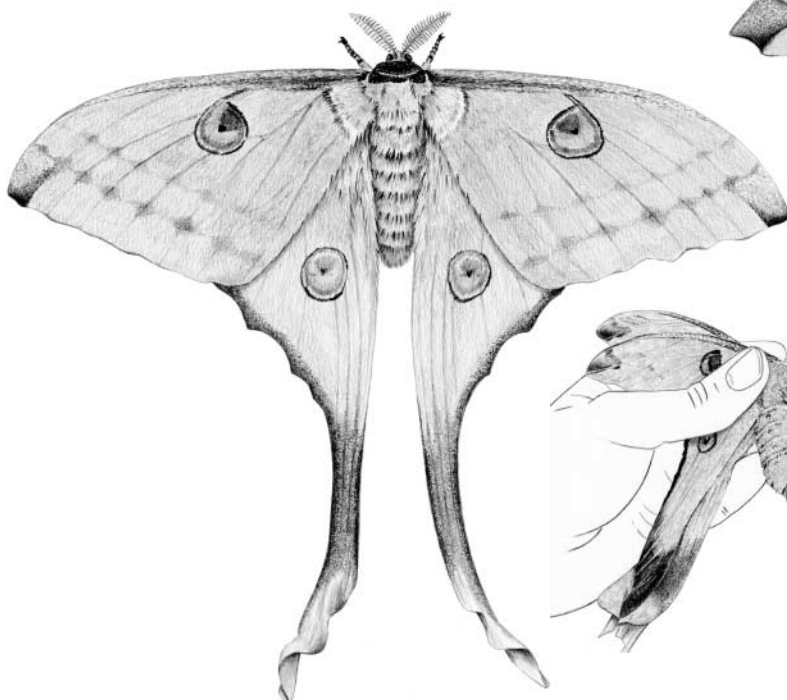
We know that comet-tailed moths are endemic to Madagascar. They live in the forests of the eastern and central parts of the island. Yearly average temperature in their range varies from 17.3 to 24.9°C with an average humidity of 78% to 85%. The yearly rainfall in the eastern part of the range averages 4.91 mm and in the central range 1.39 mm. Host plants for comet-tailed moth caterpillars include

*Eugenia cuneifolia*, *Sclerocarya caffra* (Myrtaceae) and *Weinmania eriocampa* (Cunoniaceae). Cocoons with female pupa inside have an average weight of nearly 20 g while cocoons with males have an average weight of about 16 g. Other secondary sex differences of the pupae are the pointed shape of the abdomen and the feathered antennae of the male. The pupae change from a light brown to a dark brown colour as they become older.

The wingspan of the adult moth is approximately 190 mm. Males and females have the same colouration and wing pattern, though male wings are more triangular and female wings are broader and rounder. The long and slender wine-red coloured tails and the hind (back) of the underwings are very characteristic and conspicuous.

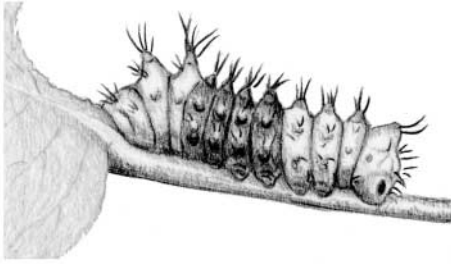
Male comet-tailed moth

Female comet-tailed moth

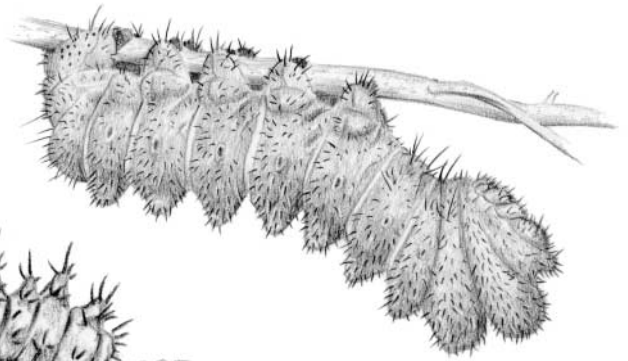


Hand-mating method

# News from Members

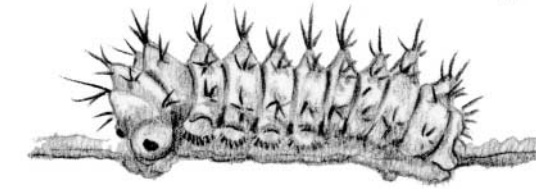


Comet-tailed moth caterpillars



## Keeping and breeding in captivity

The (theoretical) cause of lack of mating of this moth in captivity is unclear. Hand-mating of this moth, as used for some other saturniids and swallowtails has had good results at Rotterdam Zoo when attempted between 21:00 and 23:00 h. The mating can take up to ten hours. The female starts laying her eggs during the second night. All eggs are carefully removed and stored in a plastic container with a humidity of 70 to 80% at 25°C. The eggs resemble small, white bread rolls. They are spherical, flattened, and 4 to 5 mm long. A brown lining on the eggs is a glue that the female uses to adhere the eggs to the surface. Eggs are laid singly or in clusters of two to six, scattered throughout the enclosure.



Unfertilized eggs have a dent after four to ten days and contain only a yellow fluid. Fertilised eggs, however, can show a (less deep) dent, with the caterpillar becoming visible some days before hatching. Comet-tailed moths lay 40 - 218 eggs (average 120).

After 21 to 25 days of incubation the caterpillars eat a round hole in the egg shell and emerge. The hatched caterpillars are taken out of their plastic 'hatching boxes' and put on a young shoot of the food plant. The food plant *Eucalyptus gunnii* is grown in large containers especially for this purpose.

The branches are covered with a fine-meshed netting to prevent the caterpillars from leaving the host plant. The netting is cleaned daily and the caterpillars moistened with a fine spray. The caterpillars spin their cocoon after fifty to sixty days and the netting can then be removed.

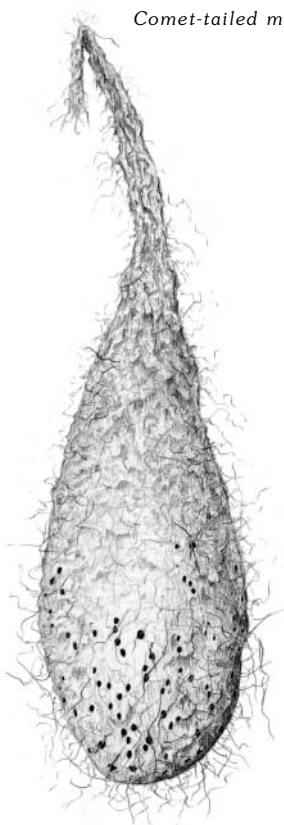
Cocoons are placed, head up, hanging from a branch or wire and hooked by an open folded paperclip. Usually after eight weeks, but sometimes after more than six months, the pupae start to hatch. At this stage they are very vulnerable. The moth creeps out of the cocoon leaving behind the skin of the pupa. To prevent the moths from flying around at night and damaging their wings we put them in a cage with mosquito-netting (eggs are laid on the netting of their cage, and are easily

monitored and collected). Normally adult comet-tailed moths live ten to twenty days, but cooler temperatures can lengthen the lifespan by several days. A number of species of saturniid moths can be reared using agar-based cultures for nutrition, thus we experimented with different media containing powdered leaves of *Eucalyptus gunnii*, *Liquidambar styraciflua* and *Juglans regia* for rearing comet-tailed moth caterpillars. Most media were completely ignored; only the medium containing *Eucalyptus* was used the first day. However it was only used by two out of ten caterpillars, thus the search for a successful medium is still in progress.

## This species needs attention!

The fact that the comet-tailed moth is not listed in the IUCN Red List is probably due to lack of current information about the population in the wild, as the natural habitat of this moth is declining rapidly. It should be the aim of insectaria keeping this species to put more effort into increasing the knowledge about the husbandry of the comet-tailed moth and to participate actively in educational efforts to highlight problems that the comet-tailed moth faces today. This magnificent moth could serve as a 'flagship species' to promote awareness that may contribute to saving its natural habitat. Development of a formal EEP breeding programme involving more zoos as well as private collections could also be useful.

Comet-tailed moth cocoon



## Zoo animals bridge political boundaries; cooperation between Ramat Gan Safari in Israel and Kalkilia Zoo in the Palestine Territories

by Amelia Terkel, Zoological Center Tel Aviv - Ramat Gan (Safari), Israel

*Only 30 km separate the Ramat Gan Safari in Israel and the Kalkilia Zoo in the Palestinian territory. Once easily accessible, the town of Kalkilia and its market were a bustling centre of trade between Arabs and Israelis until four years ago. Today the town is separated from Israel by a wall; the market 'shuk', providing a commercial livelihood and human meeting point, has disappeared. But another universal human interest, zoo animals, knows no political borders. Animals, and the commitment of professionals to care for them, have resulted in development of personal relationships between zoo staff which can bridge the boundaries.*

### Kalkilia Zoo

There has been long standing cooperation between the Israeli zoos and the Kalkilia Zoo. At the time of its construction in 1986 the Kalkilia staff visited various zoos to discuss construction and animals. It is the only 'real' zoo on the west bank, serving a town of 45,000 inhabitants. The zoo provides a pleasant green space for the community to relax and for children to play. Although not modern in design, the zoo is clean and

*Unloading a zebra in Kalkilia Zoo*



well-groomed. The animal collection includes carnivores, a number of ungulates, including a female giraffe (*Giraffa camelopardalis*), olive baboons (*Papio anubis*) and vervet monkeys (*Cercopithecus aethiops*), a minimal number of birds and reptiles. The zoo plans to expand onto a small adjacent plot to build more spacious enclosures for carnivores. This will then enable subsequent revision of the primate and bird facilities. This last summer Kalkilia inaugurated a new playground for children in the zoo sponsored by the Melinda and Bill Gates Children's Foundation.

### Cooperation in practice

When Kalkilia Zoo's current young director Sami Khader, a veterinarian, was appointed in 1999, he spent a couple of days at the Safari in Ramat Gan with veterinarian Igal Horowitz and also worked in different zoo animal departments to learn general animal management. The visit was reciprocated by the director and veterinarian from Ramat Gan to Kalkilia. An animal transfer had been planned in 2000, but was postponed because of the second intifada. Direct contact ceased, but professional and personal communication between the two continued by cellular phone, even after land



phone lines failed. Cellular phone contact also enabled continuous consultation for clinical cases in Kalkilia with Motke Levison, an Israeli consulting veterinarian.

Through the initiative of Levison, the plan for transferring animals was revitalised in Spring 2004. The recent drop in tensions enabled the successful animal transfer over a distance of 30 km. On 5 September 2004 three lions (*Panthera leo*), a pair of zebras (*Equus burchelli*) and a Nubian ibex (*Capra nubiana*) were sent from Ramat Gan to Kalkilia. More animals will be sent in the next few months.

### Confidence building

The actual animal transfer and meeting of zoo professionals from Israel in Kalkilia was a classic case of 'confidence building', and an indication that people working together at a professional level can bridge the dividing wall. At the end of the day, over a cup of strong Arab coffee, both Kalkilia and Israeli zoo staffs were pleased with the day's experience and expressed interest in continuing to work together to improve the animal collection and help redesign the outdated animal enclosures.

*Transferring a lion to its new enclosure at Kalkilia Zoo*



Photos: Amir Terkel



**Name:** Gábor Gösi

**Position:** Director of Szeged Zoo, Hungary

**Last movie seen:** The Lord of the Rings (the whole trilogy).

**Favourite color:** Green of course (which is obligatory); yellow, brown and red (colours of Autumn); and blue and white (colours of the Mediterranean Sea).

**Pet animals at home:** Two dogs, two cats and two red-eared sliders.

**Hobbies:** Cooking, reading, driving a car, and 'escaping' with my wife and daughters to travel far, far away.



***Please describe your career path?***

After the university I worked as a veterinarian for six years at an animal hospital in Hodmezovasarhely, a city about 25 km from Szeged. I was the leader of the Central Laboratory of Animal Health and Food Control Station in Szeged from 1985-1990. Parallel to this I worked in a part-time job for the newly established Szeged Zoo, and when the zoo collection increased, I became the full-time zoo veterinarian. The opportunity to work with rare and threatened exotic species was much more interesting and exciting for me than any other thing I could do as a veterinarian.

My veterinary work has been reduced since I became director in 1998, but instead I can manage the whole complicated activity of an important institution and – together with a good team – create new things, which is also great. However, I still continue my veterinary practice in the evenings at home.

***What are the key things you have learned during your career?***

My ideas and knowledge of zoos were formed mainly during travels to western zoos in the late 1980's and early 1990's. These visits and discussions with helpful colleagues were very impressive and convinced me about the important role of zoos in conservation and education.

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

When the whole 45 ha area of Szeged Zoo was declared to be protected by the City General Meeting in December 2001. This goal was not easy to reach, we had to fight for it, but basically it provides possibilities for long term development of our zoo, while also saving the forest itself and its rich native wildlife.

***Which important changes do you see happening in the zoo world in the next ten years?***

If the present trend continues, zoos will be more and more deeply involved in *in situ* conservation; differences between

managing captive and wild populations will be reduced step by step. From good places for recreation and education the zoos will become more and more important shelters for many species. Perhaps this is good news for zoos but really bad news for the wildlife.

***Besides being a zoo director, what other activities do you have within the zoo world?***

I am the coordinator of the White-fronted marmoset (*Callithrix geoffroyi*) EEP, and as such of course also a member of the EAZA Callithrichid TAG. I participate in EAZA accreditation inspections. This year I was elected to be the chairman of the Hungarian Zoo Federation. Last year we established the Hungarian Association of Zoo and Wild Animal Veterinarians. I also teach in the training course for Hungarian zoo keepers.

***What do you hope will be accomplished through the extensive efforts of the Hungarian Zoo Federation in the near future?***

Now that Hungary is an EU member, we would like to help as many of our zoos as possible to raise their level of husbandry to EAZA standards. We would also like to take part in supporting zoos in EU candidate member countries and sharing our experience with them. The next concrete step will be a joint EAZA/Hungarian Zoo Federation Conference on Environmental Enrichment to be held in Budapest Zoo in January 2005. We also would like to further our connections with the Hungarian conservation authorities and with NGO's to facilitate our participation in local *in situ* conservation programmes.

***Describe one of your favourite exhibits in another zoo.***

New attractive exhibits that meet animal welfare standards can continually be seen in European zoos. This certainly is a good feeling; however the whole zoo is important, not just the exhibit. For me the most impressive zoo is Schönbrunner Tiergarten, Austria. One can find every necessary element of a good zoo there.



# Births and Hatchings

## MOSCOW – RUSSIAN FEDERATION

The **Cape coral snake** (*Aspidelaps l. lubricus*) is currently kept in seven European and two South African zoos. The Moscow Zoo has held this species since 1990 and is probably the only European zoo successfully working with it. The first breeding of this small Elapidae was achieved by Moscow Zoo in 1999, and several second-generation Cape coral snakes were born on 4 May 2004. The snakes are kept separately in small enclosures at 24 to 28°C. They are fed newborn and small mice. Breeding occurs in April to May and the number of eggs varies, normally four to six are produced. Incubation lasts 70 to 72 days at 29°C and high air humidity. Young measure 160 + 17 to 180 + 18 mm (L + Lcd), and weigh 5.0 to 5.7 g. First shedding occurs between 12 to 14 days of age, soon after that the young start feeding on newborn mice.

Cape coral snake



Photo: Moscow Zoo

The **New Guinea taipan** (*Oxyuranus scutellatus canni*), endemic to New Guinea, is the largest and the most dangerous terrestrial snake of the region. Adult specimens can easily reach a length of 3.5 m. New Guinea taipans are significantly larger and more dangerous than their Australian relatives. According to ISIS, this species is currently held only at Moscow Zoo.

First attempts to breed these taipans were undertaken in 2001, jointly with Volgodonsk Municipal Zoo, as part of a project aimed at captive breeding of rare poisonous terrestrial snakes. The project was a success and we are now able to produce two to three clutches of this species annually. As a rule, mating takes place under the male's hiding box and may occur in any season. After copulation the female actively feeds for two weeks. Normal clutch size is 8 to 13 eggs and average eggs measure 65 x 30 mm. Incubation lasts 56 to 60 days at 29°C. Young measure 430 to 485 mm in total length. First shedding occurs a week after hatching,

New Guinea taipan



Photo: Moscow Zoo

after that young taipans start feeding on pink mice and grow very fast. Two more New Guinea taipans were born at the Moscow Zoo on 19 May 2004.

A pair of **New Guinea death adders** (*Acanthophis praelongus*), collected in the vicinity of Meruake province in Western Irian Jaya (Indonesia) arrived at Moscow Zoo on 12 September 1997. The snakes were kept separately, in plywood enclosures, with a thick layer of wood shavings as substrate and with several shelters provided. Temperature ranged from 22 to 28°C. Sufficient air humidity was achieved by regular sprinkling, no less than two to three times a week. The snakes were fed with laboratory mice. Several times a year, after a cooling period at 20°C, the female was introduced to the male's enclosure, but with no obvious mating activity observed. In 2001 and 2002, some time after separating the snakes, several stillborn young were found in the female's enclosure. In 2003, prior to a breeding attempt, the snakes were regularly given poly-vitamins and mineral supplements with the mice. Six live young were born on 21 November 2003. A stillborn young and six infertile eggs were also found in the enclosure. The live young measured 13.8 + 3.0, 15.4 + 3.3, 14.7 + 2.5, 15.0 + 3.1, 14.2 + 2.4, 15.1 + 2.9 mm, which is significantly larger than what is mentioned in the literature. First shedding occurred at 10 to 11 days. Most of the young started feeding soon after that, readily accepting two to three-day-old mice. Two specimens still have to be hand-fed, which, however, does not affect their growth rate in any way. Systematics of the death adders (*Acanthophis complex*) in their non-Australian area is currently considered as insufficiently known. According to ISIS, the New Guinea death adder is held by only four zoos: Moscow Zoo, Palmerstone Zoo, Australia; Columbus Zoo, USA; and Houston Zoo,

# Births and Hatchings

USA. Specimens held at Palmerstone Zoo originate from northern Australia, while the place of origin of the specimens in the USA is unknown to us. As so few of these snakes are kept in zoos, data on their captive reproduction are quite scarce and therefore are of special interest.

Source: Sergei V. Kudryatsev

## ZÜRICH - SWITZERLAND

The first hatchlings of the **Malagasy day gecko** (*Phelsuma madagascariensis grandis*) have been noticed in the Masoala Rainforest exhibit. Also the two pairs each of **Meller's ducks** (*Anas melleri*) and Bernier teals (*Anas bernieri*) are rearing chicks in this 11,000 m<sup>2</sup> eco-display. The Bernier teals are incubating their eggs in a *Platycerium* fern about three metres above ground, just as their wild counterparts do.

A female **giant anteater** (*Myrmecophaga tridactyla*) born on 4 March 2004, the second offspring of the wild-born female Pepita, is developing rapidly. A four-year-old female **snow leopard** (*Uncia uncia*) is successfully rearing her first offspring, a male born in early May. This wild-born female was confiscated in 2000 after being poached and offered for sale in Kyrgyzstan and brought to Wildpark Lüneburger Heide in Germany. At the end of 2001 she came to Zürich. The father of the cub was born in the Krakow Zoo in 2000 and came to Zürich in 2002.

Two **Mongolian wolf** (*Canis lupus chanco*) cubs are currently being reared by their parents, aided by three siblings born last year. The tiny but spectacular **poison dart frog** (*Dendrobates reticulatus*) is currently bred regularly in the terrarium section.

Source: Samuel Furrer and Robert Zingg



Photo: Zoo Zürich

## BASEL - SWITZERLAND

Two **Indian rhinoceros** (*Rhinoceros unicornis*) were born at the Basel Zoo in 2004. Basel-born female 'Ellora' delivered male 'Baabuu' on 4 November whilst her primiparous daughter 'Quetta' gave birth to a female calf named 'Batschii' on 9 September. The father of both offspring is the bull 'Jaffna', currently on breeding loan in Whipsnade Wild Animal Park. Basel Zoo is constructing new stables and outdoor enclosures for the rhinos during his absence. Basel Zoo has a long-lasting tradition of breeding Indian rhinoceros. The first captive birth in the world occurred in Basel in 1956. Batschii and Baabuu are numbers 29 and 30 to be born in Basel. The International Studbook and EEP for Indian rhinoceros are also coordinated by the Basel Zoo. Worldwide 142 Indian rhinos were kept in 55 zoos at the end of 2003. There are currently 42 animals in 14 zoos in Europe. The year 2004 was a very successful year, eight births were reported to the EEP coordinator. EAZA will run a Rhinoceros Conservation Campaign in 2005/2006, and Basel Zoo staff will play an active role in coordinating many of the activities.

Source: press releases

## HAMBURG - GERMANY

**Asian elephant** (*Elephas maximus*) female 'Thura' gave birth to her fourth offspring, a male, on 26 November 2004. The 100 kg calf has not yet been named. The birth went smoothly and lasted some thirty minutes. Other female elephants were present with the thirty-year-old mother during birth, and especially the experienced cow 'Shandra' was attentive. Tierpark Hagenbeck now has 12 Asian elephants in the collection. Thura has two other living offspring, daughter 'Ratna' (12 years old) and son 'Tharun' (nine years old). Her third offspring died shortly after birth in November 2001.

Six weeks after the 11 **Sumatran orang utans** (*Pongo pygmaeus abeli*) were moved to their new enclosure female 'Toba' gave birth to her second baby on 7 July 2004. The baby boy was named 'Kejutan'. On 6 October 2004 Toba's oldest daughter 'Janina' became mother of a healthy baby female named 'Harta'.

Tierpark Hagenbeck coordinates the EEP for the **Chinese leopard** (*Panthera pardus japonensis*), and could contribute to the programme by welcoming the birth of a single offspring of their own pair on 21 May 2004. The offspring is being mother-reared.

Source: press release



# Births and Hatchings



Photo: Mariska van Dijk/Safari Beekse Bergen

## HILVARENBEEK – THE NETHERLANDS

A **Southern white rhinoceros** (*Ceratotherium simum simum*) was born at Safari Beekse Bergen, Hilvarenbeek in the night of 27 August 2004. The young male 'Brutus', the twentieth born at Beekse Bergen, was hand-reared for the first five days. Although 35-year-old 'Nelly' is an experienced mother (this is her twelfth calf) the condition of her teats initially did not allow proper suckling. The calf received some six litres of milk per day spread over six to seven feedings. Male 'Balthazar', captive born in Pretoria in 1969, fathered the offspring but died on 1 August 2004 at almost 34 years of age. A new male recently arrived from Cabarceno, Spain in the framework of the EEP on 25 November 2004 and will be introduced to the eight adult females early 2005. Safari Beekse Bergen now has a group of 11 Southern white rhinoceros. They share their large outdoor enclosure with eland and springbok.

Source: press releases



Photo: Mariska van Dijk/Safari Beekse Bergen

## MADRID – SPAIN

**Sandbar sharks** (*Carcharhinus plumbeus*) have been kept by the Zoo Aquarium Madrid since 1995. Their tank has a volume of one million litres and is four metres deep. Filtration consists of rapid sand filters and undergravel filters. The flow rate is 1.2 the volume of the tank. Natural light illuminates the tank.

Five (4.1) sandbar sharks inhabit the exhibit. Pregnancy has been verified on four occasions, in 1998, 2000, 2002 and 2004. Sandbar shark matings occur in May, between 16:00 and 17:00 h. The males all follow the female, trying to bite her pectoral fins. After biting the successful male inserts a clasper into her cloaca. The mating sharks fall to the bottom of the tank and stop swimming for about three to six minutes. They then separate and immediately resume swimming. Stillborn sharks were found in the tank in 1998, 2000 and 2004.



Photo: Zoo Aquarium Madrid

After 12 months of pregnancy, the female gave birth to 11 pups in May 2002. Birthing occurred early in the morning. Observations were made the following 24 hours, and all pups were born in two to three hours.

Three pups were seriously injured by the adults and died. After being transferred to a smaller holding tank, the remaining young were tagged and fed on squid, hake, mussels, and sardines. They grew up without any problems. This species has only reproduced three times before in captivity, in Sea World, USA; Marineland Antibes, France; and Okinawa Aquarium, Japan. The pups were sent to L'Oceanogràfic in Valencia, Spain during the summer of 2002. Rapid growth has been observed in most of the pups during the twenty months since birth. They were originally an average of 56 cm in length at birth and average 140 cm today.

Source: Javier González Sanz



# New Enclosures

## African experience in central Europe

by Susanne Fuchs, Zoologischer Garten Leipzig, Germany

*Last but not least, the giraffes (Giraffa camelopardalis rothschildi) have now moved into the Kiwara Savannah at the Leipzig Zoo. Together with Grevy zebras, sable antelopes, flamingos, ostriches, ground hornbills, marabous and cranes, the giraffes were the last of eight animal species to enter the new outside enclosure, peering around curiously and exploring eagerly. Although construction ended in April 2004, the wonderful new African Savannah Leipzig can now finally be considered complete.*

## Impressive landscape architecture

Two major projects, the African savannah for hoofed animals and the new spotted hyena compound, were constructed in one year. Both enclosures are part of the African continent system, and exemplify Leipzig Zoo's 'zoo of the future' philosophy, uniting biological demands of different animal species with exciting landscape reproductions for visitors – a safari experience.

The animals can leave the public stage using various individual areas in the mosaic of wetlands and dry savannah. Umbrella-shaped trees, tall grasses, watering holes, small hills and rocks together form a fascinating African landscape. Health and safety requirements have also been taken into account. That could only be accomplished through close cooperation between keepers, veterinarians and the team of landscape architects 'Peter Drecker' from Germany. Water moats rather than fences serve as barriers to a great extent.

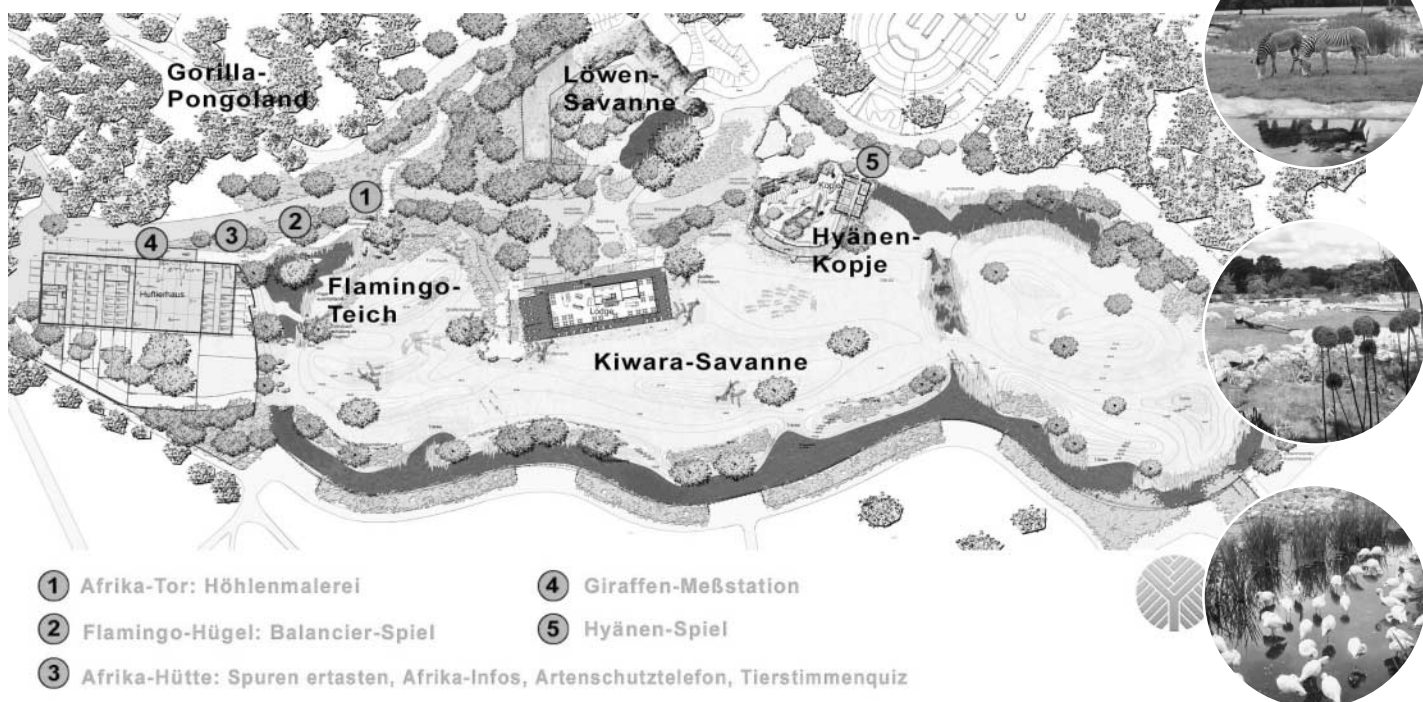
The hyenas, also an important characteristic species of the African savannah, have their own enclosure, decorated with the typical African rock formations ('kopjes'). The hyena enclosure is separate, but has been integrated into the landscape without any perceptible barriers.

## Discovering Kiwara

Visitors begin discovering the Kiwara Savannah when arriving at the Savannah Gate. Winding paths offer a real safari experience, as visitors catch glimpses of animals from different perspectives, through peepholes close to the animals, or from raised footbridges. The Kiwara Lodge, a wooden cabin on a lake, presents panoramic views over all 25,000 m<sup>2</sup> of the enclosure. The architect evoked different views and perspectives, also 'borrowing' the distance and background of a neighbouring municipal park as a landscape.

## Zoo of the future

The Kiwara Savannah is the latest important zoo project at the Leipzig Zoo. The lion savannah and 'Pongoland', the world's largest ape enclosure, have also been realised since 2001. These projects are steps in building the 'zoo of the future', an experience-oriented centre for nature conservation and 'infotainment'. Eventually visitors should be able to explore all six continents, their landscapes and animals. Visitors will be drawn into animal habitats using innovative information and entertainment strategies. One important goal for the Leipzig Zoo is to promote conservation of global ecosystems by encouraging visitors to develop individual relationships to animals and their landscapes.

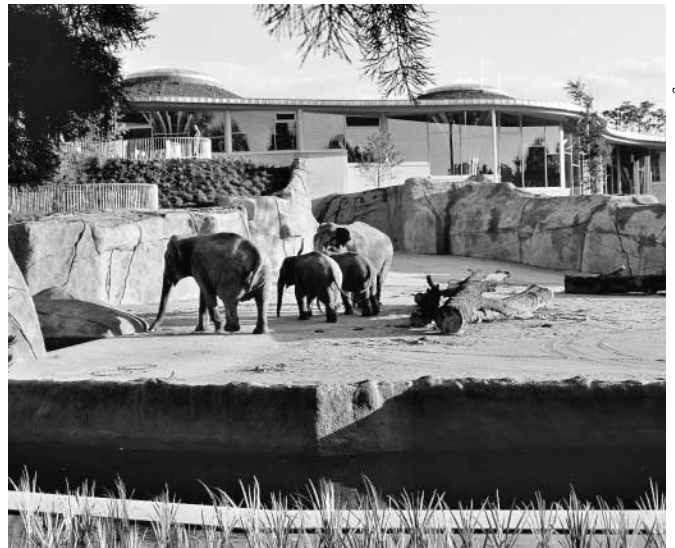


## Elephant park inaugurated

by Gunther Nogge, Cologne Zoo, Germany

*Cologne Zoo's old elephant house dates from 1863. It is a wonderful building in the Moorish style, and therefore is protected as a historic monument. Fortunately however, the zoo was not obliged to keep its elephants in that building over the long term, and a new elephant park opened to the public on 19 September 2004.*

There were three important conditions for the creation of a new elephant facility. First we had to find an adequate area, a difficult task on the limited premises of an old city zoo. Finally 20,000 m<sup>2</sup>, 10 % of the zoo's total area, were allocated for the elephant park. The next task was to find the best possible plan. A European-wide architect competition was held, and amazingly enough, the winner was a complete newcomer to the zoo world. Finally we had to raise €15 million. We were only partially successful in this endeavour, thus we made use of a bank loan, to be paid back by the (hopefully rising number of) visitors. Inside and outside holding areas are divided in sections for male and female elephants. Additionally there is a pairing enclosure outside between the sections. The elephants are managed indirectly (protected contact) in the new facility. The nucleus of the elephant herd are four elephants (two females with their offspring) from the successful herd of Emmen Zoo. A 35-year-old proven breeder bull came from Port Lympne Wild Animal Park, and an almost six-year-old bull from Singapore Zoo.



Photos: Cologne Zoo



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## Land of the lemurs

by Sarah Forsyth and Jake Veasey, Woburn Safari Park, United Kingdom

*Woburn Safari Park has held a small group of black and white ruffed lemurs (*Varecia variegata variegata*) since 1995 and has housed them in an enclosure with a large sycamore tree and additional climbing frames and rope work. This enclosure seemed to suit the lemurs and they bred well in the exhibit. However the exhibit was not without its limitations. The electric fencing was unattractive, often not effective, and at times took more looking after than the lemurs! The house was fairly small and difficult to maintain. Having had a great deal of success with squirrel monkey, rainbow lorikeets and wallaby walkthroughs, the decision was made to develop a lemur walkthrough since it was felt that immersion where possible is a very powerful tool for bringing animals and people closer together.*

## Raised walkthrough

The area chosen is approximately 1,600 m<sup>2</sup> and contains four mature horse chestnut trees. The fencing consists of 2.5 m high chain link with a plastic sheeting overhang, copied from Apenheul Primate Park. The visitors enter the walkthrough through a magnetised airlock system that only allows one gate of the airlock to be open at any one time. The visitors walk along a raised wooden walkway which meanders through canopy, providing a mixture of sights and experiences. Visitors exit at the opposite end of the enclosure, through another airlock system.

The walkway through the trees not only allows visitors to get close to the lemurs as these primates climb amongst the trees, it also provides a great climbing frame, access route, and interface between the ground and the trees for the lemurs. In addition, it divides the enclosure into social spaces

# New Enclosures

within the exhibit. At no point in the enclosure can the entire exhibit be seen and it is perhaps for this reason that Woburn (along with Münster Zoo) now holds the largest group of black and white ruffed lemurs within the region. Three red-bellied lemurs (*Eulemur rubriventer*) and three red-fronted lemurs (*Eulemur fulvus rufus*) are also housed within the same exhibit. The walkthrough nature of the enclosure has also made it a popular, accessible research site for students. Since its construction, the exhibit has hosted more research projects than the rest of the park combined!

A zoo staff member is present whenever the enclosure is open to engage with visitors and to ensure that both animals and visitors behave themselves. Feeding times and educational talks are carried out in the enclosure, ensuring the visitors get the chance to see all the lemur species and keepers get the chance to convert visitors into 'dedicated lemur conservationists'. The presence of the keeper also provides unprecedented monitoring opportunities with eight hours worth of observation time per day!

## Facilities

The housing consists of one main house with three indoor pens and two outdoor pens together with two separate smaller modular houses on stilts to ensure that all lemurs have access to shelter and heat irrespective of status. The lemurs are given access to all houses at all times of the day and year. Shelving and natural lighting is plentiful in all houses and the roofs of the houses are covered with a green roof sedum mix which provides a great sunbathing area for the lemurs and a softer, more natural view for the visitors who can see the top of the houses from the walkway. We ensured as far as we could that all timber used in the construction process was derived from sustainable sources. The rest of the enclosure was seeded with a grass and native wildflower mix and then heavily planted, and at least some of the vegetation has survived the subsequent lemur onslaught! The bramble, grasses, bamboos and buddleia have done very well, however the palms, pampas grasses, numerous saplings and phormiums have been either completely eaten or flattened.



Photos: Woburn Safari Park

## Inhabitants

Four male black and white ruffed lemurs from Dudley Zoo were brought in to augment our initial group of two females and three males. Three male red-bellied lemurs were acquired from Suffolk Wildlife Park and two male red-fronted lemurs from the Baguley Brow Farm. A female red-fronted lemur from Drusillas Zoo Park arrived later. The red-bellied and red-fronted lemurs mixed well together straight away, but the black and white ruffed lemurs were initially very boisterous and chased the other species regularly. Within a few months the red-bellied and red-fronted lemurs became increasingly confident and less bothered by the ruffed lemurs.

## Experience

Six months on, all three species are doing well in the walkthrough and although the black and white ruffed are still dominant, they no longer dictate the behaviour of the other species as they did initially. We have had three litters within the first year in the exhibit, and the site of red-bellied lemurs playing with baby black and white ruffed lemurs in the canopy is a unique experience for all.

Although we were overjoyed to receive the Best New Enclosure award by the British and Irish Association of Zoos and Aquariums (BIAZA) in 2004 for this exhibit, perhaps the greatest testament to the success of the exhibit is the fact that visitors can see healthy, content and endangered animals behaving 'naturally' and will have surely contributed to the ongoing success of our education and fundraising programme for lemurs *in situ*.



## Educators pop up in Kolmarden

An unusual number of educators were present at the EAZA Annual Conference 2004 held in Kolmarden, Sweden. The EAZA Bear TAG and the EAZA Amphibian and Reptile TAG both experimented for the first time with the input of a 'TAG educator'. The EAZA Bear TAG invited Irena Furlan (Ljubljana Zoo) to join the TAG. Her concrete task will be to assist the Sloth bear EEP with necessary educational materials for use by participants of this EEP, which will hopefully also persuade potential zoos to join the EEP. Irena will also assist other bear EEP coordinators and ESB keepers with developing new educational materials for the relevant species. The next TAG meeting will be held at Ljubljana Zoo.

Robert van Herk (Rotterdam Zoo) was invited to join the EAZA Amphibian and Reptile TAG. Together with his colleague, Gerard Visser (curator of reptiles and aquarium at Rotterdam Zoo) they conducted a workshop in which they tried to convince the participants of the importance of integrating education at an early stage of the collection planning and exhibit design processes. After a short introduction, six groups were given the assignment to design an educational exhibit for different creatures including Sawu Island python, knight anole lizard, San Estoban Island chuckwalla and Philippine crocodile.

The results were surprising. The convincing 'winner' (as voted by the workshop participants) was the group who proposed a highly educational enclosure for the threatened yellow-margined box turtle. They designed a series of six exhibits connected by an historic storyline. Visitors would first see the turtles in prehistoric times when dinosaurs walked the earth. Travelling through time, visitors would view turtles in the context of various historic landmark events until the last, nearly empty, exhibit containing just a bowl of soup and some traditional Chinese medicinal products, symbolising the near future when mankind may cause the extinction of these turtles. This very original and dramatic storyline, emphasising the antiquity of turtles and tortoises, is complimented by a very practical conservation-breeding role. Use of a number of display enclosures physically connected to off-exhibit accommodation holding animals of the opposite sex enables keeping the species in isolation (as is normal in the wild and required for successful breeding in captivity) while concurrently holding sufficient animals to form breeding pairs and contribute to the 'Turtle Ark' for the species. The attendees of the TAG meeting greatly enjoyed this workshop. It encouraged them to think in a more educational way and integrate valuable messages into the design of their hypothetical exhibits.



Photo: Rotterdam Zoo

The winning group

### TAG educators?

For those readers who are a bit surprised by this new development; it is not that revolutionary. All ARAZPA Species Programmes now have a liaison with an educator. We hope that in the future more educators will link up with other EAZA TAGs. After all the educational role of an animal should be a central consideration in both regional and institutional collection planning.

## Committee changes

The EAZA Education and Exhibit Design Committee will undergo a number of personnel changes. Lars Lunding Andersen (Copenhagen Zoo) has resigned as committee chair after eight years of hard work. His role has been taken over by Henk Hiddingh, director of Emmen Zoo, a zoo with an outstanding educational reputation. Furthermore the committee will be reinforced with many new educators, some of which are members of the board of the International Zoo Educators (IZE), while others are enthusiastic educators from EAZA zoos. The committee is very pleased with this team expansion: for the first time representation of colleagues from southern, eastern and western Europe will be balanced. Hopefully this will improve mutual understanding and cooperation.

## First EAZA Training Seminar for zoo educators

The educational staff of Copenhagen Zoo in cooperation with the EAZA Education and Exhibit Design Committee are working hard to develop the first EAZA training course for European zoo educators. The seven-day course, which will have a maximum of twenty participants, will be held at Copenhagen Zoo, 15 to 21 August 2005. This period coincides with the school summer holidays when most of the educational facilities are not used by schools and are thus at the participants' disposal. The emphasis of the course will be on subjects such as interpretation, text writing, educational expositions, exhibit design and evaluations. The course programme also includes study trips to some other Danish zoos. For more information, please contact Copenhagen Zoo (Peter Haasse: pnh@zoo.dk) or refer to the calendar section of the EAZA website.



Photo: Rotterdam Zoo

The education course will mainly focus on informal education

## EZE Conference 2005

The EZE Conference 2005 will be hosted by Zooparc de Beauval in France in September. A small delegation of the EAZA Education and Exhibit Design Committee will help the Beauval staff to organise the programme. This method of organising EZE Conferences was adopted two years ago in Leipzig and resulted in a very inspiring congress. Refer to the EAZA website for exact data and other details of the 2005 meeting.

# Research

## Vogelpark Marlow supports research on the Socorro dove

by Christa Budde, Vogelpark Marlow, Germany

*The Socorro dove (Zenaida graysoni), extinct on its native island Socorro since the 1970's, may be reintroduced to Socorro in the near future. A main issue for success of the reintroduction project is the purity of the birds to be reintroduced, as hybrids between Socorro doves and mourning doves (Zenaida macroura) have occurred in captivity. Petra Nowak, a student from the University of Rostock analysed purity of Socorro doves from Birdpark Marlow applying different methods. Vogelpark Marlow supplied a high quality directional microphone as well as an adequate tape recorder. The study resulted in a diploma thesis supervised by scientific staff members of Birdpark Marlow.*

### Reintroduction

The main reasons for the extinction of the Socorro dove were introduced cats and sheep as well as hunting of birds by soldiers stationed on the originally uninhabited island of Socorro, off the west coast of Mexico. In contrast to other *Zenaida* doves, the Socorro dove is mainly terrestrial, and

was an easy prey for the cats as they were not used to terrestrial predators. In addition, the sheep caused degradation of the natural habitat of the doves. Luckily a captive population had already been established before the decline of the natural population. The late Luis Baptista had proposed a plan to one day reintroduce the species to its native island. European zoos joined his efforts and in 1995 their breeding programme was officially acknowledged as an EEP with the long-term goal of reintroduction. Construction of release and breeding pens on Socorro island will be finished in 2004. The current leader of the reintroduction programme, Juan Martinez, is positive about being able to bring the first Socorro doves to Socorro island fairly soon.

### Checking purity

Although there is a large captive population of Socorro doves in the USA it is quite certain that the programme will use doves from the European pool for reintroduction. Genetic analyses by Juan Martinez have shown that the majority of the European birds are genetically pure whereas birds bred





Photo: Andreas Gunther

in the USA are often descendants of interbreeds with mourning doves *Z. macroura*. For various reasons the blood samples of the Socorro doves of Birdpark Marlow were not included in these analyses. We were lucky to find Petra Nowak, an engaged and motivated student who agreed to check our birds (9.8) for purity using behavioural, morphometric, acoustic and genetic methods.

### Behavioural observations

One approach was analysis of the courtship display, which differs greatly between Socorro and mourning doves. The male Socorro dove chases the female without using the wings whereas the male mourning dove heavily beats his wings in short intervals. The female Socorro dove does not use her wings when being chased by the male whereas the female mourning dove does so. Defence of the nest is another behaviour which shows differences between the two species. Three birds (1.2) showed slight deviations from typical Socorro dove behaviour.

### Morphological comparisons

Morphological measurements of the Socorro doves of Birdpark Marlow were taken and compared with morphological data for both species. One male dove (not the above mentioned male) was intermediate between *Z. macroura* and *Z. graysoni*.

### Acoustic parameters

The courtship call of the two species differ in bioacoustic parameters (see Figure 1). Songs of Socorro doves at Birdpark Marlow were recorded and compared with data on Socorro dove songs collected during preliminary bioacoustic studies by Luis Baptista and with recordings of mourning dove songs obtained from the British Library Sound Archives. Comparison of acoustic parameters indicated that the dove

which deviated morphologically from the other Socorro doves at Birdpark Marlow also sang the mourning dove song. Bioacoustic data will be analysed in the near future for possibilities of individual recognition, as this would provide an easy and inexpensive method of monitoring released birds.

### Genetic approach

Finally, Petra Nowak checked the birds using a fourth method, applying a genetic approach (PCR and sequencing). The results corroborated again the acoustic and morphometric findings, indicating again that the male deviating in these parameters is not a pure Socorro dove. This bird was therefore removed from the breeding programme. A second bird, having shown results typical for *Z. graysoni* in all other parameters investigated, proved to be genetically closer to *Z. macroura* than to *Z. graysoni*, and will also be removed.



Socorro Island



Photo: Juan Martinez

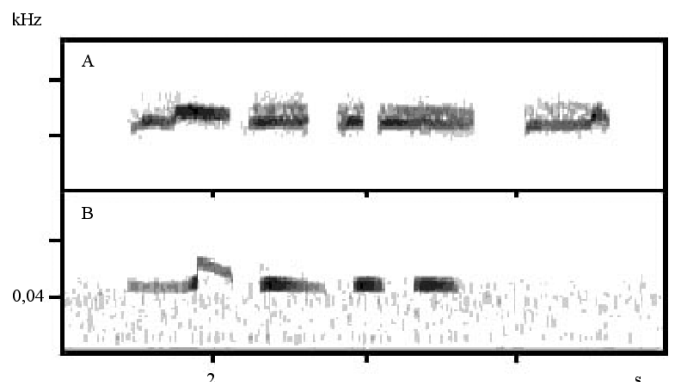


Figure 1: Sonograms of the male courtship call, A: Courtship call of *Zenaida graysoni* (ID12), B: courtship call of *Z. macroura* (Sound Archive Nr: W1CDR0000349 BD9).

## Why should zoos be interested in the Global Strategy for Plant Conservation?

by Eddie Mole, Bristol Zoo Gardens, United Kingdom

*Bristol Zoo Gardens has recently revised the botanical element of its gardens strategy to contribute to the Global Strategy for Plant Conservation (GSPC) more fully, a move with unanimous support throughout the organisation. Why should Bristol Zoo, or any zoo, wish to contribute to the GSPC? A more coordinated and holistic approach to plant conservation would benefit plants and animals, including humans, and help make the most effective use of limited resources. Involvement in delivering the GSPC, whether globally, nationally or locally, is also potentially good for political and publicity reasons.*

### Framework for action

European governments are already committed to the GSPC, which was adopted by the Convention on Biological Diversity in 2002. Objectives of the GSPC are to halt loss of plant diversity and to provide a framework for action at global, regional, national and local levels. Although primarily concerned with plants, the GSPC is also of relevance to the zoo community because of its ecosystem-based approach. It is a dynamic and ground-breaking document that is making waves in the botanic garden community.

### The role of zoos

The GSPC is concise, easy to understand and promotes positive action. The strategy has 16 easily understood targets. Institutions involved in *in situ* conservation or land management, management of alien species, education, raising awareness of the importance

Bee orchid (*Ophrys apifera*)



Collecting seed



Photos: Bristol Zoo Gardens

of biodiversity or promoting and using sustainably managed plant-based products are already informally contributing to the GSPC. A recent pre-GSPC survey of continental European zoos carried out on behalf of the EAZA Zoohorticulture Group (EZG), Eulalia Baohigas/Barcelona Zoo 2004, found that 22 continental European zoos also considered themselves to be botanic gardens, and 13 already have plant conservation programmes in operation.

Zoos indicating involvement in plant conservation programmes included Dublin Zoo (Ireland), Randers Regnskov Tropical Zoo (Denmark), Bosphorus Zoo (Turkey), Zoologischer Garten Zürich (Switzerland), Zoo Zlin Lesna, Zoo Dvur Kralove nad Labem, Brno Zoo (Czech Republic), Wroclaw Zoo (Poland), Skansen Foundation (Sweden), Zoo Jerez (Spain), Wilhelma (Germany), Zoo Parc Overloon, Burgers' Zoo (the Netherlands), Budapest Zoo, Veszprem Zoo (Hungary), Herberstein Tier- und Naturpark (Austria), Wildfowl and Wetlands Trust (non-EAZA member), North of England Zoological Society, Paignton Zoo Environmental Park, and Bristol Zoo Gardens (United Kingdom). Many more are involved in plant education programmes.

As a representative of the British Federation Zoo Plant Group and the EZG, I was recently asked to speak at the 2004 World Botanic Garden Conference on 'The UK and EAZA Zoohorticulture Groups and their contribution to the GSPC'. The very fact that I was approached to speak on this subject, together with the inclusion of a session on botanic garden and zoo linkages, suggests that the botanic garden community feels that there is a role for zoos in implementing this strategy. I am convinced that this is true, having received recent positive feedback from the UK and EAZA Zoohorticulture Groups and experienced how useful the GSPC has been at Bristol Zoo, where it has provided new impetus and focus to our gardens work. This has enabled us to formalise our commitment to plant conservation and sign up to the 'International Agenda for Botanic Gardens in Conservation'.

### More information

The English version of GSPC can be downloaded from the Botanic Gardens Conservation International (BGCI) website ([www.bgci.org.uk](http://www.bgci.org.uk)), Plant Conservation section, or by contacting BGCI directly (e-mail: [info@bgci.org](mailto:info@bgci.org)). Please note that there are other language versions available. Alternatively, copies should be available from your own relevant government departments. The 2004 World Botanic Garden Conference presentation on 'The UK and European Zoohorticulture Groups and their contribution to the GSPC' will also soon be available for all to see on the BGCI website.

## CBSG Annual Conference, Taipei 2004; a big success

by Bengt Holst, CBSG Europe, Copenhagen Zoo, Denmark

*"I would like to thank you for sharing your experience in CBSG with us during the meeting. I surely learned a lot about modelling, but I found the CBSG philosophy was most inspiring!! Growing up in an academic community, I always thought the key to be successful was 'competition'. The conference showed me an alternative!! I think I will think things from a different perspective from now. Thank you!"*

Those were the words of a Taiwanese participant at the annual meeting of CBSG in Taipei, Taiwan (28 - 31 October 2004), and they describe very well the feeling most of us had when returning home after a very productive meeting. CBSG has obviously recovered from the feeling of uncertainty that grabbed us all after the death in 2003 of the former chairman and inspiring leader, Ulie Seal, and is again going full speed ahead. The Taipei meeting clearly showed the vitality of the organisation, and as a European I can only be proud of the outcome. Despite the long distance 21 Europeans from 11 countries participated in the meeting that had a total of 104 participants from 31 countries.

### CBSG EUROPE STAFF ACTIVELY INVOLVED VORTEX and PHVA

Kristin Leus (Antwerp Zoo and modeler of CBSG Europe) had her 'baptism of fire' as a CBSG modeler during a VORTEX training workshop and a Formosan pangolin (*Manis pentadactyla pentadactyla*) Population and Habitat Viability Assessment (PHVA) workshop prior to the annual CBSG meeting. Forty participants, mainly from Taiwan, participated in the pangolin PHVA. Based on input from local researchers and other data sources Kristin and another modeler developed a baseline model for the existing pangolin population and ran a number of simulations to identify the relative importance of different biological and non-biological factors on development of the population. Together with the outcome from topic-oriented working groups (threats, habitat, human influence etc.) these simulations formed the basis for development of a conservation action plan for the species. The report will now be edited and published at the beginning of next year.

### Reintroduction

Frands Carlsen partly facilitated and partly recorded the outcome of a working group focusing on implementation of

Kristin Leus teaching during the Pangolin PHVA workshop



Photo: CBSG Europe

IUCN Reintroduction Guidelines. The group discussed the problem of organisations and individuals conducting reintroductions without consulting the guidelines. Based on these discussions the group came up with recommendations to ensure that the guidelines are adhered to when reintroduction of animals is considered. The chairman of the IUCN/SSC Reintroduction Specialist Group, Fred Launay, attended the meeting and participated actively in the discussions.

### Conservation

I had the honour of giving the opening talk of the conference. The talk was about the CBSG philosophy and the uniqueness of CBSG conservation tools. I also facilitated a working group on how zoos can contribute to elephant conservation. The formation of this group was a consequence of the lack of communication and understanding between the zoo world and part of the *in situ* conservation community. The overall purpose of the working group was to identify fields in which zoos can or cannot contribute to elephant conservation, how to optimize zoos' contribution to elephant conservation and to develop an action plan for putting this in practice. At the end of the meeting we had a rough plan ready for implementation – not a specific plan for elephant conservation, but a plan for how to proceed from here. The plan will be published together with the other working group reports in the next issue of CBSG News and will also be sent to regional zoo associations around the world for information. In addition to these activities, Chris West from ZSL gave a very clear-sighted presentation on evaluation of conservation projects, and Jo Gipps and Miranda Stevenson had a working group on the World Zoo and Aquarium Conservation Strategy.

#### What's next?

Altogether this was a very productive conference with a major European in- and output. Much more could be said about the conference, but the best way to experience it is of course to attend yourself at the next CBSG Conference late September 2005 in Syracuse, USA. In the meantime we hope to be able to conduct a Geographic Information System (GIS) workshop in Europe in order to train European NGOs in the use of this important conservation tool.



## 'European' lions?; an update on the Asian lion EEP and request for additional holders

by Neil Dorman, Twycross Zoo, United Kingdom

*With a former range that extended from central India through into Greece, the Asian lion (*Panthera leo persicus*) can truly be classed as a 'European' species in need of both in situ and ex situ conservation management.*

### In situ status

The lion population in the Gir Forest in Gujarat, India has been seriously overpopulated since 1992. Lions come out of the forest and wander into surrounding areas, some of which have significant human populations. A second lion sanctuary was sought in order to prevent lions in the Gir Forest being forced out by overcrowding, as well as to ensure that if a natural disaster (e.g. forest fire, earthquake, disease) were to take place in one of the sanctuaries there would still be a safe population. The Kuno Wildlife Sanctuary in Madhya Pradesh, India was highlighted as an appropriate site during the 1990's following a Population and Habitat Viability Assessment workshop. Consequently several villages were moved out of the sanctuary and efforts concentrated on building up the prey base.

### Ex situ population

Since the initial imports of Asian lions into the European region by the London, Zürich and Helsinki zoos in the early 1990's and the establishment of the EEP, the numbers have steadily increased to eighty (37.43) individuals in 29 institutions as of 1 September 2004. Fifteen of these lions were born in the last two years (4.4 in 2003; and 4.3 in January to August 2004). One of the main reasons for this marked increase in recent years is improved maternal care by the females.

Although one new participant is due to receive lions in late 2004/early 2005, the EEP is now faced with insufficient space for offspring that need to be moved. A further ten institutions are needed to hold lions or restriction of breeding during the next few years may prove necessary in order to house current offspring.

### New blood lines

One area that needs to be investigated is the importation of new, unrelated lions from India into the programme. Without import of new blood lines the EEP is approaching the point where inherited deficiencies, e.g. cross-eyes, arched backs, short tails and sterile males, are a distinct possibility.

Contact with Indian embassies throughout Europe is being sought to open communication lines between the EEP and India. We hope that the Indian government, and the Central Zoo Authority of India value the importance of the EEP and the work presently being carried out. The cooperation of these organisations and the ability to bring in additional animals from Indian zoos, possibly on an exchange basis, are essential for continuance of a protected European *ex situ* population that can act as another buffer for the survival of the species.

**Please note** that EAZA zoos with African lions (*Panthera leo*) in their collections are not permitted to keep the Asian lion (and *vice versa*). For more information about the Asian lion EEP and participation in the programme, please contact the EEP coordinator Stefan Jonsson at stefan.jonsson@parkenzoo.se



Photo: Twycross Zoo

### EEP Committee

The following new EEPs, ESBs, TAG (co-)chairs and European studbook keepers were approved:

#### NEW EEPs

##### WOMBAT EEP

(*Vombatus ursinus*)

Achim Winkler, Duisburg, Germany

##### AYE-AYE EEP

(*Daubentonia madagascariensis*)

Tim Wright, Jersey, United Kingdom

##### LOWLAND TAPIR EEP

(*Tapirus terrestris*)

Franck Haelewyn, Lille, France

#### NEW ESBs

##### MOUNTAIN CHICKEN FROG ESB

(*Leptodactylus fallax*)

Gerardo Garcia, Jersey, United Kingdom

##### BLUE POISON DART FROG ESB

(*Dendrobates azureus*)

Samuel Furrer, Zürich, Switzerland

##### GALAPAGOS TORTOISE ESB

(*Geochelone nigra*)

Samuel Furrer, Zürich, Switzerland

##### YELLOW-HEADED DAY GECKO ESB

(*Phelsuma klemmeri*)

Tim Skelton, Bristol, United Kingdom

#### NEW TAG CHAIRS

##### EAZA CHARADRIIFORMES TAG

Kirsi Pynonen-Oudman, Helsinki, Finland

##### EAZA TOUCAN AND TURACO TAG

John Ellis, London, United Kingdom

#### NEW STUDBOOK KEEPERS

##### RADIATED TORTOISE ESB

(*Geochelone radiata*)

Nicolas Leroux, Amneville, France

##### TOCO TOUCAN ESB

(*Ramphastos toco*)

John Ellis, London, United Kingdom



# Publications

Publications of interest, received by the EAZA Executive Office  
Publications should be ordered through the editors. Further questions can be addressed to info@eaza.net

Hans Frey, 2004. <b>Annual report 2002 of the bearded vulture (<i>Gypaetus barbatus barbatus</i>)</b> . Frankfurt Zoological Society.	Sandrine Silhol, 2004. <b>European studbook for the Buffon's macaw (<i>Ara ambigua</i>)</b> ; sixth edition. Zoo des Sables d'Olonne. Data current through 31 December 2003
Joost Lammers, 2004. <b>European studbook for the Southern cassowary (<i>Casuaris casuaris</i>)</b> ; first edition. Birdpark Avifauna, Alphen aan den Rijn (including Husbandry Guidelines). Data current through 31 December 2003	Zuzana Slouková, 2004. <b>European studbook for the fishing cat (<i>Prionailurus viverrinus</i>)</b> . Decin Zoological Garden. Data current through 31 December 2003
Laurie Marker, 2004. <b>International cheetah (<i>Acinonyx jubatus</i>) studbook</b> . NOAHS Centre, National Zoological Park, Washington. Data current through 31 December 2002	Ryszard Topola, 2004. <b>European studbook for the blue crane (<i>Anthropoides paradisea</i>)</b> ; fourth edition. Miejski Ogród Zoologiczny Lodz. Data current through at least 31 December 2003
Pierre Moisson and Sara De Michelis, 2004. <b>European studbook for the crowned lemur (<i>Eulemur coronatus</i>)</b> ; third edition. Parc Zoologique et Botanique, Mulhouse. Data current through 31 December 2003	Ryszard Topola, 2004. <b>European studbook for the black stork (<i>Ciconia nigra</i>)</b> ; eighth edition. Miejski Ogród Zoologiczny Lodz. Data current through at least 31 December 2003
Claus Pohle, 2004. <b>International studbook for the Asiatic wild ass (<i>Equus hemionus kulan</i>)</b> ; 36th edition. Tierpark Berlin. Data current through 31 December 2003	Ryszard Topola, 2004. <b>European studbook for the Oriental white stork (<i>Ciconia boyciana</i>)</b> ; second edition. Miejski Ogród Zoologiczny Lodz. Data current through at least 31 December 2003
Radoslaw Ratajszczak, 2004. <b>European studbook for lesser slow loris (<i>Nycticebus pygmaeus</i>)</b> . Miejski Ogród Zoologiczny Poznan. Data current through 31 December 2003	Ryszard Topola, 2004. <b>Animal inventory of the Polish zoological gardens; 2003</b> . The Polish Zoological Society, Lodz.
John Ray and Pat Milham, 2004. <b>European studbook for the saddle-billed stork (<i>Ephippiorhynchus senegalensis</i>)</b> ; third edition. Twycross Zoo. Data current through 31 December 2003	Jitka Vokurkova, 2004. <b>European regional studbook for the West Caucasian tur (<i>Capra ibex caucasia</i>)</b> . Zoo Olomouc. Data current through 31 December 2003
Wineke Schoo, 2004. <b>European studbook for the king vulture (<i>Sarcoramphus papa</i>)</b> ; third update to the second edition. Burgers' Zoo, Arnhem. Data current through 31 December 2003	Darren Webster, 2004. <b>European studbook for the red-fronted lemurs (<i>Eulemur fulvus rufus</i>)</b> ; third edition. Blackpool Zoo. Data current through 31 December 2003
Jan Schop and Catherine King, 2004. <b>European studbook for the marabou stork (<i>Leptoptilus crumeniferus</i>)</b> . Rotterdam Zoo. Data current through 31 December 2003	Roger Wilkinson, 2004. <b>European studbook for the blue-eyed cockatoo (<i>Cacatua ophthalmica</i>)</b> ; seventh edition. North of England Zoological Society, Chester Zoo. Data current through 31 December 2003

## Directory Updates

### PERSONALIA

Mr. Agustin Lopez Goya is the new EAZA contact person for **Faunia**, Spain, as of 1 October 2004. He replaces Mr. Antonio Luis Garcia del Campo.

Mr. John Ray was promoted from zoo manager to deputy director of **Twycross Zoo**, United Kingdom, in October 2004.

After many years of being the manager of **Belfast Zoo**, United Kingdom, Mr. John Stronge has now retired. Awaiting the appointment of a replacement for this post, Mr. Mark Challis has temporarily taken up this position.

Dr. Catherine Wardzynski is the new DVM of **Zoo de Pont-Scorff**, France, as of 1 December 2004. She is the first full-time veterinarian of the institution.



In EAZA News announcements are published of books that have relevance to zoo staff and other people with a professional interest in zoos. On the EAZA website ([www.eaza.net](http://www.eaza.net)) more information can be found on these books as well as on the publishers.

## Zootierhaltung – Tiere in menschlicher Obhut: Säugetiere

- W. Puschmann (2004)

While Wolfgang Puschmann managed to write the first edition of this standard zoo biology handbook alone in 1975, the tremendous increase in knowledge and experience in keeping mammals prompted him to ask 33 specialists for assistance in compiling this updated edition. The result is a comprehensive compilation of current, relevant data on biology of mammals and their needs when kept in human care. The book has an annex of 65 pages of references. Originally written for animal keepers at zoos, Zootierhaltung is now a must on the bookshelf of every (German speaking) curator, veterinarian, zoo educator and director.

Language: German. Pages: 880. ISBN: 3-8171-1620-9 (pb). Price: €39.80. To be ordered from: Verlag Harri Deutsch GmbH, Grafstr. 47, 60486 Frankfurt, Germany

## Training nonhuman primates using positive reinforcement techniques; a special issue of the Journal of Applied Animal Welfare Science

- M.J. Prescott and H.M. Buchanan-Smith (eds.; 2003)

This special issue of the Journal of Applied Animal Welfare Science illustrates benefits to animals from positive reinforcement training (PRT) and to keepers, veterinarians, and in the case of the zoo, the visiting public. One important theme throughout is that training is a joint venture between human and nonhuman primates, and can lead to a closer, richer relationship between the two. The editors hope this issue will encourage further and wider application of PRT to primate management, and that it will also aid people working with animals in applying PRT safely and effectively.

Pages: 104. ISBN: 0-8058-9573-6 (pb). Price: US\$25.00. To be ordered from: Lawrence Erlbaum Associates, Inc., 10 Industrial Avenue, Mahwah, NJ 07430-2262, USA

## State of the world's birds 2004; indicators for our changing world

- BirdLife International (2004)

State of the world's birds 2004 examines what birds can tell us about the state of biodiversity, the pressures upon it and the solutions that are being, or should be, put in place. State of the world's birds is a synthesis of our knowledge in 2004 and provides a benchmark against which efforts to conserve biodiversity in the future can be assessed. It draws on the knowledge of the BirdLife Partnership, the world's largest partnership of conservation organisations, represented in more than a hundred countries.

It shows how birds – the best-known major group of organisms – can help us understand the threats confronting global biodiversity. Pages: 73. ISBN: 0-946888-50-7 (pb). Price: UK£10.00. To be ordered from: State of the world's birds 2004 can be downloaded as double-page spreads from the PDF index section of BirdLife International's website ([www.birdlife.net](http://www.birdlife.net)), or can be purchased in book form from [www.nhbs.com](http://www.nhbs.com).

## Snakes of India; the field guide

- R. Whitaker and A. Captain (2004)

This colour field guide to Indian snakes is aimed at both amateurs and specialists. It concisely describes more than 150 species of snakes, both venomous and non-venomous, and includes most species found in Pakistan, Nepal, Bhutan, Bangladesh and Sri Lanka. Snake identification is made easy through stunning photographs, including many of the colour variations found in Indian snakes. Each species account includes description, distribution map, natural history, look alike and scalation details. Other sections include a complete up-to-date checklist as well as information on snake bites, snake people in India, and laws protecting snakes.

Pages: 500. ISBN: 81-901873-0-9 (hb). Price: US\$59.95. To be ordered from: Draco books, PO Box 21, Chengalpattu 603 001, South India, India

**Due to space limitation we were not able to publish a review of all books received by the EAZA Executive during 2004. Other received books that might have relevance to zoo staff or other people with a professional interest in zoos, are:**

## Birds of Kangra

- J.W. den Besten (2004)

Pages: 173. ISBN: 81-901297-4-0 (pb).

To be ordered from: Moonpeak Publishers, India

## Elephant destiny; biography of an endangered species in Africa

- M. Meredith (2004)

Pages: 288. ISBN: 1-58648-233-5. Price: US\$14.95.

To be ordered from: PublicAffairs, USA ([www.publicaffairsbooks.com](http://www.publicaffairsbooks.com))

## The whale book

- F. Egmond and P. Mason (eds.; 2004)

Pages: 224. ISBN: 1-86189-174-1 (hb). Price: UK£25.00.

To be ordered from: Reaktion Books, United Kingdom ([www.reaktionbooks.co.uk](http://www.reaktionbooks.co.uk))

## The bald eagle of Alaska, BC and Washington

- D. Hancock (2003)

Pages: 96. ISBN: 0-88839-536-1 (pb). Price: US\$9.95.

To be ordered from: Hancock House Publishers, USA ([www.hancockhouse.com](http://www.hancockhouse.com))

## A bat man in the tropics

- T.H. Fleming (2003)

Pages: 333. ISBN: 0-520-23606-8 (hb). Price: US\$50.00

To be ordered from: University of California Press, USA ([www.ucpress.edu](http://www.ucpress.edu))

## Marine flatworms; the world of polyclads

- L. Newman and L. Cannon (2003)

Pages: 97. ISBN: 0-643-06829-5 (pb). Price: AU\$39.95.

To be ordered from: CSIRO Publishing, Australia ([www.publish.csiro.au](http://www.publish.csiro.au))



## New identity for Zoo Federation

The Zoo Federation, the principal professional zoo body representing the responsible zoo community in the United Kingdom, has changed its name to BIAZA, which stands for the British and Irish Association of Zoos and Aquariums. Known as the Zoo Federation for over 38 years, the new identity and newly designed logo signifies a new era for the charity, which hopes to encourage more aquaria to become members. BIAZA will place conservation at the heart of its work and indicates a move forward for the zoo world into the future of modernised zoo practices. For more information, please visit [www.biaza.org.uk](http://www.biaza.org.uk)



## Design Workshops

ZooLex Zoo Design Organisation is holding a workshop on zoo design at Parco Natura Viva, Italy, 10 -11 March 2005 (languages: English and Italian) and a workshop on zoo design at Tierpark Nordhorn, Germany, 20 - 21 April 2005 (language: German). ZooLex offers these workshops at 10% discount for EAZA members. For more information and registration, please visit [www.zoolex.org/workshop.html](http://www.zoolex.org/workshop.html)

## 5th International Zoo and Aquarium Marketing Conference

The 5th International Zoo and Aquarium Marketing Conference will be hosted by AllwetterZoo Münster, Germany on 1 to 4 June 2005. The conference theme is: 'the colour of zoo marketing is green!' Paying zoo and aquarium customers are increasingly aware of issues in conservation, sustainability and animal welfare – in part through marketing messages and educational interpretation. These customers or guests need to be strongly reassured over the green credentials of zoos and aquariums and be encouraged to become involved in efforts to create a better world for animals, plants and people. The theme of the 5th International Conference is that conservation and sustainability must become central to the values and activities of zoo marketing, branding, education and public relations. The colour of zoo marketing must be green! For more information, please contact Jörg Adler at [ADLER@allwetterzoo.de](mailto:ADLER@allwetterzoo.de) or Gordon McGregor Reid at [f.jaques@chesterzoo.co.uk](mailto:f.jaques@chesterzoo.co.uk) or visit [www.aalborgzoo.dk/marketing2005](http://www.aalborgzoo.dk/marketing2005)



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Together we aim to set up programmes on the following topics:

- promotion and improvement of R&D on food products,
- quality assurance for the production and supply of zoo food, combination of logistic resources to reduce transportation costs, risk reduction,
- improving our position towards European Commissions,
- how to operate in Europe with open veterinarian borders.

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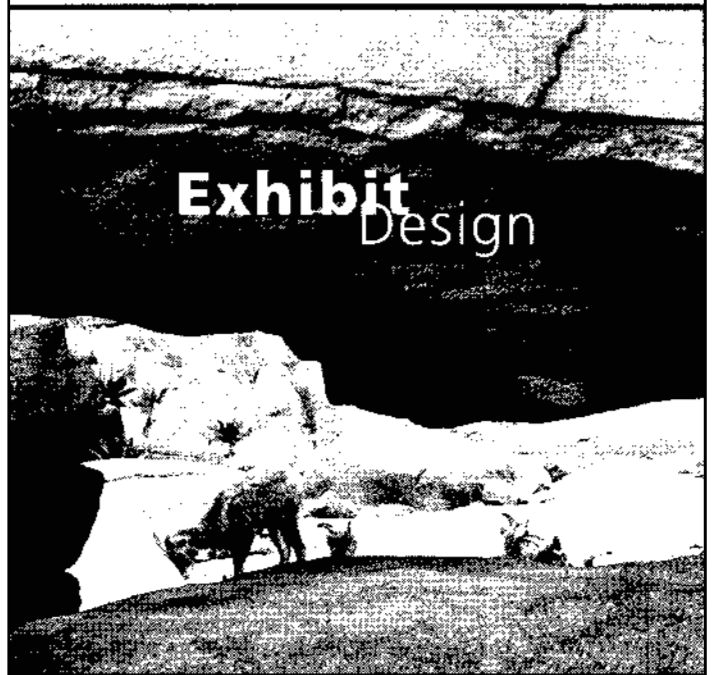
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# EAZA News

## EAZA News review

### ECAZA News

The evolution of EAZA News began in 1989 when ECAZA (European Community Association of Zoos and Aquaria) News was first published. The objectives of this newsletter were to inform the members on ECAZA's activities and to announce seminars and meetings that would be of interest to European zoo staff. The newsletter first appeared under the name EAZA News in 1992, when EAZA became a truly pan-European organisation no longer confined to zoo and aquarium membership in the European Community.

### EAZA News

Similar to its predecessor ECAZA News, EAZA News initially served only to inform members about EAZA Council decisions, activities of EAZA committees and to announce conferences. Approval of the EAZA logo in 1996 spurred presentation of EAZA News in a different format. Changes were made in the newsletter lay-out, and several new sections were introduced, i.e. New Enclosures, Births and Hatchings, News from Members, Conservation, and Education. This is the format we have known for almost nine years, and which you have in front of you today. While this format is still very useful and attractive, we feel that it is time to lightly 'facelift' the current style.

### EAZA News restyle

The publication of the upcoming jubilee issue of EAZA News, no. 50 (April, May, June 2005), will be the perfect occasion to launch the 'new' EAZA News (which will maintain the high-standard quality of the contents!). We look forward to your comments and suggestions regarding the new EAZA News look.

